

# NGSBA Archaeology

Volume 2 - 2013



The Nelson Glueck School of Biblical Archaeology  
Hebrew Union College - Jewish Institute of Religion



Y.G. Contract Archaeology Ltd.



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[www.ngsba.org](http://www.ngsba.org)



Y.G. Contract Archaeology Ltd.

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HEBREW UNION COLLEGE  
13 King David Street, Jerusalem 94101

ISSN 2227-9008

Cover: photographs from site at Tsur Natan

English cover: Left: zoomorphic vessel and bronze bracelets *in situ* in the Iron Age tomb (p. 26-27, 44-45).

Center: the F12 quarry, with the truncated Iron Age tomb and L7 press basin (p. 53-57) visible in the center.

Right: the stamp seal from the Iron Age tomb (p. 32-33).

Hebrew cover: Finds from the Iron Age tomb.



## Acknowledgements

Thanks first of all to those who made these excavations possible, our clients. These include: Tsur Natan *moshav*; Dov Sreter of Eden Hills Ltd. (Khirbet Butz); Israel Antiquities Authority (Ramat Bet Shemesh, Ramla [Bialik Interchange and Ta'avura Junction] and Tsur Yitzhak); Nesher Israel Cement Enterprises Ltd. (Khirbat Marmita); Israel Railways (Naan); Shir Real Estate Ltd., of the Shlomo Group (Tsrifin); Shafir Production Systems Ltd. (Ono [Or Yehuda]); and Alon Blue Square Israel Ltd. (Kibbutz Eyal).

Thanks also to those archaeologists and employees of the Israel Antiquities Authority who helped remove bumps in the bureaucratic road, and who joined in fostering the spirit of pluralism in rescue archaeology.

Of course, the excavations herein reported upon could not have been carried out to the high standards achieved without the dedication and commitment of the people involved. The staff of and contributors to each project are mentioned in the reports. However, here at the outset we wish to express a general thanks to all the *sine qua non* archaeologists, specialists, surveyors, draughtsmen and photographers who took part in these projects, and to those who did the truly hard work—the digging crews from Beersheba, Bir al-Maksur, the Hebrew University of Jerusalem and many places in between.

In post-excavation, Conn Herriott did most of the legwork in shepherding this volume to publication. Thanks also to Levana Tsfania-Zias for logistical assistance, general help and guidance. We are grateful to Mimi Lavi of the conservation laboratory at the Hebrew University of Jerusalem for cleaning and conserving the metal artifacts from Tsur Natan. Thanks to our artifact illustrators Sergey Alon, Anna Dodin, Conn Herriott, Alona Ruban and Noga Ze'evi, and to photographer Vladimir Naikhin. We are also deeply appreciative of the individual report authors' rigorous work, and the specialists who analyzed our findings (again, too many to list here but mentioned in the relevant individual reports). Finally, thanks to Nissim Golding-Meir and Conn Herriott for their translations, Conn Herriott and Dafnah Strauss for editing, Anna Hayat for layout, and Graphos Print for printing.



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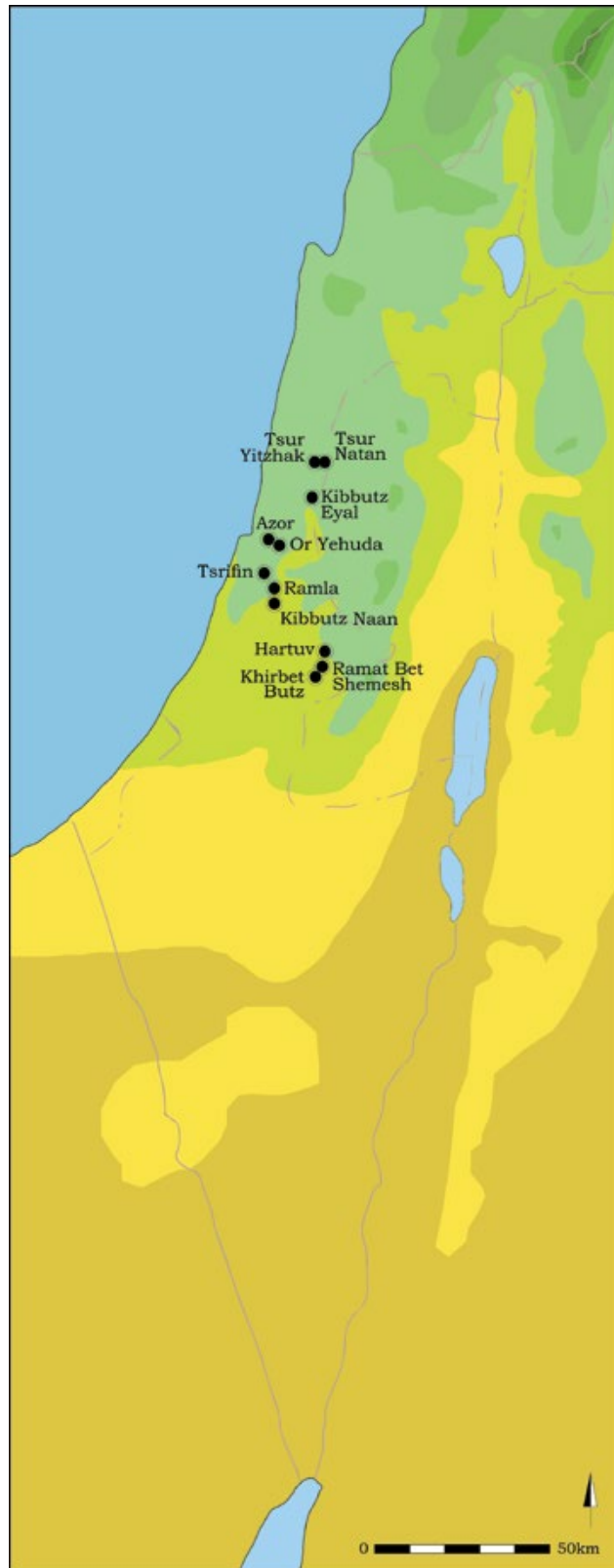
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Map of reported sites.

# PART I



# Excavation at Tsur Natan - 2011

## An Iron Age Tomb, Byzantine Quarry and Other Remains

*Sergey Alon, Conn Herriott & Oz Varoner*

*with contributions by Hagar Ben Basat, Vered Eshed, Gunnar Lehmann & Othmar Keel*

*Carried out in March–May 2011 by Y.G. Contract Archaeology Ltd. under the academic auspices of the Hebrew Union College, this excavation (license B-362/2011) was located on the crown of a high hill overlooking the central coastal plain of Israel. The project team included archaeologists Sergey Alon, Yehuda Govrin, Conn Herriott, Yitzhak Marmelstein and Oz Varoner, working with students from the Hebrew University of Jerusalem and a Bedouin excavation crew from Bir al-Maksur. Vered Eshed conducted the on-site physical anthropology. Aerial photography was carried out by Skyview Ltd. In post-excavation work on the tomb artifacts, Sergey Alon restored the ceramics, as well as photographing and drawing all artifacts. The tomb ceramic finds were analyzed by Sergey Alon, Gunnar Lehmann and Oz Varoner. Othmar Keel studied the scarabs, Hagar Ben Basat the beads and shells, and Oz Varoner the metal finds. All finds from the Byzantine quarry were drawn and analyzed by Conn Herriott.*



Frontispiece. Left: Some findings from the Iron Age tomb. Right: aerial photograph of the F12 quarry.

# CHAPTER 1

## INTRODUCTION

### SITE OVERVIEW

The 176m-high hilltop location currently named for Tsur Natan,<sup>1</sup> the modern *moshav* built there, immediately overlooks the central coastal plain of Israel. As well as holding a commanding view, this site has several environmental and positional points in its favor. The altitude provides cooling breezes to mitigate the summer heat, as well as ample opportunities for a diversified economy: the alluvial soils of the plain for growing cereals, the hills for vines and olives, and the rocky areas for grazing (Ayalon *et al.* 1988-89; Ayalon *et al.* 1994: 2). In terms of ancient roads, both an important route from the Hills of Samaria and the *Via Maris* passed near the hill (*ibid.*).

Given this advantageous location, it is not surprising that previous archaeological work at this site has identified a large variety of remains from the Neolithic through Ottoman periods.

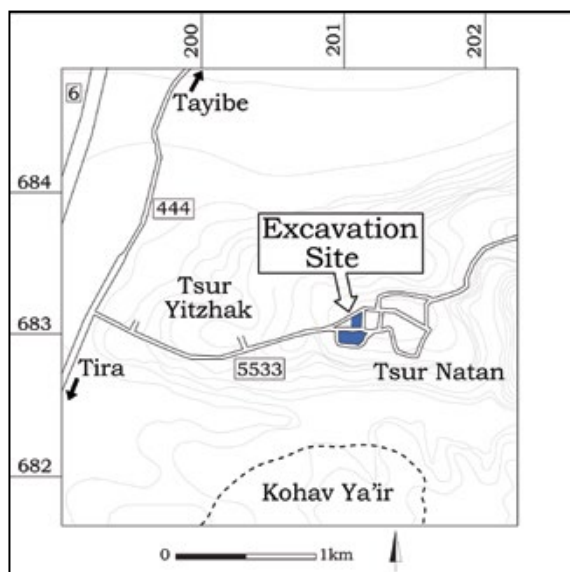


Figure 1.1. Site location (New Israel Grid: 201073-683027; 175m asl).

### SITE HISTORY

*Pre-Pottery Neolithic A (9500-8500 BCE)*: Numerous cupmarked bedrock installations were found here, with the possibility of some Epipalaeolithic (18,000-10,000 BCE) tools (Marder *et al.* 2007: 79).

*Early Bronze Age (3300-2300 BCE)*: Two caves with anthropogenic deposits from this period were found on the north slope of the hill (Sion *et al.* 2008).

*Iron Age II (10-7<sup>th</sup> centuries BCE)*: Two small villages—Khirbat Dardar and Khirbat Majdal in Arabic—have been identified, with the land around being used on a limited scale to grow and process olives and grapes (Ayalon *et al.* 1994: 2). There is some evidence that occupation here did in fact date back to the Middle Bronze Age, and extended into Persian and Hellenistic times (Ayalon 2002).

*Roman/Byzantine*: This period saw a significant increase in cultivation and land use (Ayalon *et al.* 1994: 2; Sion *et al.* 2008), including groupings of wine presses, oil presses, water cisterns and a tomb every 100-200m among the terraces. Some 50-60 such groups were found and we estimate that 70-80 originally existed. It has been suggested that these clusters represent family holdings (Ayalon *et al.* 1994: 2). Also found were quarries, cupmarks, stone clearance heaps, *shomera* field towers, lime kilns, a road, a potters' kiln, a columbarium, and a rich urban complex yielding evidence for olive oil, wine, flour, and glass industries, as well as a *kasr* tower and a large apsidal building understood to be a synagogue (later a church). This settlement was interpreted as having been founded by Jews in the 1<sup>st</sup>-2<sup>nd</sup> century, later occupied and expanded by Samaritans in the 5<sup>th</sup>-6<sup>th</sup> century, and subsequently taken over by Christians (*ibid.*).

*Umayyad-Abbasid*: There was found evidence of a possible mosque near the Jewish-Samaritan complex, as well as a potsherd with an Arabic inscription (Ayalon *et al.* 1994: 13). This suggests at least some degree of occupation during this period, which abruptly ended some time in the 8<sup>th</sup> century.

1 Former names include Khirbat Majdal (Arabic) and Antesion (Byzantine period).



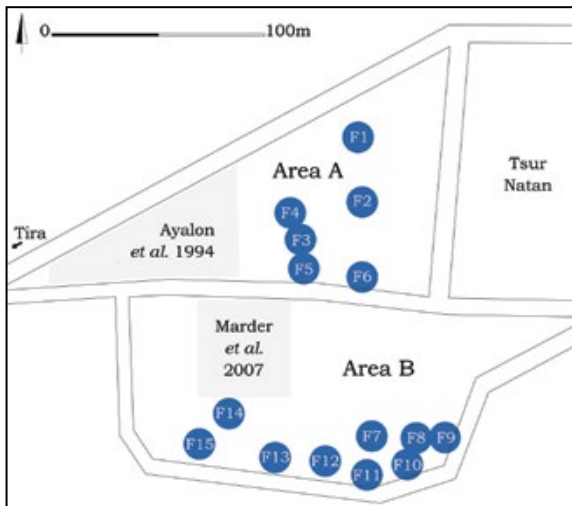


Figure 1.2. Site map with excavation features marked.

*Mamluk-Ottoman:* It seems the site was forgotten for all but as a source of building stone until a small village developed again in the 13<sup>th</sup> century (Ayalon *et al.* 1994: 14). The 16<sup>th</sup>-17<sup>th</sup> century tomb of Sheikh Musharef would later be built over the church. Around the tomb a graveyard would grow. The rest of the settlement remains were destroyed by modern roads and agricultural terraces.

It must be emphasized that our knowledge of this hilltop's rich and intriguing history—to which we are unable to do justice here—is due largely to the excellent fieldwork and publishing of E. Ayalon of the Eretz Israel Museum, working first with A. Kidron and Y. Sharvit, and later with E. Matthews, W. Neidinger and a team from the Texas Foundation for Archaeological



Figure 1.3. Area A (facing northeast).



Figure 1.5. Area B- east, (facing southeast).



Figure 1.4. Area A (facing north).



Figure 1.6. Area B-west (facing west).

and Historical Research. The work of O. Marder *et al.* (2007), whilst less relevant to our own report, is also an excellent resource. The Israel Antiquities Authority (IAA) work carried out by teams led by O. Sion, M. Haiman, B-A. Artzi, H. Torge, and Y. Dagan is also useful, although their publications (e.g. Sion *et al.* 2008) were limited in scope.

### THE CURRENT EXCAVATION

In our excavation we uncovered four loose phases of activity:

1. An Iron Age IB/IIA rock-cut shaft tomb (L2) comprising a shaft cutting diagonally down to a roughly egg-shaped chamber. The shaft had been truncated by later quarrying (Phase 3) at the site. Seven skeletons in various degrees of articulation were found within the chamber, as well as many fine artifacts including scarabs, beads, a zoomorphic ceramic vessel and metal bracelets.
2. Within the quarry were found features which the quarry respected, but which most likely post-dated the Phase 1 tomb. These features

include an olive press (L5) and a press basin (L7). Several cupmarks (L6, L8) were also found; we could not date these, but one was respected by a quarry feature. Therefore—somewhat arbitrarily, it must be said—we have assigned all cupmarks to this phase.

3. In terms of sheer scale, the dominant archaeological features of the site are the 15 quarrying features (F1-F15) that were cut into exposed outcroppings of *nari* bedrock on the hilltop. They showed evidence of standard block and tool sizes. Finds from the quarry—in large part simple pottery vessels—were mostly Byzantine, but ranged from the Iron Age to the Crusader/Mamluk periods.
4. This post-quarrying phase of the site consists of a built feature (L4) and another activity area (L1) constructed inside the amphitheatre-like hollows formed by the quarries. Like the latter, these features yielded pottery dating to the Byzantine/Early Islamic period.

We will document our findings in two parts: the first focusing on the Phase 1 tomb, and the second on the quarry and other features from Phases 2-4.

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## CHAPTER 2

### THE IRON AGE TOMB (PHASE 1): THE TOMB AND ITS CONTENTS

This tomb (Figs. 2.1-3) was comprised of a shaft cut into the *nari* bedrock, leading to a roughly-hewn chamber. The shaft—or what remained of it after truncation by the later quarry—sloped down steeply and unevenly from the southwest, and measured ca. 1.0m in diameter. The chamber was irregular in shape (3.5 x 2.5 x 1.8m) and was oriented NNW/SSE. This form is typical of Iron Age IIA tombs to which the majority of the finds are dated (below).

Within the tomb seven human burials in varying degrees of articulation were found amidst a fill of loose, brown, sandy silt and occasional stones. Grave goods included ceramic vessels, scarabs, beads, shells and metal objects.

The Tsur Natan tomb is consistent with Bloch-Smith's (1992: 36-40) description of the cave, chamber and shaft tombs of the Iron Age southern Levant. This was the preferred burial type in the Late Bronze and early Iron Age (Gonen 1979; Bloch-Smith 1992: 55-9), mostly in the southern highlands west of the Jordan River as well as along the coast (Akhzib, Tel Mevorakh), in the north (Megiddo, Nazareth, Tubas, Tekoa), in the Shephelah and southern highlands (Aitun, Khirbet Beit Lei, Bethlehem, Ez Zahariyah, Jerusalem, Lachish, Manahat, Khirbet Zataq), in the Jordan Valley (Jericho, Tell el-Farah - South), and east of the Jordan (Dhiban, Sahab).

Bloch-Smith (*ibid.*) sees shaft, chamber tombs and cave tombs as variations on a common design, differing only in their regularity of plan and access. All tended to be located in 'tell slopes or wadi cliffs, in outcrops in soft chalk or limestone' (*ibid.* 36). Cave tombs have rounded or irregular cavities, while chamber tombs are cut into spaces that are even and level. In some cases topography necessitated that the cave or chamber be reached by a shaft, as at Tsur

Natan. The shaft both gave access to the tomb and facilitated its closing off.

Finally, Bloch-Smith (*ibid.* 40) saw no clear patterns when comparing cave tombs and shaft and chamber tombs in terms of pottery and other mortuary goods, of body treatment, and numbers of individuals interred.

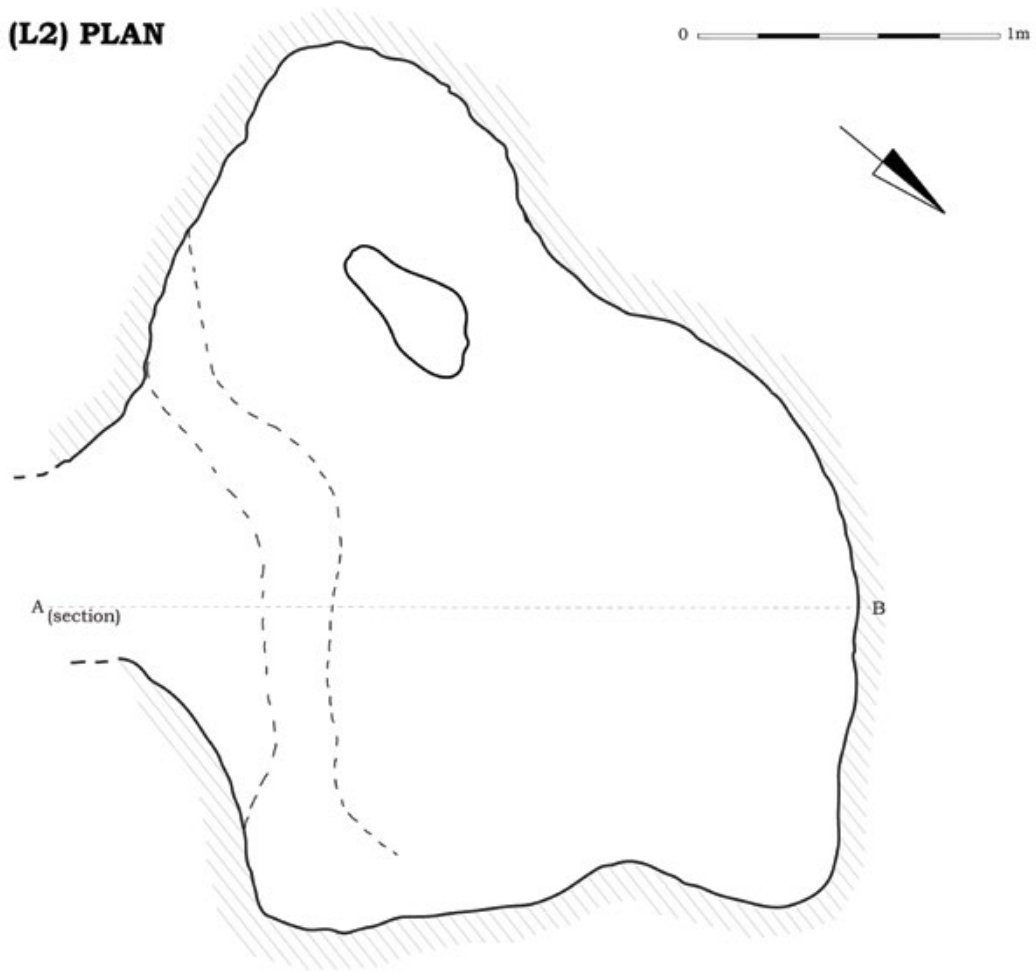
#### ARTIFACT ASSOCIATIONS

Within the tomb at Tsur Natan we identified several clusters of artifacts (Fig. 2.3). These clusters may represent the remnants of discrete burial kits left for the interred, and may allow us to infer information about the deceased and their socio-cultural environments. We have postulated to which human remains we believe each burial kit most likely belongs. However, this is a tentative interpretation based on our spatial analysis, so we must be cautious in drawing conclusions regarding gender or age associations for these grave goods.



Figure 2.1. Aerial photograph close-up of the L2 tomb (top center), truncated by the quarry.

# **TOMB (L2) PLAN**



# **TOMB (L2) SECTION**



Figure 2.2. Plan and section of the tomb, showing the shaft on the east side and the irregular and sloping cave shape.



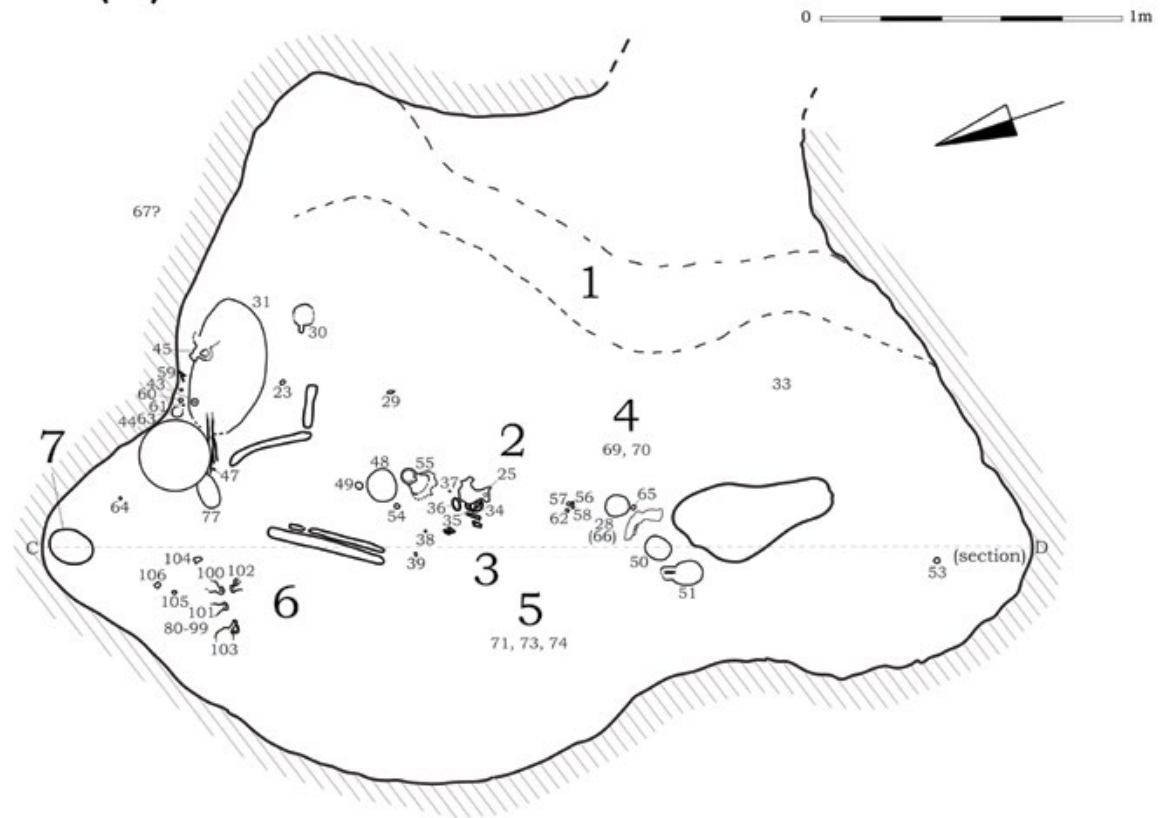
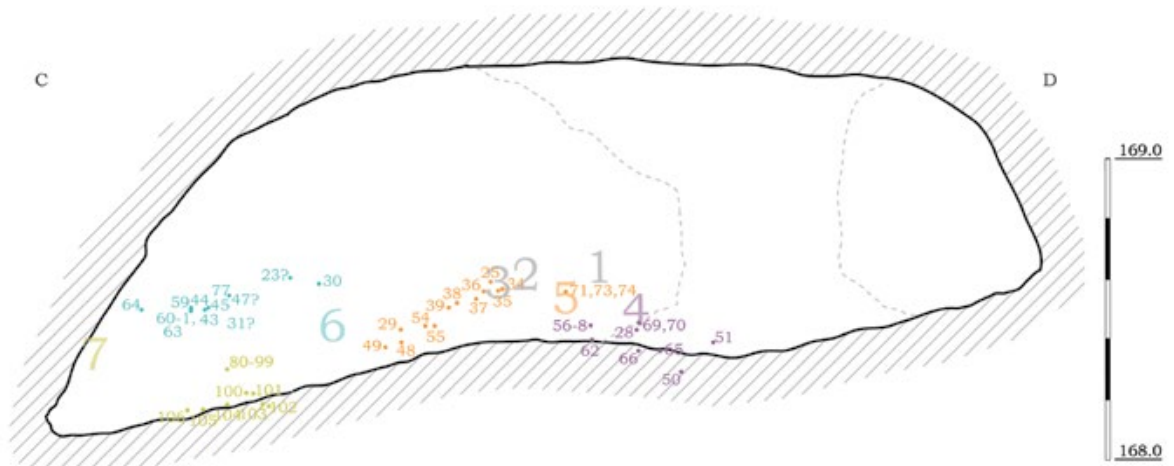
**TOMB (L2) PLAN****TOMB (L2) SECTION**

Figure 2.3. Plan and section of the tomb from the west, with the shaft marked on the east side, as well as several identified human interments (large numbers) and the finds, which according to our tentative spatial analysis seem most likely associated with each interment (this is discussed in further detail in Chapter 8). Note also the irregular cave shape and the non-anthropogenic bedrock column near the south side.



Figure 2.4. A selection of the most important finds from the tomb.

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- Gonen, R. 1979. *Burial in Canaan of the Late Bronze Age as a Basis for the Study of Population and Settlements* (PhD. dissertation, Hebrew University of Jerusalem). Jerusalem.

# CHAPTER 3

## THE HUMAN REMAINS

*Vered Eshed*

### INTRODUCTION

The human remains from this rock-cut tomb at Tsur Natan were in a poor state of preservation, detracting from the level of anthropological detail obtainable. Nevertheless, the manner of burial was identified, as well as the minimum number of burials and some age and gender information.

As described above (Chapter 2), this tomb was hewn in a low and relatively small space. The tomb access shaft had been truncated in part by a Byzantine quarry. The excavation began in this damaged section, moving from east to west. Thus it was possible to infer that the first human remains found were the last to be interred. As mentioned, the bones' preservation was poor throughout the tomb, but was better in the more sheltered interior of the tomb, on the west side.

Most of the interments were found in partial articulation and appear to have been primary burials which were pushed further back into the tomb to make space for subsequent interments.

### DETAILS OF THE TOMB INTERMENTS

from east (entrance) to west (interior)

Skeletons 1-3 were found close to the entrance of the tomb:

#### *Skeleton 1*

Found in the southeast of the tomb, these remains included fragments of a skull, mandible and postcranial bones (from an arm). Most of the bones were found in anatomical articulation, indicating primary burial. The body seems to have been placed on its right side, oriented north-south with the head to the south. In the right side of the lower jaw were found molar teeth which were not heavily worn. In the first molar there was an exposure of localized dentin on all mounds. The degree of dental erosion suggests that this individual died at 18-25 years of age (Hillson 1993: 176-201). The gender was not clear.

#### *Skeleton 2*

Found near Skeleton 1, in the tomb center, remains of this interment included fragments of skull, lower jaw and postcranial bones. Some of the remains were found in anatomical articulation, indicating primary burial. However, the body orientation was not clear. The vertical diameter of the femoral head measured 45mm, suggesting that this individual was male (Bass 1987). In the lower jaw was found the second molar tooth. The third molar seems to have fallen out or been removed prematurely (i.e. when this individual was still alive); in its place in the jaw was observed the beginnings of bone re-absorption. The estimate of this individual's age was 30 years, and was based on the degree of tooth wear (exposure of dentin between the local mounds [Hillson 1993: 176-201]). In summary, this individual was a male aged about 30.

#### *Skeleton 3*

These remains were represented by a concentration of bones in the west-center of the tomb. Mixed with the human bones were those of an animal (or animals). Some of the human bones were found in articulation (particularly the upper limbs) and others were not articulated. The body orientation was not clear. Bones found included the lower jaw, teeth and postcranial bones representing a single interment. The head of the upper arm bone (*humerus*) was completely fused to the rest of the bone, a characteristic feature of individuals over 19 years of age (Johnston and Zimmer 1989). The one lower incisor tooth found was eroded to half the height of its crown, as is typical for individuals over the age of 40 (Hillson 1993: 176-201).

In summary, this concentration of bones represents at least one adult aged over 40 years, the gender of whom is unclear.

Skeletons 4-7 were mostly found further into the tomb (generally west of Skeletons 1-3) and lower. The bones were found in partial articulation or in heaps and, as stated, it seemed that the interments in

this section had been disturbed, moved and pressed further into the tomb to make space for the later interments.

#### *Skeleton 4*

This concentration of bones in the southeast-center of the tomb were the remains of a child. Included were fragments of the upper skull as well as postcranial bones. In terms of teeth, we recovered a nearly-developed lower molar of which the whole crown and a third of the root were found intact. We also found a complete second lower milk tooth. These teeth formed the basis of our age estimate, which was four years.

#### *Skeleton 5*

This concentration of bones near the west side of the tomb included skull and postcranial bone fragments. Near the skull were found three beads made from cowry shell (reg. nos. 71/1-3; see below, Chapter 5, p. 40). The distal epiphysis of the femur was fused to the rest of the bone, which was quite thick. This indicates that the individual was over 19 years of age (Bass 1987; Johnston and Zimmer 1989). However, beyond this the age of the deceased could not be clarified. On the back of the occipital-parietal skull bone there was evidence of muscular connectors forming a prominent ridge (superior nuchal line), a typically masculine morphological feature (Bass 1987). In summary, this was a concentration of bones representing one interment, an adult of probable male gender and unclear age.

#### *Skeleton 6*

These remains in the northwest of the tomb included fragments of the upper skull, postcranial bones and teeth. The long bones were thick and indicated an adult older than 15 years (Bass 1987). A second upper molar tooth was identified, revealing an exposure of dentin between two mounds and a hole on one lateral side resulting from tooth decay (Hillson 1993: 176-201). Another tooth, a second upper premolar, exhibited a 'dentine cup' on one of its crown mounds. The assessment of this individual's age at death, based on tooth wear, was 30-40 years (Hillson 1993: 176-201). The gender was not clear.

#### *Skeleton 7*

These bones were found in the north corner of the tomb, at the lowest elevation of all human remains. Recovered were upper skull fragments of a child, found near a bowl (too fragmented to be analyzed). The bones were very thin and the seams within the bones—such as the sutures in the dome of the skull—were closed. Also found was a first fixed lower molar, exhibiting a fully developed crown and no root. Based on dental development, the estimated age of the deceased was about three years (Ubelaker 1978).

### SUMMARY

The bones in this tomb represent at least seven individuals, including two children and five adults and a gender distribution as detailed in Table 3.1.

Table 3.1. Distribution of age and gender in the L2 tomb at Tsur Natan.

Skeleton no.	Gender	Age
1	Gender not known	18-25
2	Male	Over 30
3	Gender not known	Over 40
4	Child	4
5	Male	Over 19
6	Gender not known	30-40
7	Child	3

### DISCUSSION

*Conn Herriott*

#### *Problems confronting the anthropological research of Iron Age tombs*

Detailed osteological/physical anthropology reports from southern Levantine Iron Age burial contexts are in short supply (Bloch-Smith 1992: 38). This is the case especially for older archaeological reports and for rescue excavations, the latter too often suffering from funding or methodological issues (not the least of which are a poorly-controlled profit motive and restrictions placed on archaeological research,



especially by certain influential factions of the Ultra-Orthodox Jewish community).

This notwithstanding, undisturbed examples of cave and chamber tomb interments have shown that individuals were usually laid on their backs, following an orientation dictated by local tradition or what was most convenient in the particular cave or chamber (*ibid.*). Bodies would be laid out and grave offerings placed around them, usually near the cave/tomb center (*ibid.* 36). Subsequently, the remains would be moved to the sides and further into the tomb, making room for the next primary interments. As the above report makes clear, this was the case also in the Tsur Natan tomb. Another clear example is Lachish Tomb 223 (*ibid.*, citing Abercrombie 1979: 41-42, n.34).

### *Number of Interments*

Bloch-Smith (1992: 37) has noted that reports rarely give a minimum number of individuals; one exception is the 12<sup>th</sup>/mid-11<sup>th</sup> century BCE Baqah Valley Cave A4, where at least 225 individuals were interred (*ibid.*). Lachish Tomb 120 held the remains of over 1,500 individuals (*ibid.*). This is obviously very different from the seven-individual minimum we have at Tsur Natan. So it appears Tsur Natan was a relatively modest cave/chamber/shaft tomb in terms of scale. (As part of an article we hope to publish soon, we are looking closer at what this range in tomb size might imply regarding kinship structure in relation to burial context, and why some tombs contain large numbers of individuals and some only a few.)

### *Gender and Age*

Generally men and women are represented equally in this tomb type and received virtually the same grave gifts. Single burials of men are rare and no example of a single adult female was known at the time of Bloch-Smith's writing in the early 1990s (1992: 67). That said, the evidence from Baqah, Lachish and elsewhere suggests a cultural tendency to separate males from females (and children) within a single tomb. At Baqah men outnumbered women 2:1. This corresponds with the Tsur Natan tomb's lack of confirmed females as opposed to at least two males. However, there is no evidence in the tomb of separating adults from children. Another practice documented elsewhere (*ibid.*

37) but not evinced at Tsur Natan is the secondary-burial separation of skulls from other bones.

From the 10<sup>th</sup> century on children were increasingly interred in cave and bench tombs (*ibid.* 66). In all times and most places children were buried with adults. Child cremations have been found along the coast, and in individual simple graves, jars and urns in other places such as Megiddo (*ibid.*). The finds associated with children were most commonly bowls, followed by beads, metal jewelry, scarabs, scaraboids, faience pieces and shells. A five year-old at Tel es-Saidiyeh Tomb 27 was found with a silver necklace, carnelian and other beads, bronze bracelets, rings of silver and steatite, a bronze hair clasp, a bronze fibula, a stamp seal, a bronze weaving spindle and a zoomorphic pottery vessel (*ibid.*). Only one other burial, a Tell el-Farah cist, has yielded so rich an array of finery (*ibid.*).

Bloch-Smith (1992: 37, citing Goodman and Armelagos 1989: 225-7) suggests that the large numbers of children in cave and bench tombs reflects high child mortality rates. Furthermore she maintains that this should be viewed as supporting evidence for the interpretation of these tombs as for families. Although we had no identified infants at Tsur Natan, the fact that there were at least two children in our tomb does correspond with this apparent pattern.

### *A Lack of Burnt Human Remains*

In another respect also Tsur Natan fits the general mold for Shephelah and highland burial practices: a lack of evidence for burning human remains. As mentioned, child cremations have been found along the coast and in the northern valleys. Burnt bones were also found in Jericho Tomb 2 (*ibid.* 38, dating the tomb to 1200 BCE) but apparently nowhere else. This begs the question of cultural differences between the populations of these areas.

But such patterns based on specific tomb traits are difficult to see without proper publication, of which there has been relatively little. In some ways the human remains from the Tsur Natan tomb do give a somewhat unusual and modest impression: its interments being fewer in number and less organised than many other tombs, men not being separated from women (as far as we can tell) and children, and skulls

not being separated from other bones. On the other hand, its male-female ratios, the presence of children, and the absence of burnt bones seem to point to this tomb following a general highland tradition. Until a wider database of well-published tombs—beyond the large urban cemeteries—can be built up, osteology will not contribute its due share to the interpretation of interment practices and cultural links.

### *Comparing Interment Practices*

It may be instructive to compare burial types in certain respects (following Bloch-Smith 1992: 69). Whereas in cave and chamber tombs such as Tsur Natan females and males are represented equally, some other burial types hold more females than males (females were 3:1 more common than males in pit burials and cists, equally represented in anthropoid coffin burials, and were 2:3 less common in bench tombs). Regarding age group representation, cave tombs held the lowest number of children and adolescents but twice as many infants as any other type. There is something odd at work here: given the period's high infant mortality rate, there should be more infant interments and only cave tombs reflect that rate. It seems that infants were buried or treated in an archaeologically invisible manner.

### *A Note on Animal Bones*

The animals whose bones were found with Skeleton 3 at Tsur Natan—which we did not have analysed—may well have simply been later intruders in the tomb. It is worth noting, however, that there is some evidence for animals having been considered appropriate grave gifts. The charred pig bones found mixed with the human remains in Lachish Tomb 120 (Bloch-Smith 1992: 37) may not be comparable to Tsur Natan, given the great

qualitative and quantitative differences between the tombs (over 1,500 individuals represented at Lachish 120, with secondary burial practices involving skull separation). But findings at several other tombs suggest that this was indeed part of general burial practice, at least for some groups in the Shephelah and beyond (for example, see Gezer Tomb 8I and Lachish Tomb 107 [*ibid.*]). Gezer Tomb 8I yielded stones covering a pile of mixed human, sheep, goat and cow bones. Like Tomb 120 there, Lachish 107 contained charred animal bones—mostly pig—covering human bones. Indeed, aside from cave/chamber tombs, animal bones have been found in simple and cist graves, jar burials, a cremation burial, and bench tombs (Bloch-Smith 1992: 105). Probably much more have been found than we know and have been overlooked, being subsumed within large assemblages of human bones.

Horwitz (1987) proposed seven criteria for distinguishing food offerings for dead from chance animal bones: close association with tomb or human remains; narrow species range; deliberate selection of particular body parts; articulation; preference for one body side; and age-based and sex-based selection. Needless to say, we cannot demonstrate that any of these criteria were met at Tsur Natan. However, other Late Bronze and Iron Age tombs do offer compelling evidence and therefore the possibility must always remain open that any animal remains reflect offerings to the deceased as food, gifts, after-life companions or sacrifices. In light of this we may wonder if some of the food vessels among the grave gifts at Tsur Natan (see below, Chapter 3) relate to animals given in sacrifice to the dead or as food (Bloch-Smith 1992: 105). But this remains only a possibility until scientific analyses are numerous enough for us to weigh up what is exception and what is rule.

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## CHAPTER 4

### CERAMICS

*Sergey Alon, Gunnar Lehmann & Oz Varoner*

The indicative pottery from the tomb at Tsur Natan dates consistently to the Early and Late Iron Age II. It is possible that some of the ceramics are even older and belong to the Iron Age IB. In terms of the current absolute dates of these periods, the earliest finds from the tomb may belong to the end of the 11<sup>th</sup> century BCE and the latest to the first half of the 9<sup>th</sup> century BCE.

#### THE ASSEMBLAGE

##### *Open Vessels: Bowls, Chalice, Krater (Fig. 4.1:1-6)*

*Fig. 4.1:1.* Bowl fragment with a brown-orange fabric and many white inclusions. The rim is turned inward. Parallels can be seen from Dor (Dor Iron IIA, or in general chronology Late Iron IIA [Gilboa 2001: Pl. Pl. 5.77:10]); also similar, but with red slip, was a type found near Tsur Natan, in a burial cave at et-Taiyiba (Yannai 2002: Fig. 2:19).

*Fig. 4.1:2.* Small fragment of a straight simple bowl rim with a buff fabric and fine inclusions. As this is a very small fragment it is difficult to compare to others, but parallels may include bowl types 33b and 38a at Megiddo (Arie 2011: 171,174). These types date to Early/Late Iron IIA and Iron IIB. As the rim is simple it most likely dates to Iron IIA. A similar bowl, but with a red slip, was found in the nearby et-Taiyiba burial cave (Yannai 2002: Fig. 3:7).

*Fig. 4.1:3.* Rim fragment of a red-slipped bowl with an orange fabric and medium-sized white and red inclusions. The rim is simple and slightly incurving. Such bowls are typical of Early and Late Iron IIA. The type can be identified with bowl type 33 at Megiddo (Arie 2011: 171). For a similar form see Dor (Dor Iron I/II, or in general chronology

Early Iron IIA [Gilboa 2001: Pl. 5.III: type BL33b]). Comparable also is a bowl found in the et-Taiyiba burial cave (Yannai 2002: Fig. 2:5,12; Fig. 3:7).

*Fig. 4.1:4.* This small rim fragment of a bowl is difficult to find comparisons for, due to its very small size. The fabric is buff orange with white and red inclusions. The rim is slightly thickened and the diameter is rather wide. It may be a fragment of a carinated bowl, such as one found at Dor (Area B1, Phase 9, Dor Iron I/II, or in general chronology Early Iron IIA [Gilboa 2001: Pl. 5.67:32]).

*Fig. 4.1:5.* Chalice with a stepped base and a red fabric, with large white inclusions. The simple rim of this chalice is rare. Similarly formed chalices usually have more elaborate, often flaring rims. They are typical of Iron IB-Late IIA. A parallel for this vessel was found at Megiddo (Arie 2011: Chalice 31). A chalice with a stepped base but a flaring rim was found in the et-Taiyiba burial cave (Yannai 2002: Fig. 5:3-4).

*Fig. 4.1:6.* Deep bowl with a folded rim and a dark orange fabric with medium-sized white inclusions. This is one of the most frequent types from Iron IB through Early Iron IIA. There are numerous parallels for this type, including from Megiddo (Arie 2011: krater type 32 [Early-Late Iron IIA]), Keisan (Stratum 9a-b, Early Iron IIA (Briend and Humbert

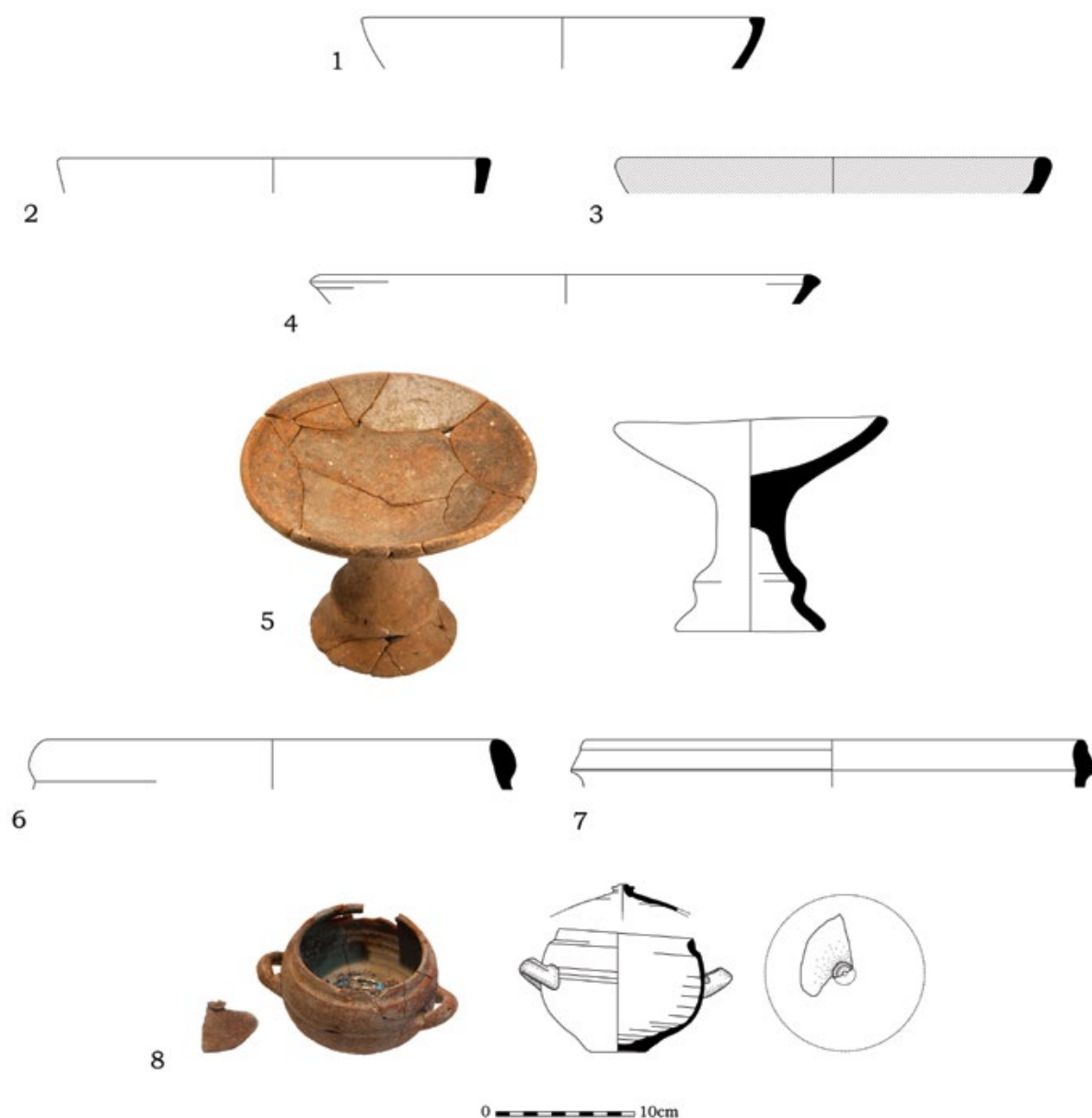


Figure 4.1. Open vessels, bowls (1-4), a chalice (5), a deep bowl / krater (6) and cooking pots (7-8) from the tomb.

No.	Object	Reg. no.	Locus	Period	Description
1	Bowl	107/10	L2	IA IIA	Brown-orange fabric, many white inclusions
2	Bowl	107/5	L2	IA IIA	Buff fabric, fine inclusions
3	Bowl	107/8	L2	IA IIA	Orange fabric, medium-sized white and red inclusions; red slip
4	Bowl	107/13	L2	IA IIA	Buff orange fabric, white and red inclusions
5	Chalice	48	L2	IA IB-IIA	Red fabric, large white inclusions
6	Krater	107/14	L2	IA IIA	Dark orange fabric, medium-sized white inclusions
7	Cooking pot	107/6	L2	IA IB-IIA	Light brown fabric
8	Cooking pot	107/9	L2	Abbasid/ Fatimid	Interior base glazed

1980: Pl. 64:8), and Dor (Dor Iron I/II, or in general chronology Early Iron IIA [Gilboa 2001: Pl. 5.VI: type KR21]). A similar vessel type was found in the et-Taiyiba burial cave (Yannai 2002: Fig. 5: 5-10), but these are apparently cooking pots.

### *Cooking Pots (Fig. 4.1:7-8)*

*Fig. 4.1:7.* Cooking pot with a triangular rim and a light brown fabric. The short rim and straight orientation are typical of Iron IB-Late IIA, a period in which this is one of the most common cooking pot types. It is equivalent to cooking pot types 31a, 32a and 34 at Megiddo, dating to Early and Late Iron IIA (Arie 2011). More parallels have been found at Dor (cooking pot types 16 and 17, dating to Dor Iron I/II or in general chronology Early Iron IIA [Gilboa 2001: Pl. 5.68]). That this type appears already during Iron IB is demonstrated by an example from Tell Keisan Stratum 8 (Briend and Humbert 1980: Pl. 55:3).

*Fig. 4.1:8.* This cooking pot most likely dates to the late Abbasid or early Fatimid period (Edna Stern, pers. comm.).<sup>1</sup> Even though it is very similar to Crusader-period cooking vessels, the coarseness of the walls seems to point to an earlier date. Similar cooking vessels were found at Caesarea: type 732b, dated to the late 9<sup>th</sup> to mid-10<sup>th</sup> century CE (Arnon 2008: 41, 218); also type 741b, dated to the mid-10<sup>th</sup> to early 11<sup>th</sup> century CE (Arnon 2008: 43, 243). Parallels from Yoqne'am are also available: type 2 (Avissar 1996: 132, Fig. XIII.89).

### *Jugs and Juglets (Fig. 4.2:1-12)*

The Fig. 4.2:1-3 pieces are juglet bases. They probably come from vessels similar to Fig. 4.2:6 and 7.

*Fig. 4.2:1.* Base of a juglet with a cylindrical body shape above the base. The fabric is coarse and of reddish-brown color, with large white inclusions and a dark gray core. This is equivalent to Arie's type JT31a from Megiddo (Arie 2011: 196). Other parallels from that site came from Stratum VA-IVB (Finkelstein *et al.* 2000: Fig. 11.40:6), and elsewhere

from Rosh Zayit Stratum II (Gal and Alexandre 2000: Fig. III.86:7).

*Fig. 4.2:2.* Base of a juglet, red-slipped, and made from a fine reddish-brown fabric.

*Fig. 4.2:3.* Base of a juglet, from a fine red-brown fabric. This is probably the same type as the Fig. 4.2:6 complete juglet from this tomb.

*Fig. 4.2:4.* Squat small juglet with a red slip and a reddish-buff fabric and large white inclusions, which is typical of vessels in this tomb. We found no exact parallels for this juglet type.

*Fig. 4.2:5.* Squat small juglet, red-slipped with dark red-painted horizontal lines, and a buff fabric with small white inclusions. There is a carination in the lower part under the handle, at the point of maximal diameter. The fabric is similar to Fig. 4.2:4. The same form, but without red slip, was found in Megiddo Locus 2100 (Stratum VA-IVB), dated to Late Iron IIA (Loud 1948: Pl. 88:17).

*Fig. 4.2:6.* Juglet with a short round body and a straight neck. The vessel has a fine reddish-brown fabric with a light buff surface. It is typical of Early and Late Iron IIA. Parallels have been found in the et-Taiyiba burial cave (Yannai 2002: Fig. 7:4), Taanach Stratum IIB (Rast and Glock 1978: Fig. 62:10), Dor DJ3 (Dor Iron IIA, or in general chronology Late Iron IIA [Gilboa 2001: Pl. 5.76:9]) and Megiddo (Arie 2011: type JT31).

*Fig. 4.2:7.* Juglet with an oval body and a straight, tall neck, red-slipped. This is the same as type JT31 from Megiddo (Arie 2011: 196), dated to Early-Late Iron Age IIA. Other parallels come from Shadud Burial 18 (Arie 2011: Fig. 9.4.3:6), Taanach Stratum IIB (Rast and Glock 1978: Fig. 40:7) and the nearby et-Taiyiba burial cave (Yannai 2002: Fig. 7:10).

*Fig. 4.2:8.* Small base fragment, of a white-grayish fabric. As this is a very small sherd, it is difficult to find parallels for it.

*Fig. 4.2:9.* Base of a jug, red-orange to buff fabric with large white inclusions and a dark gray core. The fragment lacks more specific traits that would help identify the type.

*Fig. 4.2:10.* A jug with a spout and an angular-shaped body with red-slipped, hand-burnished

1 This identification was made on the basis of photographs and drawings only, so should be treated with some caution.

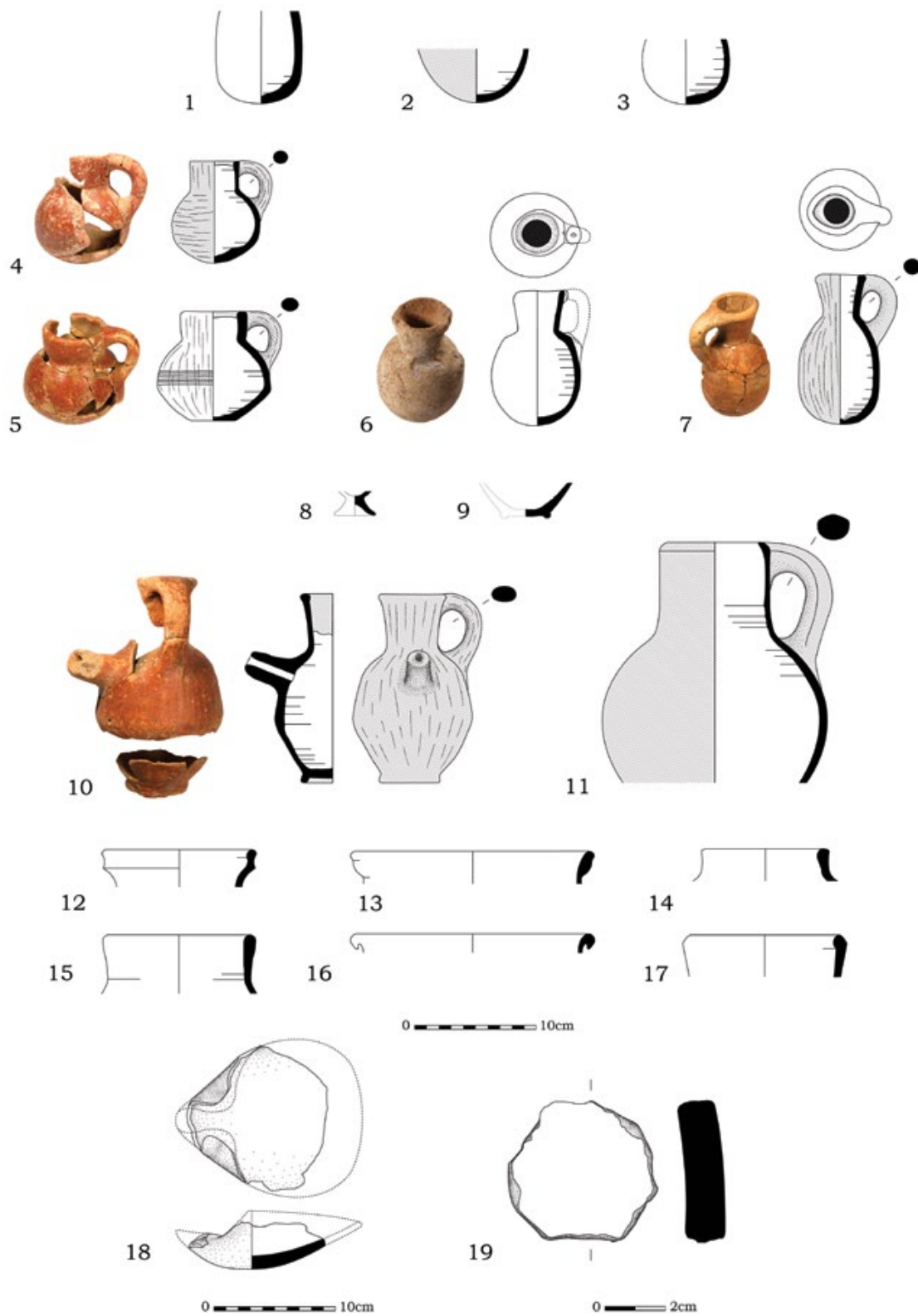


Figure 4.2. Closed vessels (1-17), lamp (18) and stopper/lid (19) from the tomb.

Figure 4.2.

No.	Object	Reg. no.	Locus	Period	Description
1	Juglet	101	L2	IA IIA	Coarse red-brown fabric, large white inclusions, gray core
2	Juglet	63	L2	IA IIA	Fine red-brown fabric; red slip
3	Juglet	33/3	L2	IA IIA	Fine red-brown fabric
4	Juglet	33/1	L2	?	Red fabric, large white inclusions; red slip
5	Juglet	33/2	L2	IA IIA	Red fabric, large white inclusions; red slip, dark red painted horizontal lines
6	Juglet	51	L2	IA IIA	Fine red-brown fabric, light buff surface
7	Juglet	28	L2	IA IIA	Red slip
8	Jug base	107/12	L2	?	White-gray fabric
9	Jug base	107/2	L2	?	Red-orange to buff fabric, large white inclusions and dark gray core
10	Jug	30	L2	IA IIA	Coarse, orange-buff fabric, large white inclusions, gray core; red slip, hand burnish
11	Jug	55	L2	IA IIA	Red fabric, large white inclusions; red slip
12	Jug	107/4	L2	IA IIA	Light yellowish fabric, large white inclusions; red slip
13	Jar?	107/7	L2	?	Orange fabric, large white and red-brown inclusions
14	Jar	31	L2	IA IB-IIA	Orange fabric, small white inclusions
15	Jar	24	L2	IA IB	Orange fabric
16	?	107/3	L2	?	Buff orange fabric, white and red inclusions
17	Cooking jar	107/11	L2	IA IIA	Red-brown fabric, many white inclusions
18	Lamp	50	L2	LB-IA IIA	
19	Stopper	107/1	L2	?	

surface. The fabric is coarse and of orange buff color with a grayish core and large white inclusions. Angular body shapes, associated with various spout forms, begin to appear in Iron IB and occur until Late Iron IIA. The best parallels for this vessel date to Late Iron IIA. Similar angular body shapes have been found at Dor Area G, Phase 6a (Dor Iron IIA, general chronology Late Iron IIA [Gilboa 2001: Pl. 5.79:2]), Taanach IIB (Late Iron IIA [Rast and Glock 1978: Fig. 36:1]) and the et-Taïyiba burial cave (Yannai 2002: Fig. 6:9,11).

*Fig. 4.2:11.* Red-slipped jug, made from a red fabric with large white inclusions. There are few red-slipped jugs with similar incurving rims and these must be differentiated from the numerous cooking jug types which have comparable forms. Cooking jugs, however, are made from different fabrics than this vessel. The only close parallel was found in the et-Taïyiba burial cave (Yannai 2002: Fig. 6:10). This and other aforementioned ceramic parallels indicate that the burial caves at Tsur Natan and et-Taïyiba were almost definitely contemporary. Similar

jugs—without red slip—were also found at Dor Area D2, Phase 8b (Dor Iron IIA, or in general chronology Late Iron IIA [Gilboa 2001: Pl. 5.74:13 (type JG2a) and 18 (type JG6c)]).

*Fig. 4.2:12.* Fragment of a jug rim evincing remains of red slip. Light yellowish fabric with large white inclusions. This fragment lacks more specific criteria for dating. However, a similar rim appears on a vessel from the et-Taiyiba burial cave (Yannai 2002: Fig. 6:14).

### *Jars (Fig. 4.2:13-17)*

*Fig. 4.2:13.* Fragment of a rim thickened on the outside, made from an orange fabric with large white and reddish-brown inclusions.

*Fig. 4.2:14.* Storage jar with a short conical rim and an orange fabric, with small white inclusions. During the excavation the sack-shaped body of this jar was noted (reg. no. 31; see also Fig. 2.3 plan), but it was impossible to recover and restore the many small and deteriorated sherds. Exact parallels for this jar were difficult to find. Similar vessels, dating from Iron IB through Iron IIA, have been found at Megiddo (Early and Late Iron IIA [Arie 2011: Storage Jar type 31]), Dor (Late Iron IB [Gilboa 2001: Pl. 5.XIV: types JR8 and 9], Iron IB [*ibid.* Pl. 5.XIII: type SJ5b] and Area B1, Phase 9, Early Iron IIA [*ibid.* Pl. 5.69a:18]) and the et-Taiyiba burial cave (Yannai 2002: Fig. 6:7).

*Fig. 4.2:15.* Storage jar fragment, made from an orange fabric and exhibiting a straight, tall and simple rim, and a steep sloping shoulder. This vessel appears to be older than most of the other pottery in this tomb. The best parallels date to the end of Iron Age IB: from Megiddo Stratum VIA (Arie 2011: storage jar type 3?) and Dor (Gilboa 2001: Pl. 5.XIII: type JR1).

*Fig. 4.2:16.* A small rim fragment of buff orange fabric with white and red inclusions. We did not find any parallels for this rim.

*Fig. 4.2:17.* Rim fragment of a cooking jar dating to Iron IIA. Red-brown fabric with numerous white inclusions. Parallels include one from Megiddo (Iron IA-IIA [Arie 2011: cooking jar type 31]) and others from Dor (Dor Late Iron IB, Iron I/II and Iron IIA, or in general chronology Early-Late Iron IIA [Gilboa 2001: Pl. 5.XIX: type 6c] and Dor Iron I/II, or in general chronology Early Iron IIA [*ibid.* Pl. 5.XIX: type 8]).

### *Oil Lamp (Fig. 4.2:18)*

Lamp with a simple round base. Similar lamps were produced between the Late Bronze Age and Late Iron IIA, with little typological differentiation. Therefore it is difficult to date this lamp more precisely. Several similar lamps were found in the nearby et-Taiyiba burial cave (Yannai 2002: Fig. 9).

### *Stopper/lid (Fig. 4.2:19)*

This stopper was made from a pot sherd, and was used to close vessels. We could not date this object.

### *Zoomorphic Vessel (Fig. 4.3)*

Zoomorphic vessels start to appear in Iron I and continue in circulation until the end of the Iron Age (Arie 2011: 210 type ZO31). They are particularly typical of Iron Age IIA (Early and Late) and are often found in burials (Bloch-Smith 1992 *passim*). Well-dated parallels have been found at Iron IIA Dor (Gilboa 2001: Pl. 5.72:10), Rosh Zayit Stratum II-I (Gal and Alexandre 2000: 80-81) and Megiddo Stratum VA-IVB (Finkelstein *et al.* 2000: Fig. 11.33:10).

## CONCLUSIONS

This assemblage clearly dates to Iron Age IIA, possibly beginning in Iron IB. The reddish-buff fabric with large white inclusions is typical of vessels in this tomb. The many parallels between them indicate that the burial caves at Tsur Natan and et-Taiyiba should be considered contemporary and encoded with a shared socio-economic and cultural messaging, as expressed in the burial goods.

## DISCUSSION

*Conn Herriott*

### *Typological Trends*

Bloch-Smith (1992: 38-39) has noted that the grave offering assemblages of Bronze Age-Iron Age cave/chamber/shaft tombs tend to be made up mostly of locally-made bowls, lamps, jars, jugs and juglets, mixed with a variety of other forms, 'household items and personal possessions' (the latter being interpretive-descriptive terms which will be examined below). Almost all 13-11<sup>th</sup> century burial kits included imported pottery (Beth Shean, Tel Dothan,



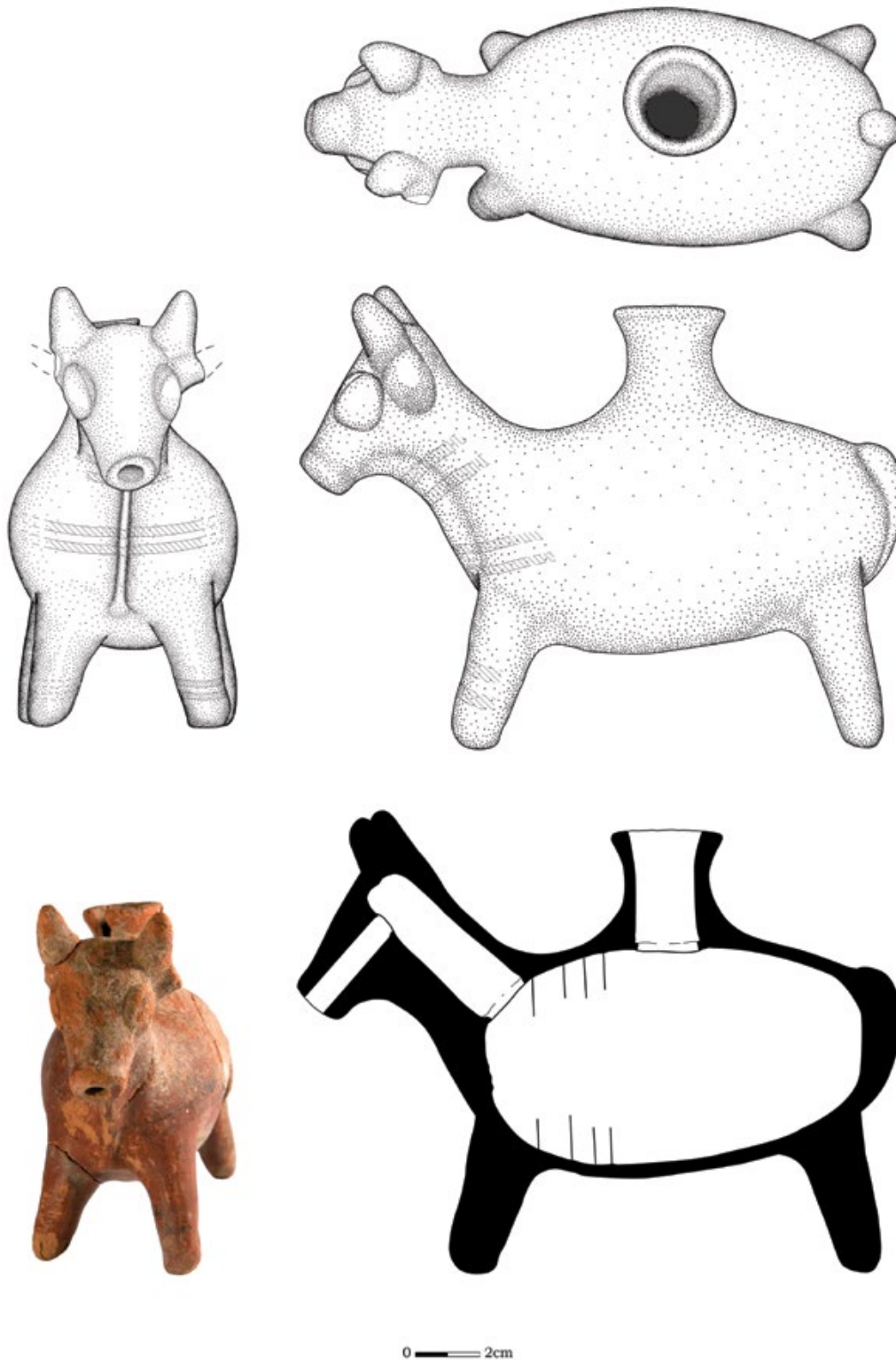


Figure 4.3. Iron Age IIA zoomorphic vessel (reg. no. 25).

Irbid, Lachish).<sup>2</sup> Lamps were most numerous in the Tel Dothan and Gibeon tombs, and bowls most common at Lachish and Irbid. In 10-6<sup>th</sup> century burials, Cypriot (Gezer, Lachish, Tell en-Nasbeh), Phoenician (Tell Abu Hawam, Amman, Samaria), Cypro-Phoenician (Tell Abu Hawam, Tell Bira, Madeba, Tell en-Nasbeh, Mt Nebo, Tambourit), Greek (Tambourit) and Assyrian (Amman) imported wares have been present. From the 10<sup>th</sup> century, the jug, juglet and dipper juglet become the more frequent (e.g. Aitun, Amman C, Jebel Jofeh esh-Sharqi, Ein Sarin, Lachish Tombs 120 and 218, and Tell en-Nasbeh Tombs 32 and 54). The bowl's popularity increased as demonstrated by its being the predominant form in a significant number of tombs (although it is the most common find only in the tombs of the Mount Nebo area).

The Tsur Natan pottery assemblage appears to be broadly in keeping with patterns discussed by Bloch-Smith (1992: 72-75), whereby highland cave and bench tombs often contained bowls, lamps, jugs, juglets, chalices, jars and few of the pilgrim flasks, pyxides and kraters prevalent in other regions of the southern Levant. One may presume both functional and aesthetic reasons for these burial gift choices, but details regarding such questions of culture and meaning remain elusive.

### *Soot Stains*

Soot on vessels, as was found in several Tsur Natan cases,<sup>3</sup> is known also from roughly contemporaneous (10-8<sup>th</sup> century) Tel Aitun Tomb 1 (Bloch-Smith 1992: 106-7). Cooking pots, lamps and other vessels are blackened by soot at many sites (see Ussishkin 1974: 125).

### *Zoomorphic Vessel*

Bloch-Smith (1992: 94) sees ceramic models such as our zoomorphic vessel as religiously important, not frivolous and to be dismissed. Holland (1975: 326) argued that such items date particularly to Iron Age II and expressed popular religion born out of a Canaanite past. In his anthropological study of these figurines, Ucko (1962) concluded that they were never representations of a deity but rather were given as grave gifts for particular reasons or as 'vehicles for sympathetic magic' (Ucko 1962: 46).

Quadruped figurines—usually interpreted as dogs or horses—have been found in 10<sup>th</sup> century Beth Shemesh Tomb 1, 10-6<sup>th</sup> century Mt Nebo Tomb UCV-84, 9-8<sup>th</sup> century Tel Aitun Tomb A1, 8-6<sup>th</sup> century Beth Shemesh Tomb 2, Jericho Tomb WH1, Sahab Tomb B and Lachish Tomb 106, and perhaps also Tell Abu Qudeis (Bloch-Smith 1992: 101). Dog imagery may have been chosen because—according to cuneiform records—dogs were believed to ward off demons (*ibid.*, citing Lichty 1971: 26). Horses figured in the sun cult, 'a feature of the cult of Yahweh' (*ibid.*, citing 2 Kings 23.11; Ps. 68.18; Hat. 3.8, 15; Ahlström 1984: 220; Smith 1988 and Taylor 1989), so perhaps horses could thereby be seen as relevant to burials. Horse-and-rider figurines are well attested, so maybe quadruped figurines such as that from Tsur Natan were horses separated from their riders. Holland (1977, cited by Bloch-Smith 1992: 102) noted many such figurines from lowland Levantine sites, and also from Jordan. Only five had been found in burials by the time of Bloch-Smith's writing (1992: 102), all dating to the 8-6<sup>th</sup> centuries: Beth Shemesh Tomb 8, Lachish Tomb 106, Khirbet el-Qom Tomb I, Amman Tomb A and Maqabelein.

2 Non-ceramic elements of such common assemblages include scarabs and other Egyptian amulets (Azor, Baqah Valley, Beth Shean, Beth Shemesh, Tel Dothan, Gezer, Gibeon, Lachish, Sahab), as well as blades, spearheads, arrowheads, needles, spindle whorls, jewelry, toggle pins, fibulae, rattles and female pillar figurines (Bloch-Smith 1992: 38-39).

3 Fig. 4.1:1 (reg. no. 107/10), Fig. 4.1:4 (reg. no. 107/13), Fig. 4.1:7 (reg. no. 107/6) and Fig. 4.2:3 (reg. no. 33/3).

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## CHAPTER 5

### GLYPTICS

*Othmar Keel*

Six objects decorated with glyptics were recovered from the Tsur Natan tomb: four scarabs, one scaraboid and one stamp seal. Two were intact, three were slightly broken and one was only half a scarab.

#### THE ASSEMBLAGE

##### *Scarab 1 (Fig. 5.1:1)*

*Object:* The head of this scarab has a simple lunate shape with marked eyes. Pronotum and elytra are marked by single or two thin parallel lines. The humeral callosities are indicated by two triangles resting on the pronotum line. All six legs are clearly shown. A small piece of the base edge is missing. The material is heated steatite. The dimensions are 16.7 x 11.7 x 7.4mm.

*Base:* The design of the base is horizontally arranged. In the center is depicted a tall water pot with some hatching. This is the Egyptian hieroglyph W14 (according to Gardiner's [1957] system) with the phonetic spelling *ḥs(y)* or *ḥs(t)*, which means "to praise" or "praise" (noun) if the subject is a human being and "to bless" or "blessing" if the subject is a deity. The "vase" is flanked by two curved elements and a horizontal line with three sidelines each. Close parallels for this design are a scarab from Late Iron Age I and Early Iron Age II (Tomb 227, Cemetery 200 at Tell el-Far'ah-South [Keel 2010a: 134f, no. 248]), another from Lachish (Tufnell 1953: Pl. 43/43A: 40) and another from the Ex-Matouk collection (Matouk 1977: 408, no. 2203). There is also a second version of this same type in the former Matouk Collection (BIBLE+ORIENT Museum, Fribourg, AeS 1983.4051). Both versions correspond with the features exhibited in the scarab type shown by Keel (1994: Pls. 1:1-3 and 13:10, etc.) to be typical of the Iron Age IIA. The impression of a scarab of this kind was found on a bulla in the fill of a pool beside the Gihon spring (Reich *et al.* 2007: 157, Fig. 8 [reg. no. 25972] = Keel 2012a: Fig. 10). The meaning of this design is a "blessing" directed at the owner.

*Date:* Iron Age IIA (ca. 980-830 BCE).

##### *Scarab 2 (Fig. 5.1:2)*

*Object:* The head of this scarab is of a trapezoidal shape, broadening towards the outside. Pronotum and elytra are indicated by simple lines. The legs are reduced to one groove. Part of the head and almost one third of the base is broken and missing. The engraving is hollowed out. The material is heated steatite. The dimensions are 14.2 x 10.7 x 6.2mm.

*Base:* A horizontal arrangement shows a schematic striding lion. Its tail is bent forward over its back. Beneath the lion is a ripple of water, the Egyptian hieroglyph N35 (Gardiner's [1957] system) with the phonetic value *n*. In front of the lion is a remnant of a vertical element, similar to that in Fig. 5.1:4. Parallels for this combination of lion and additional horizontal and vertical elements come from Achziv (Keel 1997: Achsib no. 15), Bet Shemesh (Keel 2010b: Bet-Schemesch no. 12) and Tel Gerisa (Keel 2012b: Tel Gerisa no. 16). The meaning of the Fig. 5.1:2-4 designs will be discussed together with Fig. 5.1:5.

*Date:* End of the Iron Age IB-beginning of Iron Age IIA (ca. 1050-900 BCE), or 21<sup>st</sup> dynasty (1069-945 BCE) if Egyptian.

##### *Scarab 3 (Fig. 5.1:3)*

*Object:* This is a fragment of a rather coarse scarab. The engraving on the base is hollowed out. The material is heated steatite. The dimensions of the fragment are ca. 10 x 11 x 6.7mm.

*Base:* The surviving remnant of this design is not easy to interpret. There are at least two possibilities. One is the king sitting on his calves over two branches holding a flagellum and *heqa*-sceptre at his chest. Parallels for this interpretation were found at Tell el-Ajjul (Keel 1997: Tell el-Ağul no. 210),

Tell el-Far'ah-South (Keel 2010a: Tell el-Far'a-Süd no. 195), Tell Jemmeh (Keel 2012b: Tel Gamma no. 33) and Tell es-Sa'idiyeh in Jordan (Eggler and Keel 2006: Tell es-Sa'idiyah no. 14). Nineteen more examples have been published by Wiese (1990: 41-50).

The other possible interpretation is that this image represented the king on his throne, flagellum and *heqa*-sceptre held at his chest, and standing before him a servant. Such glyptics have been found at Tell el-'Ajjul (Keel 1997: Tell el-'Ağul no. 798) and Tell Jemmeh (Keel 2012b: Tel Gamma no. 70). Wiese (1990: 168-184) has compiled a list of 50 other examples.

*Date:* End of the Iron Age IB-beginning of Iron Age IIA (ca. 1050-900 BCE), or 21<sup>st</sup> dynasty (1069-945 BCE) if Egyptian.

#### *Scarab 4 (Fig. 5.1:4)*

*Object:* The head of this scarab is of trapezoidal shape, broadening towards the outside. Pronotum and elytra are indicated by simple lines. The legs are reduced to two grooves. The rim of the base is slightly damaged. The engraving on the base is hollowed out. The material is heated steatite. The dimensions are 16 x 12 x 7.3mm.

*Base:* A horizontal arrangement shows two schematic striding lions, one above the other, their tails bent forward above their backs. In front of the lions is a vertical line and a flowering reed. This is the Egyptian hieroglyph M17 (Gardiner's [1957] system) with the phonetic value *j*. Parallels for the two lions with some vertical element in front of them were found in Achziv (Keel 1997: Achsib No. 41), Megiddo (Keel 1994: 29f, No. 11 and Taf. 8:11) and Tel Rekeš (Münger 2011: 174, Tel Rekesh No. 5). The meaning of the Fig. 5.1:2-4 designs will be discussed together with Fig. 5.1:5.

*Date:* End of the Iron Age IB-beginning of Iron Age IIA (ca. 1050-900 BCE), or 21<sup>st</sup> dynasty (1069-945 BCE) if Egyptian.

#### *Scaraboid (Fig. 5.1:5)*

*Object:* Lion scaraboid. A rather coarsely-rendered reclining lion, looking straight forward. This is a very widespread seal shape found from Hasanlu in Iran to Tell Tainat in Syria, and from Matmar in Egypt

to Lefkandi in Greece (cf. Keel 1995: 71f § 160). Parallels were also found in Israel/Palestine at the following sites: Achziv (Keel 1997: Achsib No. 104), Arad (Keel 1997: Arad No. 21), Tel 'Artal (Keel 1995: 71, Abb. 104), Bet Shean (Keel 2010b: Bet Shean No. 87), Dor (Keel 2010b: Dor No. 4; in that particular case the lion's head is turned sidewise), and Megiddo (Keel 1994: Taf. 8:12 and 11:26; Sass 2000: 408, Fig. 12:43). The base is broken at one end. The engraving on the base is hollowed out. The material is heated steatite. The dimensions are 14.4 x 7.2 x 9mm.

*Base:* A horizontal arrangement shows a schematic striding lion. Its tail is bent forward over its back. In front of the lion there is a remnant of a vertical element, as on Fig. 5.1:2. For parallels of this design see also Fig. 5.1:4. One or—much rarer—two lions are often the main element on seals. Very often the lion represented the king. The very image of this powerful and impressive animal had amuletic value in itself and was thought to ward off evil and enhance the owner's strength (Keel 1995: 195-198, § 536-542; Strawn 2005). The combination of lion imagery with horizontal and vertical elements found on this piece and many other seals may be interpreted as suggesting the name of the Egyptian god Amun. However, such cryptographic readings must be considered very tenuous; the value of this approach is often overrated (Keel 1995: 177-180, § 472-180). But even with the necessary hesitations, the lion may be interpreted as *m* since the lion *m* *y* has no strong consonant beside it. The elements *j* and *n* accompanying the lion on seals of the type presented here suggest *Jmn* ("Amun") (see Keel *et al.* 1990: 348-351). The interpretation of this design as "Amun" is also supported by the fact that during the New Kingdom "lion" was often used as a metaphor for Amun (de Wit 1951: 216-220). In the "Report of Wenamun" (2:34) Wenamun tells the king of Byblos: "Do not desire what belongs to Amen-Re, King of Gods! Indeed, a lion loves his possessions!" (translation: Lichtheim 1976: 227).

*Date:* End of the Iron Age IB-beginning of Iron Age IIA (ca. 1050-900 BCE), or 21<sup>st</sup> dynasty (1069-945 BCE) if Egyptian.



Figure 5.1. The glyptics from the Tsur Natan tomb.

Figure 5.1.

No.	Object	Material	Period	Dimensions (mm)	Reg. no.
1	Scarab seal	Steatite	IA IIA	16.7 x 11.7 x 7.4	65
2	Scarab seal	Steatite	Late IA IB-early IA IIA / 21 <sup>st</sup> dynasty	14.2 x 10.7 x 6.2	85
3	Scarab seal	Steatite	Late IA IB-early IA IIA / 21 <sup>st</sup> dynasty	ca. 10 x 11 x 6.7	52
4	Scarab seal	Steatite	Late IA IB-early IA IIA / 21 <sup>st</sup> dynasty	16 x 12 x 7.3	32
5	Scaraboid seal	Steatite	Late IA IB-early IA IIA / 21 <sup>st</sup> dynasty	14.4 x 7.2 x 9	84
6	Truncated-cone stamp seal	Hematite	IA IB	17.7 x 13.2-16,5	83

### *Stamp Seal (Fig. 5.1:6)*

*Object:* A cone-shaped, or truncated cone-shaped stamp seal of Keel's Type II (1995: 100-102 § 248 and 250). On one side the cone is slightly damaged. The engraving style is a combination of drill holes and lines. The material is hematite (Keel 1995: 141 §§ 357-360). Cone-shaped seals of hematite with drill-hole engravings were found at Tell el-Far'ah-South (Keel 2010a: Tell el-Far'a-Süd No. 220), Lachish (Tufnell 1953: Pl. 44A/45:150) and Megiddo (Lamon and Shipton 1939: Pl. 69/70:14); all three of these are illustrated in Keel *et al.* (1990: 372, Taf. 20:4 and 21:1-2). The cone has a base diameter of 16.5mm and top diameter of 13.2mm, and is 17.7mm high.

*Base:* In the center of the stamp design is a quadruped with two horns at one end, and an unclear device at the other end which may be an awkward representation of a raised tail. Above the hind quarters of the depicted animal is another horned head, probably of a bull. The five holes form a sort of frame. This stamp design is unusual. Cone-shaped seals with animals were found in Tomb 1 of the northwest cemetery at Bet Shemesh (see Keel 2010b: Bet-Schemesch No. 48-53).

*Date:* Iron Age IB (1150-980 BCE).

### CONCLUSIONS

The Fig. 5.1:1 scarab seal probably originates in Egypt, although the above-listed parallels for its shape do not exclude a Phoenician coastal origin. Phoenician seals are often strongly Egyptianizing.

The Fig. 5.1:2-5 seals all clearly belong to the so-called Post-Ramesside mass-production group. Post-Ramesside mass-production seals are elsewhere presented and discussed as a group (Keel *et al.* 1990: 337-354; Keel 1994: 48-50; Keel and Mazar 2009: 64\*-65\*; Keel and Uehlinger 2010: 483f [however, not in the English version of Keel and Uehlinger 1998]; Münger 2003, 2005a, 2005b and 2011). The production of this group probably began during the 21<sup>st</sup> dynasty (1069-945 BCE) and lasted into the beginning of the 22<sup>nd</sup> dynasty (945-ca. 900 BCE). These seals are certainly Post-Ramesside because sites and levels typical of the Ramesside period, such as Deir el-Balah (Keel 2010b: 402-461, Nos. 1-140) and Cemetery 900 at Tell el-Far'ah-South (Keel 2010a: 78-90 [Nos. 123-150] and 218-375 [Nos. 447-819])—between them yielding hundreds of New Kingdom scarabs—as well as the Late Bronze Age levels at Lachish (ending ca. 1130 BCE), have given up not a single scarab of this type. The element “Post-” in the designation “Post-Ramesside” is thus fully justified. The element “Ramesside” has its basis in the fact that many mass-production scarab types continue typical Ramesside subjects, albeit in a much more schematic and coarse style.

Münger (2003: 71-73; 2005: 399f) has suggested that this scarab group was first produced during the time of Siamun (ca. 960 BCE), based on a reading of this name in base engravings on Scarab No. 21 (in Keel 2010b: 472-473) from Dor and other similar scarabs of the Post-Ramesside mass-production group. However, this reading is not feasible; the correct written form of the name Siamun is quite different from that proposed by Münger (see remarks in *ibid.*).

Therefore, it seems that we cannot be more precise than sourcing the commencement of these scarabs' production to the 21<sup>st</sup> dynasty (1069-945 BCE).

It is surprising that deities very common on Ramesside seals, such as Ptah and Hathor, are completely missing from this group. The two Egyptian deities whose names (Amun) and images (falcon-headed Re-Harakhte) *do* appear regularly on mass-production seals correspond to the cults established by the kings of the 21<sup>st</sup> dynasty at Tanis (Keel 1994: 49f). As early as 1925, Petrie had identified a group of "coarse deep cut work ... which seems to belong to the whole Delta, but which is absent from Memphis and the south" (Petrie 1925: 29). Petrie (*ibid.* 26) asserted that the scarabs illustrated in the same volume (Petrie 1925: Pl. 14, 961-968) belong to this group. In fact, they are all typical Post-Ramesside mass-production scarabs. Furthermore, Petrie's "delta" can be narrowed down to the eastern delta specifically. Other than Amun and Horus, the only deities appearing on items of this group are Seth-Baal and Reshef. This pattern is best explained by sourcing these scarabs to the eastern rather than the western delta, in part because of the aforementioned cultic associations but also due to other reasons discussed in further detail elsewhere (Keel 1994: 49f; Munger 2003: 70f; 2005: 396f). The thrust of this argument is the identification of Tanis as the center of this scarab group's production.

One problem, however, is that scarab features (head, back and side) in the group are not as homogeneous as they are in clearly identified groups such as the Omega- or the Green Jasper Group (Keel *et al.* 1989: 39-87, 209-242) or the "Neo-Hyksos – Lotos-Kopfschild Gruppe" (Keel 2003). One might prefer to be on the safe side and suggest a long production period, during which more than one workshop was in operation, accounting for the higher degree of variability. Tanis remains a reasonable candidate as the main production location, but scarabs with Reshef or Seth-Baal may have been produced in a workshop in the southern Levant. The numerous Post-Ramesside mass-production scarabs from all over Israel/Palestine indicate that relations between Egypt and the southern Levant did not cease completely during

the last phase of the Iron Age I and the beginning of Iron Age IIA.

While the origin of these mass-produced Post-Ramesside seals must be sought for in the Eastern delta or the southern Levant, the hematite seal (Fig. 5.1:6) most likely hails from northern Syria (see Keel *et al.* 1990: 367-377; Keel and Uehlinger 1998: 143-146).

Although six seals amounts to a small group, this assemblage shows that even in the dark period of the 11<sup>th</sup> and 10<sup>th</sup> centuries Palestine was in contact with its southern and northern neighbors.

#### SOME REMARKS ON GLYPTICS IN IRON AGE SOUTHERN LEVANTINE MORTUARY CONTEXTS

*Conn Herriott*

Scarabs are the most prevalent Egyptian or Egyptianizing amulets in Iron Age burials (Bloch-Smith 1992: 83). They are found in all tomb and inhumation types and are associated with all ages and genders, except infants. Scarabs have been interpreted as an Egyptian emblem of rebirth and renewal (*ibid.* 84, citing Bianchi 1983; Petrie 1914: 22). Whether this meaning was maintained in the Levant is difficult to confirm or deny. Scarabs are frequently found with Egyptian and Philistine pottery, and less with Cypriot and Mycenaean. They are also found with other jewelry or items such as seals, arrowheads, stamps or amulets—which indeed was the case at Tsur Natan. From the 10<sup>th</sup> century on, scarabs in mortuary contexts were more associated with Phoenician and Cypro-Phoenician wares. Also, from this time scarabs began to be deposited in highland tombs, where once they had been almost entirely restricted to the lowlands.

Regarding the truncated cone-shaped stamp seal from Tsur Natan (Fig. 5.1:6), such objects have been found throughout the southern Levant except in the remote highlands of Judah (*ibid.* 88). These stamp seals have been found in richer 12-11<sup>th</sup> century tombs that have Egyptian and other imported items (Bloch-Smith 1992: 89). Subsequently these stamps and seals seem to have diffused into the hill country. But Bloch-Smith (*ibid.*) is of the impression that they remained intended indicators of wealth and status.



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## CHAPTER 6

### BEADS

#### *Hagar Ben Basat*

#### INTRODUCTION

The following chapter presents 35 beads, one pendant and one shell from Tsur Natan. The chapter includes three parts: a typology of the beads, a synthesis of the finds and a detailed catalog.

In this study 'bead' is defined as an object which is perforated at its center, is relatively small, and can be easily worn on the body or garment. A bead is usually threaded by itself or alongside other beads to create a composite item of beadwork. Objects that are not perforated in their center are defined as 'pendants'.

In many cases beads were threaded into necklaces, but archaeological findings have shown that beads

were integrated into many other items such as hassocks (Friedman 1998: Fig. 12) or dolls (*ibid.* Fig. 65).

Beads can serve as chronological indicators but sometimes they are survivors from earlier periods. Therefore this study will not discuss their chronological distribution.

The typology presented in this chapter was developed in my M.A. thesis (Ben Basat 2011: 41). The types are characterized by raw material, length (measured along the bead's stringing hole), and by morphological characteristics (globular, tubular, oblate, etc.).

The terminology used here is based on the studies of Beck (1928), Spaer (2001) and Golani (2009).

The following are some of the terms relevant to the present typology: the ‘height’ of a bead is an imaginary line that passes through the center of the perforation (i.e. the stringing line); the ‘diameter’ of a bead is an imaginary line that passes through the center of the bead (perpendicular to the stringing line); and ‘disk’, ‘short’, ‘standard’ and ‘long’ are terms used in this study to describe the ratio between a bead’s height and its maximum external diameter.

### RAW MATERIALS

The Fig. 6.2 chart presents the distribution of raw materials represented in the Tsur Natan bead assemblage:

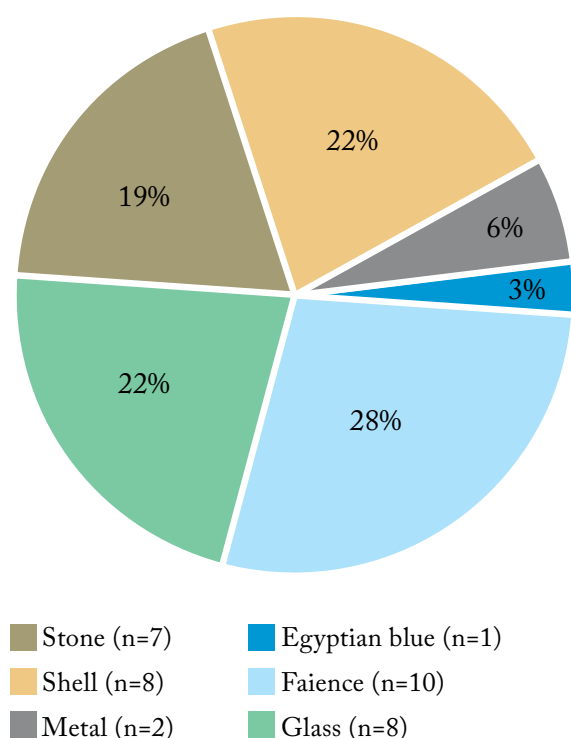


Figure 6.2. Bead material types.

Seven beads (19%) are made of stone. One of these (Fig. 6.1:9) is made of carnelian. Carnelian pebbles can be found in Sinai and the eastern desert of Egypt (Aldred 1978: 16; Aston *et al.* 2000: 27). This is one of the earliest gemstones used in Egyptian and Levantine bead production (Aston *et al.* 2000:

27), and one of the most common materials attested among beads in these regions during the Iron Age (Golani 2009: 163; Ben Basat 2011: 143).

Eight beads (22%) are of shell. These were made from three different shell species: *Conus* (n=1), *Nassarius* (n=3) and *Cypraea* (cowry, n=4). Another object included in this catalog was a *Glycymeris* shell (reg. no. 93) also found in the tomb. However, this item was not perforated or worked in any way.

Two beads (6%) are made of unidentified metal, either copper or bronze.

Siliceous beads are divided into three groups: Egyptian blue (n=1, 3%), faience (n=10, 28%) and glass (n=8, 22%). The differences between these three groups, which are all silica-based materials, are the varying amounts of alkali, lime and copper. Their different manufacturing methods also resulted in different morphological types.

One Egyptian blue bead was found at Tsur Natan. Egyptian blue frit is produced by firing a mixture of quartz, lime, a copper compound and an alkali flux (Tite and Shortland 2008: 147).

Ten beads (28%) are made of faience. One is red, four are white and five are yellow. Faience is a glazed non-clay ceramic material, composed of crushed quartz or sand with small amounts of lime, and either natron or plant ash. This material served as a core that was covered with a soda-silica-lime glaze (Nicholson and Peltenburg 2000: 186; Friedman 1998: 15). The earliest objects made of faience were beads (Patch 1998: 42).

Eight beads (22%) were made of glass. All of them have a dark blue-black color and therefore are presumed to be made from the same glass gob.

The only type of decoration found among the Tsur Natan beads are engravings. One Egyptian blue bead (Fig. 6.1:23; reg. no. 52) and one faience bead (Fig. 6.1:19; reg. no. 69) have horizontal engravings—i.e. perpendicular to the stringing hole (see below, “segmented bead”). Two faience beads (Fig. 6.1:16, 20; reg. nos. 38 and 79) have horizontal engravings—i.e. parallel to the stringing hole (see below, “melon bead”). One faience bead (Fig. 6.1:21; reg. no. 99) has vertical and horizontal engravings.



Figure 6.1. A selection of beads from the Tsur Natan tomb.

Figure 6.1.

No.	Object	Reg. no.	Locus	Description
1	Bead	40	2	Type 5.B. Short globular glass bead.
2	Bead	98/3	2	Type 5.C. Standard globular glass bead.
3	Bead	74	2	Type 5.C. Standard globular glass bead.
4	Bead	89	2	Type 5.A. Short tubular glass bead.
5	Bead	59	2	Type 5.B. Short globular glass bead.
6	Bead	57	2	Type 5.B. Short globular glass bead.
7	Bead	61	2	Type 5.D. Long oblate glass bead.
8	Bead	92	2	Type 3. A short globular metal bead.
9	Bead	46	2	Type 1.B. Standard globular stone bead.
10	Bead	98/5	2	Type 1.D. Long biconical stone bead.
11	Bead	98/4	2	Type 1.C. Long tubular stone bead.
12	Bead	98/1	2	Type 1.A. Short tubular stone bead.
13	Bead	41	2	Type 1.C. Long tubular stone bead.
14	Bead	98/2	2	Type 1.A. Short tubular stone bead.
15	Pendant	43	2	Type 1.E. Elongated stone pendant.
16	Bead	38	2	Type 4.B. Standard globular faience bead.
17	Bead	105	2	Type 4.B. Standard globular faience bead.
18	Bead	91	2	Type 4.A. Short globular faience bead.
19	Bead	69	2	Type 4.C. Long tubular faience bead.
20	Bead	79	2	Type 4.D. Long oblate faience bead.
21	Bead	99	2	Type 4.E. Long granulated faience bead.
22	Bead	70	2	Type 4.D. Long oblate faience bead.
23	Bead	52	2	Type 3.A. Long segmented Egyptian blue bead.
24	Bead	39	2	Type 2.B. Cut cowry shell bead.
25	Bead	58	2	Type 2.C. Perforated <i>Nassarius</i> shell bead.
26	Bead	64	2	Type 2.A. Cut <i>Conus</i> shell bead.

## TPOLOGY

### *Stone Beads and Pendant*

*Type 1.A.* Short tubular stone bead (Fig. 6.1:12, 14; reg. nos. 98/1 and 98/2).

*Type 1.B.* Standard globular stone bead (Fig. 6.1:9; reg. no. 46).

*Type 1.C.* Long tubular stone bead (Fig. 6.1:14, 11; reg. nos. 41 and 98/4).

*Type 1.D.* Long biconical stone bead (Fig. 6.1:10; reg. no. 98/5).

*Type 1.E.* Elongated stone pendant (Fig. 6.1:15; reg. no. 43). This is the only pendant that was found in the tomb at Tsur Natan. It is relatively small (17.6mm) compared with the beads, and lacks decoration.

### *Shell Beads*

*Type 2.A.* Cut *Conus* shell bead (Fig. 6.1:26; reg. no. 64). This shell was cut next to its whorl, creating a disk bead with a natural spiral decoration. This particular bead has a round perimeter; rectangular examples are known from elsewhere (Ben Basat 2011: 53).

*Type 2.B.* Cut cowry shell beads (Fig. 6.1:24; reg. nos. 39, 71.1-3). All four cowry beads found at Tsur Natan were cut into circles with an open center. 60% of the early Iron Age shell beads were made from cowries (Ben Basat 2011: 144). Cowries originate in the Red Sea (Bar-Yosef Mayer 1999) and unlike beads made from other materials, which have a wide variety of shapes, colors and decorations, shell beads were made in very few ways and from very few species. In broad and undefined terms it may reasonably be supposed that this phenomenon indicates the importance—and perhaps symbolic meaning—these beads had in society.

*Type 2.C.* Perforated *Nassarius* shell beads (Fig. 6.1:25; reg. nos. 42, 58 and 62). This is the only bead type at Tsur Natan that was not elaborated apart from the perforation of the stringing hole. It must be noted that these *Nassarius* shells could have been naturally bored by animals and not mechanically perforated.

### *Metal Bead*

*Type 3.A.* Short globular metal bead (Fig. 6.1:8; reg. nos. 92 and 97).

### *Egyptian Blue Bead*

*Type 3.A.* Long segmented Egyptian blue bead (Fig. 6.1:23; reg. no. 52). This bead has 11 horizontal incisions (perpendicular to the stringing hole).

### *Faience Beads*

Five different morphological types were identified among the Tsur Natan faience beads:

*Type 4.A.* Short globular faience bead (Fig. 6.1:18; reg. no. 91).

*Type 4.B.* Standard globular faience bead (Figs. 6.1:16, 17; reg. nos. 37, 38, 95, 96 and 105).

*Type 4.C.* Long tubular faience bead (Fig. 6.1:19; reg. no. 69).

*Type 4.D.* Long oblate faience bead (Fig. 6.1:20; reg. nos. 70 and 79).

*Type 4.E.* Long granulated faience bead (Fig. 6.1:21; reg. no. 99). This bead has parallel and perpendicular incisions.

### *Glass Beads*

*Type 5.A.* Short tubular glass bead (Fig. 6.1:4; reg. no. 89).

*Type 5.B.* Short globular glass bead (Fig. 6.1:1, 6, 5; reg. nos. 40, 57 and 59).

*Type 5.C.* Standard globular glass bead (Fig. 6.1:3, 2; reg. nos. 74, 90 and 98/3).

*Type 5.D.* Long oblate glass bead (Fig. 6.1:7; reg. no. 61).

## SUMMARY

Thirty-five beads, one pendant and one shell were found in the Iron Age IIA tomb (L2) at Tsur Natan, attributed to Phase 1 of the site.

Most of the beads were made from faience (28%), glass (22%) and shell (22%). However, stone beads, metal beads and one Egyptian blue bead were also found. Almost all of the beads have a simple geometric shape and lack decoration; the exceptions are the incisions on the faience and Egyptian blue beads.

In recent years a growing number of scholars have published bead corpuses in detail. The accumulated data from the various sites reflect technical abilities, trade routes and cultural preferences.

# SOME FURTHER REMARKS ON BEADS IN IRON AGE SOUTHERN LEVANTINE MORTUARY CONTEXTS

Conn Herriott

Our bead assemblage seems quite typical: beads are the most common ‘jewelry’ objects in southern Levantine Iron Age burials, being found in about a third of all tombs and graves studied by Bloch-Smith (1992: 81). They are most common in cave and bench tombs (*ibid.* 82). Near Eastern folk traditions have been recorded attributing symbolic powers of protection and vivification to various colors and shapes, especially in the form of beads (Erikson 1969: 136; Brunner-Traut

1975). MacKenzie, in the publication of his Beth Shemesh excavations (1975: 63, cited by Bloch-Smith [1992: 81]), referred to a then-current Palestinian folk belief that carnelian helps cure ophthalmia (conjunctivitis). It is likely that Iron Age beads’ ornamental and amuletic attributes overlapped (Wilkinson 1971: 196): people probably considered gifts of jewelry to the dead as both simple ornamentation and perhaps also talismans in the next life.

There is no indication that beads—or indeed any ‘objects of ornamentation’—were more associated with one sex than the other, or with any age groups (Bloch-Smith 1992: 81-2).

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Reg. no.	Object	Quantity	Type	Color	External diameter	Perforation diameter	Height	Taphonomy
98/1	Bead	1	Type 1.A. Short tubular stone bead.	Yellow	7.2mm	1.9mm	7.6mm	Whole
98/2	Bead	1	Type 1.A. Short tubular stone bead.	Brown	7.2mm	2.3mm	6.8mm	Whole
46	Bead	1	Type 1.B. Standard globular stone bead.	Red	11.2mm	2.8mm		Whole
41	Bead	1	Type 1.C. Long tubular stone bead.	Gray	6.8mm	2.5mm	7.5mm	Whole
98/4	Bead	1	Type 1.C. Long tubular stone bead.	Brown	6.7mm	2.4mm	10.6mm	Whole
98/5	Bead	1	Type 1.D. Long biconical stone bead.	Brown	8.6mm	3.1mm	12mm	Whole
43	Pendant	1	Type 1.E. Elongated stone pendant.	White	17.6mm	2.3mm		Whole
64	Bead	1	Type 2.A. Cut <i>Conus</i> shell bead.	White	18.1mm	2.9mm	5.6mm	Whole
39	Bead	1	Type 2.B. Cut cowry shell bead.	White	18.2mm	10mm	6.2mm	Whole
71/1	Bead	1	Type 2.B. Cut cowry shell bead.	White	16.2mm	11mm	5.2mm	Whole
71/2	Bead	1	Type 2.B. Cut cowry shell bead.	White	17.3mm	11.2mm	6.2mm	Whole
71/3	Bead	1	Type 2.B. Cut cowry shell bead.	White	18.1mm	12.7mm	7.1mm	Whole
42	Bead	1	Type 2.C. Perforated <i>Nassarius</i> shell bead.	White	14.5mm	1.8mm	9.8mm	Whole
58	Bead	1	Type 2.C. Perforated <i>Nassarius</i> shell bead.	White	19.5mm	2.2mm	7.8mm	Whole
62	Bead	1	Type 2.C. Perforated <i>Nassarius</i> shell bead.	White	19.1mm	2mm	10.5mm	Whole
92	Bead	1	Type 3. A. short globular metal bead.	Green (verdigris patina)	5.5mm	2mm	3.4mm	Whole
97	Bead	1	Type 3. A. short globular metal bead.	Green (verdigris patina)	5.5mm	2mm	3.4mm	Whole
52	Bead	1	Type 3.A. Long segmented Egyptian blue bead.	Blue	10.6mm	4.8mm		Whole
91	Bead	1	Type 4.A. Short globular faience bead.	Yellow	9.3mm	2.9mm		Whole

Reg. no.	Object	Quantity	Type	Color	External diameter	Perforation diameter	Height	Taphonomy
37	Bead	1	Type 4.B. Standard globular faience bead.	White	11.6mm	3.1mm	11mm	Partial
38	Bead	1	Type 4.B. Standard globular faience bead.	White	19mm	4.6mm	12.7mm	Partial
95	Bead	1	Type 4.B. Standard globular faience bead.	Red	10.2mm	3.8mm	7.5mm	Partial
96	Bead	1	Type 4.B. Standard globular faience bead.	Yellow	-	3mm		Fragmentary
105/1	Bead	1	Type 4.B. Standard globular faience bead.	White	10.4mm	3mm	9.4mm	Whole
69	Bead	1	Type 4.C. Long tubular faience bead.	White	7.5mm	3mm	9.8mm	Whole
70	Bead	1	Type 4.D. Long oblate faience bead.	Yellow	3.2mm	1.5mm	5.2mm	Partial
79	Bead	1	Type 4.D. Long oblate faience bead.	Yellow	6.2mm	2mm	7.5mm	Whole
99	Bead	1	Type 4.E. Long granulated faience bead.	Yellow	7.1mm	2.2mm	14.1mm	Partial
89	Bead	1	Type 5.A. Short tubular glass bead.	Black	7mm	4.2mm		Whole
40	Bead	1	Type 5.B. Short globular glass bead.	Black	12mm	4.2mm	8.1mm	Whole
57	Bead	1	Type 5.B. Short globular glass bead.	Black	5.2mm	2.8mm		Whole
59	Bead	1	Type 5.B. Short globular glass bead.	Black	5.1mm	3.4mm		Whole
74	Bead	1	Type 5.C. Standard globular glass bead.	Black	10.8mm	4mm		Whole
90	Bead	1	Type 5.C. Standard globular glass bead.	Black	9.5mm	1.9mm		Partial
98/3	Bead	1	Type 5.C. Standard globular glass bead.	Black	11.3mm	3.2mm	8.9mm	Whole
61	Bead	1	Type 5.D. Long oblate glass bead.	Black	6mm	2.4mm		Whole
66	Unidentified	-						Fragmentary
80	Unidentified	-						Fragmentary
93	<i>Glycymeris</i> shell	1						Whole

## CHAPTER 7

### METAL OBJECTS

*Oz Varoner*



Figure 7.1. Metal finds from the tomb.

No.	Reg. no.	Object	Quantity (total)	Material	Period
1	29	Arrowhead	1	Bronze	IA IB?
2	34-36	Bracelets / anklets	3	Bronze	IA IIA?
3	23, 26, 27, 47	Bracelet / anklet (4 fragments)	1?	Iron	IA IIA?
4	83	Fibula fragment	2?	Bronze	IA IIA?
5	53	Anthropomorphic pendant?	1	Bronze/copper?	?

#### THE ASSEMBLAGE

##### *Arrowhead (n=1)*

Leaf-shaped, with one/two mid-ribs and a flat cross-section. The tang (broken) is rhombus-shaped in section. Similar pieces have been found at Iron Age IB Jatt (Artzy 2006: 38, Fig. 2.7:10, Pl.13:5).

Arrowheads are found more frequently with 10-6<sup>th</sup> century interments than with those of the 12-11<sup>th</sup> centuries (Bloch-Smith 1992: 91); almost all are

from cave or bench tombs. Bloch-Smith (*ibid.* 90) has observed that many high-status Iron Age tombs contain metal blades, spearheads and javelin heads like that found at Tsur Natan, as opposed to assemblages with “poor-quality” gifts such as flints, spindle whorls, loom weights and other daily life items of less material value. However, in this tomb we found both metal and flint items (the latter being non-indicative and therefore not published here). We must conclude that either such status designations are not quite so

pat, or that groups or individuals of different status were interred in this tomb.

#### *Bracelets/anklets (n=4)*

Three bronze bracelets and one made from iron. All have overlapping ends. The bronze bracelets bear heavy patina (verdigris) and the iron was severely corroded. Similar bracelets were found in a nearby IA II tomb at et-Taiyiba (Yannai 2002: 50, Fig. 10:10-14) and at Azor (Area D, Burial Structure A, Burial D30 [Ben-Shlomo 2012: Fig. 4.119:5]). Given the IA IIA predominance of the pottery from this Tsur Natan tomb, it seems reasonable to date these bracelets/anklets to that period also.

Bangles/bracelets/anklets such as we found in the Tsur Natan tomb are the most common decorative metal items in Iron Age southern Levantine burials, and have been found in all tomb and grave types except bathtub coffins (although few such burials at all have been recovered) (Bloch-Smith 1992: 82-3).

#### *Fibulae (n=2?)*

These represent the curving upper elements of at least two bronze fibulae, similar to finds from Abu Ghosh, Tell Abu Hawam II, Akhzib, Bet Shemesh Tombs 2, 4 and 5, and elsewhere (Bloch-Smith 1992: 87).

#### *Beads (n=2)*

Two small perforated bronze/copper beads. These are discussed by Ben Basat in this volume (see Chapter 6, p. 40 and Fig. 6.1:8).

#### *Anthropomorphic Pendant? (n=1)*

This comprises a probable anthropomorphic body. In place of the head is a metal loop (presumably a stringing hole for a necklace or chain). The preservation is not good enough to be sure but there appear to be remains of arms and legs, as well as a body that might be described as full, or corpulent.

Regarding this possible metal pendant or amulet, we can add little to the above description. Pendants are the least common Iron Age metal decorative/amuletic grave gifts, and are found mostly in cave and bench tombs, but also in pit and cist graves (Bloch-Smith 1992: 82). Often dismissed as mere family heirlooms

or for decoration only, McGovern (1980: 305) and Platt (1972: 46) contend that such pendants—which they consider in the same object class as scarabs and figurines—were associated with divine protection and favor. Bloch-Smith (1992: 82) notes that pendants are consistently found with Philistine, Cypriot, Cypro-Phoenician and Phoenician pottery. Interestingly, this was not the case at Tsur Natan. Other such pendants included scarabs, scaraboids, the Eye of Horus, Bes figurines and faience amulets (Bloch-Smith 1992: 83). Figurines—including pillar figurines—depicted Isis, Sekhet, Bast and Ptah-Sokher and less common types (*ibid.*; Egyptian amulets collected in McGovern 1980: 55-71).

It is worth mentioning again Ucko's (1962) study of the anthropology of these figurines, which inferred that they were never representations of a deity but rather were given as grave gifts for particular reasons or as 'vehicles for sympathetic magic' (Ucko 1962: 46).

### DISCUSSION

Metal objects are frequently found with pottery and other objects of all cultural designations, and in all burial types; the one exception are interments traditionally associated with the Philistines (Bloch-Smith 1992: 92). The majority of metal objects reported in tomb digs are not specified by metal type, but—ironically for the “Iron Age”—it appears that bronze was the preferred metal. Metal was less common in the 10-8<sup>th</sup> centuries and is found more in the highlands and northward, on the Phoenician coast. Metal incidences in burials decreased toward the 6<sup>th</sup> century.

Iron Age populations throughout the Near East believed metals to have apotropaic powers (Bloch-Smith 1992: 81, citing Gaster 1973: 22; Stager 1985: 10). Again, like other “ornamentation objects” metals do not seem to be found more with one sex or the other (Bloch-Smith 1992: 81). At Tsur Natan we see some clustering of metal artifacts, with the potential that this might tell us something about their gender/age associations. Unfortunately, we cannot be sure which skeleton belongs with which artifact cluster (as discussed above, in Chapter 1). What is interesting is that there do seem to be some inter-cluster

patterns in artifact types: one cluster includes the only three recovered bronze bracelet/anklets and the arrowhead; another the only iron bracelet/anklet; a third contains the only fibulae and metal beads; and

all alone in the south side of the tomb—away from all interments and on the other side of the natural pillar in the cave—was found the anthropomorphic pendant.

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Table 7.1. Catalog of metal objects from the tomb.

Reg. no.	Object	Quantity	Material	Period
29	Arrowhead	1	Bronze	IA IB
34	Bracelet / anklet	1	Bronze	IA IIA?
35	Bracelet / anklet	1	Bronze	IA IIA?
36	Bracelet / anklet	1	Bronze	IA IA?
23, 26, 27, 47	Bracelet / anklet (4 fragments)	1?	Iron	IA IIA?
83, 87, 88	Fibulae (6 fragments)	2?	Bronze	
92	Bead	1	Bronze/copper?	
97	Bead	1	Bronze/copper?	
53	Anthropomorphic pendant?	1	Bronze/copper?	

## CHAPTER 8

### THE IRON AGE TOMB AT TSUR NATAN: DISCUSSION AND CONCLUSIONS

What evidentially-justified general observations can be made about this tomb? We cannot enter into a lengthy discussion here—we hope to publish an article soon which will expand beyond the scope of this excavation report—but nevertheless we want to touch on some points raised by our findings.

#### SPATIAL ANALYSIS

Despite some obvious disturbance, the great majority of artifacts were found in what appear to be *in situ* clusters (Fig. 8.1, Tables 8.1-4), in which artifacts are grouped in a way that suggests the survival of original placement in burial kits of the kind documented elsewhere in the Iron Age (see Bloch-Smith 1992: 36). However, given the relatively poor preservation state of the human remains, we must be somewhat cautious in our association of these clusters with the particular interments we identified. Therefore we should draw only tentative conclusions relating to how sex or age may have influenced grave gift choices. That having been said, the clusters themselves should be considered as discrete—if incomplete—burial kits. Upon analysis, the following inter-cluster patterns stand out:

- Seals: three of the six seals came from one cluster (color-coded green) with a further scarab (Fig. 5.1:4; reg. no. 32) found nearby, if not in the same cluster.
- Beads: of the 28 beads for which find spots were recorded (85% of the assemblage), 16 came from the green cluster with the rest quite evenly spread among the others (3-5 apiece).
- Metal objects: all the bronze bracelets/anklets were found in the orange cluster, along with the sole arrowhead recovered, whilst the only iron bracelet

was found in another cluster (blue), and the fibulae and metal beads in a third (green).

- Equally of interest is that the anthropomorphic pendant was found alone, away from all interments, at the secluded south end of the tomb.

One is tempted to conclude that the green cluster was the most high-status burial kit, as it contained the most objects, such as at least half of all scarabs, the majority of beads (including both the metal beads), and the only recovered fibulae.

Table 8.1. Breakdown of artifacts from blue-colored cluster in Figure 8.1.

Reg. no.	Object	Period
23?	Iron bracelet/anklet fragment	?
30	Jug	IA IIA
31	Jar	IB-IIA
43	Elongated stone pendant	?
44	Large bowl (not preservable)	?
45	Small jar (not preservable)	?
47	Iron bracelet/anklet fragment	?
59	Short globular glass bead	?
60	Flint (non-diagnostic)	?
61	Long oblate glass bead	?
63	Juglet	IA IIA
64	Cut <i>Conus</i> shell bead	?
77	Juglet (not preservable)	?

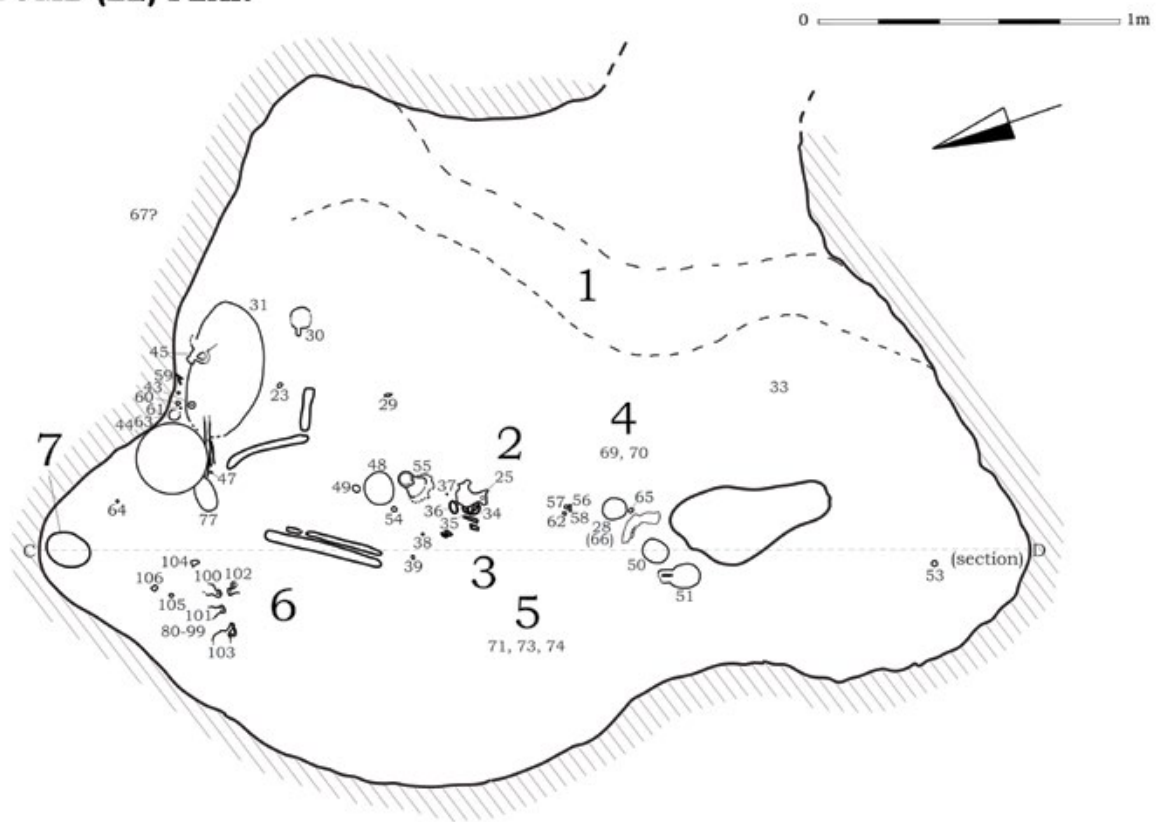
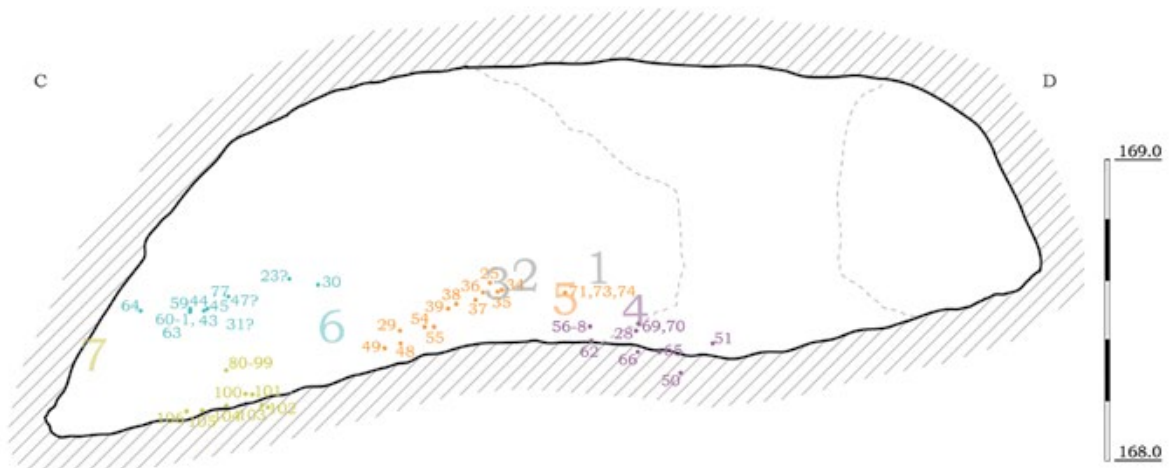
**TOMB (L2) PLAN****TOMB (L2) SECTION**

Figure 8.1. Plan and section of the tomb from the west, with the shaft marked on the east side, several identified human remains (large numbers) and the finds (small numbers) which according to our tentative spatial analysis seem most likely associated with each interment. Note also the irregular cave shape and the non-anthropogenic bedrock column near the south side of the cave.



Table 8.2. Breakdown of artifacts from green-colored cluster in Figure 8.1.

Reg. no.	Object	Period
80	Possible ochre fragment (lost)	?
81	Pottery vessel (lost)	?
82	Burnt flint (non-diagnostic)	?
83	Truncated cone stamp seal	IA IB
84	Scaraboid seal	Late IA IB-early IA IIA / 21 <sup>st</sup> dynasty
85	Scarab seal	Late IA IB-early IA IIA / 21 <sup>st</sup> dynasty
86	Bowl (non-diagnostic)	?
87	Fibula fragment	?
88	Fibula fragment	?
89	Short tubular glass bead	?
90	Standard globular glass bead	?
91	Short globular faience bead	?
92	Metal bead	?
93	<i>Glycymeris</i> shell	?
94	Medium jar (non-diagnostic)	?
95	Standard globular faience bead	?
96	Standard globular faience bead	?
97	Metal bead	?
98/1	Short tubular stone bead	?
98/2	Short tubular stone bead	?
98/3	Standard globular glass bead	?
98/4	Long tubular stone bead	?
98/5	Long biconical stone bead	?
99	Long granulated faience bead	?
100	Juglet (not preservable)	
101	Juglet	IA IIA
102	Juglet (not preservable)	?
103	Juglet (not preservable)	?
104	Flint (non-diagnostic)	?
105	Standard globular faience bead	?
106	'Shell'	?

Table 8.3. Breakdown of artifacts from the orange-colored cluster in Figure 8.1.

Reg. no.	Object	Period
25	Zoomorphic vessel	IA IIA
29	Arrowhead	IA IB
34	Bronze bracelet/anklet	IA IIA?
35	Bronze bracelet/anklet	IA IIA?
36	Bronze bracelet/anklet	IA IIA?
37	Standard globular faience bead	?
38	Standard globular faience bead	?
39	Cut cowry shell bead	?
48	Chalice	IA IB-IIA
55	Jug	IA IIA
49	Non-worked stone (discarded)	-
54	Bead (lost)	?

Table 8.4. Breakdown of artifacts from purple-colored cluster in Figure 8.1.

Reg. no.	Object	Period
28	Juglet	IA IIA
50	Lamp	?(LB-IA IIA)
51	Juglet	IA IIA
56	Bead (lost)	?
57	Short globular glass bead	?
58	Perforated <i>Nassarius</i> shell bead	?
62	Perforated <i>Nassarius</i> shell bead	?
65	Scarab seal	IA IIA
66	Possible turquoise fragment (lost)	?
69	Long tubular faience bead	?
70	Long oblate faience bead	?

### FINDS CONSPICUOUS BY THEIR ABSENCE

All of our tomb findings are common and fit with previous understandings of south Levantine burial cultures during the period in question. Other artifacts, however, might have been expected and therefore their absence is worth commenting upon. For instance, we note that no gold or silver was found. Objects made from these materials have been found in tombs of the coastal plain, and the Jezreel and Jordan Valleys dating to the 12-10<sup>th</sup> centuries (Bloch-Smith 1992: 84). They are known also from highland tombs of the 7<sup>th</sup> century on. In between, however, during the 10-8<sup>th</sup> centuries, it seems no gold or silver was left in tombs. The Tsur Natan tomb supports the conclusion that gold and silver were scarce during that period.

Bodies are thought to have usually been buried with clothes (Bloch-Smith 1992: 87). But we found only two possible fibulae. This relative dearth of clothes pins is reflected in most Iron Age interments. Addressing this peculiarity, Bloch-Smith (*ibid.*) proposes: (1) poor preservation, (2) that only elites possessed those items, or (3) that pins were worn on cloaks or other articles of clothing not usually worn in burial.

The lack of combs, mirrors, cosmetic accessories and hair clasps in this tomb may also be telling. These items are associated exclusively with adolescent and adult females (*ibid.*), suggesting that no such were interred here.

Finally, the lack of Egyptian, Philistine and Cypriot pottery in this tomb may conceivably be seen as reflecting a culture whose external contacts were of a limited extent (see Bloch-Smith 1992: 87-88).

By way of caveat, we must append to these tentative observations the fact that diachronic patterns in the burial culture of this period are obscured by the long use of these tombs, and the disturbance of human remains and artifacts (Bloch-Smith 1992: 63).

### BURIAL TYPE: ETHNIC VS. SOCIO-ECONOMIC FACTORS

Often in order to understand one archaeological phenomenon it is necessary to compare it to others

and place it in a wider context. Cave tombs are found primarily in soft chalk and limestone outcrops of the hills east and west of the Jordan River. From the limited information we have gleaned through archaeology, it appears that in these regions cave tombs were the predominant burial type during the LB (Gonen 1979) and on into the early IA centuries (Bloch-Smith 1992: 39). The number of cave tombs in use during the IA IB-IIA period is double that of both the previous and subsequent centuries (*ibid.* 59). In terms of time and space, therefore, the Tsur Natan tomb seems to fit this pattern. Archaeological research suggests that from the 10<sup>th</sup> century on, there was an increase in the number of cave tombs, which seems to go hand in hand with increased settlement (*ibid.*). Subsequently it appears that the bench tomb became more and more common in the region and fewer sites were associated with the former interment type. So at Lachish, Bet Shemesh, Gezer and Tell en-Nasbeh the cave tomb was the only burial form in the 12<sup>th</sup> and 11<sup>th</sup> centuries; from the 10-8<sup>th</sup> centuries, the bench tomb was introduced and was used alongside cave tombs (*ibid.*).

Bloch-Smith (1992: 39-40, 55, 58) proposes two interesting alternative theories for what these parallel burial types are saying about their culture or cultures. One theory focuses on ethnicity, developing the idea that the different Levantine burial types represented distinct populations. Bloch-Smith saw a “very high” correlation between burial types and the settlements of groups “known” from the Bible and other texts. Thus she associates with Canaanites the simple and cist burials found in the coastal plain and lowlands (including the Jezreel, Beth Shean and Jordan Valleys). Jar burials were a northern ethnic tradition and clustered in what is now northern Israel, the central and north coast, and the contiguous northern valleys and the Transjordanian plateau. Egyptians buried their dead in pit graves, cist graves and anthropoid coffins, the Assyrians in bathtub coffins, and the Phoenicians both cremated and inhumed along the coast from Khalde down to Tell er-Ruqeish. The “indigenous” highlanders—mentioned in the Bible as Amorites

and others—were being buried in caves since the Bronze Age. By the 8<sup>th</sup> century the bench tomb tradition was introduced by the Judahites, distinguishable by their Yahwistic religion. By this “ethnic” model, the juxtaposed burial types can be explained as reflecting distinct, coexisting groups. Azor, Lachish and to a lesser extent Jerusalem display a large variety of types, which supported for Bloch-Smith the impression—also offered by other evidence—that these urban centers were more cosmopolitan (*ibid.*).

Whilst a general picture of ethnic/cultural associations for burial types is somewhat supported by artifacts and distributions, Bloch-Smith concedes—rightly, we believe—that the picture in the Shephelah and highlands is less than clear. It is possible that a single population who buried their dead in cave tombs developed from within its own culture an offshoot practice of bench tomb burial. To accommodate this possibility, Bloch-Smith proposed an alternative, economy-based model, whereby a multicultural population buried their dead in both cave and bench tombs, the choice to use one or the other coming down to effort and therefore cost. In support of this, Bloch-Smith pointed to the following patterns and trends:

1. “co-existing” cave and bench tombs at Amman, Gezer, Jerusalem, Lachish, Tell en-Nasbeh and elsewhere,
2. the spread of bench tombs from the coast and close-by valleys up into the highlands over the course of the Iron Age,
3. the fact that in the Shephelah and western highlands cave tombs were only slowly complemented by bench tombs (Bet Shemesh, Gibeah, Gibeon, Khirbet Rabud),
4. and a pattern whereby throughout the upland region, on either side of the Jordan Valley, as bench tombs became more frequent, cave tombs became more scarce.

All of this could be explained as a single native culture or multicultural milieu giving rise to varying practices in a period of increasing wealth and urbanization, whereby bench tombs were favored across

cultures not in order to make ethnic references but as one option for families seeking elaboration and fashion.<sup>1</sup> Or perhaps there spread a Judahite/Yahwistic cultural preference to which this burial type was a reference? The picture is naturally unclear; we should expect that both ethnic and socio-economic factors probably played a role in bringing about such a rich and varied *bricolage* of mortuary customs.

#### HOW DID THE IRON AGE PEOPLE CONCEIVE OF THE DEAD AND THEIR RELATIONSHIP TO THE LIVING?

This question is one which any tomb excavator is bound to wonder; it should be one of our primary research questions. Perhaps one reason why not enough of these tombs have been published is that there is a lack of awareness of how desperately our understanding of Iron Age beliefs relies on well-published burial data. In addressing this question for the Iron Age we have the happy advantage of being able to read contemporary or near-contemporary words, written by members of those self-same societies (Bloch-Smith 1992: 110-2, 121-31). The many biblical references to burial show it to be considered a form of “gathering to one’s ancestors” (Gen. 25.8; 35.29; Num. 20.24; Judg. 2.10). Ancestral tombs were also thought to have efficacy in that the deceased could influence the living: the dead were believed to have consultation powers, giving instructions and messages (see Bloch-Smith 1992: 121); they could bestow and revive life (i.e. fertility blessings) (2 Kings. 13.20-21, 1 Sam. 1); and there are also biblical references to a belief that the dead could exact vengeance (2 Sam. 4.12). Tombs were also a claim on the land or served as boundaries of territory (see Bloch-Smith 1992: 122-124) (what is known as enculturation, a phenomenon also most relevant to the region’s socio-political landscape today!). Over time considerable pressure was applied to limit this cult of the dead, with 7<sup>th</sup> century Deuteronomic and

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1 Population estimates are nowhere near satisfied by the burials so far found, so we might assume that the poor of all cultures were merely buried in simple graves (Bloch-Smith 1992: 149).

other writings going so far as to establish laws on the matter (Deut. 26.14, Gen. 28.22). It is likely that any local cults or any such homage paid to supernatural powers other than Yahweh were perceived as threats to the power of a Jerusalem-centered hierarchy which was learning to wield the powerful political weapon of exclusivist Yahwism.

## CONCLUSIONS

Our impression is that this Tsur Natan tomb was probably a family/kin group burial place, fitting with the pattern noticed in the area by Ayalon *et al.* (1994: 2), who pointed out clusters of wine and oil presses, cisterns and tombs on and around the hilltop. The burial gifts found in the tomb appear to have been quite common and to comply with broader cultural trends, indicating local patterns and cultural and economic contacts further afield. At the same time, the artifact clusters indicate differential treatment of the individuals interred here, with the green-colored cluster in Fig. 8.1 receiving the lion's share of burial

gifts in terms of both quantity and quality (see also Table 8.2), except for the metal objects which were focused in the orange cluster (Table 8.3). The possible anthropomorphic pendant, meanwhile, was deposited in an isolated location within the tomb, away from all the interments.

By adding to the growing corpus of Iron Age tombs in the southern Levant, we hope this publication will contribute to much-needed research in the archaeology of death, and other areas reliant on particular artifact assemblages. We have tried to touch upon questions which we believe are worthy of further investigation. However, in making it our priority to publish our findings, we recognize that we have placed more emphasis on description than on discussion, and we have not invested in as broad and up-to-date research as we might have. This was a decision required by the constraints of time and budget. In an article to be published soon we hope to expand upon and investigate at a higher resolution the questions this tomb has provoked in its excavators.

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## CHAPTER 9

### FEATURES RELATING TO WINE, OIL AND FOOD PRODUCTION (PHASE 2)

*Conn Herriott*

One oil press and one press basin were found at the site. These had been respected and avoided by the quarry features, which may indicate that—whilst pre-dating the quarry—they were still in use at that time.

L5 is a simple press installation (Fig. 9.1 and Plan 3 [p. 68]) consisting of a small treading floor (1.05 x 0.85m) linked by a channel to a 0.52m-deep vat, which in turn led to a smaller, cupmark-like

feature. There were no associated artifacts. We interpret this as a simple domestic oil-producing installation (Frankel's Type T111 [1999: 55]), only very slightly truncated by the Byzantine/Early Islamic-period quarriers of F3—which suggests at least rough contemporaneity.



Figure 9.1. The L5 oil press, respected by quarry F3 (see also Plan 3, p. 68).



Figure 9.2. The L7 press basin, left, untouched by the F12 quarry (unlike the Iron Age tomb which can be seen partly truncated in the top center of the photograph).

L7 is a press basin with a 2m-diameter (Fig. 9.2 and Plan 12 [p. 77]), also respected by the quarrying activity (F12). It incorporated the quadrangular mortise designed to hold a press screw (Frankel [1999] Type T31). No other elements of the press installation were found.

L6 and L8 were cupmarks located beside the quarries. Their function is unknown. We follow the common theory that some form of food preparation was involved, with cupmarks serving to collect liquid and as mortars (Frankel 1999: 57). Their date is also unknown. However, L8 was respected by the quarry at F5 (Plan 5, p. 70). So, like the wine and oil installations, we believe these cupmarks were used at the same time as the quarries—perhaps in the making of workers' meals.

#### REFERENCES

Frankel, R. 1999. *Wine and Oil Production in Antiquity in Israel and Other Mediterranean Countries* (Journal for the Study of the Old Testament/American School of Oriental Research Monograph Series 10). Sheffield.

## CHAPTER 10

### THE QUARRY (PHASE 3)

*Conn Herriott*

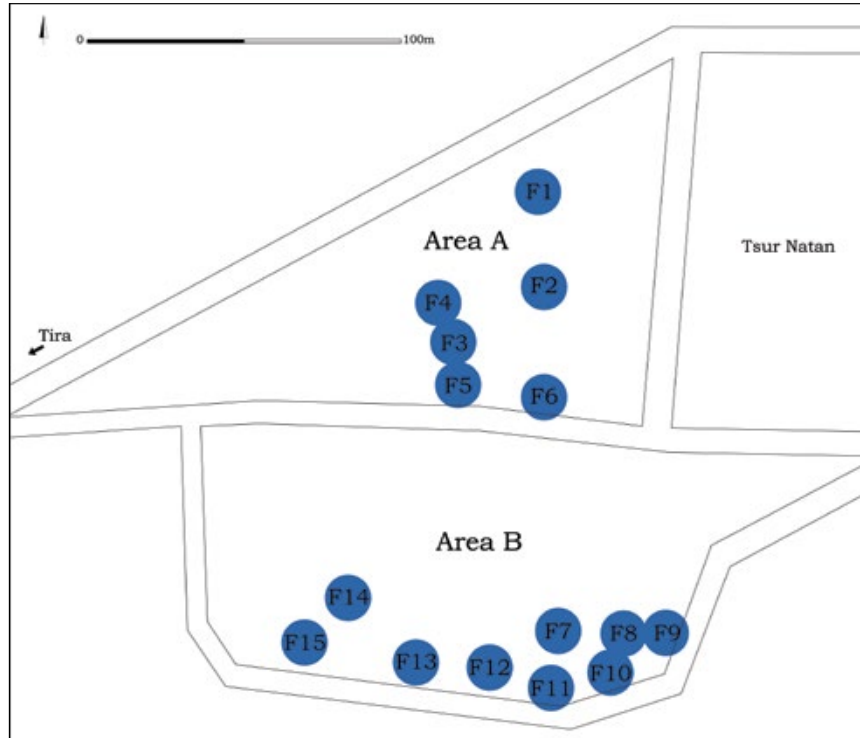


Figure 10.1. The quarrying feature locations within the Tsur Natan *moshav*.

#### SOCIO-ECONOMIC BACKGROUND<sup>1</sup>

Throughout settlement history of the southern Levant, stone has been an important and near-limitless building material. Contrary to some scholarly assertions (see Safrai and Sasson 2001: 25), in ancient times almost all rock types were used for construction.<sup>2</sup> This abundant raw material was therefore not itself usually the main economic factor shaping the stone supply industry; rather, more important was the cost of labor and transport.

The quarry at Tsur Natan dates mostly to the Byzantine period, at which time the quarry was

associated with the adjacent settlement of Antesion. In an industrial tradition extending back to the Iron Age, quarries of the Byzantine period came in large varieties, from privately-owned ca. 10 x 10m 'backyard quarries' with three or four work corners, to groups of very large sites run by cooperatives, such as at Khurvāt Bira. The Antesion quarry would have been at the smaller end of the scale but may have been shared by several work groups, or part of a network of quarries tied by ownership or business arrangements.

Stones were usually cut at a quarry to more or less fit the wall or construction for which they were ordered.<sup>3</sup>

<sup>1</sup> This section relies largely on the excellent research of Safrai and Sasson (2001).

<sup>2</sup> Of course, sedimentary rocks were the most convenient because they naturally split along quarryer-friendly seams.

<sup>3</sup> One finds cut and shaped blocks, columns and other elements discarded in ancient quarries, including at Tsur Natan (e.g. Plan 11 below, p. 76).





Figure 10.2. Area A (facing northeast).



Figure 10.3. Area A (facing north).





Figure 10.4. Area B (east) (facing southeast).



Figure 10.5. Area B (west) (facing west).

The reason for this pre-shaping was that the lighter you can make a masonry element, the cheaper it will be to transport and, as noted, transport was a major cost in this industry. Therefore quarriers and builders worked together—builders at least monitoring the quarry operation, and at most forming integrated crews with the quarries.

The larger a block or element, the cheaper it was for quarries to produce because chiseling was the most expensive work carried out on site. On the other hand, the cheapest means of transport was to carry two stones—about 45kg each—on a donkey's back. However, neither of these factors played the main role in deciding a block's size. Rather, the central consideration was actually a wall's width, because this was a major influence on pricing a structure. In one example it has been shown that by increasing by 0.2m the width of blocks in a wall two rows wide—thereby widening the wall from 0.4m to 0.8m—one could reduce the structure's floor area by one third.

Transporting large blocks required planning and a variety of resources. Evidence of lifting devices is sometimes found in ancient quarries. Paved roads were often made for transport from quarries (Antesion was linked to the coast by a road running from the Samaritan Hills, and was also close to the critical *Via Maris*; above p. 10). Where possible, a coastal site was preferred in order to transport the stone more cheaply, by sea. The challenge of keeping cost, time and difficulties to a minimum was sometimes further complicated by projects—like the second temple in Jerusalem—where massive blocks were often not even reduced in weight through pre-shaping until they were set in walls.

Such was its importance that if a region was suitable for quarrying, this inevitably became a central pillar of the local economy. The stone at Dora was not the best, but its coastal location allowed it to thrive (on such projects as the construction of the port at Caesarea). It has been estimated that this quarry drew in 20% of the locality's manpower, and was worked almost continuously for the 1000 years from Hellenistic through Byzantine times.

In general, however, whilst the coastal plain held the greatest demand for stone, it had little to supply. The majority of quarrying was therefore done in the next most economical locations—nearby regions, such as the Shephelah—where quarry work upheld a significant fraction of local livelihoods.

Such was the socio-economic context of the quarry at Antesion (Tsur Natan). We have seen that several industries were alive and well in the settlement, but the value of stone will not have been thereby diminished.

### DESCRIPTION OF THE QUARRY

This hilltop is a soil-covered area in which the *nari* bedrock is exposed here and there, and in some locations over quite large areas. Wherever there was a *nari* outcrop of 20m<sup>2</sup> or more, there the ancient workers quarried. In our site area of 32,000m<sup>2</sup>, 15 such concentrations of quarrying activity were found (Features F1-15; Figs. 10.1-5; Plans 1-15 [pp. 66-80]).<sup>4</sup> These ranged in size from 35m<sup>2</sup> (F14) to 432m<sup>2</sup> (F9), and 1-4m in depth. In total, we calculate that some 3,200m<sup>3</sup> of stone was quarried at this site (keeping in mind that the actual original quarry covered a much larger area—perhaps three times larger—than that investigated in this project).

### ARTIFACTS

A variety of artifacts was found in the quarry fill. The majority are dated to the Byzantine period (Fig. 10.7): mostly cooking pots, but also jars, jugs, casseroles, bowls and lids. Similar types, but fewer in number, were dated to the Iron Age, Hellenistic/Roman, Early Islamic and Crusader/Mamluk periods (Figs. 10.6, 8).

Also found were other objects (Fig. 10.9): a hand-stone/weight, some possible kiln slag, two mosaic tiles (tesserae), a spindle whorl and a bead. It was difficult to date these objects.

These finds give the impression of representing the sorts of activities expected of quarry workers—carrying, preparing and serving food and liquids—as well as occasional objects that were lost or washed into the quarry.

<sup>4</sup> We note that, due to soil creep and other natural processes, it is possible some quarrying features were covered over time and escaped notice.

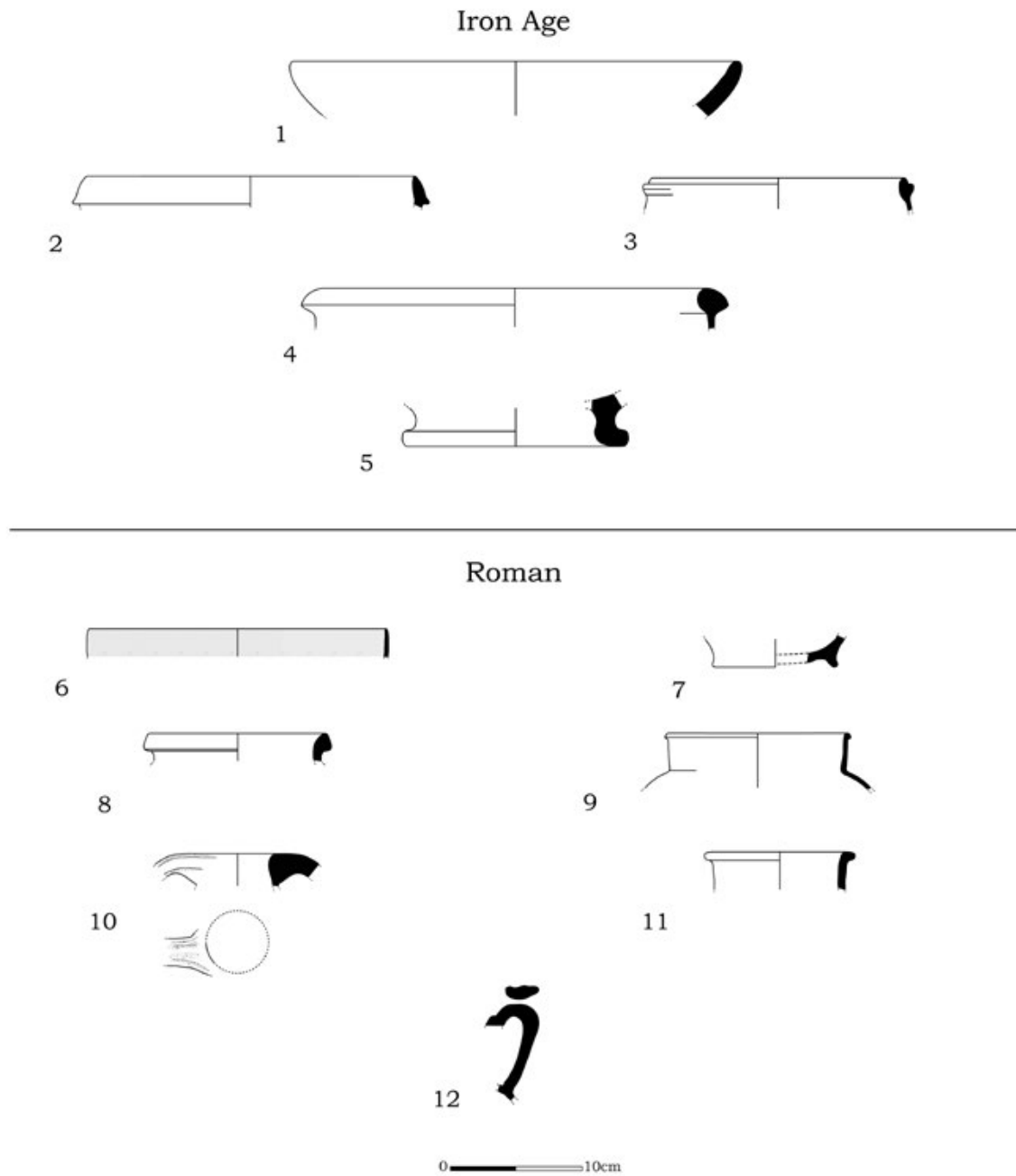


Figure 10.6. Iron Age and Roman period finds from the quarry.

Figure 10.6.

No.	Object	Reg. no.	Locus	Area	Period	Description	Parallels
1	Bowl? Cooking bowl? Stand?	6/8	-	F6	Iron Age II B/C	Beige coarse ware; many dark inclusions	
2	Cooking pot	18/1		F13	Iron Age	Light brown ware; moderate amount of white inclusions	Amiran 1969: Pl. 75:16
3	Cooking pot	10/9	-	F9	Iron Age	Red ware; many white inclusions; burning on rim exterior	Zimhoni 2004: 25.8:4
4	Krater	17/15	1	F7	Iron Age	Orange, coarse, poorly fired ware; many white and dark inclusions	Thareani 2011: 62, Pl. 84
5	Jar	2/2	-	F1	Iron Age?	Light beige/orange ware; many small dark inclusions	
6	Bowl	4/3	-	F3	Roman	Red, fine ware; red slip on interior and exterior; <i>terra sigillata</i> (or imitation)	Avissar 2005: 49, Fig. X.1-13
7	Bowl/fish plate?	15/8	-	F12	Hellenistic/Roman	Red/orange ware	Avissar 2005: 49, Fig. X.1-13
8	Cooking pot	16/8	1	F7	Roman	Beige/gray, coarse ware; frequent light and dark inclusions	Magness 1993: 218, Form 3B
9	Cooking pot	12/14	-	F7	Roman	Red/brown ware; very occasional white inclusions	Avissar 2005: 52, Fig. X.3.3
10	Cooking pot	19/11	-	F14	Roman	Orange ware; light brown/gray slip	Magness 1993: 219, no. 2
11	Cooking pot	12/7	-	F7	Roman	Orange/gray ware; very occasional white inclusions	Avissar 2005: 52, Fig. X.3.3
12	Jug	17/1	1	F7	Roman	Orange ware; occasional white inclusions	Avissar 2005: 58, Fig. X.7.7; 46, Fig. 2.7; Magness 1993: 219-221, Form 4

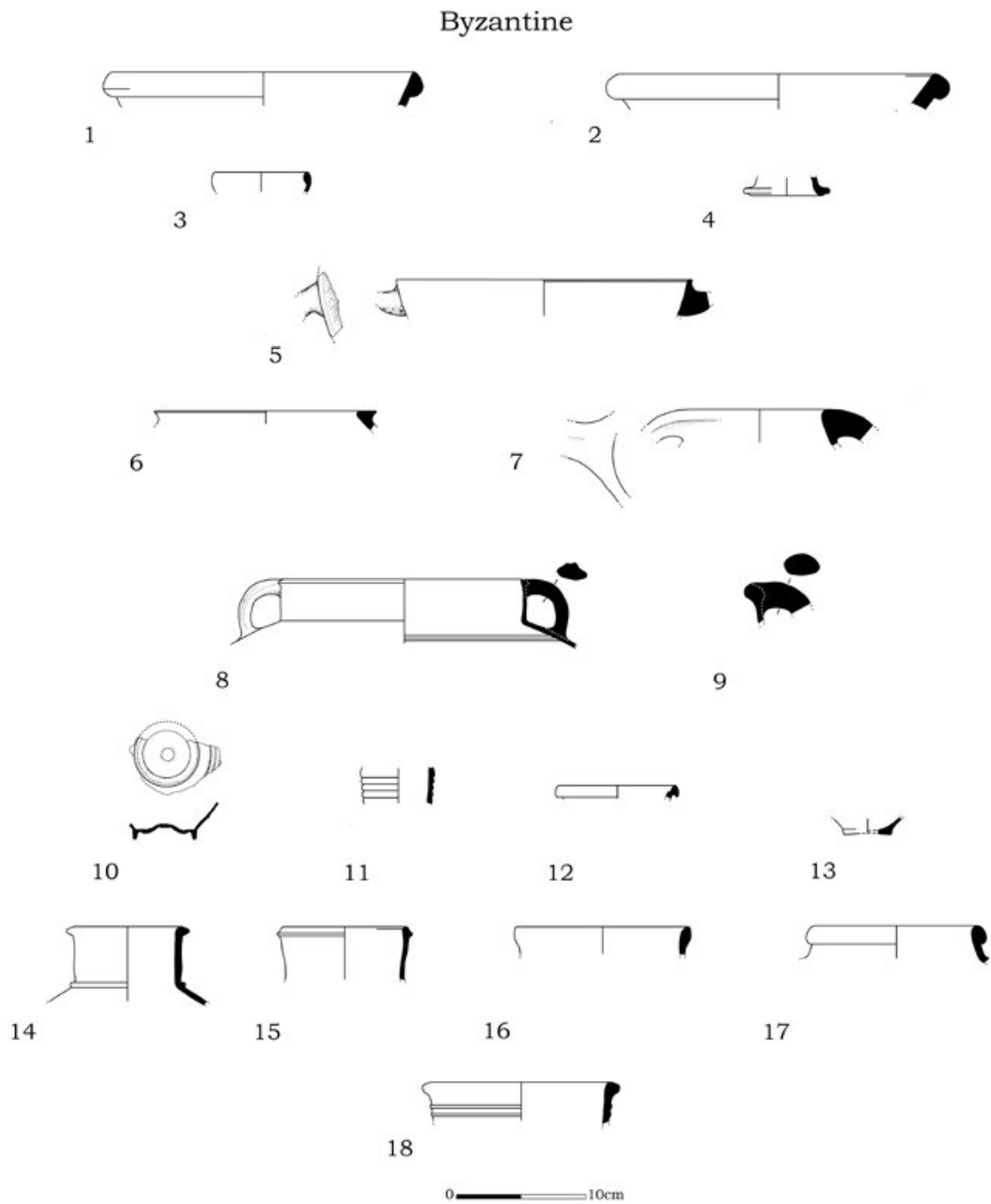


Figure 10.7. The Byzantine finds from the quarry.

Figure 10.7.

No.	Object	Reg. no.	Locus	Area	Period	Description	Parallels
1	Bowl	6/6	-	F6	Byzantine	Light orange ware; well-fired; similar imitation of 'African Red Slip Ware'?	Avisar 2005: 67, Fig. XII.1.6, 8
2	Mortarium	2/1	-	F1	Byzantine	Orange ware; many beige inclusions; imitation of 'African Red Slip Ware'?	Magness 1993: 196
3	Bowl	19/2	-	F14	Late Roman/ Byzantine	Mid-brown, slightly gritty ware	Magness 1993: 196
4	Lid/stopper?	19/8	-	F14	Late Roman/ Byzantine	Light orange ware; light brown slip on interior and exterior	
5	Casserole	12/8	-	F7	Byzantine	Red ware	Magness 1993: 214, no. 1
6	Cooking pot	12/9	-	F7	Byzantine/ Early Islamic	Orange/brown ware; occasional white inclusions	Magness 1993: 236-239; 219-221, Form 4
7	Cooking pot	2/11	-	F1	Byzantine/ Early Islamic	Light beige ware	Taxel 2011: 191, Pl. 249
8	Cooking pot	17/17	1	F7	Byzantine	Red/brown ware	Magness 1993: 236-239; 219-221, Form 4
9	Cooking pot	2/9	-	F1	Byzantine/ Early Islamic	Dark red ware	Taxel 2011: 191, Pl. 249
10	Jug	16/10	1	F7	Byzantine	Red/orange ware	Magness 1993: 238, no. 1, Form 1B; 246, Form 6A; Taxel 2011: 201, Pl. 256.6
11	Jug	4/1	-	F3	Byzantine	Red/brown ware; occasional small white inclusions; 'Fine Byzantine Ware'	Magness 1993: 238, no. 1, Form 1B
12	Jug	6/7	-	F6	Byzantine	Beige/orange ware	Magness 1993: 246, Form 6A
13	Jug/juglet	17/13	1	F7	Roman/ Byzantine/ Early Islamic	Light orange/beige ware	Taxel 2011: 201, Pl. 256.6
14	Jar	17/12	1	F7	Byzantine	Red/brown ware; occasional inclusions	Avisar 2005: 73, Fig. XII.7.7
15	Jar	16/4	1	F7	Roman/ Byzantine	Light red, gritty ware; exterior light gray in color; occasional inclusions	Taxel 2011: 199, Pl. 254
16	Jar/jug	10/1	-	F9	Byzantine/ Early Islamic	Orange/light brown ware; frequent small dark inclusions	Magness 1993: 227, no.1; 142, Fig. 2.17
17	Jar	2/3	-	F1	Byzantine	Light red ware; occasional white inclusions	Avisar 2005: 73, Fig. XII.7.7
18	Jar	19/10	-	F14	Byzantine/ Early Islamic	Orange ware	Taxel 2011: 199, Pl. 254

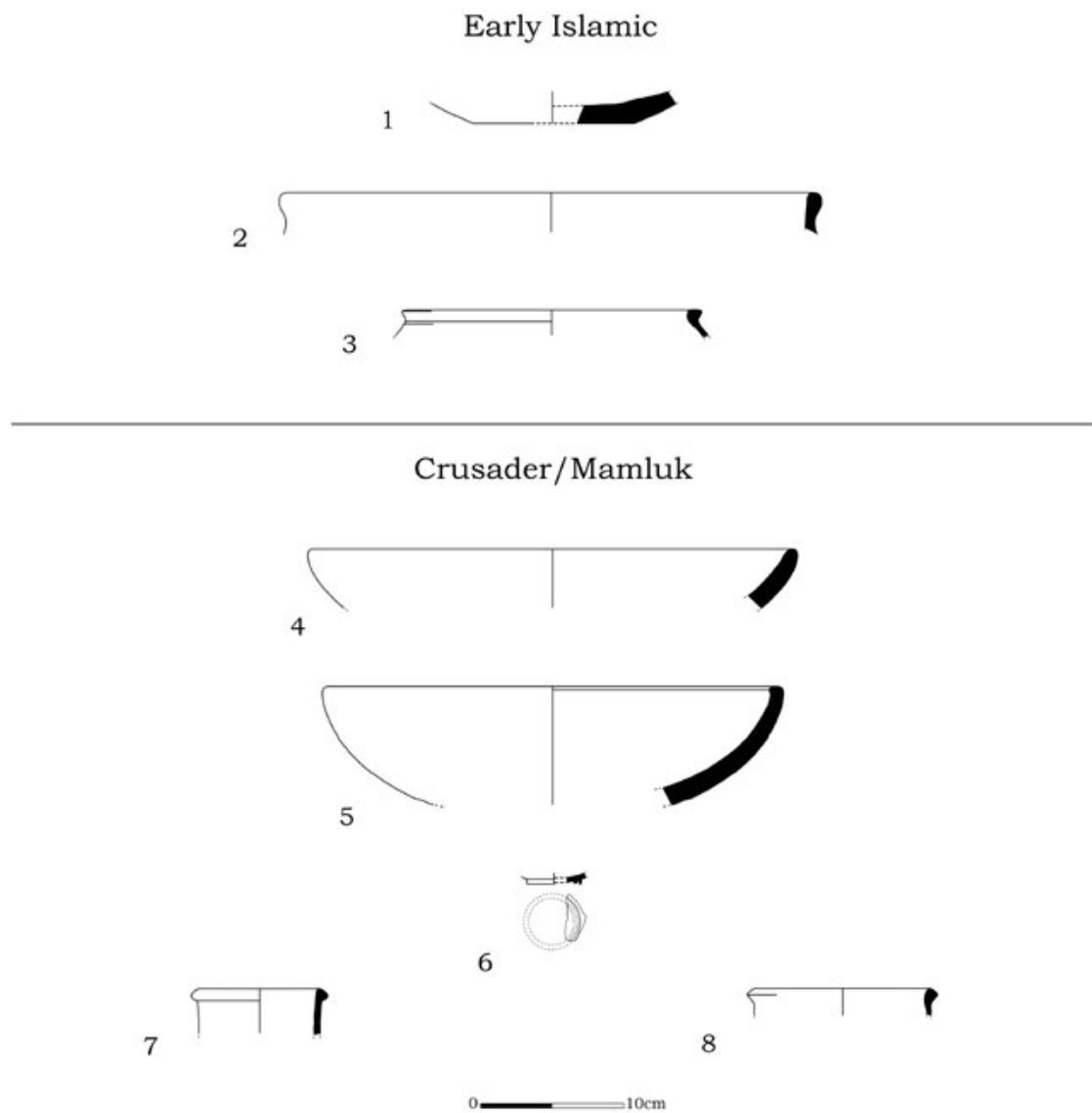


Figure 10.8. Early Islamic and Crusader/Mamluk finds from the quarry.

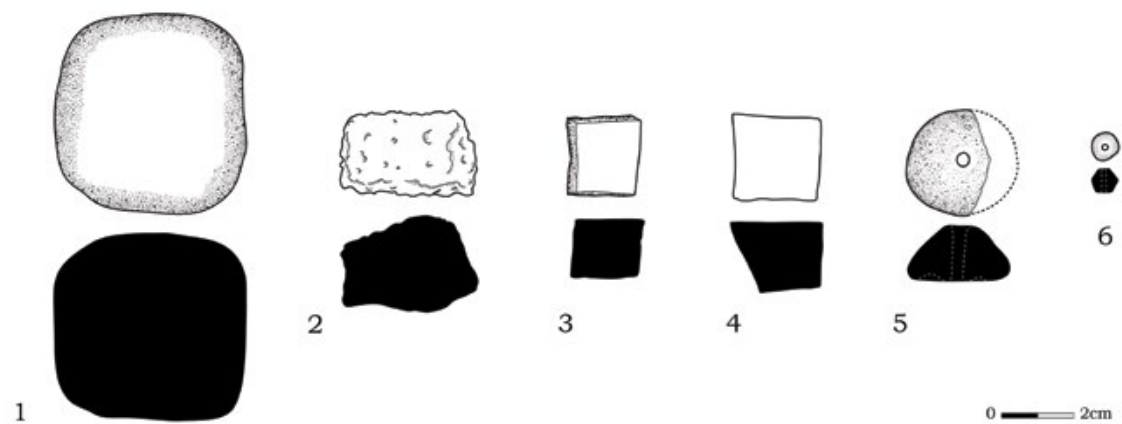


Figure 10.9. The non-ceramic finds from the quarry.



Figure 10.8.

No.	Object	Reg. no.	Locus	Area	Period	Description	Parallels
1	Bowl	15/7	-	F12	Early Islamic	Gray ware; hard; few inclusions	Avissar 2005: 132, Fig. XIII.89 (Type 2)
2	Cooking bowl	2/13	-	F1	Early Islamic	Light red coarse ware, poorly fired; many light and dark inclusions	Avissar 2005: 143, Fig. XIII.102.1
3	Casserole	19/5	-	F14	Early Islamic	Red ware; burnished on interior and rim	Magness 1993: 214, no. 3
4	Bowl	10/3	-	F9	Crusader/Mamluk	Orange/brown coarse ware; many white inclusions; poorly fired; possible burnishing on interior	Avissar 2005: 130, Fig. XIII.86.2 (Type 33)
5	Bowl	19/14	-	F14	Crusader/Mamluk	Orange/brown coarse ware; many white inclusions; poorly fired; burnished on interior	Avissar 2005: 104, Fig. XIII.46 (Type 62)
6	Bowl	2/14	-	F1	Mamluk	Light beige ware	
7	Jar	12/3	-	F7	Crusader/Mamluk	Light beige/orange ware; moderate amount of white inclusions	Avissar 2005: 153, Fig. XIII.121.6
8	Jar	10/4	-	F9	Crusader/Mamluk	Beige ware	Avissar 2005: 153, Fig. XIII.121.6

Figure 10.9.

No.	Object	Reg. no.	Locus	Area	Period	Description
1	Handstone/weight	1/1	-	F1	?	Cuboid basalt stone; at least three sides smoothed (fourth side covered by cortex)
2	Slag?	12/13	-	F7	?	Irregular shape; light in weight
3	Tessera	10/8	-	F9	?	Light beige/gray, hard metamorphic rock; one side smooth
4	Tessera	15/12	-	F12	?	Blue/gray, hard metamorphic rock; sides slope inward, down from top
5	Spindle whorl	16/9	1	F7	?	Dark gray/blue stone or ceramic material
6	Bead	6/9	-	F6	?	Blue glass

### METHODS AND DETAILS OF QUARRYING

The main method of quarrying at the site—following patterns across the southern Levant and indeed much of the world (Ayalon *et al.* 1994)—was to cut steps into rock outcroppings. That way, several sides of the next block to be extracted would already

be free and at least roughly straightened. The ancient method of removing blocks which we see at Anteesion was also shared across the Mediterranean: pick- and chisel-cut channels—usually trapezoidal in profile, to save digging—freed up any unexposed sides of the chosen block-to-be, and then the base was separated from the bedrock. There were several ways to carry

out this final phase: chiseling in sideways under the block; cutting holes under the block and then forcing trapezoidal pegs into these holes until the piece was freed;<sup>1</sup> or a combination of these methods; there is also evidence for a cutting tool of sorts,<sup>2</sup> although this was more often used for removing the back of a block from a vertical bedrock face; and finally, it was sometimes possible to insert crow bar-like tools into prepared holes under the stone and lever the block free of the bedrock surface. Apparently—and surprisingly—there is no ancient Levantine evidence for the ‘wet peg’ stone-splitting method. Indeed, no such evidence was found at Antesion either; however, chisel and other tool marks and channels were clearly recognizable.

These tool marks revealed that the quarrying of these outcrops followed a consistent pattern in block sizes (ca. 1.1 x 0.6 x 0.5m) and tool sizes. However, there is no pattern in the scale of quarrying episodes (that is, quantities of stone removed at one time, leaving co-aligned block scars). From this we can infer that all scales of activity are in evidence.

The topmost 1-3m of the stone outcrops at Antesion was a hard *nari* stone, which was favoured for quarrying. Beneath was a softer chalk, in which there is no evidence of quarrying. This makes sense: why would this poor-quality stone be used when harder *nari* was available?

Research on some of this greater quarry has been published elsewhere (Ayalon *et al.* 1994) and the results agree with ours.

## CHRONOLOGY

Ancient quarries are notoriously difficult to date, because technologies and block sizes changed very slowly over time. However, the potsherds found on their surfaces suggest that these Antesion quarry features were mostly cut in the 5-8<sup>th</sup> centuries CE, i.e. in the Byzantine period. This clustering of artifact dates, as well as the regular block sizes being cut at the site and the standard tool sizes suggest that the quarrying activity was mostly carried out in a single, more-or-less unbroken tradition of workmanship, rather than isolated periods and by non-associated groups (although some anomalies were identified).

As said, the fact that the quarry respected the aforementioned L5 oil press and the L7 press basin indicates that it post-dated or was contemporary with these features. The quarry post-dated the Iron Age tomb, of course, which as we have said was truncated by the F12 quarry.

Again, in terms of the post-quarrying history of the site, the amphitheatre-like hollows left by this activity were used as sheltered places for undefined activities involving wall construction, fires and pottery waste disposal (L1 [Fig. 11.1, Plan 7, p. 72], L4 [Fig. 11.2, Plan 14, p. 79]).

The fact that this quarry was only active in the Byzantine-Early Islamic period is interesting if we remember that the region's population was at its most dense in Byzantine times. It seems that only under such demand for stone could the price of transport down from this high hill make economic sense for those involved. Once demand dropped, the quarry was abandoned.

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- |   |   |
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|---|---|

1 From which perhaps derives the halakhic term for completing any task: ‘the final hammer blow’ .... מכה בפטיש.

2 In rabbinical sources this is called an ararin or tsiporen (‘fingernail’).

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## CHAPTER 11

### POST-QUARRY ACTIVITY (PHASE 4)

*Conn Herriott*

At the bases of two quarry features—F7 and F14—we found evidence for later activities.

L1 was a large and concentrated quantity of Byzantine/Early Islamic potsherds was found in the hollow formed by F7 (Fig. 11.1, Plan 7 [p. 72]). No complete vessels were restorable, suggesting that these sherds were remains of vessels which had already broken before deposition. The walls of the quarry here were also stained by soot. We interpreted this context as a waste deposit.

L4 was located at the base of F14, where a rough and simple dry-stone wall was built across the corner of the quarry, forming an enclosed space (Fig. 11.2, Plan 14 [p. 79]). North of the wall was found a concentration of compacted earth, which was reddish in color as though oxidized by heat. In the enclosed space were found Late Byzantine/Early Islamic sherds; much soot staining was evident on the bedrock surface. We interpreted this feature as a kiln or some form of shelter, in use at the same time as or immediately following the quarrying work.

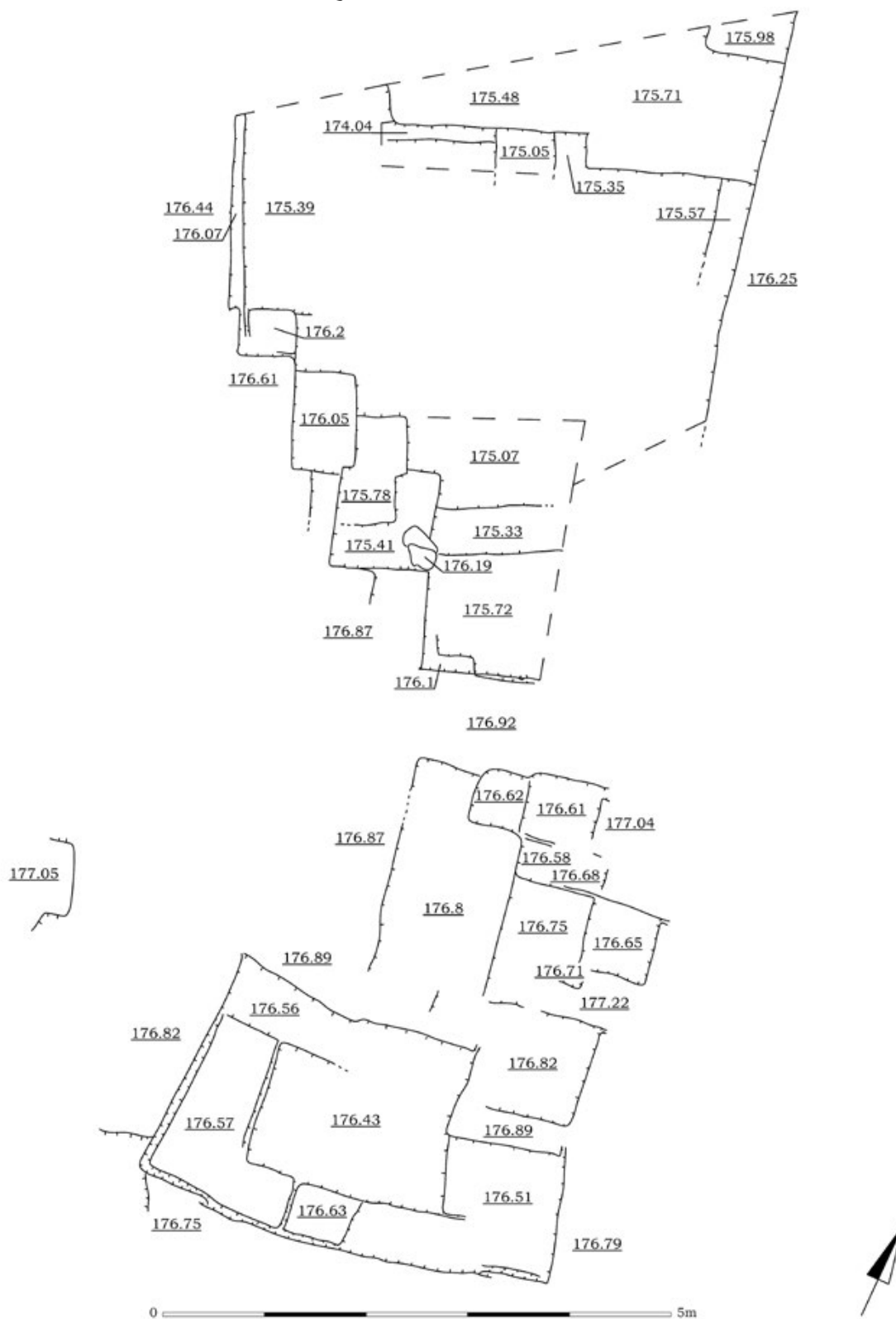


Figure 11.1. The L1 pottery concentration (facing southwest).



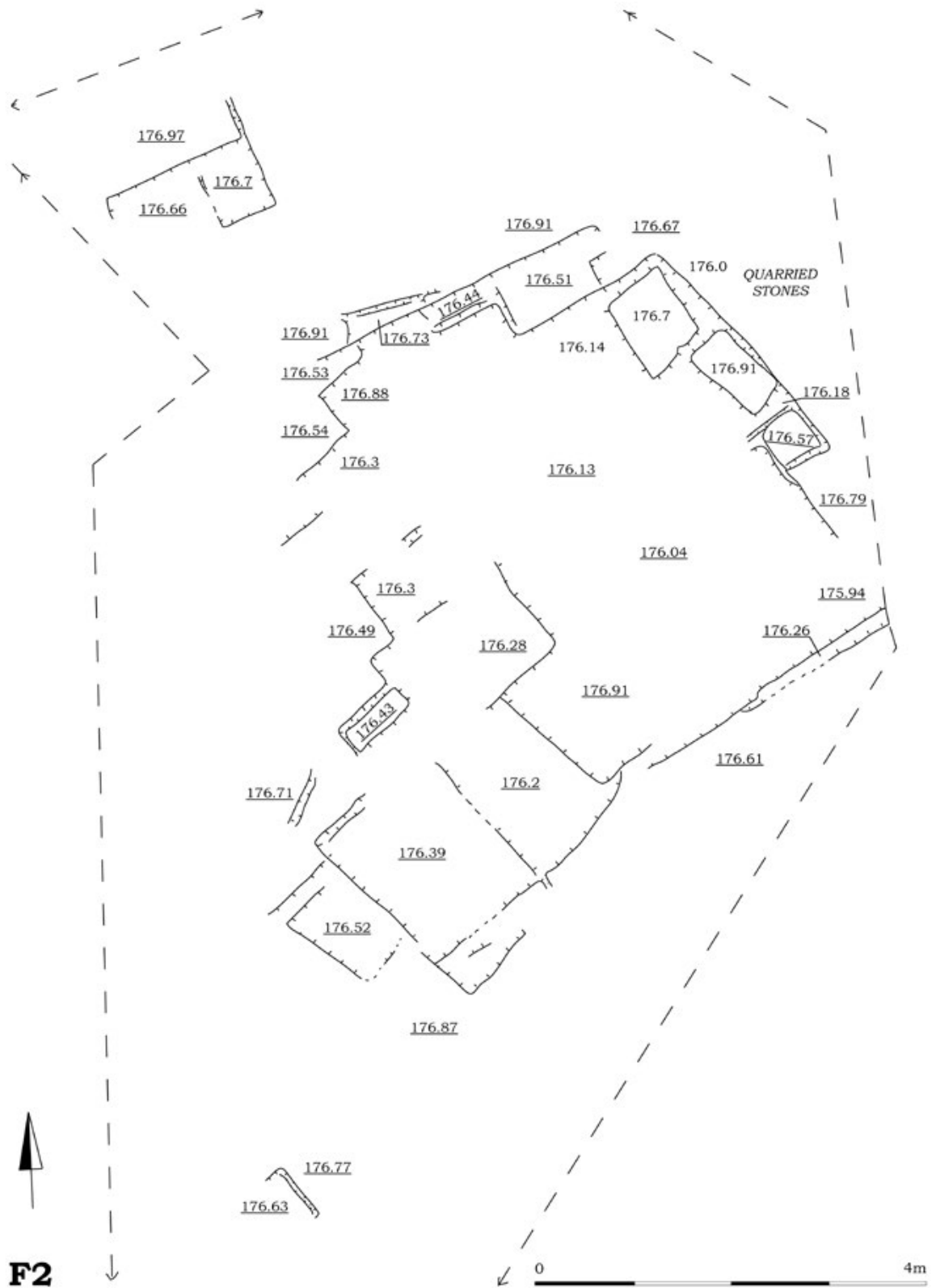
Figure 11.2. The L4 construction set within quarry F14 (facing northwest).

## QUARRY PLANS

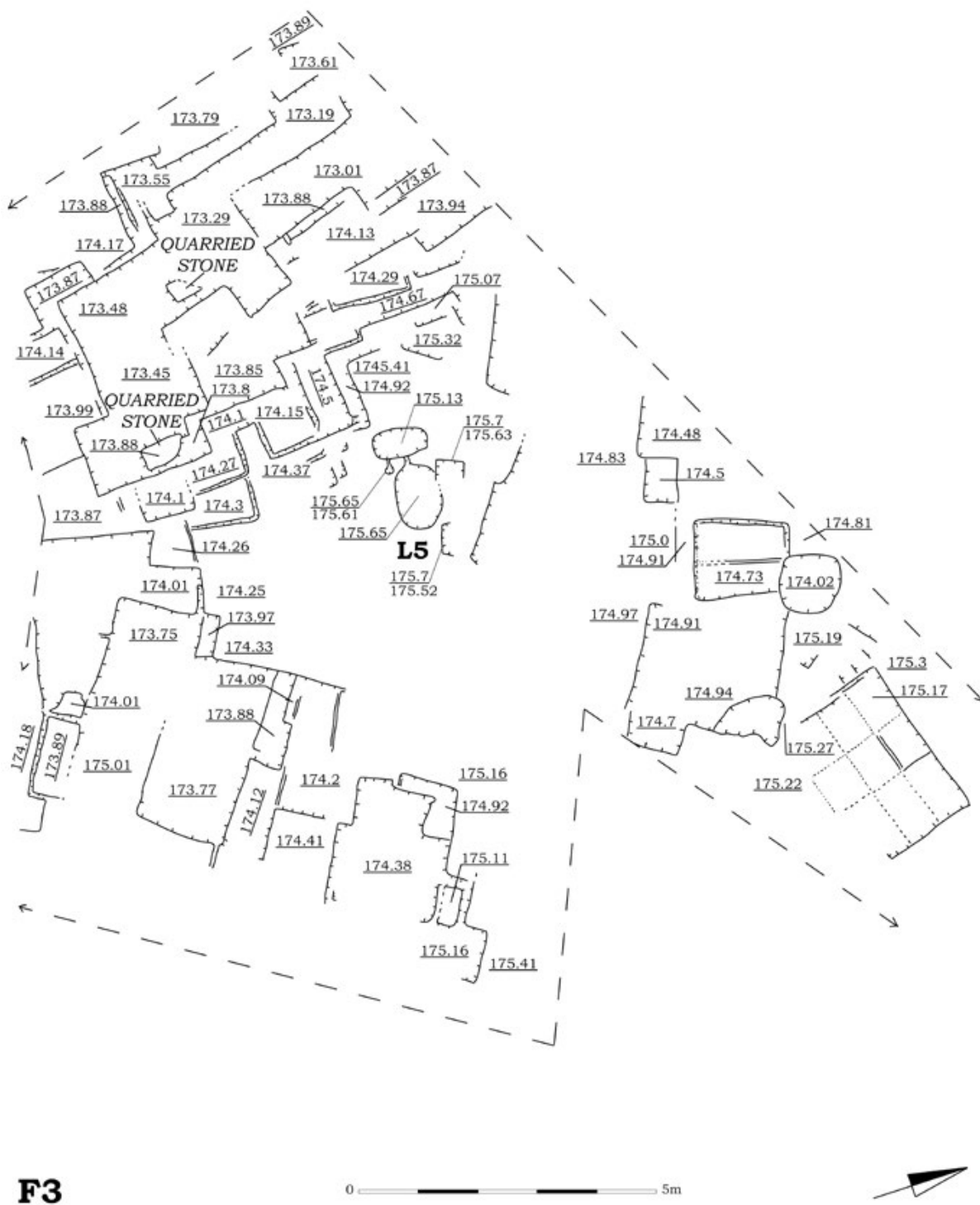


Plan 1. F1 quarry.

# QUARRY PLANS

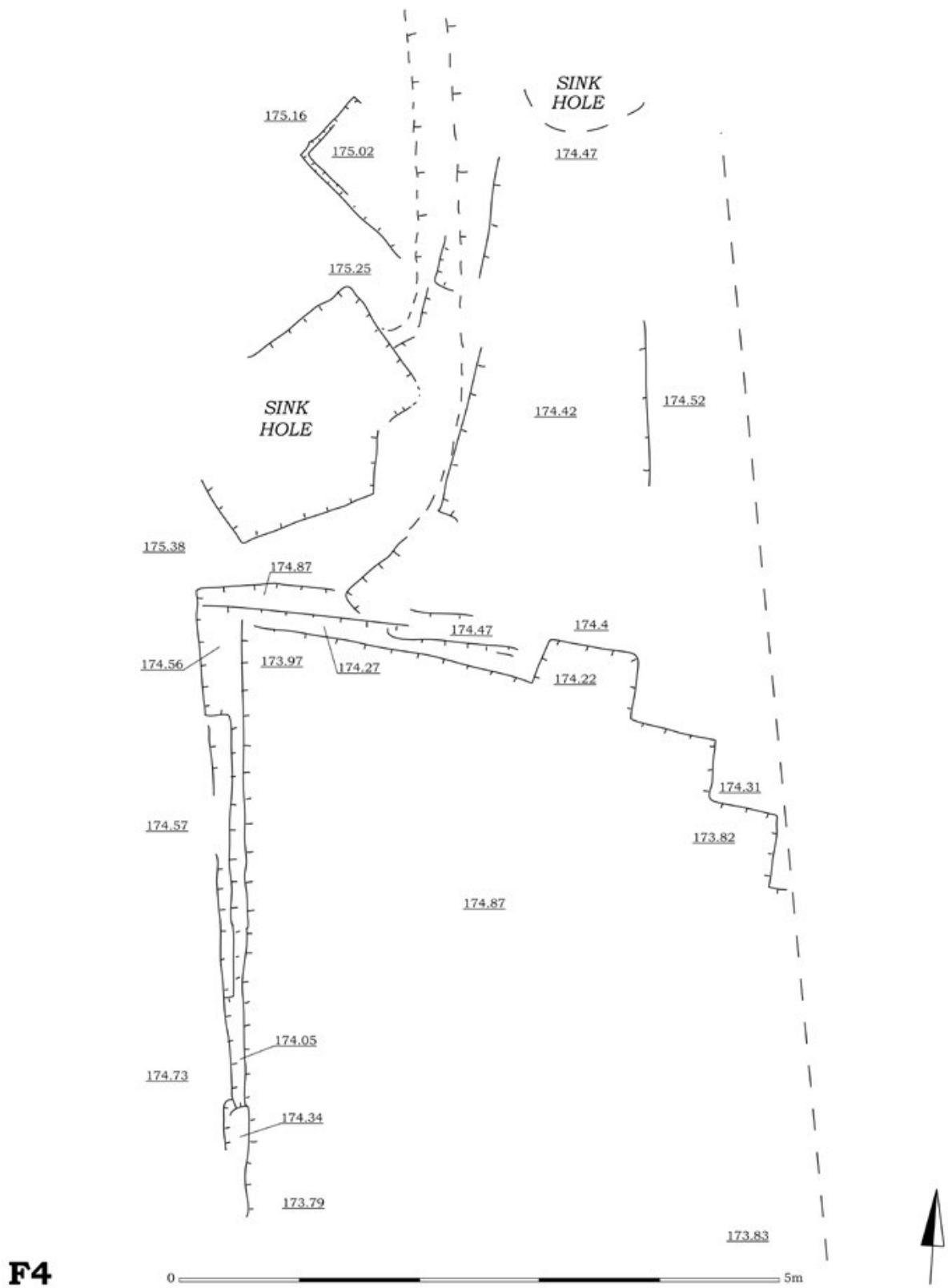


Plan 2. F2 quarry.

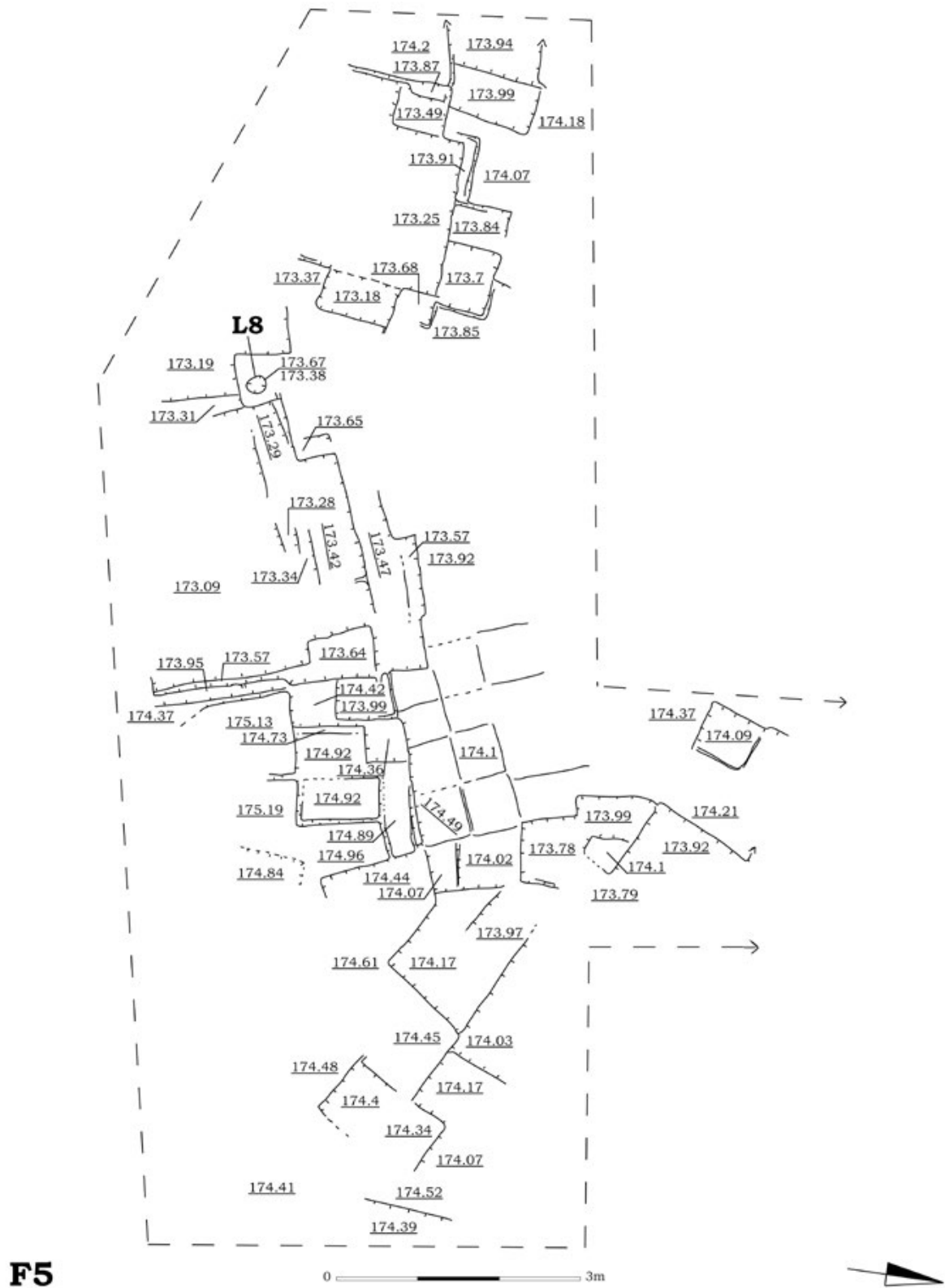


Plan 3. F3 quarry, respecting the L5 oil production feature.

QUARRY PLANS



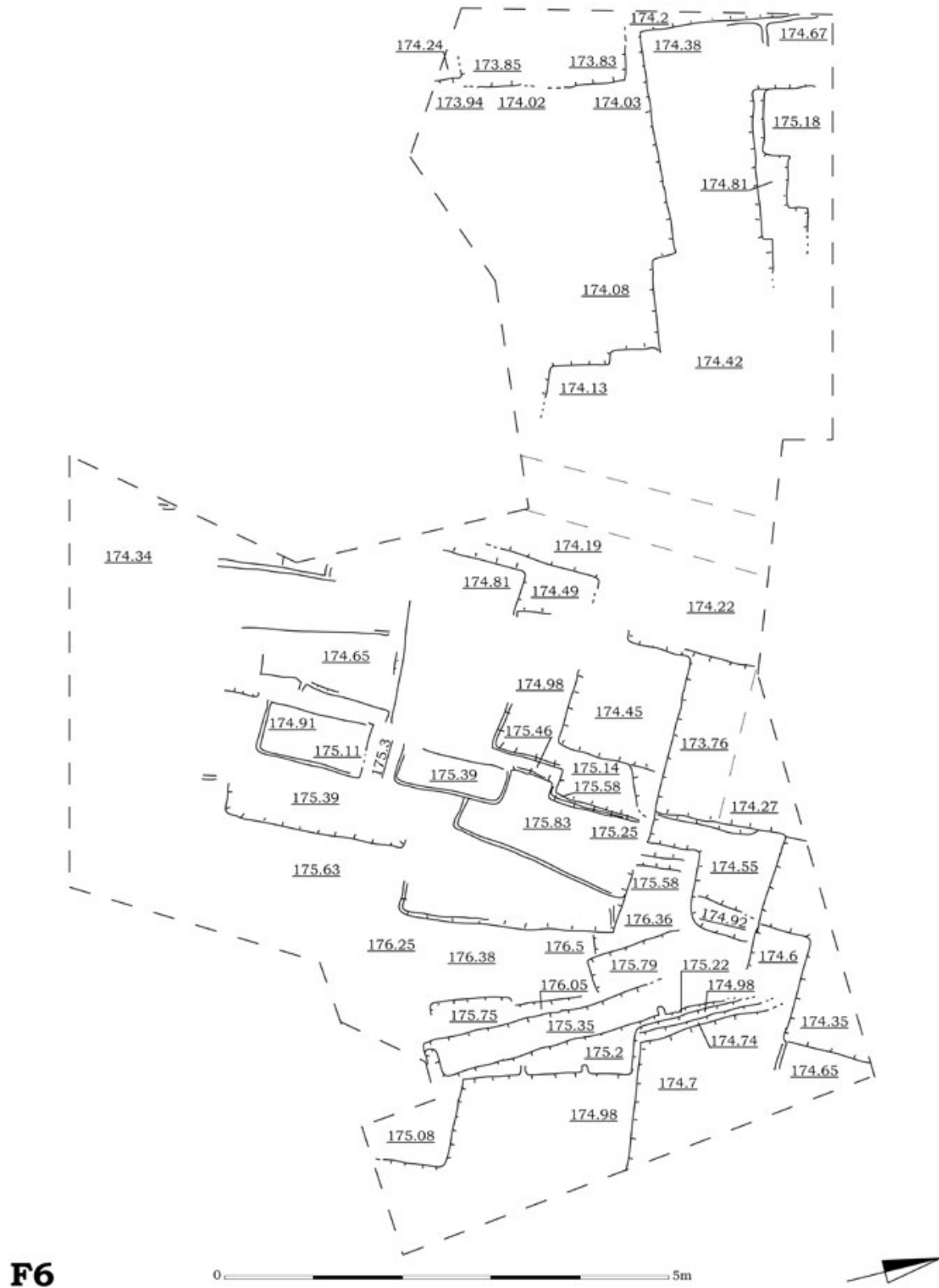
Plan 4. F4 quarry.



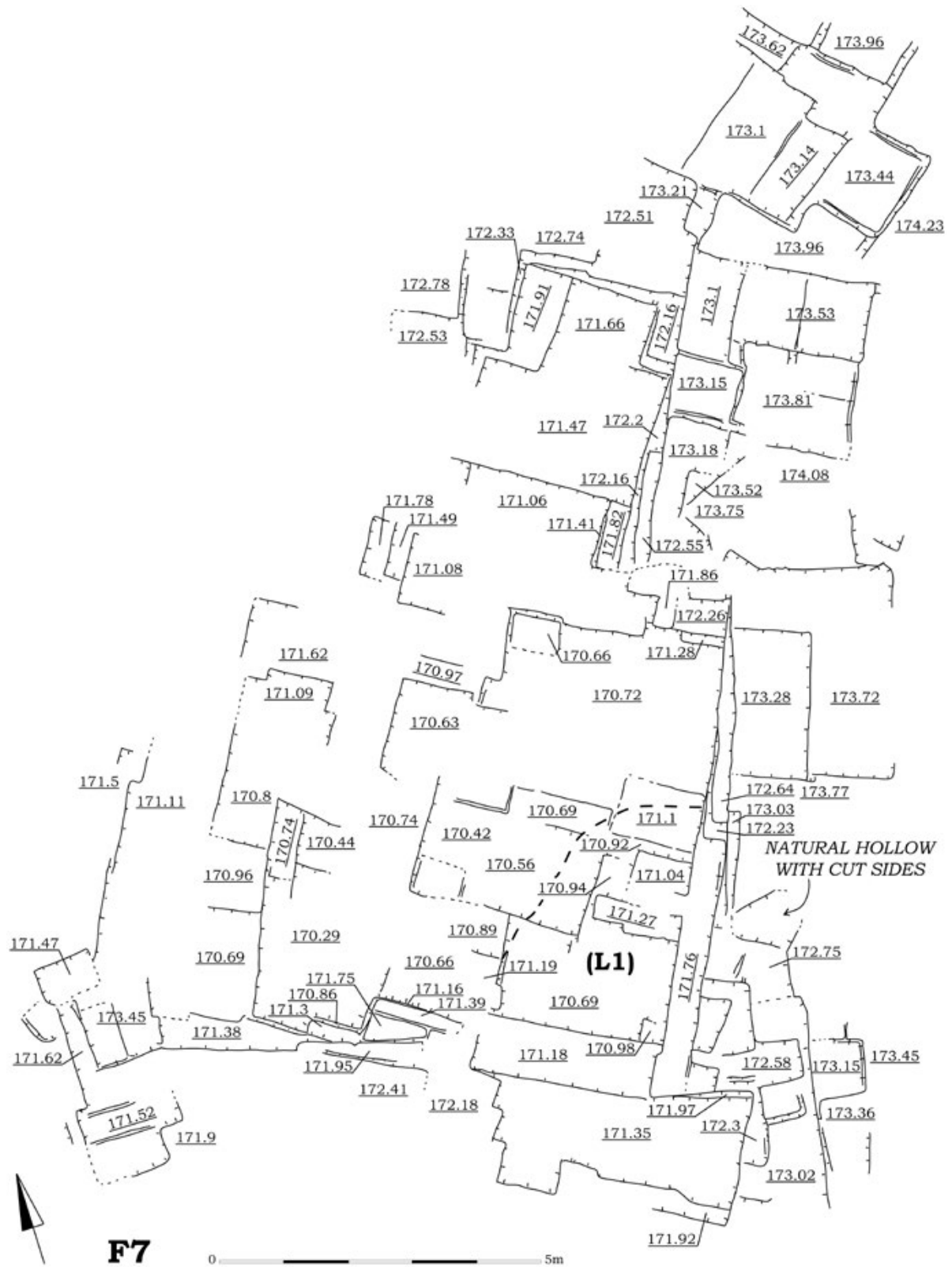
Plan 5. F5 quarry and L8 cupmark.



# QUARRY PLANS

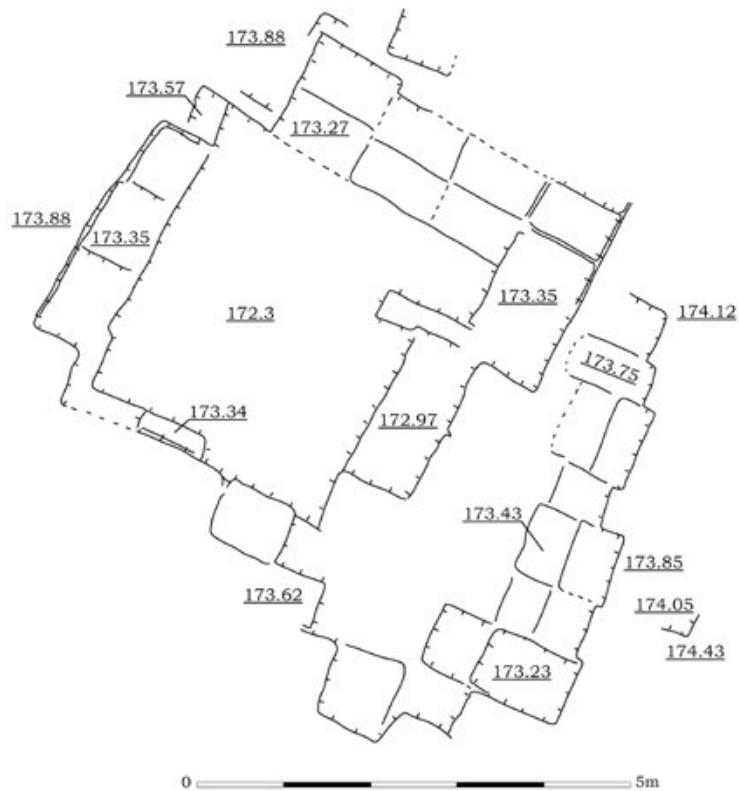


Plan 6. F6 quarry.



Plan 7. F7 quarry, in which the L1 ceramics-related activity was located.

# QUARRY PLANS



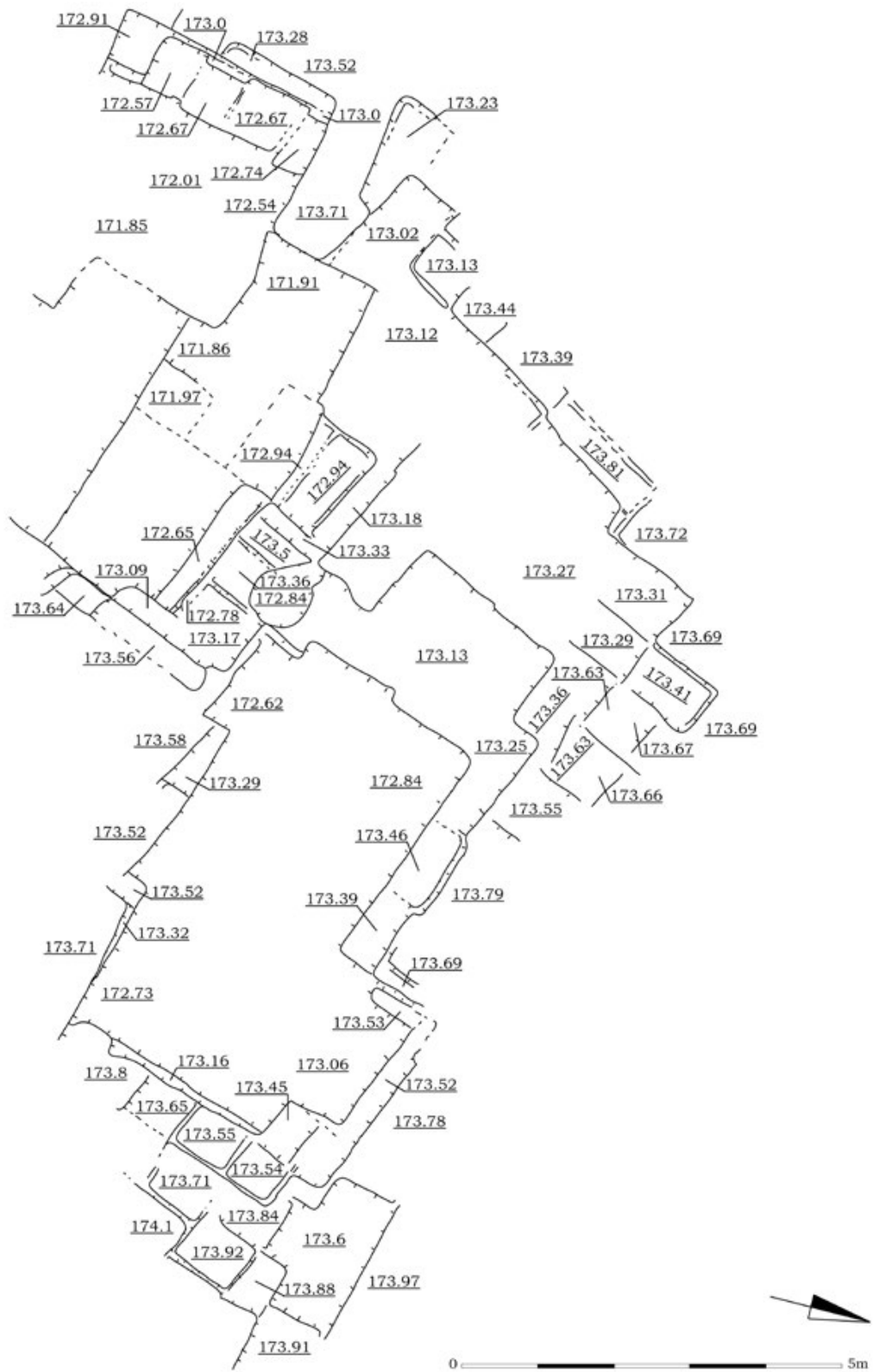
**F8**

Plan 8. F8 quarry.

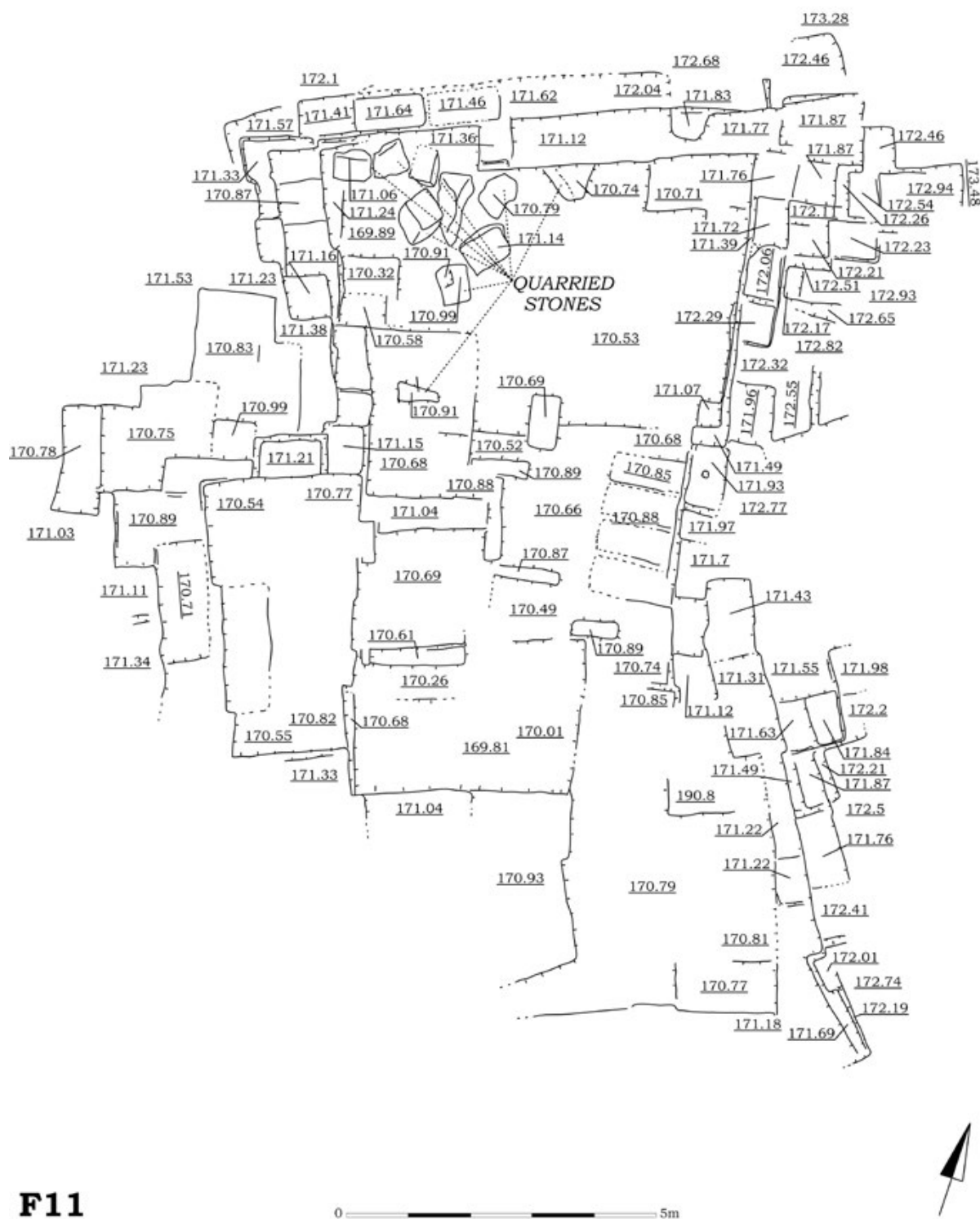
74

# QUARRY PLANS

**F10**

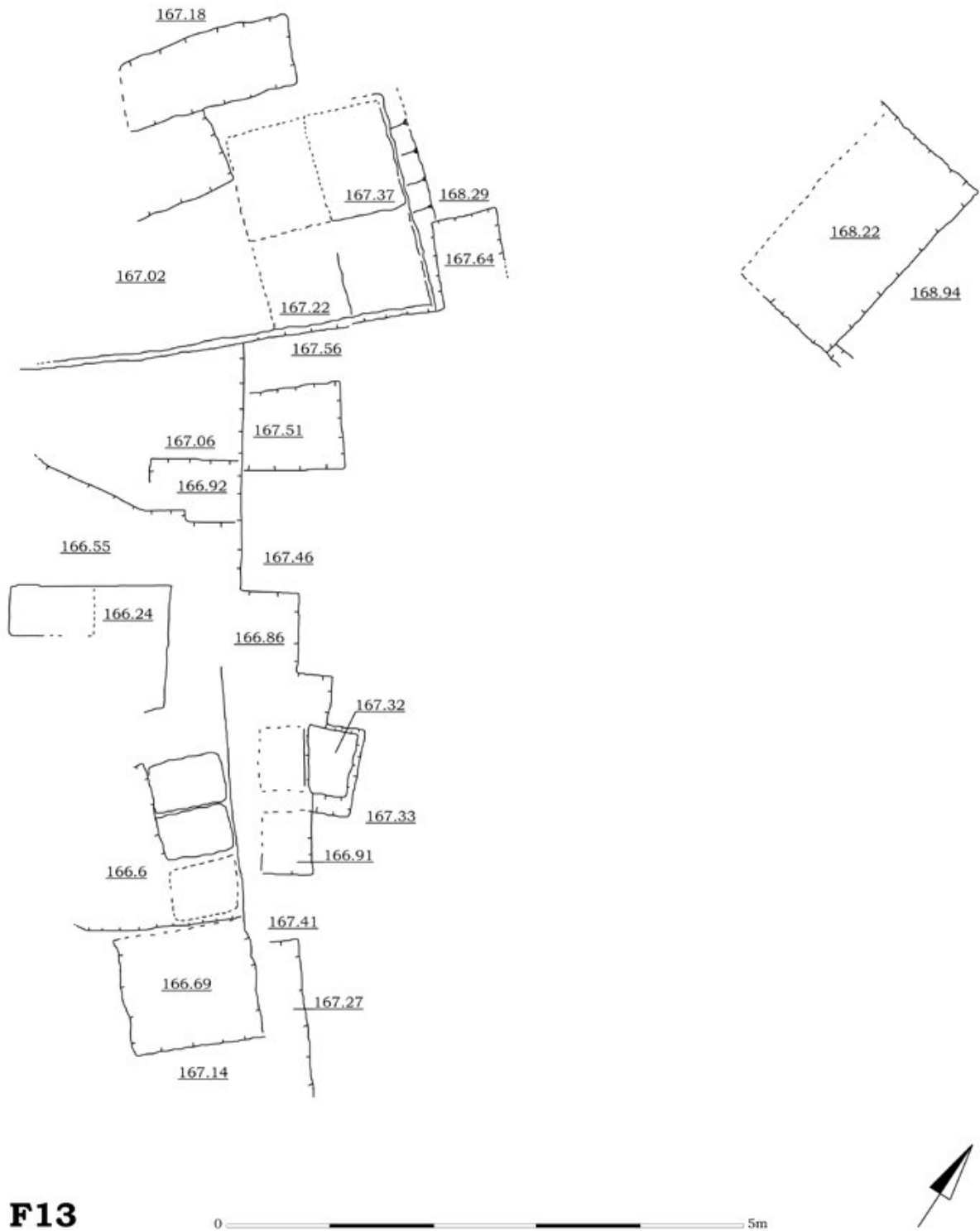


Plan 10. F10 quarry.

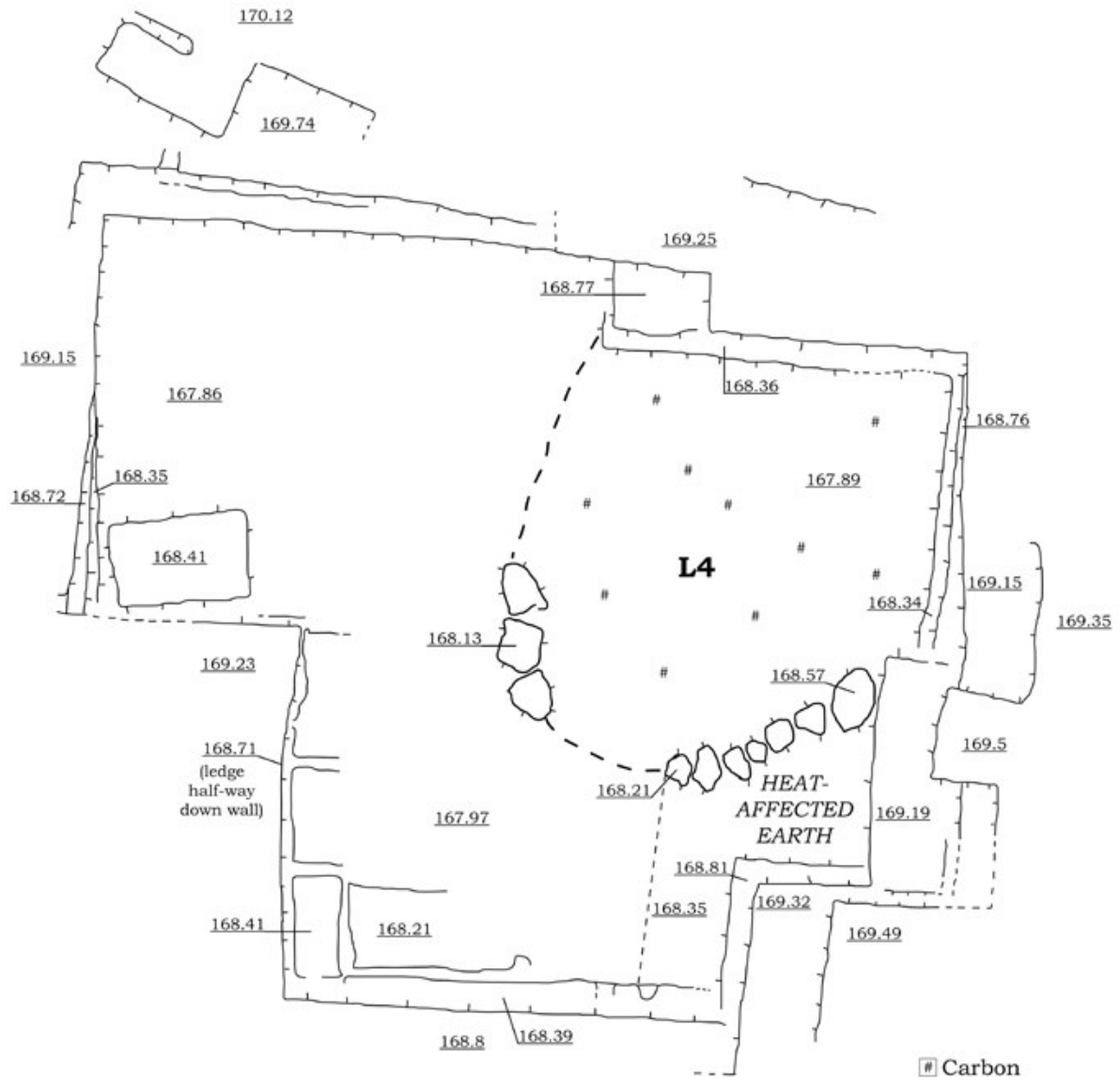


Plan 11. F11 quarry.

77







**F14**

0 ————— 5m



Plan 14. F14 quarry, in which was built the L4 construction.

80

## PART II



# Excavation at Khirbet Butz - 2007

## Byzantine-Early Islamic Agricultural and Other Features

*Yehuda Govrin*

*with a contribution by Achia Kohn-Tavor*

*This excavation was carried out in 2007–2008 by Y.G. Contract Archaeology Ltd. (excavation license B-321/2007). The project was directed by Yuval Ardon (2007) and Yehuda Govrin (2008), under the academic auspices of the Hebrew Union College. Site surveying and drafting were conducted by Dov Porotsky and Viatcheslav Pirsky. The artifacts were analyzed by Achia Kohn-Tavor, photographed by Vladimir Naikhin, and illustrated by Anna Dodin.*

### INTRODUCTION

The site of Khirbet Butz is located on a small hill overlooking the Elah Valley (Fig. 2). The archaeological investigation and recording of the hill began in 2007. An initial survey—carried out by the Israel Antiquities Authority (IAA)—identified a large number of archaeological features, probably reflecting the agricultural and industrial nature of ancient Khirbet Butz. A settlement site located on the hilltop has not yet been investigated, and this



Figure 1. Feature carved in exposed bedrock outcropping (Feature 159).

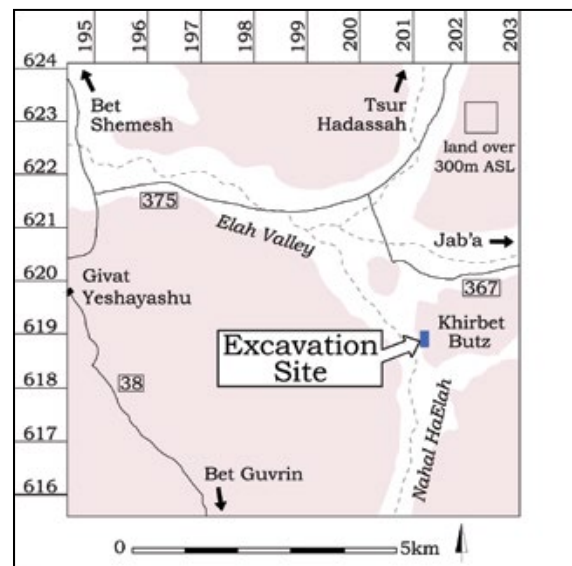


Figure 2. Location of the site (New Israel Grid: 201310–619160; 382m asl).

high ground has recently been redefined as an area of open military status. However, its periphery has been classified as available for development. This led to its purchase by Eden Hills Ltd., who contracted Y.G. Contract Archaeology Ltd. to carry out an archaeological investigation (Fig. 3).

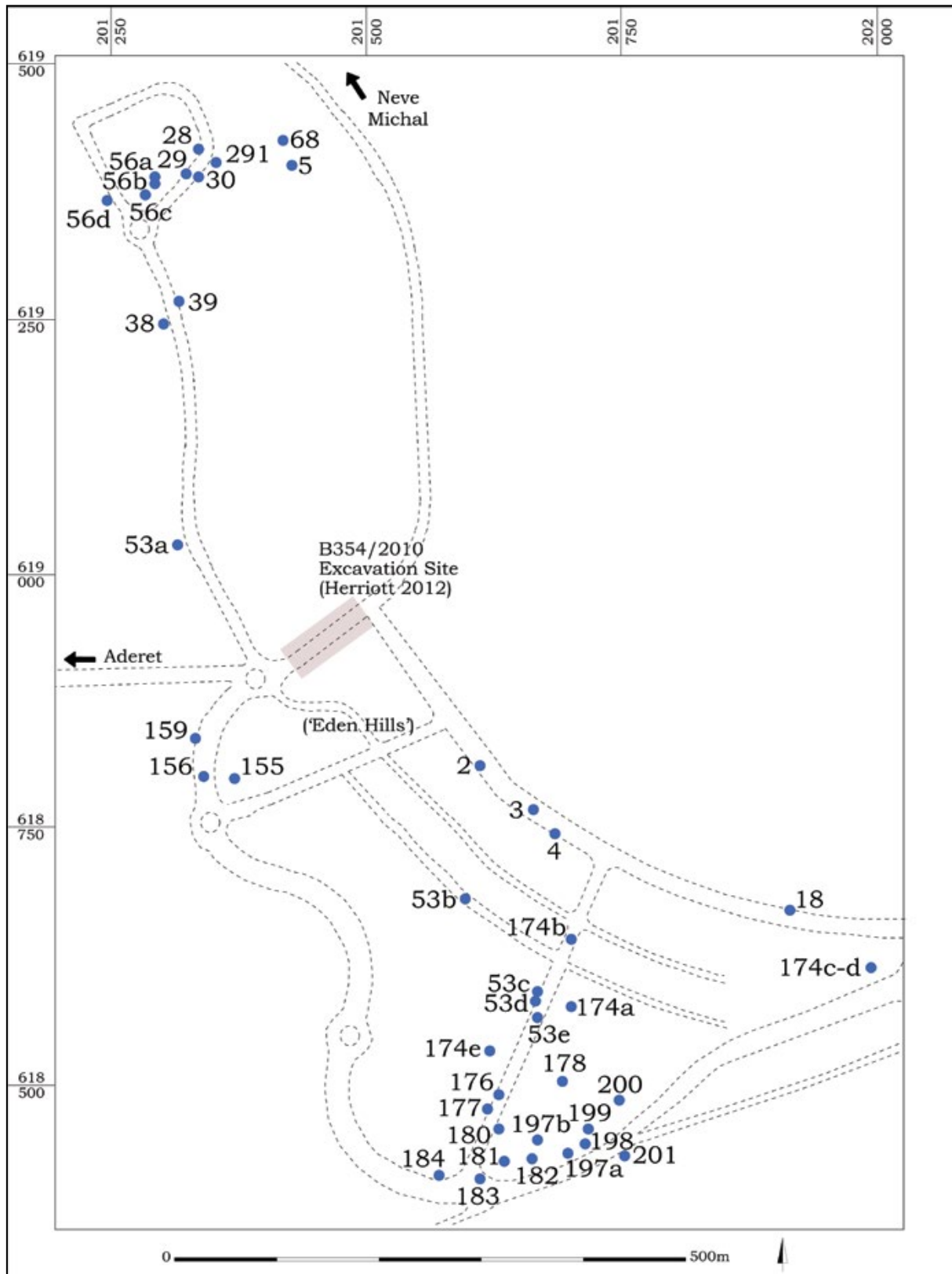


Figure 3. Feature locations within the site.

Table 1. Catalog of features, organized by feature number.

Feature no.	Type	Description
2	Wall	Made from fieldstones
3	Cup mark	Three co-linear cup marks; 0.3 x 0.1-2m
4	Cup mark	0.5 x 0.3m
5	Structure	2.8m diameter
18	Cup mark	Basin type; 0.5 x 0.25m
29	Structure	2.7m diameter
30a	Structure	3.6m diameter
30b	Structure	3m diameter
38	Cave	5m diameter
39	Cave	8 x 4m
53a	Water cistern	4m diameter
53b	Stone mound	1.5m diameter
53c	Cup mark	0.19 x 0.12m
53d	Channel-cut rock	0.1 x 0.04m
53e	Wine press	Frankel (1999) Type T1
56a	Structure	1.3m diameter
56b	Structure	2.7m diameter
56c	Structure	2.5m diameter
56d	Structure	1.8m diameter
57	Cup mark	0.5 x 0.4m
68	Structure	2.7m diameter
155	Structure	5m diameter; included annex
156	Cup mark	Basin type; 0.5 x 0.3m
159	Quarried feature	3 x 2m
174a	Cup mark	0.17 x 0.09m
174b	Cup mark	0.6 x 0.35m
174c	Cup mark	0.6 x 0.3m
174d	Cup mark	0.62 x 0.44m
174e	Structure	2.5m diameter
176	Cup mark	0.6 x 0.35m
177	Cup mark	Three basin-type cup marks, non-linear; 0.52-65 x 0.34-54m
178	Cup mark	0.2 x 0.15m
180	Cup mark	0.6 x 0.2m
181	Cup mark, quarried feature	0.7 x 0.7m, 1.2 x 1.16 x 0.04m
182	Water cistern	Prevented from investigating by safety concerns
183	Cup mark	0.4 x 0.2m
184	Stone mound	10 x 7m
197a	Cup mark	Three co-linear cup marks; 0.2-97 x 0.2-56m
197b	Cup mark	0.7 x 0.35m
198	Clearance material	Unknown
199	Cup mark	Two cup marks; 0.19-85 x 0.1-4m
200	Cup mark	Two cup marks; 0.15-5 x 0.15-3m
201	Cup mark	Basin type; 0.65 x 0.2m
291	Structure	3m diameter



The archaeological features investigated as part of this project are summarized in Table 1. It should be noted at the outset that our work was not completed—the excavation of Feature 38 being a particularly important lack—due to the Eden Hills construction project's suspension in 2008.

## THE EXCAVATION

### *Feature 2. Wall*

Location: 201600-618800

A wall built from field clearance stones and located at the north perimeter of the field.

### *Feature 3. Cup Marks (Fig. 4)*

Location: 201650-618775



Figure 4. Feature 3 cup mark group (facing west).

Three cup marks on a north-south axis:

Southern – 0.3m diameter and 0.2m deep.

Middle – 0.3m diameter and 0.2m deep.

Northern – 0.3m diameter and 0.1m deep.

### *Feature 4. Cup Mark (Fig. 5)*

Location: 201675-618750

A cup mark – 0.5m diameter and 0.3m deep.

### *Feature 5. Structure (Fig. 6)*

Location: 201383-619412

This structure was not recorded on our survey map of the area. It was ovoid in shape, built of roughly dressed stones and with an inner diameter of 2.8m, walls ca. 0.5m thick and preserved to a height of 0.7m. The entrance was on the southeast side. We interpreted



Figure 6. Feature 5 structure (facing north).



Figure 5. Feature 4 cup mark.



Figure 7. Feature 18 basin-type cup mark.

such structures at the site—and we found 11 of them (see Table 1)—as having been built to provide shelter and storage for those working this land (sometimes termed a ‘guard house’ or ‘watchman’s hut’).

**Feature 18. Cup Mark (basin type) (Fig. 7)**

Location: 201910-618700

A cup mark of basin type – 0.5m diameter and 0.25m deep.

**Feature 29. Structure (Figs. 8, 11)**

Location: 201300-619400

This structure had an internal diameter of 2.7m and 0.5m-thick walls surviving to a height of ca. 1.0m. The southeast quarter was founded directly on bedrock. The entrance was on the north side. Opposite the entrance was a wall ca. 1.0m wide and 1.7m long,



Figure 8. Feature 29 structure (facing north).



Figure 9. Feature 30a structure (facing north).

north of which was another structure measuring 2.6 x 1.3m, depth 0.2-0.3m, and cut into bedrock. We interpreted it as having a shelter and storage function for those working the land here (see Feature 5 above).

**Feature 30a. Structure (Figs. 9, 11)**

Location: 201305-619404

This structure had an internal diameter of 3.6m, walls 0.9m wide and preserved to an average height of 0.95m. The entrance was on the southeast side. Projecting from the northeast side of the structure was a 0.55m-wide wall, preserved to a height of 0.6m. This curved south to meet a boulder east of the structure, creating a small enclosure (1.65 x 0.75m).

**Feature 30b. Structure (Figs. 10, 11)**

Location: 201308-619397

This structure does not appear in our survey map. Its internal diameter was 3.0m, its walls were 0.3m wide and were preserved to a height of only 0.2m. The southern side of the structure was carved from bedrock, and being therefore stronger survived to 0.6m in height. Due to the bad preservation of the other walls we can only speculate as to the entrance location (if any): this is tentatively offered as on the north side.



Figure 10. Feature 30b structure (facing northeast).



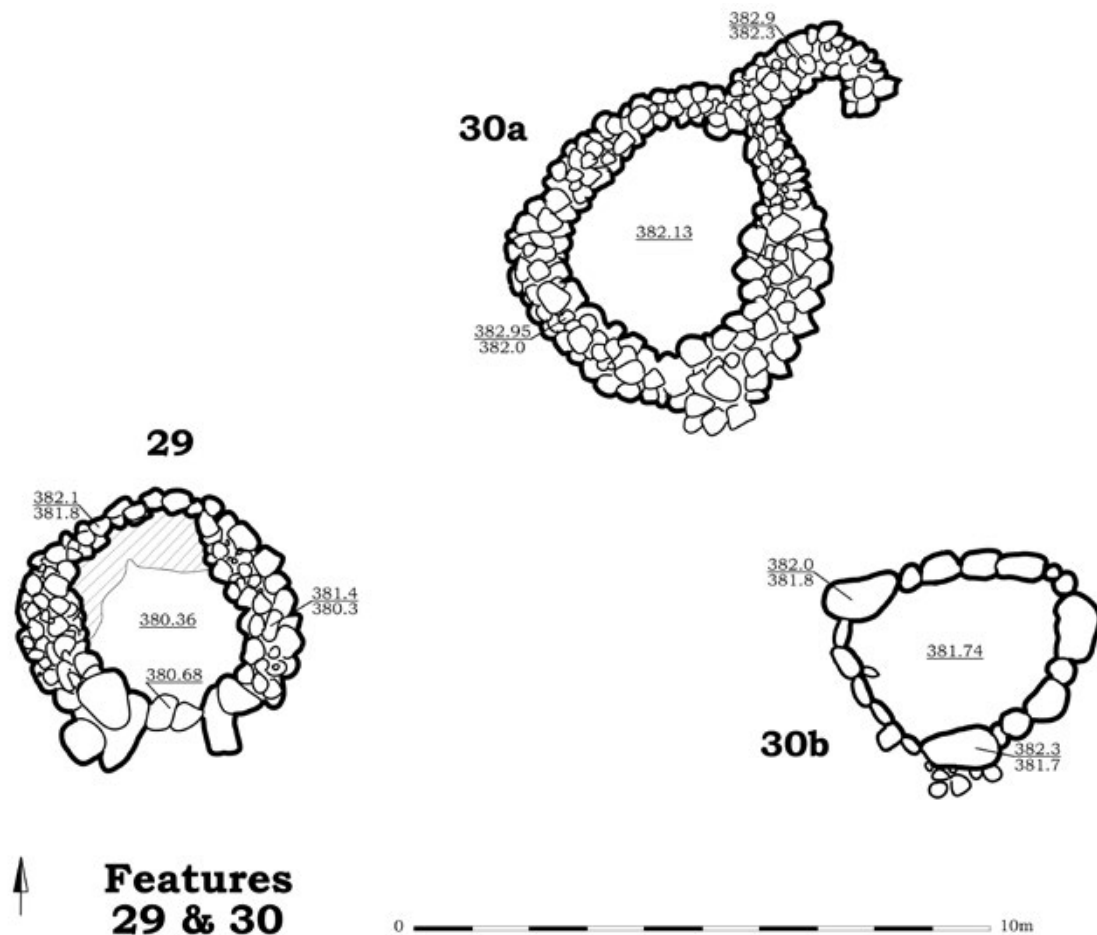


Figure 11. Plan of Feature 29, 30a and 30b structures.

### ***Feature 38. Cave (Figs. 12, 13)***

Location: 201280-619251

This cave was roughly circular in floor plan, measuring ca. 5.0 x 5.0m, ca. 1.9m high and with multiple openings (Fig. 13). For safety reasons we did not enter. From a central opening in the ceiling a fig tree grew. In addition to this opening others were located on the south (L3), north (L2) and west (L1) sides. These were roughly quarried, but had become blocked by rocks, bushes and—in the case of the north opening—0.1m of soil. Partial collapse of the cave's east wall had opened two further apertures.



Figure 12. Feature 38 cave.

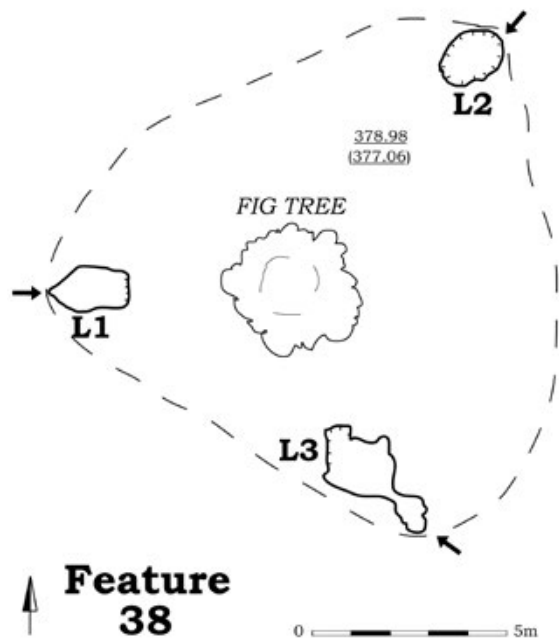


Figure 13. Plan of Feature 38 cave exterior.

### Feature 39. Cave (Fig. 14)

Location: 201291-619276

This cave was of rectangular shape, covering an area of ca. 8.0 x 4.0m. In a ca. 4.0 x 2.0m space on the south side of the cave the ceiling had completely collapsed. South of this roofless area was a shaft (L5) in the ceiling, which was cut into the natural rock and led to the surface 2.0m above. Northwest of the roofless area was an additional anthropogenic opening (L4). North of the roofless area a depression visible on the surface betrayed another aperture (probably natural).

Where the cave's ceiling was intact, immediately north of the roofless area, a small fieldstone wall was built (L7). This was one course high, and ran east-west for 6.0m before turning north for 3.0m. West of this wall the cave floor was filled with dirt and fieldstones. Here we found a rounded shaft that appeared to have been created by natural means (i.e. another collapse of the ceiling in this area). A complete Byzantine ceramic lamp was found in our excavation nearby (Fig. 21:2).

At the east end of this area the bedrock collapsed and created a sort of 'channel' extending from the built wall to the natural shaft on the north side of the cave. This channel was filled with large stones.

On the east side of the cave was found an additional rectangular shaft (L6), 1.9m deep, leading to another cave, and rectangular in plan with rounded corners and a maximum width of ca. 3.0m. As in the first cave, the shaft here was blocked.

Our excavation in the southern part of the roofless area of the first cave exposed a layer including finds from the Byzantine period (Fig. 20:19-21; Fig. 21:2,4; ca. 330-638 CE) through Ottoman (Fig. 21:3; 1517-1917 CE) and modern times, all stratigraphically above the rock collapse. At the same level as and beneath the collapse were sherds of Iron Age date (Fig. 20:11,12; ca. 1200-586 BCE).

It therefore appears that this cave saw three archaeological phases. The first was during the Iron Age, within the cave with its roof intact and an entrance probably from a shaft on the west side of the ceiling.

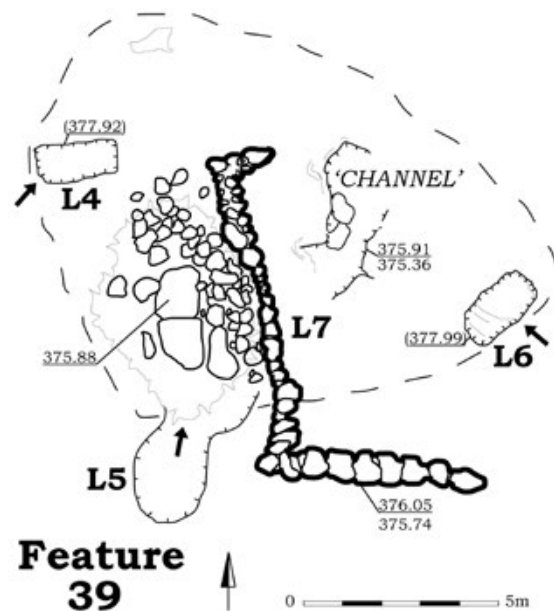


Figure 14. Plan of Feature 39 cave interior.

During the second phase, probably in the Byzantine period, the southern section of the ceiling collapsed and the roofless area was used as a sort of courtyard, while the entrance to the cave was repositioned on the northwest side (L4). According to the ceramic evidence, the second cave to the northeast was excavated during this phase.

In the third stage of activity, probably not earlier than the end of the Byzantine period, another ceiling collapse occurred which opened the north shaft. The occupants repaired the damage but left the shaft itself open. They also covered the area between the southern collapse and the new shaft with dirt and stones (in which was found the aforementioned Byzantine lamp). A wall was built at the southern perimeter of this leveled area to prevent the new floor material from washing into the roofless 'courtyard'.

### ***Feature 53a. Water Cistern***

Location: 201282-618787

This was a water cistern, ca. 4.0m in diameter. The shaft leading from the surface measured 1.3m across and ca. 0.4m deep. The cistern's depth could not be determined as its floor was covered with dirt and fallen stones, which for safety reasons we desisted from excavating. On the surface, east of the cistern was a circular socket in the bedrock, 0.8m in diameter and ca. 0.3m deep. No datable finds were recovered in the vicinity.

### ***Feature 53b. Stone Mound***

Location: 201589-618705

This was a stone cluster resulting from clearance of large stones from the southern section of an open field. The mound reached a height of ca. 1.7m and ca. 1.5m across. At the center of the pile lay a boulder with a cup mark, 0.36m in diameter and 0.3m deep.

### ***Feature 53c. Cup Mark***

Location: 201663-618606

A cup mark – 0.19m in diameter and 0.12m deep.

### ***Feature 53d. Rock-Cut Channel***

Location: 201668-618600

A rock with a channel cut into it, ca. 0.1m long and 0.04m wide.

### ***Feature 53e. Wine Press***

Location: 201668-618586

This installation was comprised of a treading floor and several features cut into an outcropping of exposed bedrock. On the south side of the quadrilateral treading floor (Frankel's Type T1 [Frankel 1999: 51-56]) was a hole for draining fluids and another feature cut into the bedrock. East of the treading floor was a third quarried feature, rounded and 1.3m in diameter. From this feature a channel (0.25m long and 0.1m wide) ran southwest, leading to a basin-type cup mark (0.55m in diameter and 0.4m deep). North of the wine press was an additional cup mark, 0.18m in both diameter and depth.

### ***Feature 56a. Structure***

Location: 201278-619390

The interior diameter of this structure was 1.3m, its walls were 0.4m wide and preserved to a height of 0.5m. On the southwest side were many stones piled in a disorderly manner and not integral with the wall. The entrance was probably at this point.

### ***Feature 56b. Structure***

Location: 201273-619387

This structure's interior diameter was 2.7m, with walls 0.4-0.6m thick and preserved in one course of boulders to a height of 1.2m. The entrance was on the southeast side.

### ***Feature 56c. Structure***

Location: 201263-619377

This structure's interior diameter was 2.5m, its walls were ca. 0.6m thick and preserved to a height of ca. 0.4m. The north wall leaned on a bedrock outcropping, west of which was a pile of fieldstones. This undoubtedly was collapse, perhaps the remains of an additional wall that continued westward. The entrance to the structure was on the southeast side.

### ***Feature 56d. Structure***

Location: 201243-619361

This structure had an interior diameter of 1.8m and walls ca. 0.4m wide. These were built of fieldstones and boulders, preserved to a height of one course (0.3-1.0m). The entrance was from the southeast.

In some of the guardhouses jar handles from the Byzantine and Late Islamic periods were recovered. In all of these structures—which, again, we have interpreted as having been built to provide storage and shelter for those working the land—we saw Jewish National Fund tree seedling bags, indicating modern usage also.

### **Feature 57. Cup Mark**

Location: 201238-619382

A cup mark – 0.5m in diameter and 0.4m deep.

### **Feature 68. Structure**

Location: 201380-619451

This structure had an internal diameter of 2.7m, walls 0.6m thick and was preserved to a height of 0.7m. The entrance was on the south side.



Figure 15. Feature 155 before excavation.



Figure 16. Feature 155 after excavation.

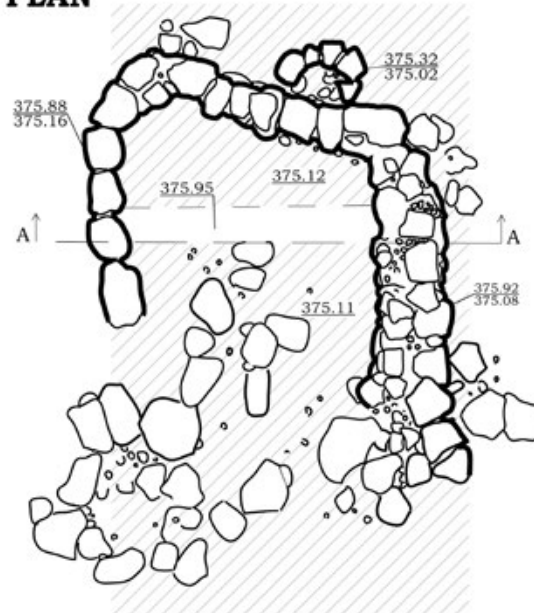
### **Feature 155. Structure (Figs. 15-17)**

Location: 201350-618800

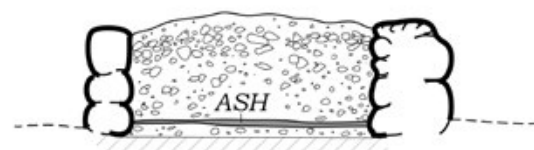
On a moderate slope and within a stand of pine trees we found a large pile of stones, ca. 5.0m in diameter. The feature appeared to consist of a large fieldstone perimeter and a center of smaller stones (Fig. 15).

Excavation began with surface cleaning and removal of non-*in situ* stones. A structure's outline became clear (Figs. 16-17). We then excavated the interior, leaving a north-south central baulk 0.5m wide in order to retain a section view of any stratigraphy. The walls' exterior façades were also investigated by the digging of a 1.5m-wide trench around the structure.

#### **PLAN**



#### **SECTION (A-A)**



#### **Feature 155**



Figure 17. Plan and section of the Feature 155 structure.





Figure 18. Feature 156 basin-type cup mark before excavation.



Figure 19. Feature 159, quarried feature.

Our investigation uncovered a small quadrangular building, measuring ca. 5.0 x 4.5m. The structure's large fieldstone walls were preserved to a height of two courses on the south and east sides, averaging 0.7m high. The west wall did not survive. Wall thicknesses varied, the east side being 3.0m wide and the south 1.0m. Despite this, the latter wall was the best preserved. Its exterior façade was built of large fieldstones, and the interior of medium-sized stones. This wall was constructed directly on bedrock.

Outside the east wall an annex was discovered (1.0 x 1.0 x 0.3m). This was walled using medium-sized stones, and was filled with smaller stones.

The entrance to the building was probably from the north, through an opening ca. 1.0m wide.

In places the excavation of the interior reached bedrock and in the remainder met with archaeologically-sterile subsoil. No indicative artifacts were found, but within the central baulk a thin ash layer was identified 0.1m above bedrock.

It can be assumed that after the building went out of use the small fieldstones of the upper walls and interior façades collapsed inward.

We identified three phases in this building's history. The first saw the construction of the building on bedrock and subsoil, and at least partially floored with stones. It is possible that during this initial phase the building was used as a guard house or for storage.

The second architectural phase included an interior deposit of fieldstones, perhaps to level the surface. In the northern part of the building the aforementioned accumulation of ash took place during this phase, and probably indicates repeated cooking.

The third phase involved the collapse of the walls and the filling of the entire building with dirt and fieldstones to a height of about 1.5m.

The pottery (Fig. 20:1-5) found in this structure indicate that it was in use during the Byzantine/Early Islamic periods (the one Hellenistic [Fig. 20:2] and one Iron Age [Fig. 20:5] artifact found here are probably not related to this feature).

### ***Feature 156. Cup Mark (basin type) (Fig. 18)***

Location: 201312-618810

This feature was cut into the exposed bedrock. The feature's eastern side was damaged. Its diameter was ca. 0.5m and its depth ca. 0.3m. No datable artifacts were found. The function of this feature remains unclear.

### ***Feature 159. Quarried Feature (Fig. 19)***

Location: 201307-618842

This feature was hewn into a boulder and measured ca. 3.0 x 2.0m. It included a small cup mark of 0.15m diameter, from the east side of which projected a number of shallow channels extending for 0.2m. These channels led to a larger groove which encircled



the cup mark and smaller channels (total diameter: 0.25m).

It is possible that this composite feature was used for small-quantity wine or oil pressing, with the channels serving to lead squeezed fluid into the cup mark.

***Feature 174a. Cup Mark***

Location: 201701-618593

0.17m in diameter and 0.09m deep, this feature was cut into a larger cup mark measuring 0.68m across and 0.33m deep.

***Feature 174b. Cup Mark***

Location: 201696-618661

0.6m in diameter and 0.35m deep.

***Feature 174c. Cup Mark***

Location: 201954-618655

0.6m in diameter and 0.3m deep.

***Feature 174d. Cup Mark***

Location: 201959-618656

A deep cup mark, of 0.62m diameter and 0.44m deep, west of which was another shallow cup mark of 0.54m diameter and 0.18m deep.

***Feature 174e. Structure***

Location: 201628-618542

This structure did not appear in the IAA survey map. Its interior diameter was 2.5m and its walls 0.5m thick. The structure was preserved to a height of only 0.2m. The state of preservation was poor due to damage caused by large plants, complicating identification of the entrance location. We believe this to have been on the northeast side, where we found a non-*in situ* stone.

***Feature 176. Cup Mark***

Location: 201637-618510

0.6m in diameter and 0.35m deep.

***Feature 177. Cup Marks (basin type)***

Location: 201612-618490

This feature included three basin-type cup marks cut in non-linear formation:

Western – 0.52 x 0.54m.

Eastern – 0.52 x 0.34m; the south side was damaged.

Southern – 0.65 x 0.45m; the entire feature was damaged by roots.

***Feature 178. Cup Mark***

Location: 201702-618521

A small cup mark (0.2 x 0.15m); this was not marked on the IAA survey map.

***Feature 180. Cup Mark***

Location: 201630-618475

0.6 x 0.2m.

***Feature 181. Cup Mark and Quarried Feature***

Location: 201635-618445

An unusual cup mark: 0.7 x 0.7m. Carved into the bedrock on the north side was a square-shaped feature measuring 1.2 x 1.16 x 0.04m.

***Feature 182. Water Cistern***

Location: 201660-618447

This Feature consisted of a water cistern with a roughly-quarried, elongated opening, and an upper interior section measuring 1 x 2.7m, connected to the main cistern chamber by an opening of 1.7m diameter. The main chamber's dimensions could not be measured due to safety hazards that prevented entry.

***Feature 183. Cup Mark***

Location: 201610-618425

A cup mark – 0.4m in diameter and 0.2m deep; its south and east sides were damaged.

***Feature 184. Stone Mound***

Location: 201578-618426

This was a mound covered by fieldstones and ringed by large stones. The mound measured 10.0 x 7.0m.

***Feature 197a. Cup Marks***

Location: 201705-618450

Found here were three cup marks which followed an east-west axis.

Western – 0.97m in diameter and 0.56m deep.

Central – 0.2m in diameter and 0.2m deep.

Eastern – 0.2m in diameter and 0.22m deep.

**Feature 197b. Cup Mark**

Location: 201676-618458

A cup mark – 0.7m in diameter and 0.35m deep; this does not appear in our survey map.

**Feature 198. Clearance Material**

Location: 201720-618460

This was a mound of sediment without related archaeological features or artifacts.

**Feature 199. Cup Marks**

Location: 201723-618475

Found here were two adjacent cup marks:

Western – 0.85m in diameter and 0.4m deep.

Eastern – 0.19m in diameter and 0.1m deep.

**Feature 200. Cup Marks**

Location: 201740-618512

Found here were two adjacent cup marks:

Western – 0.5m in diameter and 0.3m deep.

Eastern – 0.15m in diameter and depth; within this cup mark was another, 0.11m in diameter and 0.07m deep.

**Feature 201. Cup Mark (basin type)**

Location: 201760-618450

A basin – 0.65m in diameter and 0.2m deep.

**Feature 291. Structure**

Location: 201325-619415

This structure had an internal diameter of 3.0m, walls 0.5m wide, and was preserved to a height of 0.7m. The entrance was on the south side. This structure was built directly on bedrock, which also served as the structure's floor.

Northeast of the structure was a cuboid feature quarried from the bedrock, measuring ca. 2.3 x 1.7 x 0.1m. Northeast again of this feature was a cup mark, of diameter 0.3m and depth 0.1m.

**THE FINDS***Achia Kohn-Tavor*

The rather small ceramic assemblage from these Khirbet Butz features represents activities dating to

the Late Iron Age and Hellenistic, Early Islamic, and Mamluk periods. The assemblage includes domestic vessels, mainly bowls, kraters, storage jars and oil lamps.

Some of the late Iron Age vessels' dates are in doubt; of the three oil lamps (Fig. 20:11-13), the latter may be Persian in date. The more confidently-identified Iron Age vessels are a jar and krater (Fig. 20:5,18). Most of the vessels date to the Hellenistic era. Their ware is rather homogenous, suggesting manufacture at a single nearby workshop. Prominent are common storage jars. Later vessels—from the Late Byzantine and Early Islamic eras—are locally-manufactured storage jars and cooking pots. The bowls, on the other hand, are imported. Two glazed bowls from the Mamluk period were also found (Fig. 20:16,17), along with a glass bracelet (Fig. 21:4). Finally, a stray Ottoman-period smoking pipe was found at Feature 39 (Fig. 21:3). This corresponds to types found at Belmont Castle (Simpson 2000: Figs. 13.5:115-117,119,129; 13.6:124) and also at Zir'in (Simpson 2002: Figs. 1:8; 2:9)

The forms are common in this geographic location, with parallels found mainly in Jerusalem.

**CONCLUSIONS**

Most of the archaeological features found in this Khirbet Butz project were simple agricultural installations mostly dating to the Byzantine-Early Islamic period. Quantitatively predominant were a large number of cup marks and basins (n=29) cut into the exposed bedrock. We do not yet have evidence that would support a conclusive date for these features, or to indicate their functions. Provisionally, we have interpreted them as having served as fixed mortars for the grinding of seeds.

The circular structures (n=11) were built from dry stone walls of local fieldstones. These structures are often defined as 'guard houses' or 'watchman's huts' (*shomerot* in Hebrew). Such structures were probably used on a seasonal basis for pastoral purposes by a semi-nomadic population. Another structure type was also identified (Feature 155); this was more quadrilateral in form.

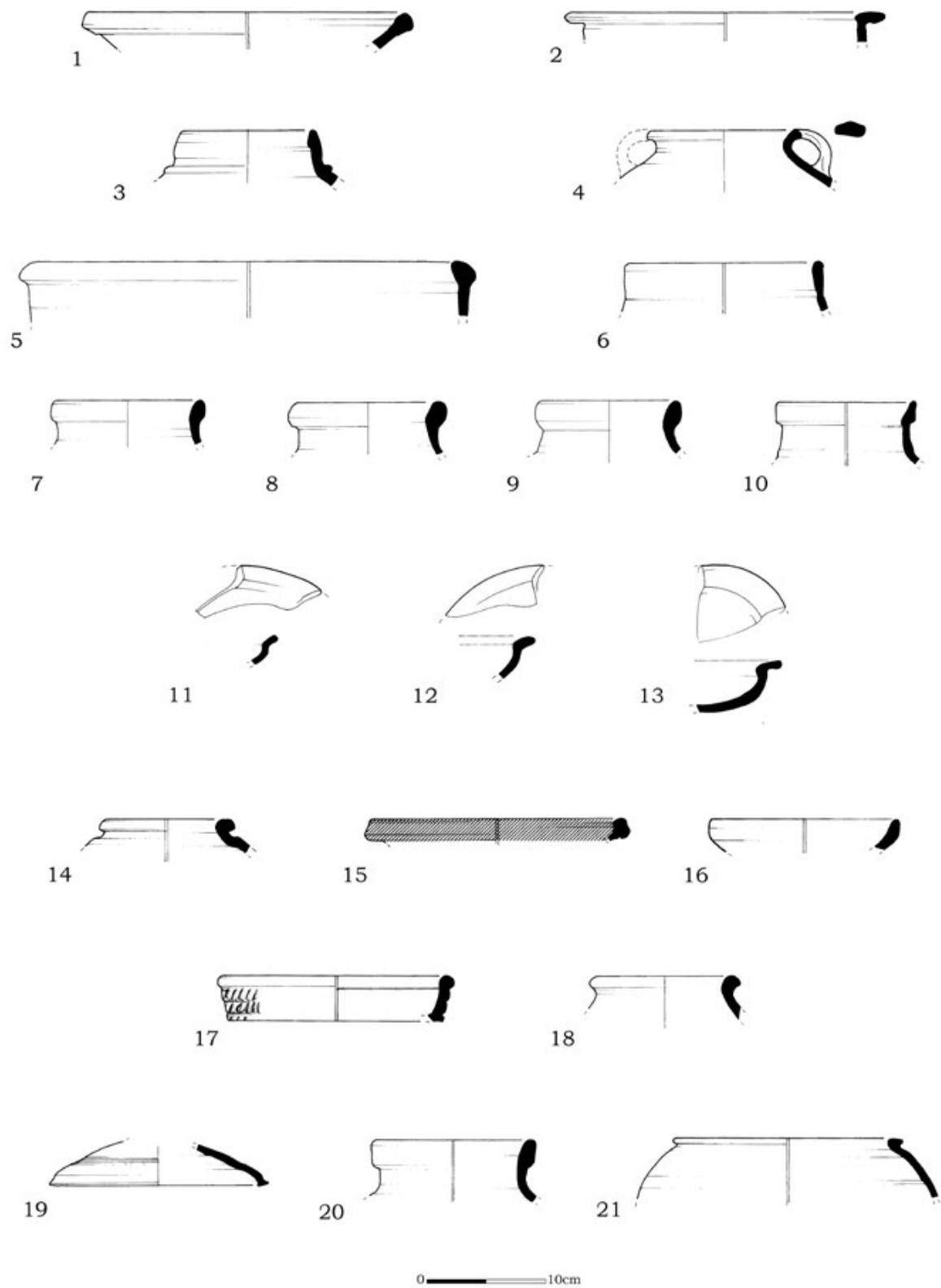


Figure 20. Ceramic finds.

Figure 20.

No.	Type	Feature no.	Locus	Reg. no.	Description	Date (centuries CE / period)	Parallels
1	Bowl	155	100	1000/1	Thin, red clay	Late 6 <sup>th</sup>	Hayes 1972: LR 10a
2	Krater	155	100	1000/2	Light clay, white grits	Hellenistic?	
3	Jar	155	100	1000/3	Light yellow clay, white grits	6 <sup>th</sup> -late 7 <sup>th</sup>	Magness 1993: storage jar form 4c
4	Cooking pot	155	101	1002/1	Orange clay, light gray core, black grits	5/6 <sup>th</sup> -7/early 8 <sup>th</sup>	Magness 1993: cooking-pot form 4c
5	Krater	155	103	1005/1	Gray clay, white grits	IA IIB	*De G and B-G 2012: Fig. 4.14:9
6	Krater	39	106	1077/1	Thin light clay, small black grits	Late 6 <sup>th</sup> -early 8 <sup>th</sup>	Magness 1993: storage jar 5a
7	Jar	39	106	1010/1	Pink clay, white grits	Hellenistic	*De G and B-G 2012: Fig. 2.6:20
8	Jar	39	106	1014/1	Pink clay, white grits	Hellenistic	*De G and B-G 2012: Fig. 2.6:20
9	Jar	39	106	1010/2	Pink clay, gray core, white grits	Hellenistic	*De G and B-G 2012: Fig. 2.6:20
10	Jar	39	106	1077/2	Pink clay, white grits	Hellenistic	*De G and B-G 2012: Fig. 2.6:7
11	Lamp	39	106	1014/2	Pink clay, white grits	IA II?	*De G and B-G 2012: Fig. 2.5:17
12	Lamp	39	106	1077/3	Pink clay, white grits	IA II?	*De G and B-G 2012: Fig. 2.5:17
13	Lamp	39	106	1077/4	Light clay, black grits	Persian?	*De G and B-G 2012: Fig. 3.7:1-4
14	Jar	39	107	1017/1	Pink clay, white grits	Hellenistic	
15	Bowl	39	108	1017/2	Thin, red clay; red slip	5 <sup>th</sup> -6 <sup>th</sup>	Hayes 1972: LRC3
16	Bowl	39	108	1017/4	Light gray clay; thick dark green burnish	Mamluk	Avissar and Stern 2005: monochrome glazed bowl type I.1.4.1
17	Bowl	39	108	1017/3	Light orange clay; green burnish; black strip below rim interior	Mamluk	
18	Jar	39	108	1076/1	Pink clay, white grits	IA II	*De G and B-G 2012: Fig. 2.2:1 <sup>8</sup>
19	Lid	39	109	1016/2	Gray clay, pink exterior, black grits	Early Islamic	Magness 1993: lid form 1
20	Jar	39	109	1016/3	Light gray clay, white grits	Hellenistic	*De G and B-G 2012: Fig. 2.6:20
21	Cooking pot	39	109	1016/1	Thin, red clay	Early Islamic	

\* De G and B-G 2012 = De Groot and Bernick-Greenberg 2012

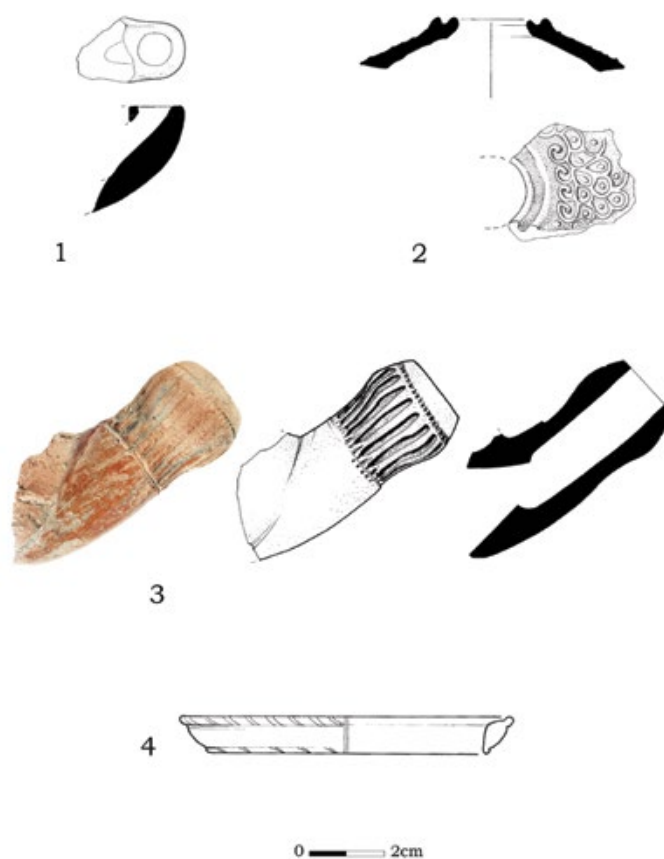


Figure 21. Lamps, pipe and bracelet.

No.	Type	Feature no.	Locus	Reg. no.	Description	Date (centuries CE / period)	Parallels
1	Lamp	39	106	1014/3	Thin, light clay; gray burnish	Hellenistic	
2	Lamp	39	109	1016/4	Thin, pink clay	Early Islamic	Hadad 2000: local clay lamps type 37
3	Pipe	39	108	1015/1	Orange/red clay; light exterior burnish	18 <sup>th</sup> -19 <sup>th</sup>	Simpson 2000: Figs. 13.5; 13.6
4	Bracelet	39	108	1017/5	Glass; light green	Mamluk	

We also identified:

- Two caves with evidence of occupation (like the 'guard houses', these caves were probably used by shepherds)
- Two rock-cut water cisterns
- Two quarried features
- Two stone mounds

- One wine press
- One wall
- One rock-cut channel

- One concentration of clearance material

Having excavated and recorded these features, we supported the release of the area for development. However, we recommended that Features 38 and 39 be further excavated and conserved.

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# Excavation at Ramat Bet Shemesh (Gimel) - 2011

## A Roman-Byzantine Structure

*Yitzhak Marmelstein*

*This excavation was conducted in 2011, on behalf of the Hebrew Union College in the north Judean Plain, at the western edge of Be'er Halaf, about 8km southeast of Tel Yarmut and 10km northeast of Bet Natif (Fig. 1). The excavation was directed by the author (who also analyzed the ceramics) with the assistance of Conn Herriott (site drafting and pottery drawing), Sergey Alon (field photography), and Oz Varoner and Yehuda Govrin (oversight).*

### INTRODUCTION

This excavation was conducted ahead of the construction of a residential neighborhood at Ramat Bet Shemesh (Gimel). The excavation area comprised two and a half squares at two points located 3.0m apart: Israel Antiquities Authority survey Point 18 was a ruin (390m asl) covered by stones (scattered all over the area), *rendzina* soil and typical Mediterranean forest vegetation; and Point 19 was a cup mark (389m asl) covered by *rendzina* soil.

### THE EXCAVATION

#### *Point 18*

The remains of a circular structure were found here, built on an Eocene-formation chalk outcrop typical of the Judean Plain (Buchbinder 1969). The structure was filled by an alluvial *rendzina* soil (L1000), forming a hump shape before excavation. The structure (3.0 x 2.85m; Fig. 2) had mostly collapsed, many of its stones being found in the immediate area. It comprised a circular outline wall (W1, length 4.2m, width 0.6m; Fig. 2) built directly on the bedrock outcropping which sloped gently down from north to south (Fig. 3). The wall base was built of large

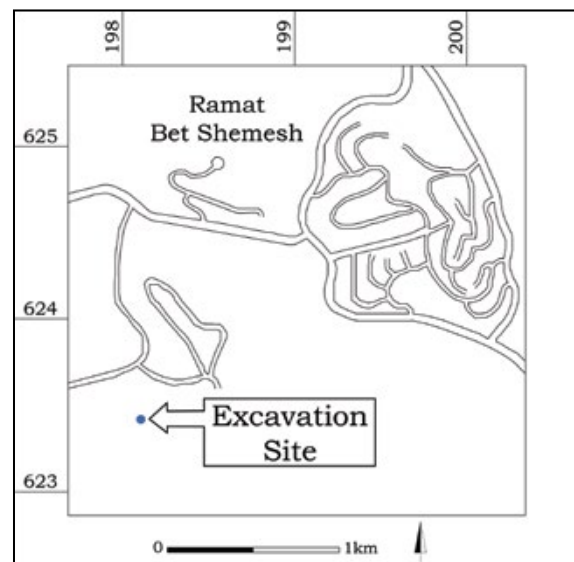


Figure 1. Site location (New Israel Grid: 623396/198108; 390m asl).

fieldstones laid in dry construction, the gaps between the fieldstones being filled with small cobbles. Above the wall base were placed medium-to-large fieldstones. The structure was preserved for up to two courses on the south side (1.25m high). The entrance was on the east side (1.03m wide; Fig. 3) and was preserved to the height of a single course (0.84m).

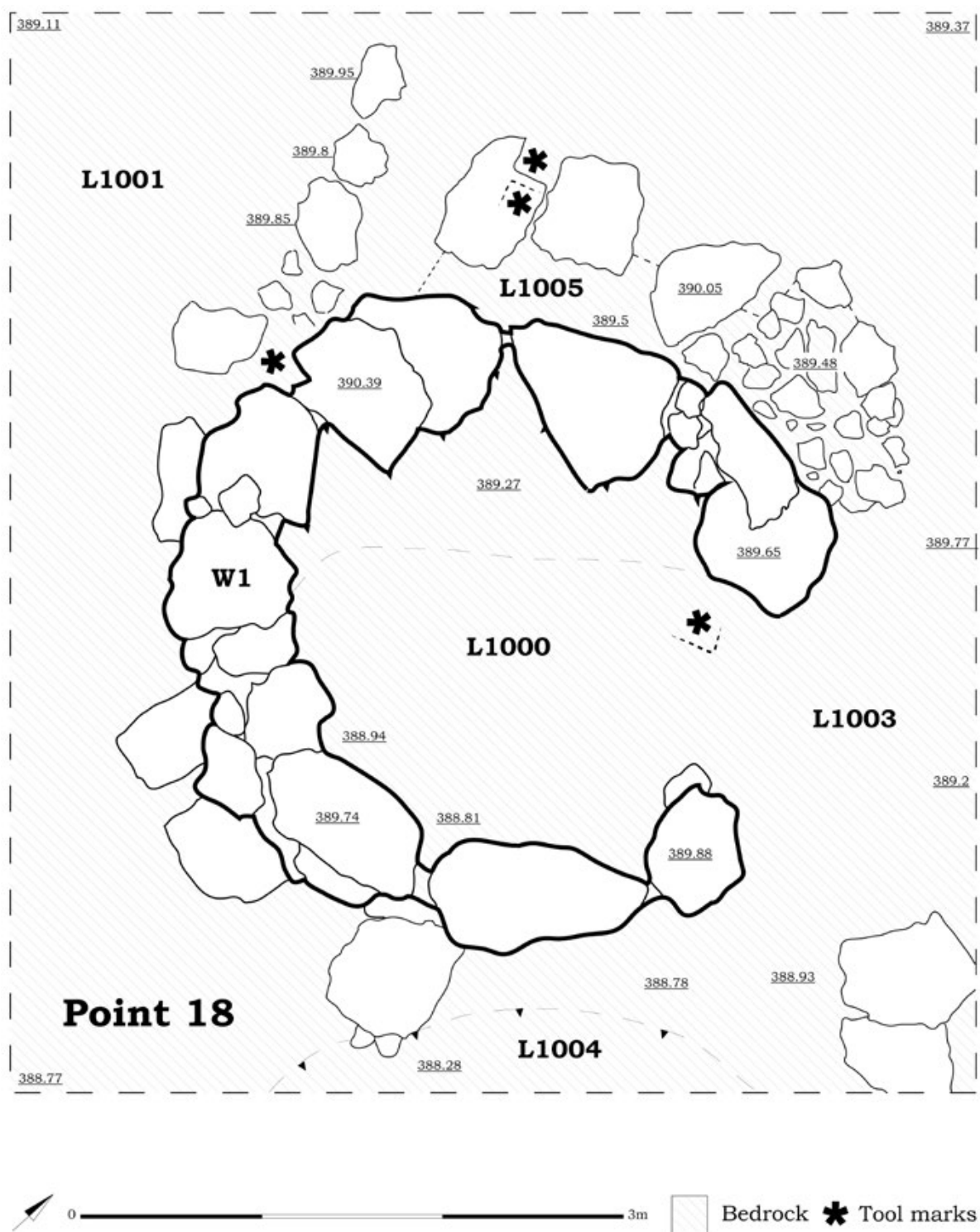


Figure 2. Plan of the structure.





Figure 3. L1003, the Point 18 structure entrance (facing west).



Figure 4. L1000, the Point 18 structure fill (facing north).



Figure 5. L1004, The Point 18 structure's bedrock surface (facing north).

As mentioned, the structure was filled up to its maximum extant height with alluvium and weathered stones (L1000; Fig. 4). The potsherds found on the bottom of this fill included scant body fragments of jars from the end of the Roman period.

Adjacent to the structure we excavated a layer of fill (L1004) inside a shallow natural bedrock decline (Fig. 5). The *rendzina* soil fill contained potsherds dating to the Roman and Byzantine period. Represented were a flask (Fig. 6:6), *terra sigillata* bowl (Fig. 6:1), cooking pot (Fig. 6:5), cooking jug (Fig. 6:7), and jug (Fig. 6:4) from the Roman period, and a jar (Fig. 6:3) of Byzantine date. Other alluvial deposits (L1001 and L1003) outside the structure were composed of stone collapse mixed with layers of *rendzina* soil, in which we found fragments of a jug (Fig. 6:8) and jar (Fig. 6:2) from the Byzantine period.

North of the structure were identified several asymmetrical anthropogenic cuts in a large fieldstone (L1005; length 0.1m, width 0.12m), possibly part of an installation the hewing of which had never been completed.

The pottery finds allow us to date the structure's apparent first use to the Roman period (*terminus ante quem*) and its probable last utilization to Byzantine times (*terminus post quem*). However, it seems that the pottery originated from the alluvium mixed with the *rendzina* soil that filled the structure. Therefore it is impossible to determine its date with certainty.

A similar structure, circular in plan and hump-shaped in pre-excavation profile, was discovered in the recent Israel Antiquities Authority's Ramat Bet Shemesh survey, about 100m north of Khirbat el-'Alya (Stark 2007: Site 12). The surveyors interpreted this as associated with a nearby oil press. Another structure identified in survey at Ramat Bet Shemesh, dating to the same period as our Point 18, was interpreted as a watchtower (Dagan 2010: 238, Site 306.5). Other similar structures dating to the same period were revealed outside Ramat Bet Shemesh at Horbat Nazur (Yannai 2010: 87-88). These features have been identified as stone heaps.

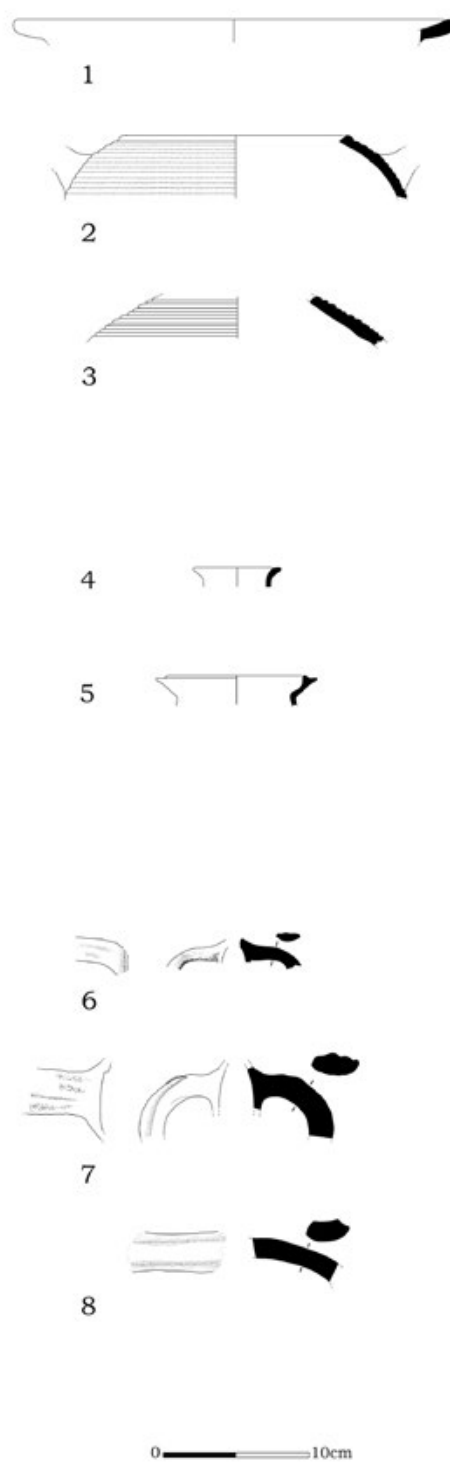


Figure 6. The finds from the Point 18 structure.

Figure 6.

No.	Type	Locus	Reg. no.	Description	Period
1	Bowl	1004	105/1	Red/brown ware	Roman
2	Holemouth jar	1003	104/1	Red/brown ware	Byzantine
3	Cooking pot	1004	105/2	Red/brown ware	Byzantine
4	Jug	1004	105/3	Red/brown ware	Roman
5	Cooking pot	1004	105/5	Red/brown ware; few white inclusions	Roman
6	Flask	1004	105/4	Red/brown ware	Roman
7	Cooking jug	1004	105/6	Red/brown ware; few white inclusions	Roman
8	Jug	1001	101/1	Red/brown ware; few white inclusions	Byzantine

### Point 19

This feature was a cup mark (Fig. 7), circular in plan and with a concave base (1.05m x 0.8m, 0.35m deep), hewn in the chalk bedrock surface. The feature was filled entirely with alluvial soil (L1006) devoid of any potsherds or other finds. Similar cup marks were revealed in a recent Ramat Bet Shemesh survey (Dagan 2010). Many sites across Israel suggest that such cup marks had an agriculture-related function, mainly in the olive oil industry (Frankel 1999).



Figure 7. L1006, the Point 19 cup mark (facing north).

## CONCLUSIONS

The Point 18 structure has parallels in the Bet Shemesh area. However, its purpose is not clear. Due to a lack of finds which might support a particular interpretation, it

is not possible to determine whether the structure was used as a watchtower or was related to the production of oil. It can only be assumed that this was a shelter of some kind. Likewise our interpretation of the Point 19 cup mark must remain inconclusive, although parallels suggest a role in olive oil or wine production.

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# Excavation at Khirbat Marmita (Hartuv Quarry) - 2008

## Roman and Byzantine Remains

*Yehuda Govrin & Tamar Shavi*

*This excavation was carried out in 2008 by Y.G. Contract Archaeology Ltd. (excavation license G-63/2008), under the direction of Tamar Shavi and the academic auspices of the Hebrew Union College.*

### INTRODUCTION

Khirbat Marmita is a well-known Roman-Byzantine site with habitation, industrial and mortuary aspects. It is located within the bounds of the present-day Hartuv quarry in the central Shephelah, at 310m asl. Previous rescue excavations at the site were conducted by the Israel Antiquities Authority (IAA) under the direction of Gershuny (2006; see also Billig 2011). These excavations—carried out mainly in the eastern part of Khirbat Marmita—exposed water cisterns, buildings, a *mikveh* (a Jewish ritual bathing installation), wine presses and other features. Our excavation



Figure 1. Ancient quarrying works (Platform E) in the excavation area (facing south).

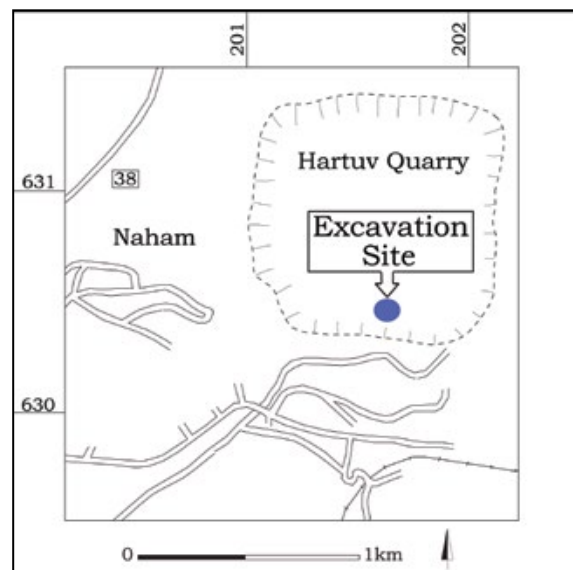


Figure 2. Hartuv location map (New Israel Grid: 201629-630408; 310m asl).

was located further west, just east of a line of fig trees which constituted the quarry limit.

Backhoe test probes at various locations did not reveal any archaeological remains. We could therefore focus on recording the details of those archaeological installations and features found carved into exposed bedrock outcroppings. These features included quarrying sites, wine presses and cup marks.



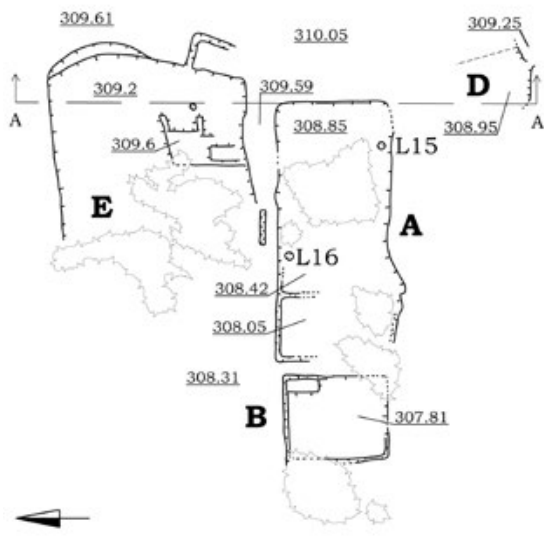
## THE EXCAVATION

### Quarrying platforms (Fig. 3)

In the upper part of the site were found a number of quarrying platforms cut for the production of building stones. These platforms extended along an east-west line of exposed bedrock. The eastern platform (A) measured 8.0 x 3.0m and was cut to a maximum depth of 0.8m. At some point the centre of the platform collapsed inward (Fig. 4), which probably brought quarrying here to an end. On the surface of the platform were found two cup marks (L15 and L16) each measuring 0.35m in diameter and cut to a depth of 0.3m.

The central platform (A-west) measured 2.25 x 1.9m. At its southwestern corner a karstic hole was opened and found to be filled with soil. In the upper levels of this fill we found (non-indicative) potsherds dating to the Roman period. At a depth of approximately 0.8m the soil became archaeologically sterile.

#### PLAN



#### SECTION (A-A)

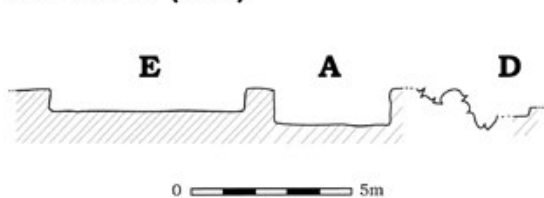


Figure 3. Plan and section of the quarrying platforms.

The western quarrying platform (B) measured 3.2 x 2.9m. At its northeastern corner a fragment of quarried stone was found. At the western end of the platform we excavated a karstic hole filled with rocks and soil, together with a large number of (non-indicative) Roman-period sherds. Inside the hole were also found a number of large stones which were probably discarded there. A tree grew close to the southwestern corner of the platform. Its roots took advantage of and penetrated the karstic cavities. There appeared to be a karstic passage between the hole that was excavated and the one in which the tree grew.

An additional quarrying platform (E) was found immediately north of Platform A (Fig. 5). The size of this platform was 6.2 x 5.4m and its depth 0.4m. At its eastern end were a number of deep detachment slots defining the slabs that were next to be quarried from the platform (see Fig. 1). At the western extremity of the platform we uncovered several natural depressions in the rock, again containing ceramic sherds of Roman date. It appears that quarrying here was discontinued in mid-operation, due to the relatively poor quality of the rock.

A final quarrying platform (D) was located southeast of Platform A. Only the western side was exposed due to a large crack in the rock which constituted a safety hazard. A 3.0 x 3.0m section was dug down to the base of the platform, about 0.8 m deep. Again, in the friable earth from this section we found a number of sherds dating to the Roman period.



Figure 4. The eastern quarrying platform (A), the floor of which collapsed (facing west).



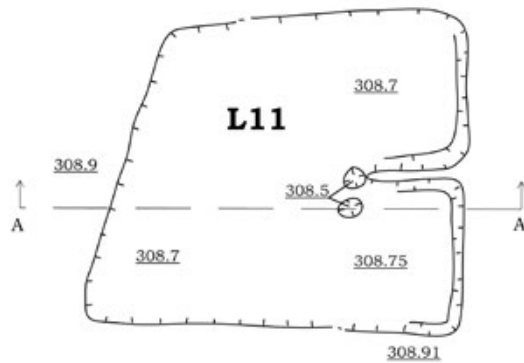
Figure 5. The northern quarrying platform (E) (facing west).

### Treading floors

Two small platforms were found carved into the rock very close to the edge of the site's southern limit:

- The first was a surface installation (L11, Fig. 6), which we exposed completely. This was probably a

#### PLAN



#### SECTION (A-A)



0 4m

Figure 6. The L11 treading floor.

treading floor which made up one stage in a wine production process. The floor was cracked and dangerous.

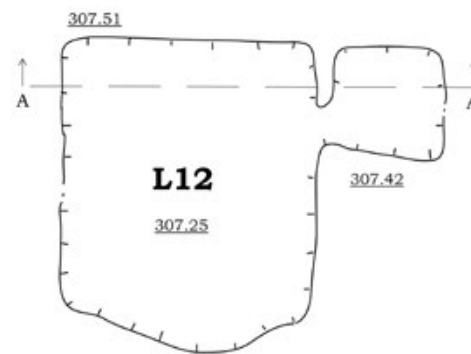
- An additional treading floor and associated vat (L12, Fig. 7) were found to the west of the first.

These wine presses follow the simplest design for such installations: Frankel's type T1 (Frankel 1999: 51-56).

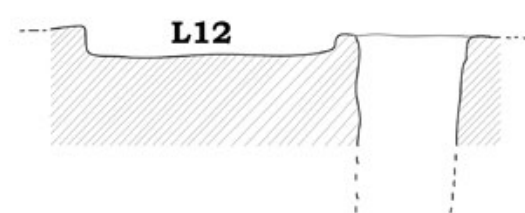
### Cup marks

A number of cup marks hewn into the exposed bedrock of the site were found close to the edge of the cliff at the site's southwestern edge. The eastern cup mark (L7) was 0.5m in diameter and 0.4m deep. Approximately 4.0m west of L7 we identified two adjacent cup marks (L8 and 9), L8 measuring 0.5m in diameter and 0.35m deep, and L9 0.6m in diameter and 0.45m deep. An additional cup mark (L10) was

#### PLAN



#### SECTION (A-A)



0 3m

Figure 7. The L12 treading floor and vat.

found 6.0m west of L8 and L9; its diameter was 0.6m and its depth 0.5m. We noted that there was a carved socket surrounding mostly the southeastern edge of the cup (Fig. 8), and that the base of the cup had an even concave shape.

## CONCLUSIONS

This site included part of an ancient quarry in the vicinity of the Roman and Byzantine settlement of Khirbat Marmita. In addition, wine presses were found which could either predate, post-date or coexist with the quarry. The finds indicate that the quarry was coeval with the settlement.



Figure 8. The western cup mark (L10). Note the carved socket around the cup.

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# Excavation at Naan (East) - 2009

## The Early Islamic Kaanatt Benth el-Kaffar Aqueduct

*Eli Cohen Sasson*

*This excavation was carried out in 2009 by Y.G. Contract Archaeology Ltd. (excavation license B-339/2009), under the direction of Eli Cohen Sasson and the academic auspices of the Hebrew Union College. Site drafting was conducted by Conn Herriott, and artifact illustration by Eli Cohen Sasson.*

### INTRODUCTION

The Ramla aqueduct (Figs. 1-2) is mentioned in a number of historical sources which recount the construction of Ramla. Caliph Sulayman ibn 'Abd al-Malik, the founder of the city, is said to have built an aqueduct named *Kaanatt Barda* during the years 715-717 CE (Zelinger and Shmueli 2002: 279).

Since the beginning of the 19<sup>th</sup> century much evidence has been found for this aqueduct route, running from Tel Gezer to Ramla:

- 1874: British surveyors Conder and Kitchener registered the remains of an aqueduct and recorded its contemporary local name, *Kaanatt Benth el-Kaffar*, meaning "Aqueduct of the Infidel's Sons" (Conder and Kitchener 1882: 437).
- 1950: Yaacov Kaplan noted remains of an aqueduct exposed during road works at the Ramla-Nahshon junction, recognizing them as part of the Tell Gezer-Ramla aqueduct (Zelinger and Shmueli 2002: 280).
- 1998: On behalf of the Antiquities Authority (IAA), a rescue excavation close to the railway line between Ramla and Kibbutz Naan exposed the remains of an aqueduct with finds from the Abbasid period (Zelinger 2000).
- 1999: Ground-penetrating radar was used to detect the aqueduct's path without excavation (Petersen and Wardill 2001).
- 2001a: A rescue excavation along the Trans-Israel Highway on behalf of the IAA exposed 150m of the aqueduct (Gorzalczy 2005).



Figure 1. General view of the excavated aqueduct (facing southwest).



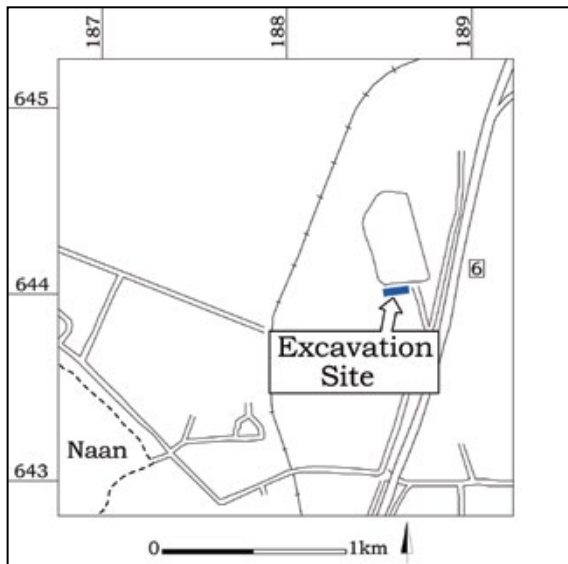


Figure 2. The site location (New Israel Grid: 188599-644039; 95m asl).

- 2001b: A rescue excavation was carried out, following damage caused by the digging of a gas pipeline trench (Tzion-Cinamon 2005).
- 2006: An IAA test excavation conducted northeast of Moshav Yashresh exposed a section of the aqueduct (Gorzalczany 2008).
- 2008: A test excavation carried out on behalf of the IAA along the railway line to Naan found more aqueduct segments (Toueg 2010).

The most recent excavation, reported here and commissioned by Israel Railways as part of their rail infrastructure extension work, adds important new information about the aqueduct. This excavation contributed to our knowledge of the aqueduct's route, revealed techniques used in the Islamic period for aqueduct maintenance in an area of difficult terrain, and shed light on the taphonomy of the aqueduct after it had fallen into disuse.

## THE EXCAVATION

Following the 2008 IAA test excavation (Toueg 2010), we elected to investigate three different areas (Fig. 3):

1. Area A: 30.0m following the course of the aqueduct to the east.

2. Area B: 10.0m of the aqueduct's length at the west end of the site.
3. Area C: Several distinct architectural elements revealed during the IAA test excavation.

### Area A

The excavation in this area was carried out in two stages, due to developments in our research questions which arose during the course of the work: the first stage involved excavating 14.4m of the aqueduct east of the IAA test excavation; it was then decided to excavate an additional 15.3m east along the aqueduct's route.

#### *Stage 1*

Continuing east from the IAA test area, 14.4m of the aqueduct was excavated along its east-west orientation. During the course of this work a 2.0m interruption in the aqueduct's path was exposed, where a drain pipe had been laid in recent years. Our excavation here confirmed the consistency of what previous work had suggested: the aqueduct was constructed by the placement of a 0.3m-high foundation of bonded fieldstones, on which were built two parallel walls; the aqueduct's water channel ran between these walls.

#### *The southern wall (W102)*

This wall was constructed from five courses of limestone. The four lower courses were built of medium-sized fieldstones bonded by cementing material. The upper course was built from larger stones chiseled into roughly regular blocks. It was evident that there occurred a later robbery of stones from the upper course of this wall. The height of the wall from the base of the channel was 1.0m and its width 0.55-60m. It is possible to distinguish between two layers of plaster on the northern side of this wall (the interior of the aqueduct). The earlier (inner) layer had a reddish color, and quartz grain and potsherd inclusions. The later layer was grayish in color with evidence of accretion as a result of water running through the aqueduct. As was also revealed in excavations of the aqueduct approximately 200m east (Gorzalczany 2005), the two walls of the channel were built parallel

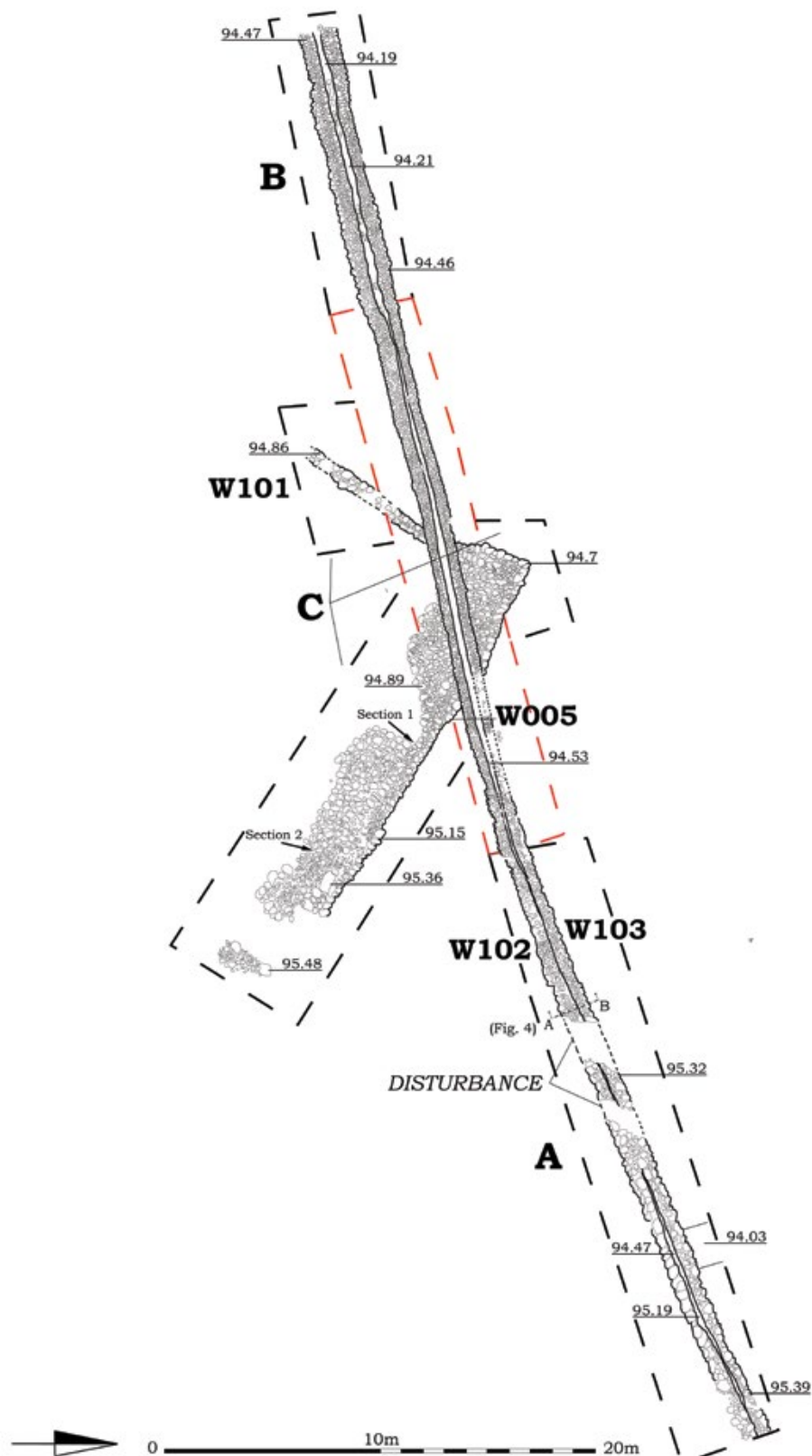


Figure 3. The different areas in the excavation, the Israel Antiquities Authority test excavation enclosed by the red frame.

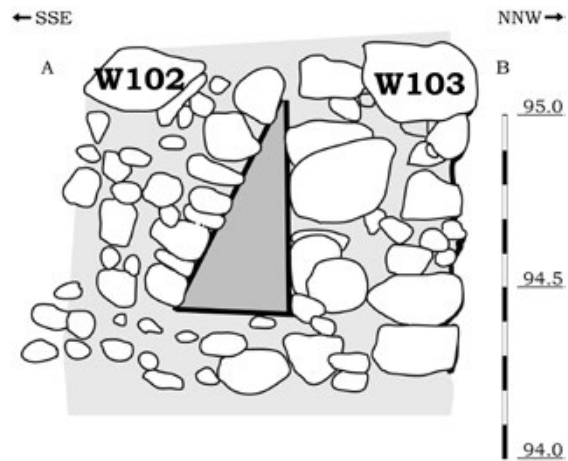


Figure 4. Area A: Section photograph and drawing of the aqueduct at the point of disturbance.

to each other and at a right angle to the aqueduct's base. In section it was revealed that the southern wall had fallen into the channel and rested at an average angle of  $61^\circ$  (Fig. 4). The cause of the collapse of the southern wall was the heavy, moisture-retaining, clayish alluvial soil of the area. The continued pressure of this heavy sediment forced the southern wall over to such an angle, and led to the channel being covered after it fell into disuse.

### *The northern wall (W103)*

This wall was built with a technique similar to Wall W102: five courses of limestone and bonding material, with the four lowest courses made up of medium-sized fieldstones and the upper course from larger roughly-dressed stones. Like its southern counterpart, the wall's height from the channel base was 1.0m, but at 0.50–55m wide was slightly narrower than W102. Yet despite this, the northern wall maintained its original shape and still stood vertical at a right angle to the aqueduct channel's base. This wall was the focus of later stone scavenging, by which a 3.1m section of the wall was robbed out entirely (Fig. 5). An approximate date was ascertained for the time of stone scavenging by studying the plaster remains in the missing section of the wall. There a layer of plaster without any stones was found on top of the channel's fill, 0.15m above the aqueduct's interior surface (Fig. 6). It was thus deduced that the stones were robbed after the channel had been abandoned and filled up with 0.15m of alluvium.



Figure 5. Area A (facing southeast): The foundation stones of the northern wall (W103) of the aqueduct in the stone robbery area.



Figure 6. Area A: Plaster remains over the aqueduct's fill in the area where the northern wall was removed.





Figure 7. Area A: The two layers of plaster from the section where the northern wall was removed, earlier layer (1) and later layer (2).



Figure 8. Area A (facing southwest): The eastern section of the excavated aqueduct. The angle of Wall W102 (left) can clearly be seen.



Figure 9. Area A (facing southwest): A large stone lodged in the interior of the aqueduct.

### *Aqueduct interior*

The aqueduct was built by laying a 0.3m-high bonded fieldstone foundation, upon which were built two parallel walls 0.4m apart. The channel's slope was very gentle, measuring  $0.05^\circ$  over the length of the area. Two layers of plaster were clearly discerned (Fig. 7): the earlier pinkish in color, with quartz grain and potsherd inclusions, and the later layer grayish in color due to water-induced accretions.

### *Stage 2*

An additional 15.3m of the aqueduct was excavated to the east, and two agriculture-related disturbances were found and documented.

### *The southern wall (W102)*

In this part of the aqueduct Wall W102 was constructed from seven courses of limestone. The six lower courses were built of medium-sized, bonded fieldstones. The upper course was built from larger stones cut into roughly regular blocks. As in the first stage, evidence of a later robbery of stones from the upper course of this wall could also be seen. The height of the wall from the base of the channel was 1.2m and its width was 0.55-60m. This wall collapsed to the north similar to the Stage 1 area (Fig. 8), except at one point where a large stone was found in the interior of the aqueduct, keeping the wall from falling in (Fig. 9).

### *The northern wall (W103)*

Wall W103 was identical to the southern wall described above and was comprised of seven courses of limestone, the six lower courses built of medium-sized fieldstones bonded by cementing material and an upper course built from larger semi-dressed blocks. The height of the wall from the base of the channel was 1.2m and again it was 0.55-60m wide. A deep square (1.0 x 1.6m) was excavated beside the wall here in order to examine its construction (Fig. 10).

### *The aqueduct interior*

As in the Stage 1 area, the aqueduct interior here was built from a 0.3m-high bonded fieldstone foundation, on which a smooth layer of plaster was applied across





Figure 10. Area A: The north side of W103.

the 0.4m width of the channel. The depth of the interior of the aqueduct here was 0.92m from the base to the extant top of the enclosing walls (Fig. 11). In this section also two layers of plaster were found in the interior of the aqueduct.

## Area B

### *The southern wall (W102)*

The wall here was constructed from four courses of limestone. The three lower courses were built of medium-sized, bonded fieldstones. The upper course was built from larger semi-dressed blocks. The height of the wall here, from the base of the channel, was only 0.55m and its width 0.55-60m. In this section both of the walls maintained their rectitude, probably not collapsing because the lower walls here reduced the pressure exerted on them from the surrounding soil, and due to four large stones which here also had collapsed into the channel and helped shore up the wall (Fig. 12).



Figure 11. Area A: The interior of the aqueduct.



Figure 12. Area B (facing west): The aqueduct at the western end of the excavation.





Figure 13. Area B: Pottery and plaster in the aqueduct interior.



Figure 14. Area C (facing northeast): W101 with the aqueduct excavated by the Israel Antiquities Authority in the background.



Figure 15. Area C (facing southeast): The stone surface.

### *The northern wall (W103)*

This wall was identical to W103 and was also constructed from four courses of limestone. The three lower courses were built of medium-sized, bonded fieldstones. The upper course was built from larger semi-dressed blocks. The height of the wall from the base of the channel was only 0.55m and its thickness 0.55-60m.

### *The aqueduct interior*

In this section of the aqueduct the interior width was 0.35m—slightly narrower than in the eastern section—and the interior depth ca. 0.25m, from the extant top of the walls to the base of the aqueduct which is much lower than in Area A.

In this area many pottery fragments were found incorporated with the plaster inside the aqueduct (Fig. 13).

## **Area C**

### *Wall W101*

In the IAA's test excavation a 0.6m-wide single-course wall was found projecting southwestward from the southern wall of the aqueduct at an angle of 42°. We excavated the wall and its immediate surroundings in order to expose any continuation or possible associated features. A further 3.4m section was found (Fig. 14). The wall survived to a single course, was 6.85m long and 0.6m wide. A 1.3m-long section of the feature had been damaged.

### *The stone surface north of the aqueduct*

During the IAA test excavation a level area of stones was found projecting from the northern wall of the aqueduct. An area was opened in order to expose more of this feature (Fig. 15). We uncovered a stone surface which was triangular shape in plan, abutted the aqueduct's north wall and was constructed from a single layer of medium- and large-sized fieldstones. The entire area of this triangular feature was 9.0m<sup>2</sup>. The lines of the triangle's edges also extended south-eastward (Wall W005) and southwestward (Wall W101) on the other (south) side of the aqueduct (see Fig. 3).



Figure 16. Area C (facing northwest): The stone surface south of the aqueduct.

### *The stone surface south of the aqueduct*

During the IAA's test excavation a one-course, 0.8m-thick wall (W005) was found projecting southeastward from the aqueduct's southern wall at a 48° angle. An excavation square was opened in order to expose the continuation of this wall. During the excavation another leveled stone area was discovered, this one measuring 10.0 x 3.5m. It was also constructed from a single course of medium-sized stones (Fig. 16). However, it is emphasized that this was not the full original extent of the feature. Near the edge of our excavation area a drainage pipe had cut the stone surface. It was possible to see in the baulk section that the feature continued to the east of the disturbance, running under a modern road (associated with the adjacent Route 6).

We decided to extend the limits of our excavation to the southeast in order to document the full extent of the stone surface and ascertain its function. The drainage pipe damage was 1.5m long; beyond it was an additional 2.3 x 1.0m surface of small stones (also including two large stones) which was again cut by a water pipe line (Fig. 17). We had extended the excavation in order to find out if the stone surface continued

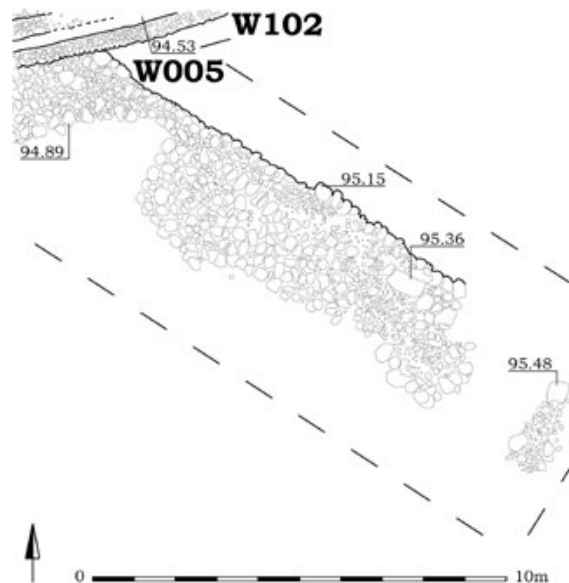


Figure 17. Area C: The stone surface revealed.

east of the first drainage pipe disturbance. It seems that the second pipe cut the edge of this surface.

### *The test sections in the stone surface*

In order to better understand the nature and function of this feature it was decided to cut through it at two points (Fig. 18): the first where it met Wall W005 and the second through the leveled stone area itself.

*Section 1* – In order to make this section, a meter-long cut into wall W005 was excavated to a depth of 0.45m (in order to reach the ground level on which the base of Wall W005 was laid). However, little additional information was learned about the function of either the wall or the stone surface. The section showed a course of medium-sized stones that were placed directly in the virgin soil, with W005 set 0.25m deeper than the stone surface feature (Fig. 19).

*Section 2* – In this test section a 0.5m-wide area running southwest-northeast was excavated through the entire width of the leveled stone area (Fig. 20). No significant information was found that might shed further light on the feature's function. Section 2, however, does support what Section 1 indicated – that W005 is set 0.25m deeper into the earth than the relatively shallow single course of fieldstones that makes up the leveled stone area.



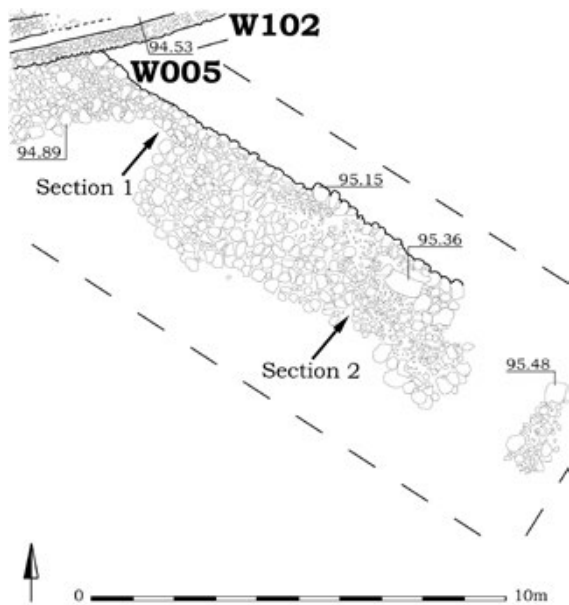


Figure 18. Area C: The location of the test sections.



Figure 19. Area C (facing northeast): Section 1 where Wall W005 (left) met the stone surface (right). Notice the difference in depth between the two features.



Figure 20. Area C (facing southwest): Section 2.

## FINDS

Only a few pottery fragments were found. However, we did recover two indicative rims of Islamic-period bowls (Fig. 21:2,3) and a small sherd from a glass vessel (Fig. 21:1). North of the aqueduct we found a concentration of many fragments from a vessel with signs of burning on its exterior and plaster remains on the interior. Perhaps this vessel was associated with the preparation of the aqueduct plaster.

## SUMMARY

The current excavation contributes to our corpus of knowledge regarding the *Kaanatt Benth el-Kaffar* aqueduct. Firstly, we have learned something of the construction's taphonomy, what it underwent after it had gone out of use. Furthermore, we have learned more about the different techniques used in order to maintain the aqueduct's route in an area of difficult terrain.

From the test section that was excavated through the aqueduct in the area of the later disturbance it was clear that most of the stress acted on the southern wall, which collapsed northward and essentially sealed the aqueduct channel. By contrast, the northern wall retained its vertical form throughout the centuries. This wall was the focus of a later stone robbery carried out after the aqueduct had fallen into disuse (but not considerably later, as we can infer from the presence of plaster immediately overlying the aqueduct's fill).

This excavation has also contributed to our knowledge of building techniques in a particular terrain. The fall of the aqueduct base between the eastern and western ends of the site is 0.28m (a 0.27° slope). However the difference between the top of W102/W103 at the eastern and western site limits is 0.92m. This clearly indicates that the eastern area was topographically higher when the aqueduct was constructed, and was therefore deepened by the ancient builders.

A large portion of the excavation focused on the architectural elements adjacent to the aqueduct, and we offer three explanations for these elements:



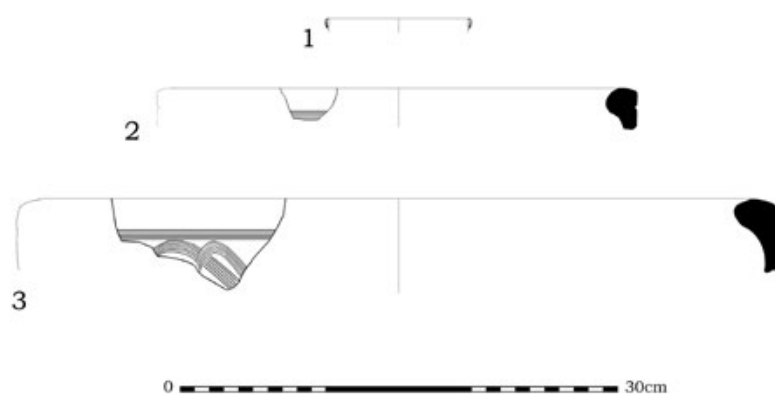


Figure 21. Finds.

No.	Object	Period
1	Glass vessel	
2	Bowl	Umayyad/Abbasid
3	Bowl	Umayyad/Abbasid

1. Already in ancient times it was understood that heavy clayish alluvial soil of the kind found in this area can be problematic for certain construction types. The IAA test excavation revealed that external reinforcements—i.e. W101, W005, and the stones surface north of the aqueduct—were built in places of such difficult soil in order to preserve the aqueduct's walls. These reinforcements were effective. By contrast, for some reason no reinforcements were put in place in the area of the current excavations and as a result the unforgiving soil caused its southern wall to collapse into the aqueduct.
2. As can be seen in the site plan (Fig. 22), a few meters east of W005 the aqueduct's orientation gently turns north (8°). It is possible that the reinforcement was built in order to support the aqueduct walls at this point of increased water pressure.
3. In the IAA excavation eastwards of our excavation (Gorzalczy 2005) the width of the aqueduct channel was 0.50-55m, which is considerably wider than the 0.4m in our excavation area. It is possible that the narrowing of the canal was a design feature aimed at increasing the water pressure, which may have necessitated some structural reinforcements.

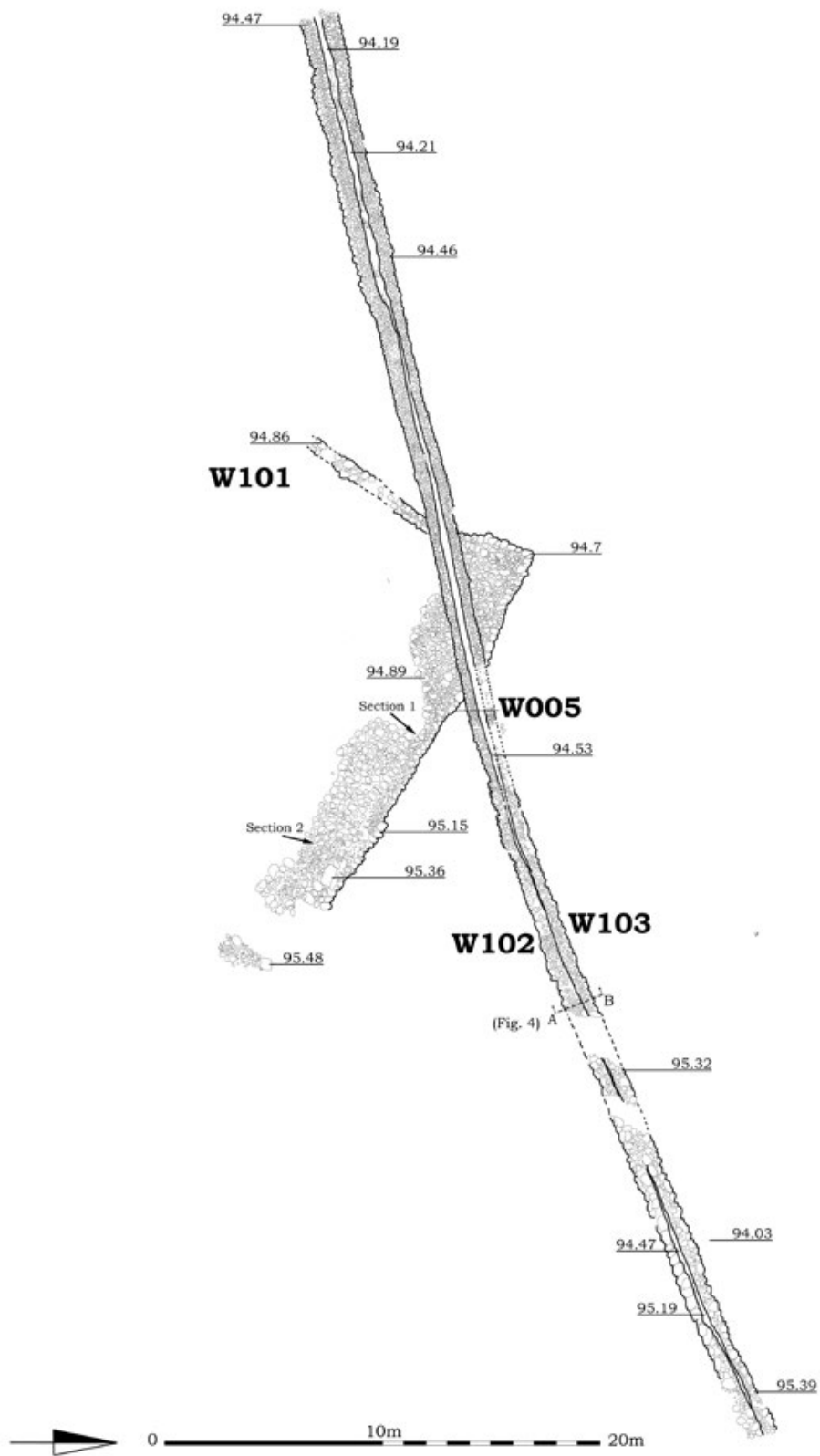


Figure 22. The excavation plan.

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# Excavation at Ramla (Bialik Interchange) - 2010

## Early Islamic Graves

*Nissim Golding-Meir*

*This excavation (excavation license B-356/2010) was carried out by Y.G. Contract Archaeology Ltd. in early November 2010, under the academic auspices of the Hebrew Union College. Nissim Golding-Meir directed the project, working with a team including archaeology students. Physical anthropologist Vered Eshed took part in the entire process of exposure and extraction of the skeletons (Eshed, this volume, p.123). Dr. Eshed also took the excavation photographs. Yehuda Govrin provided oversight.*

### INTRODUCTION

During development work on the Bialik interchange at the Mazliah-Ramla junction, human bones were discovered. The work in the area was stopped. A test excavation using a backhoe was conducted by Tzach

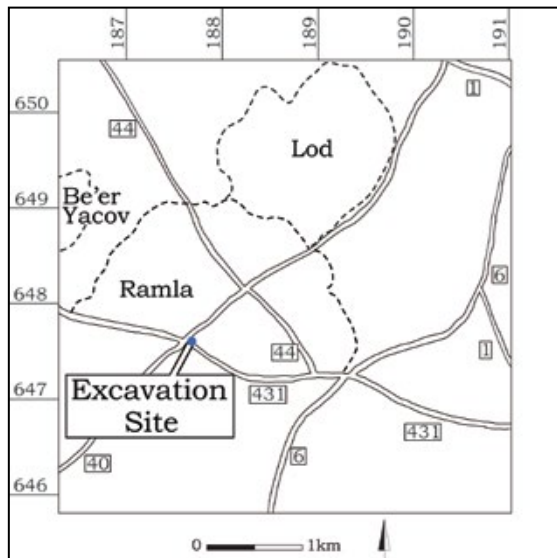


Figure 1. The location of the site (New Israel Grid: 187326-647170; 80m asl).



Figure 2. A general view of the area before excavation (facing south).

Kanias of the Israel Antiquities Authority (IAA). The tests were carried out adjacent to Route 40 on its east side and north of Route 431, in an area 20.0m long and 5.0m wide. During these tests four simple pit graves were found without associated structures. The finds included badly preserved bones. Y.G. Contract Archaeology Ltd. was subsequently contracted to conduct a rescue excavation.

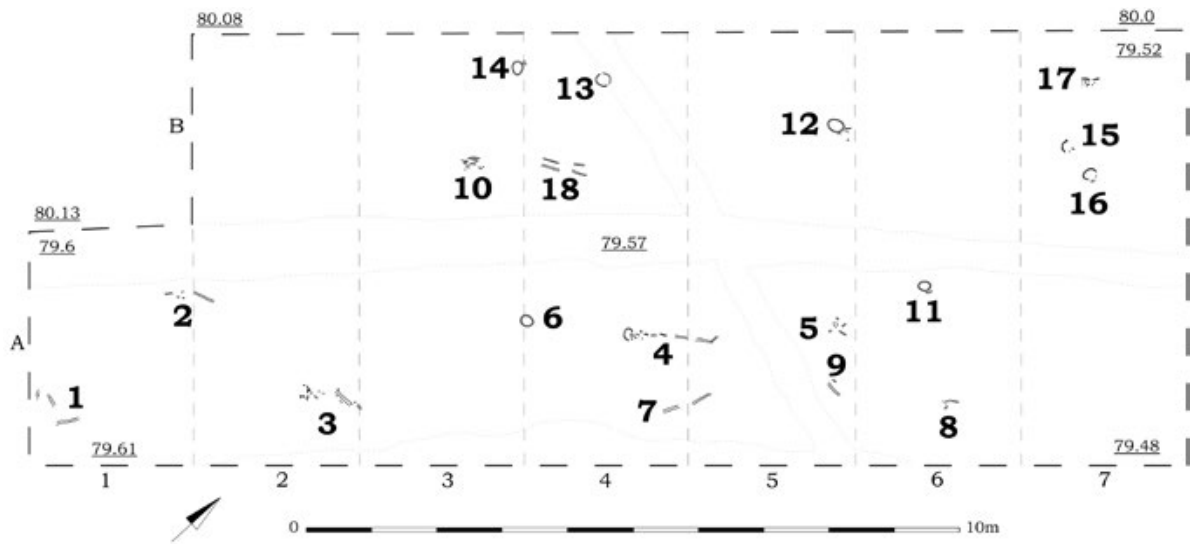


Figure 3. Site plan.

## THE EXCAVATION

Prior to our arrival at the site the present-day surface had been removed by backhoe, as part of the IAA test excavations. Our 20.0m x 6.2m excavation area was thus from the outset 0.5m lower than its surroundings. East of this area was a deep trench excavated as part of the road construction. The excavated area itself was cut by two IAA test trenches. The first was longitudinal, dividing the area from north to south. The second trench cut the first diagonally.

The area was divided into two rows of squares (A and B), each square measuring ca. 3.0 x 2.5m and each truncated by the IAA test trenches.

The surface was cleaned and brushed in order to trace the remains of the burials exposed during the test excavations. In the full-resolution rescue excavation we exposed the remains of about 18 individuals buried in the *hamra* soil. Most of the graves contained clusters of bones or skulls in a bad state of preservation. From some of the individuals only the skull was preserved while in other cases only the postcranial



Figure 4. Left: Grave 14 (skull remains). Right: Grave 18 (postcranial bones only).

bones were extant (Fig. 4). A number of the interments had been damaged during the test excavation.

Where such was discernible, we found the burial orientation to be northeast/southwest, with the head to the southwest. All adequately-preserved remains indicated an eastward facial orientation. 13 of the 18 interments were adults (i.e. older than 15 years of age). However, except for two cases where the age was determined by dental information (30-40 years) it was generally not possible to calculate the age. Five of the graves were for children (nos. 6, 11, 15-17), three of whom were interred close to one another in the northeastern-most dig square (nos. 15-17, Square B7). Apart from Grave 17, in which only the postcranial bones were found, the child burials yielded only skulls. It was not possible to identify the sex of any of the individuals buried at this site, except for Grave 12 which was determined as male.

## CONCLUSIONS

This excavation exposed the remains of some 18 interments, buried in simple graves dug into the



Figure 5. General view of Grave 4.

virgin *hamra* soil of the area. Judging by the surviving evidence, it is likely that all bodies were oriented northeast/southwest, with heads to the southwest and facing east.

The few pottery sherds we found were not diagnostic but their ware seems to date to the Early Islamic period. This was, in all likelihood, one of ancient Ramla's several burial grounds (Avni 2008: 4, general map).

During the excavation the human remains were exposed and documented, and the remains were collected and removed from the area before it was released for road construction works.

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Archaeological Survey. *Qadmoniot* 135: 2-11.

# Anthropological Report of the Ramla (Bialik Interchange) Excavation

*Vered Eshed*

As explained in the above report, the excavation area was divided into two rows of squares, Row A (Graves 1-9) to the southeast and Row B (Graves 10-18) to the northwest. All graves contained only one individual, thus totaling 18 skeletons in number.

The finds included human bones in a moderate-to-poor state of preservation; the individuals were buried in pits in the ground without any lining or built structure.

The following is a description of the graves' human remains.

## *Grave 1*

This grave contained human bones only. The bones were found without anatomic articulation. Yet it appears that this grave was a primary burial which had been disturbed. Skeletal remains included postcranial bones (of the body without the skull), of which only



Figure 1. Grave 1 (facing south).

the leg bones were identified (Fig. 1). From the bones' length and thickness it was possible to conclude that the individual was an adult, i.e. older than 15 years of age. The individual's sex was not clear.

## *Grave 2*

This grave included human bones found in primary burial and in articulation. They included only postcranial bones, from the upper and lower parts of the



Figure 2. Grave 2. Vertebrae visible in the upper center.





Figure 3. Grave 3. Remains of skull and teeth on the right side.



Figure 4. Grave 4.

body (Fig. 2). The body was oriented northeast/southwest, the head to the southwest. From the length and thickness of the bones it can be assumed that this individual was an adult, i.e. older than 15 years of age. The gender could not be determined.

### *Grave 3*

This grave included a skull broken into small pieces and a very small number of postcranial adult bones. The remains were found in anatomic articulation, which indicates that this was a primary burial (Fig. 3). The body was oriented northeast/southwest, with the head to the southwest. Because of the skull's poor preservation the individual's sex could not be determined. However, from the degree of tooth wear and decay the age could be estimated at 30-40 years.

Conclusion: the bones from this grave represent an individual of undetermined gender who died at the age of about 30-40.

### *Grave 4*

This skeleton measured 1.8m from head to feet. Around these human remains the outline of the over-cut grave was visible due to soil color differences.

The bones found were in anatomic articulation, indicating a primary burial. Remains included the skull and postcranial bones (Fig. 4). The body was laid on its right side, oriented northeast/southwest with the head to the southwest facing east. From the thickness and size of the bones we can determine that they were those of an adult, i.e. over 15 years old (Bass 1987). The individual's sex was not determinable.

### *Grave 5*

The human bones in this grave included a very small number of non-indicative long bone fragments. Despite the bones' bad preservation, from the size of the fragments it was deduced that they belonged to an adult (i.e. over 15 years old) (Bass 1987). The individual's sex could not be determined.

### *Grave 6*

In this grave only the skull of a child was found; the remaining bones were not preserved. The skull was found at the grave's the southwest end, facing east



Figure 5. Grave 6.



Figure 6. Grave 7.



Figure 7. Grave 8.

(judging from the location of the teeth, Fig. 5). From the degree of tooth development<sup>1</sup> the child's age can be determined as about 8 years.

#### *Grave 7*

The bones included a very small number of long bone fragments, among which leg bones were identified (Fig. 6). Despite the bad preservation of the remains, from the size of the fragments this skeleton can be determined as that of an adult, i.e. over 15 years (Bass 1987). The individual's sex was undeterminable.

#### *Grave 8*

These bones included a very small number of non-indicative, fragmented long bones (Fig. 7). Despite their poor preservation, from the bone fragments' size it was determined that they belonged to an adult, i.e. over 15 years (Bass 1987). The gender was not determinable.

#### *Grave 9*

These remains included a very small number of long bone fragments. Leg bones were identified (Fig. 8). Despite the bones' bad preservation it was determined from their size that they belonged to an adult, i.e. over 15 years old (Bass 1987). The individual's sex was not determinable.

<sup>1</sup> This is based on the second bottom molar tooth, specifically the degree of the crown and root's development (Ubelaker 1989).



Figure 8. Grave 9.



Figure 9. Grave 10 (facing east).



Figure 10. Grave 11. Teeth visible at the top.

### *Grave 10*

The bones here were found in primary burial and anatomic articulation. The leg bones were most likely laid in a flexed position (Fig. 9). The skeleton was oriented northeast/southwest, with the head probably to the southwest. From the thickness and size of the bones the individual can be determined as an adult, i.e. over 15 years (Bass 1987). The individual's gender was not determinable.

### *Grave 11*

In this grave a child's skull was found; the rest of the body's bones were not preserved. The skull was found at the grave's southwest ends. From the location of the teeth we deduced that the skull was facing east (Fig. 10). From the degree of the tooth development the child's age can be estimated to be about seven years (Ubelaker 1989).<sup>2</sup>

### *Grave 12*

The finds from this grave consisted mainly of an adult individual's skull; the postcranial bones were preserved only in traces. The body was oriented northeast/southwest. The skull was found at the southwest side, the teeth revealing that it faced east (Fig. 11 [left]). Morphologically the skull's bones suggest the individual was a male (Bass 1987). The estimated age of this individual—as indicated by the degree of tooth wear (Fig. 11 [right])—is 30-40 years (Hillson 1993).

Conclusion: the bones from this locus represent an individual male age 30-40 years.

### *Grave 13*

The finds from this grave comprised an adult individual's skull; the postcranial bones were not preserved. The skull was found at the southeast side (Fig. 12). Since no indicative anatomical elements were found (such as teeth or large parts of the skull), it was not possible to determine the sex or age of the individual. Even so, due to the thickness of the skull's bones and

<sup>2</sup> This is based on an analysis of the second bottom primary molar tooth's crown development.





Figure 11. Left: Grave 12. Right: Close-up of the Grave 12 teeth.



Figure 12. Grave 13.

its circumference it is possible to estimate with some confidence that the individual was an adult, i.e. older than 15 (Bass 1987).

#### ***Grave 14***

The finds from this grave comprised an adult individual's skull; the postcranial bones included only a few long bone fragments. The skull was found at the



Figure 13. Grave 14.

southeast side (Fig. 13). Since no indicative elements were found—such as teeth or complete skull bone components—it was not possible to determine the individual's sex or age. Even so, information about the skull's thickness and circumference made it possible to reliably determine that the individual was an adult, i.e. older than 15 years (Bass 1987).



Figure 14. Grave 15. Teeth visible in the upper left.



Figure 16. Grave 17. Ribs visible on the right side, part of a long bone in the upper left.



Figure 15. Grave 16. Teeth visible on the left side.

### *Grave 15*

The finds from this grave comprised a child's skull; the postcranial bones were not preserved. The skull was found at the southwest side of the grave, facing

east as indicated by the teeth location (Fig. 14). From the degree of the tooth development we can estimate the child's age at about six years.<sup>3</sup>

### *Grave 16*

The finds from this grave comprised a child's skull; the postcranial bones were not preserved. The skull was found at the grave's southwest side; the teeth location indicated that it faced east (Fig. 15). From the degree of the tooth development we can estimate the child's age to be about four years.<sup>4</sup>

### *Grave 17*

The finds from this grave comprised the postcranial bones of a child; the skull was not preserved. Among the remains were found the thorax bones (Fig. 16). The individual was oriented northeast/southwest; from other graves we presume that the head lay in the southwest and the legs in the northeast. Judging by the long bones' size, we deduced an age at death of 3-10 years (Bass 1987).

3 This is based on an analysis of: the first bottom molar, which displayed a near-complete crown and root; the second upper molar, which incorporated a near-complete crown; and the second bottom molar, the crown of which had reached two thirds of full development (Ubelaker 1989).

4 This is indicated by the fixed canine, with a limited degree of development in the crown (Ubelaker 1989).

**Grave 18**

The finds from this grave comprised only postcranial bones; the skull was not preserved. The individual lay on their back, with a northeast/southwest orientation with the head presumably to the southwest. The size and thickness of the bones suggested an adult, i.e. older than 15 years (Bass 1987). The individual's sex was not determined.

**SUMMARY**

In this excavation eighteen graves were exposed, each grave containing one individual. Both adults

and children were interred; sex and age statistics are presented in Table 1. The graves were probably part of a cemetery belonging to Early Islamic Ramla. Most of the individuals were oriented northeast/southwest, with heads to the southwest and facing east (Table 2). In the north side of the excavation area a number of child burials were found, several adjacent to one another; it appears that this part of the cemetery was designated for child burials. No accompanying objects—i.e. grave gifts—were found in or around the graves.

Table 1. Age and sex of the interred.

	Adults (over 15)	Children (under 15)	Total
	13	5	18
Age division	2 aged 30-40	One each aged: 4, 6, 7 and 8 years. One aged 3-10 years.	
Sex division	One male		

Table 2. Bone preservation and burial orientation.

Grave	Bone preservation	Age	Direction	Head	Face
1	Only some postcranial bones.	Adult			
2	Only some postcranial bones.	Adult	Northeast/southwest	Southwest	
3	The skull and a few postcranial bones.	30-40	Northeast/southwest	Southwest	
4	The skull and some postcranial bones.	Adult	Northeast/southwest	Southwest	East
5	Only a few postcranial bones.	Adult			
6	Only the skull.	Child (8)		Southwest	East
7	Only a few postcranial bones.	Adult			
8	Only a few postcranial bones.	Adult			
9	Only a few postcranial bones.	Adult			
10	Only a few postcranial bones.	Adult	Northeast/southwest	Southwest	
11	Only the skull.	Child (7)		Southwest	East
12	The skull and a few postcranial bones.	30-40	Northeast/southwest	Southwest	East
13	Only the skull.	Adult		Southwest	
14	The skull and a few postcranial bones.	Adult		Southwest	
15	Only the skull.	Child (6)		Southwest	East
16	Only the skull.	Child (4)		Southwest	East
17	Only a few postcranial bones.	Child (3-10)	Northeast/southwest	Southwest	
18	Only a few postcranial bones.	Adult	Northeast/southwest	Southwest	

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# Excavation at Ramla (Ta'avura Junction) - 2011

## Early Islamic Graves and Other Features

Conn Herriott

*This excavation (license B-365/2011) was located in east Ramla (New Israel Grid: 188624/648245; 70m asl), on the east side of Tel Hai Street just south of Ta'avura Junction. The excavation was carried out by Y.G. Contract Archaeology Ltd. in March 2011, under the academic auspices of the Hebrew Union College, with the team including archaeologists Sergey Alon, Alexander Bogdanovsky, Yehuda Govrin, Rachel Jido, Abiad Ovadia and Oz Varoner. The author directed the project, carried out site drafting and illustrated the artifacts. On-site physical anthropology was conducted by Vered Eshed. Animal bones were analyzed by Ayelet Sharir and ceramics with the assistance of Miriam Avissar.*

### INTRODUCTION

At this small site (40.19m<sup>2</sup>) were found two stone-lined graves of the Umayyad period (L15, L17), as well as one further probable grave (L21) most of

which was outside the excavation area and therefore not fully investigated. Two further built features were found: a wall (L11) and a stone-lined structure (L23), also extending beyond the excavation limit. All features were oriented east/west. Artifacts from

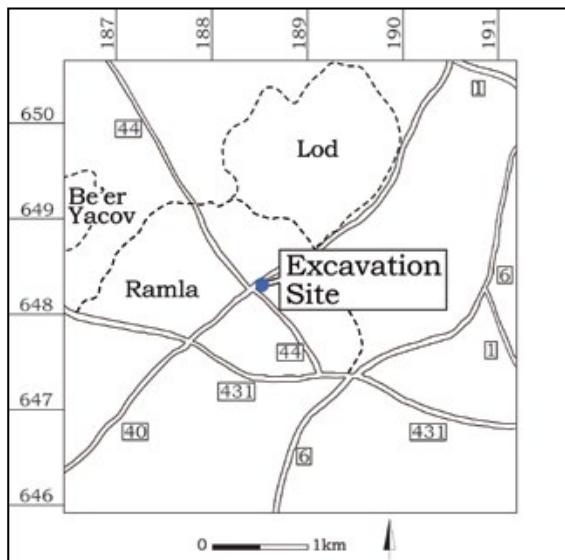


Figure 1. Site location (New Israel Grid: 188624-648245; 70m asl).

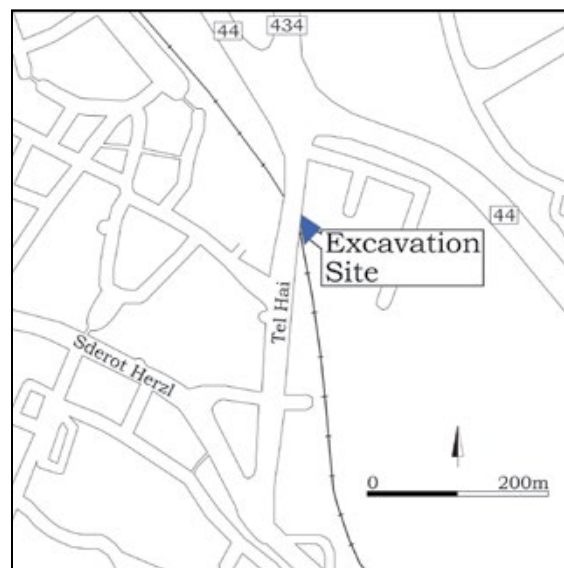


Figure 2. Close-up view of the site location.

the excavation (Figs. 10-11) included Early Islamic potsherds and glass, as well as some later ceramics, and human and animal bones.

## THE EXCAVATION

### Graves

#### *L15, L17*

These two graves were rectangular in plan, with walls built of small, unbonded, and undressed or semi-dressed stones (average stone size: 0.2 x 0.15 x 0.15m). Both graves' north walls incorporated plaster on their exteriors. The features were co-linear and oriented east/west.

Grave L15 measured 2.5 (exposed) x 1.5m, with walls ca. 0.3m thick and surviving to one course in height. We excavated this grave to a depth of 1.02m. Grave L17 was slightly smaller (2.5 x 1.25m) and had thinner walls (0.25m), also only one course in extant height. We dug this second grave to a depth of 1.24m.

Within each of these graves were uncovered the skeletal remains of a single human. The Grave L15 interment retained much of its skull and body bones in articulation (Fig. 4), revealing the primary burial of an adult male<sup>1</sup> laid on his right side, with hands placed at his sides, and the head—at the west end of the grave—facing south. The degree of tooth erosion indicated that this man died at the age of 18-25.

The Grave L17 interment also comprised a primary burial of a male<sup>2</sup> of at least 15 years,<sup>3</sup> found in anatomic articulation (Fig. 5). Here too the deceased was placed on his right side, hands at his sides, head to the west and facing south.



Figure 3. General view of the site, after excavation.



Figure 4. The remains of a young man, Grave L15.

- 
- 1 The evaluation of sex was based on arm bone measurements (vertical diameter of the femoral head: 45mm) and the morphology of the lower jaw bone (mandible).
  - 2 The evaluation of sex was based on the dimensions of the humerus (epicondylar width: 64mm) and the morphology of the pelvis.
  - 3 The assessment of age was not definite, but given the degree of bone fusion it was concluded that the individual was over 15 years of age.



Figure 5. The male burial in Grave L17. Note the off-center location within the grave—evidence enough to conclude that the interment pre-dated L17?



Figure 6. Graves L15 and L17 (facing east), with L6 visible on the left abutting L17.

What is curious about this burial is that the body was not located in the center of the grave, but rather to one side. As the project anthropologist (Dr. Vered Eshed) observed, this mismatch with the grave walls and the fact that the walls by no means extended down to the levels of the skeletons—neither in L15 nor in L17—raises the possibility that the built feature of L17 post-dated and physically overlay this burial. Supporting this interpretation is the fact that Wall L11 was partly under the walls of Grave L17.

Finds from these graves (Fig. 10:5,8,11-12,14-15,17) included sherds from a Byzantine-Umayyad arched-rim basin and storage jar and an Early Islamic storage jar, buff jug, cooking bowl lid, and a jar handle (buff with barbotine), none of which could be restored. Also found were some glass sherds dating to the Early Islamic period, and Mamluk and Ottoman bowl sherds (e.g. Fig. 11:1), but on balance we have concluded that these features were Umayyad/Abbasid in date. Finally, a sheep or goat tooth was found in Grave L15 and two more animal bones in L17.

Given that Muslim burials do not usually include grave goods or offerings, we assume these object fragments found their way into this special context by accident. This is supported by the fact that we recovered no restorable vessels.

### **L6**

Parallel to and abutting the north side of Grave L17 was found another feature which, given its orientation and dimensions, appeared to be another grave (Fig. 6). Due to space constraints, however, we could not investigate fully.

### **L21**

This feature was in a poor state of preservation and ran beyond the excavation limit (Fig. 7). However, we uncovered three sides of what was most likely a quadrilateral stone-lined feature, the stones—a single course high—varying from undressed fieldstones to fully dressed blocks (0.25 x 0.15 x 0.1m – 0.45 x 0.25 x 0.2m). We excavated the interior to a depth of 1.21m, finding sherds of mostly Early Islamic—as well as Crusader-through-Ottoman—storage jars, and a buff bowl and jug. We also recovered a sheep or goat horn.



Adjacent to this feature was found a concentration of bones and soil (L22).

Given its likely dimensions, construction method, east-west orientation and finds, we interpreted this feature as another grave, with L22 best understood as the spoil from a robber's trench.

## Other Features

### L23

This structure (Fig. 8) followed the same orientation as all other features, and was physically linked to Grave L17 by Wall L11. However, L23's dimensions and construction—wider walls, also without bonding, but incorporating more dressed blocks (0.3 x 0.2 x 0.15m – 0.55 x 0.25 x 0.2m)—indicate a different function. It was not possible to fully expose the feature as it continued beyond the site limit.

Finds from this feature included an Early Islamic large bowl with combed decoration (Fig. 10:4) and a cooking pot (Fig. 7:9). We also recovered some Mamluk-Ottoman artifacts (Fig. 11:4,8,9). Finally, six unidentifiable bones of medium-sized mammals were found in L23's fill.

## DISCUSSION

This site was built piecemeal, with not all features in use at the same time, as indicated by the overlaying of Wall L11 by Grave L17. It may also be the case, as noted above, that the burial found mostly within L17 actually pre-dates that grave. In short, this is a portion of an Umayyad/Abbasid cemetery.

We have described our findings and could just leave our discussion there. This is standard practice—in 'salvage' archaeology especially ('rescue' may now be a more accurate term). Two arguments for this minimalist approach are often put forth:

1. The necessarily small scale of the dig, a problem sometimes called keyhole or telephone box archaeology.
2. The other factor encouraging a minimal effort at this end of a rescue archaeology report is—ironically—the intimidatingly large quantity



Figure 7. L21 (facing west).



Figure 8. L23 (facing east).

of information available. In the case of Ramla (and many other settlements and areas), there have been hundreds of excavations over the years, at sites all across the ancient city. Between 1990 and 2008 alone, over 120 such digs were carried out (Avni 2011a). But generally speaking each dig report supplies its own piece of the puzzle without paying much attention to the jigsaw. In recent years nobody has taken all of these excavations and put them together to give us a fuller picture of early Ramla—let alone discussing related historical and anthropological issues (but see Avni 2011a, 2011b). To do so would require time and money, and Islamic archaeology remains a low priority in the scholarly community of Israel. As for rescue archaeologists, we

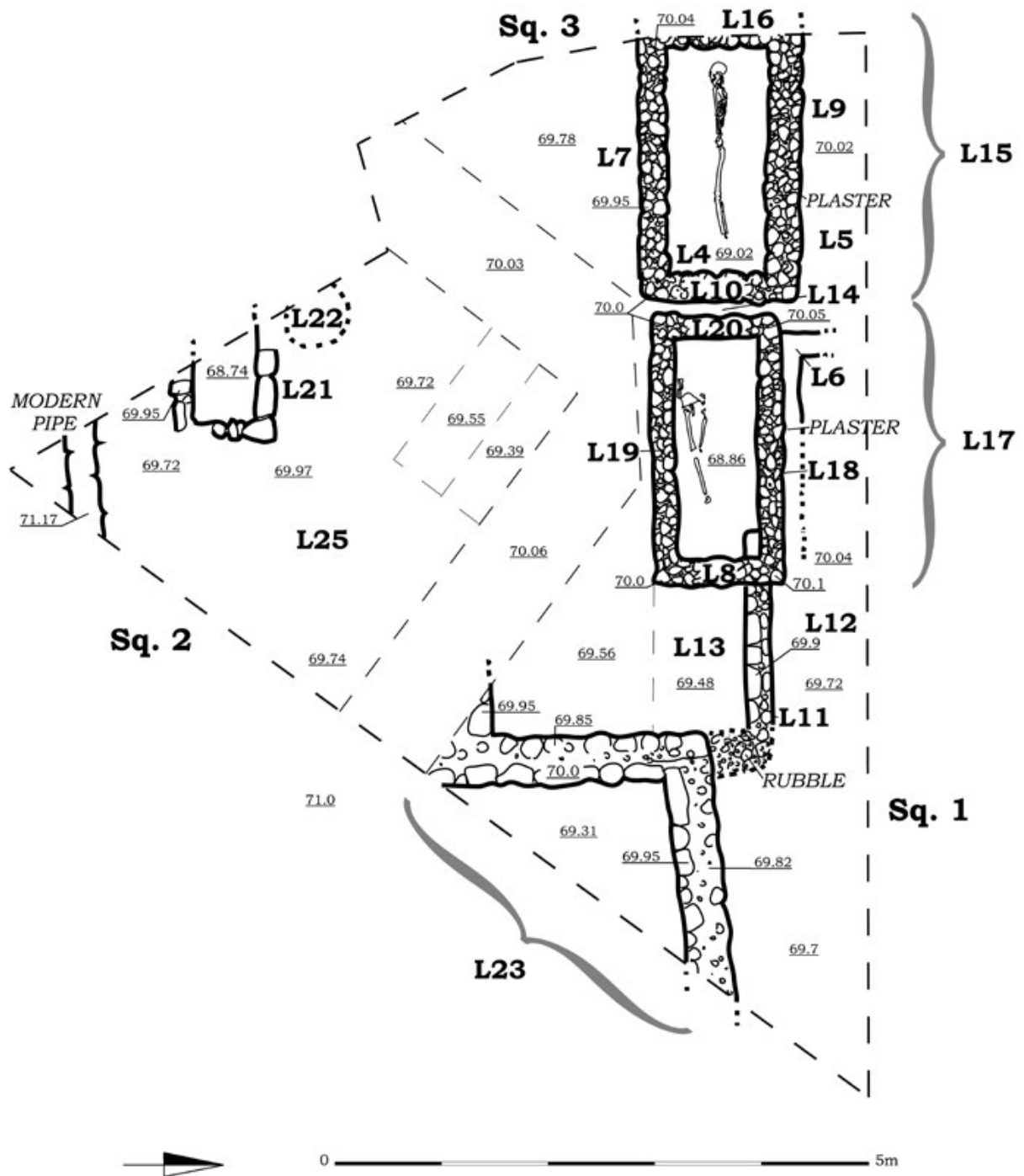


Figure 9. Post-excavation plan of the site.

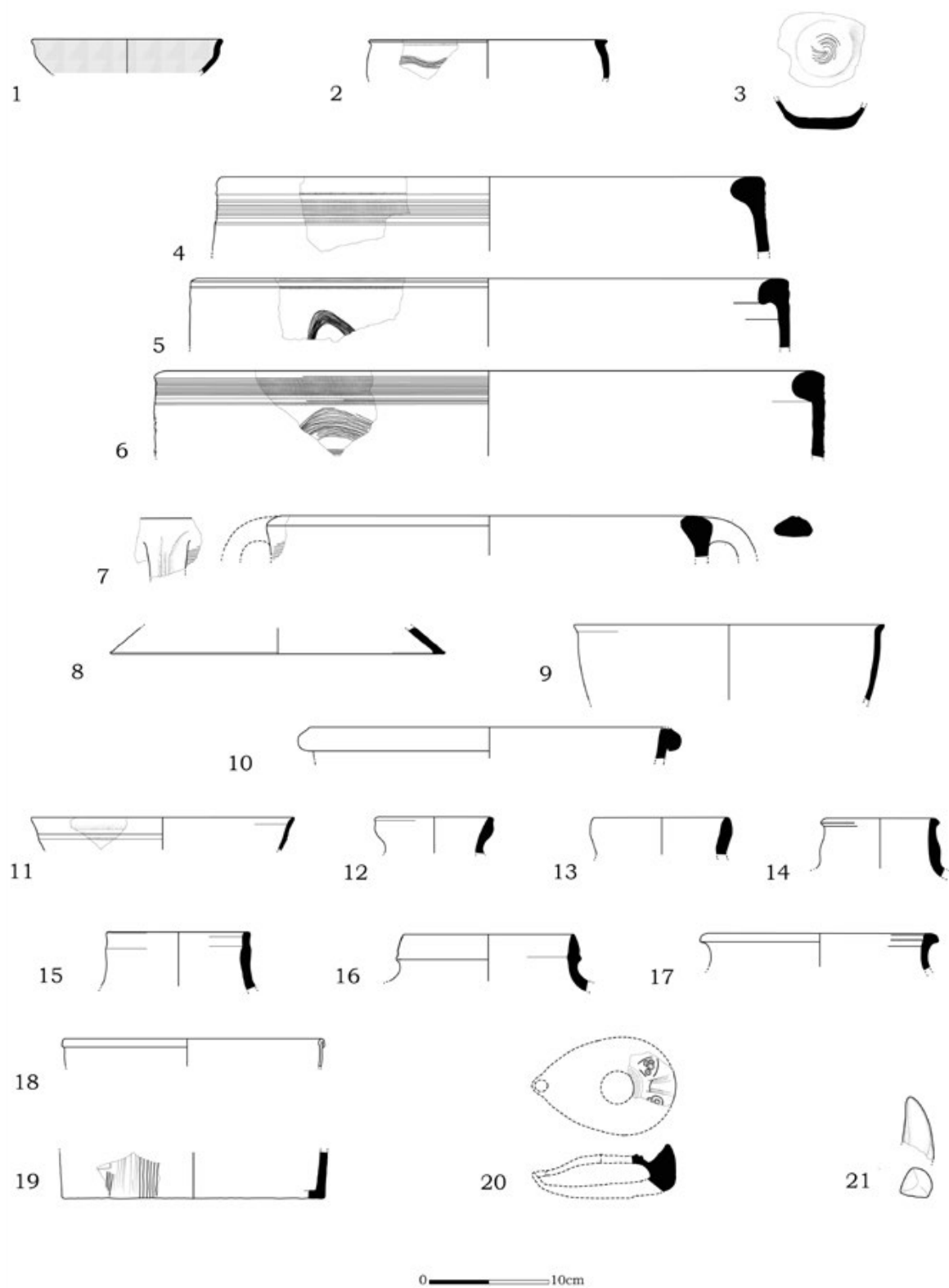


Figure 10. Early Islamic period finds.

Figure 10. Early Islamic period finds.

No.	Object	Reg. no.	Locus	Period	Description
1	Bowl	2/4	2	Umayyad/Abbasid	White bowl, splashed and modeled, fine-glazed green and white
2	Bowl	2/3	2	Umayyad	White ware, with combed wavy band decoration
3	Bowl	4/4	1	Umayyad/Abbasid	Grenade bowl; spiral combed decoration on base exterior; over-fired light red ware
4	Bowl	14/1	23	Umayyad/Abbasid	Combed decoration; red ware, burnt on interior
5	Bowl	12/3	15	Umayyad/Abbasid	Combed wavy decoration; red ware, creamy-colored on exterior (slip?)
6	Bowl	16/1	12	Umayyad/Abbasid	Combed and wavy decoration; light red ware
7	Bowl	4/3	1	Umayyad/Abbasid	With handle; combed decoration; light red ware, burnt on rim interior
8	Lid	11/4	17	Byzantine/Umayyad/Abbasid	Black ware
9	Cooking pot	14/2	23	Byzantine/Umayyad/Abbasid	Red ware with occasional quartz-like inclusions; burnt on exterior
10	Bowl	1/ 4	1	Byzantine/Umayyad/Abbasid	Light red ware
11	Bowl	11/3	17	Byzantine/Umayyad/Abbasid	Cream-colored ware
12	Storage jar	11/5	17	Umayyad	Light red ware
13	Storage jar	1/ 2	1	Byzantine/Umayyad/Abbasid	Jerusalem Ware; light orange/red
14	Storage jar	12/1	15	Byzantine/Umayyad/Abbasid	Light red ware
15	Storage jar	11/1	17	Umayyad	Light red ware
16	Storage jar	16/2	12	Umayyad/Abbasid	Dark creamy/red ware
17	Krater	12/2	15	Byzantine/Umayyad/Abbasid	White ware
18	Bowl	4/5	1	Byzantine/Umayyad/Abbasid	Glass vessel; light blue color
19	Bowl	1/1	1	Byzantine/Umayyad/Abbasid	Steatite; flat base; vertical striations
20	Oil lamp	1/3	1	Umayyad/Abbasid	Grape decoration
21	Lamp handle	15/2	13	Byzantine/Umayyad/Abbasid	Very large; cream-colored ware



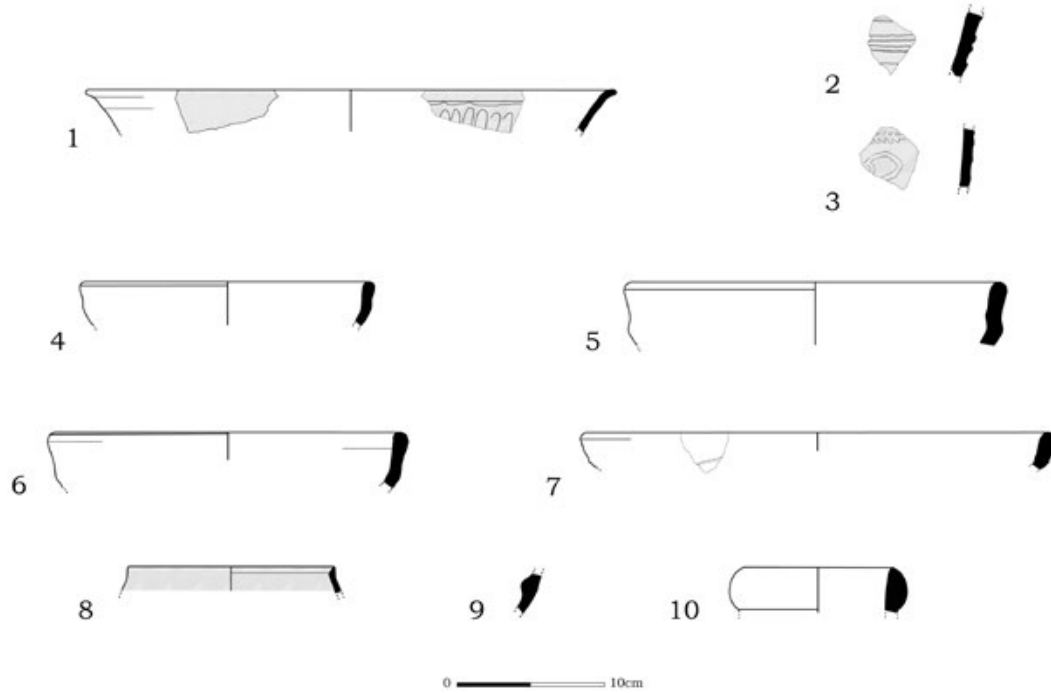


Figure 11. Mamluk and Ottoman period finds.

No.	Object	Reg. no.	Locus	Period	Description
1	Bowl	11/2	17	Mamluk	Splashed and modeled; glazed green, creamy white and golden brown on interior and exterior; incised decoration on interior
2	Bowl	4/1	1	Mamluk	Splashed and modeled; glazed green on interior and exterior; linear relief decoration on exterior; black ware with occasional chalk-like inclusions
3	Bowl	2/2	2	Mamluk	Splashed and modeled; glazed green on interior and exterior; relief decoration on exterior; light red ware, poorly fired
4	Bowl	14/3	23	Mamluk/ Ottoman	Light red ware
5	Bowl	2/1	2	Mamluk/ Ottoman	Red ware, poorly fired
6	Bowl	15/3	13	Mamluk	Gaza Ware; dark gray
7	Bowl	15/1	13	Mamluk/ Ottoman	Red ware; possible linear relief decoration on exterior
8	Bowl	14/5	23	Mamluk	Red ware; green/brown glaze on interior and exterior
9	Bowl	14/4	23	Mamluk	Gaza Ware; dark gray; thickened rim interior
10	Storage jar	4/2	1	Mamluk	Gaza Ware; dark gray

are particularly incentivized, or pressured, to write our reports quickly. Meanwhile, the cost of this much-needed project of collating our information increases with each new excavation. The puzzle of early Ramla remains an ever-growing scatter of non-integrated excavations, usually published as little more than site descriptions.

In this report we are equally constrained to be brief. However, we will try to place this cemetery in its immediate cultural and physical contexts.

### ***Cultural Context***

The bowls, jugs, jars and glass vessels found in the graves were not offerings, but neither were they high-status or remarkable. The same can be said for the east-west orientation of the graves, with the head to the west and facing south (i.e. Mecca); this was standard Muslim practice.

The young age of at least one of the individuals is worth mentioning. It would be interesting to know more about average life expectancies in Early Islamic society. One scholar estimates it to have been above 35 years for the general population (Conrad 2006: 137), which—Muslim modesty in burial practice notwithstanding—would support the same conclusion as that implied by the simple construction of the graves: these were most likely not upper class members of society.

The animal bones may or may not say something of cultural importance. That sheep or goat remains were

found in the fill of two of the three graves is perhaps noteworthy. We add here that other bones of medium-sized mammals were present around the site, without concentration. We also recovered horse bones with butcher marks, from the site topsoil—although, given the many modern contaminants also in this context, we are hesitant to read too much into these finds.

### ***Physical Context***

We do not know the exact scale of this cemetery. Neither do we have an integrated picture of its context and associations. However, previous digs uncovered Umayyad graves as far north as 140m from our site (Sion 2009), all oriented east-west like the graves at our site. Other digs show evidence only of fairly light construction in the area—mostly Abbasid—of a mixed industrial and residential nature.

Despite its sketchiness, therefore, the provisional impression given by these excavations is of an Umayyad cemetery on the outskirts of Ramla, the capital of Jund Filastin<sup>4</sup>. As the city expanded during the Abbasid period, this cemetery was overlaid by residential (Sion 2009) and industrial (Haddad 2010) activity—which in turn was either sparse originally, or was leveled by the 715 CE earthquake and then had much of its masonry subsequently removed during the reconstruction of the city. In the Crusader, Mamluk and Ottoman periods this part of the city retained its residential and small-scale industrial characteristics, as indeed it does today.

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4 ‘The military district of Palestine’, one of five such in the Umayyad and Abbasid province of *Bilad Al-Sham* (Syria).

# Excavation at Tsrifin - 2008

## Early Islamic Domestic and Industrial Features

Yehuda Govrin

with a contribution by Achia Kohn-Tavor

*This excavation (license B-329/2008) was carried out by Y.G. Contract Archaeology Ltd. in August-September 2008, under the academic auspices of the Hebrew Union College, at the archaeological site of Tsrifin in the central coastal plain. The project was instigated by the construction plans of owners Shlomo Group's real estate division, Shir Real Estate. The excavation was directed by the author, with area supervisors Amir Cohen-Klonimus, Tamar Shavi and Ariel Wenderboim. Site plans were drafted by Dov Porotsky and Viatcheslav Pirsky. In post-excavation Anna Dodin illustrated, Vladimir Naikhin photographed and Achia Kohn-Tavor analyzed the ceramics and other finds.*

### INTRODUCTION

This excavation was carried out in two stages: the first was conducted in Area A (378m<sup>2</sup>), situated in the southwestern section of the site; subsequently we

excavated Area B (275m<sup>2</sup>), located in the center of the compound. These areas were chosen as a result of the Israel Antiquities Authority test digging (Fig. 2), which indicated them as locations of significant archaeological potential.

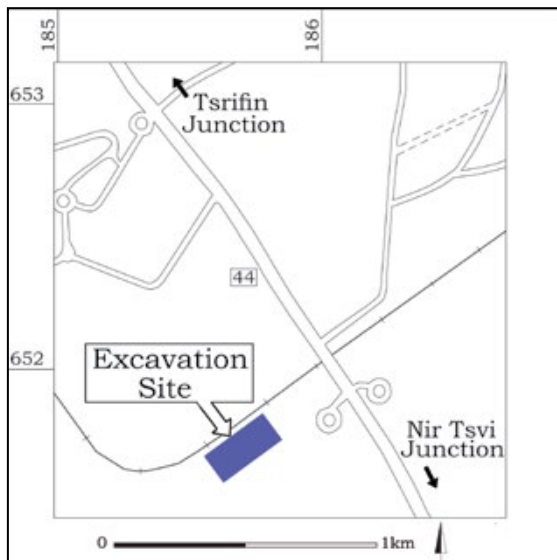


Figure 1. Site location (New Israel Grid: 185669-651767; 52m asl).

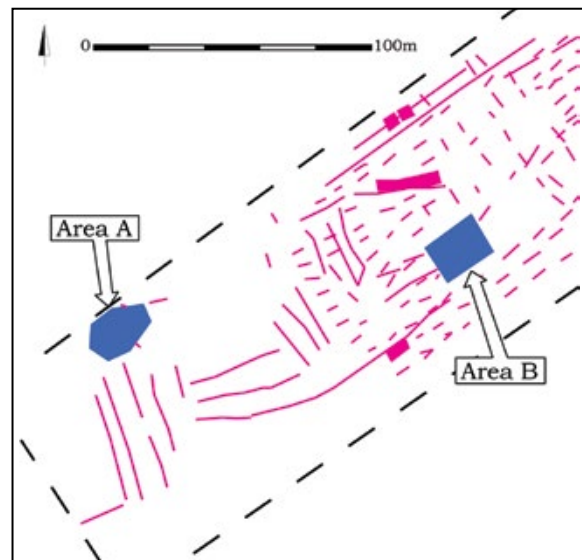


Figure 2. Close-up of site, with excavation Areas A and B marked, as well as Israel Antiquities Authority test trenches (in pink).

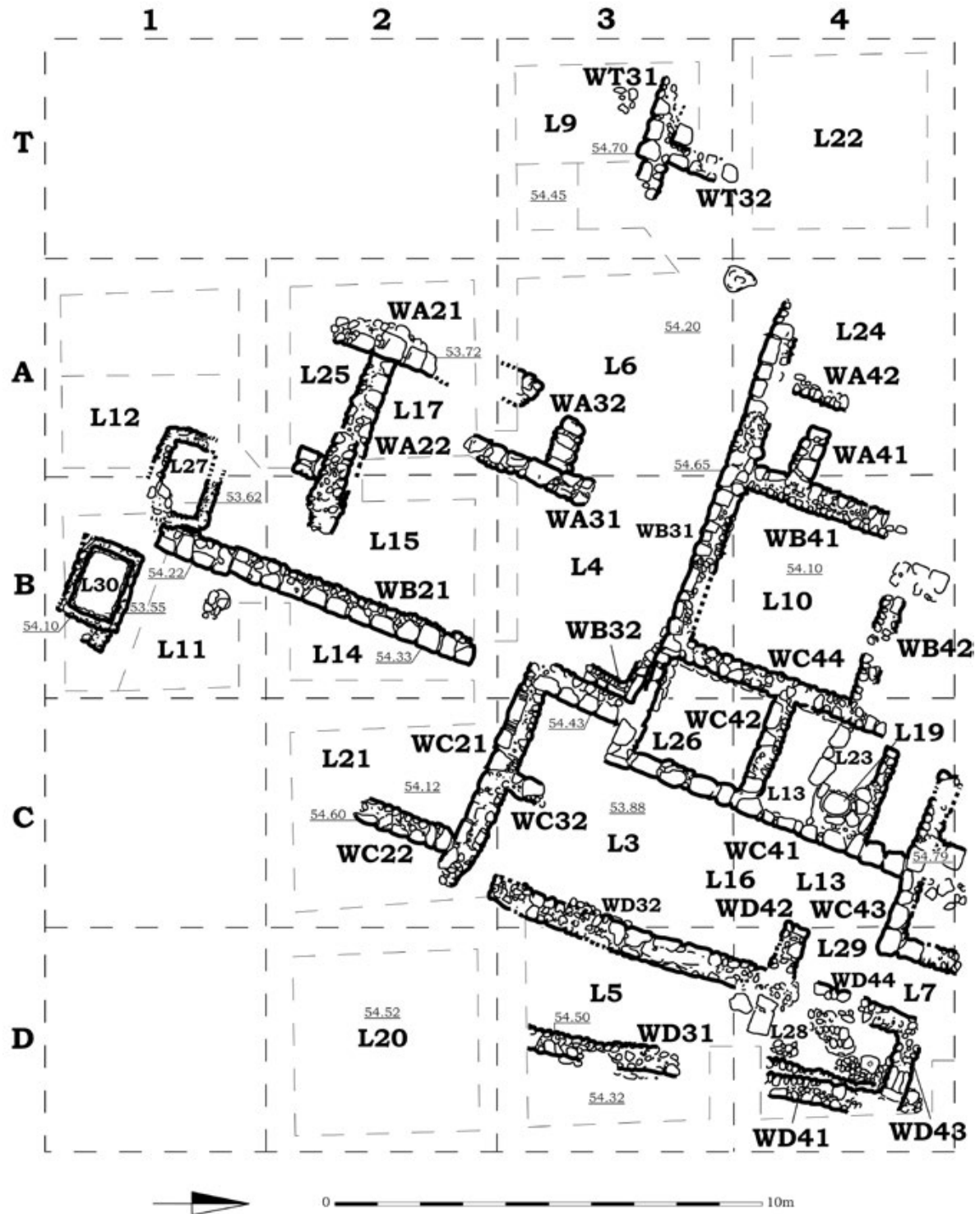


Figure 4. General plan of the Area A building remains.

## AREA A

Y.G. Contract Archaeology Ltd. opened 16 excavation squares in this area, exposing the remains of an Abbasid (750-900 CE) building and compound. This was located at the western fringe of the known contemporary settlement, on a low *hamra* hill beside a dry watercourse.

Various factors particular to this area influenced our work. The *hamra* topsoil had been heavily compacted by mechanical equipment. Also, a large modern garbage pit had truncated much of the ancient structure's north end. Finally, the archaeological remains had been disturbed in places by the overlying modern Arab village of Sarafand.

### Abbasid Building

As mentioned, this structure was built directly on the natural *hamra* soil, on a small undulating hill close to a seasonal watercourse. Only the southeastern wing of the building survived, as well as several extant wall sections outside it which seem to have been part of the compound's yards and associated installations. This building was constructed in several phases. The bases of the walls were preserved to different heights (having presumably been robbed out at some point), and several of the walls abutted one another. The walls were built of dressed stones, especially on their external faces, often on a foundation of small lime-stone chips (Fig. 5).

### *Installations (L27 and L30)*

We found a number of noteworthy features in this complex. Beyond the south end of the building (probably in the yards) we uncovered two built features (L27 [Sq. A1] and L30 [Sq. B1]). The western feature, L27 (Fig. 6), measured 1.5 x 1.0m and was preserved to a height of ca. 0.5m. Its northwestern corner had been damaged. The feature was built of small stones bonded by rough mortar. Inside, mixed into the yellowish ash fill were found a number of non-diagnostic glass bottle, glazed pottery and bone fragments.



Figure 3. General view of the building (Area A) (facing north).



Figure 5. Extant dressed stone wall courses, Wall WB21, Area A (facing southeast).



Figure 6. L27 (facing south).



About 1.0m southeast of this structure we found L30 (Fig. 7), a feature of similar dimensions which was also built of small undressed stones bonded with mortar. Its north side was also damaged. However, unlike its neighbor L27, the interior walls of L30 were lined with several thin layers of plaster.

### Room (L28)

In the area's northeastern-most square (D4) was found part of a threshold into a small room (L28), the floor of which was cobbled and at least partially plastered. Adjacent to the north side of the threshold were unearthed the remains of a plastered gutter with a basalt slab at its base.

*In situ* within the room and close to the building's corner lay a *tabun* (ceramic oven, L19). Near the *tabun* was an ash-rich context.

### Finds

A large quantity of potsherds were recovered, most of which constitute waste thrown into the yards and the building's rooms. Notable was the large quantity of bowl fragments, jars and cooking pots. It was these finds which allowed us to date the complex to the Abbasid period. A number of Early Islamic decorated oil lamps typical of this period were also found (Fig. 18:12-14), as well as glazed pottery (Fig. 16:2) and the aforementioned *tabun*. Finally, in the yards a number of large animal bones, a fragment of a stone bowl and fragments of a basalt grinding stone were also retrieved. A more detailed finds report is provided below (p. 147).

### Area A summary

In this area were discovered the remains of an Abbasid-period residential building. The majority of the architectural remains which survived comprise the lower wall courses. Most dressed stones presumably were robbed out in antiquity or destroyed in recent centuries by the excavation of a large rubbish pit which devastated most of the northern end of the building.



Figure 7. Room L26 (facing northeast), an element of the complex similar to L28.

This structure was probably a private residence, a farmhouse removed from the contemporary nearby village. It is probable that the Area A building's location on a low *hamra* hill at a distance from the village and close to a dry watercourse was a mark of its owner's relatively high status. During the building's history several changes and additions were made to its original plan. The structure probably went out of use during the 10<sup>th</sup> century CE, after which began the process of its near-total disassembly and the robbery of dressed stones from its walls.

## AREA B

The focus of the excavation's second phase, this area at the center of the compound (i.e. northwest of Area A) is close to the location of test excavations previously conducted by the IAA (Kohn-Tavor 2008). These test trenches defined the area requiring further excavation. Here we opened 275m<sup>2</sup>, divided into ten and a half squares to which an extra half-square was added in order to expose the entirety of a feature at the north end of the area (Fig. 8, L57). The orientation of our square grid was decided by the archaeology, not the cardinal points of the compass.

The soil in this area was black and included ash and potsherds down to a depth of 1.0-2.0m. The British Mandate-period layer reached to a depth of ca. 0.4m, rich in Marseilles-type tiles and dressed stone blocks. At a depth of ca. 0.5-0.9m we found lenses of loamy



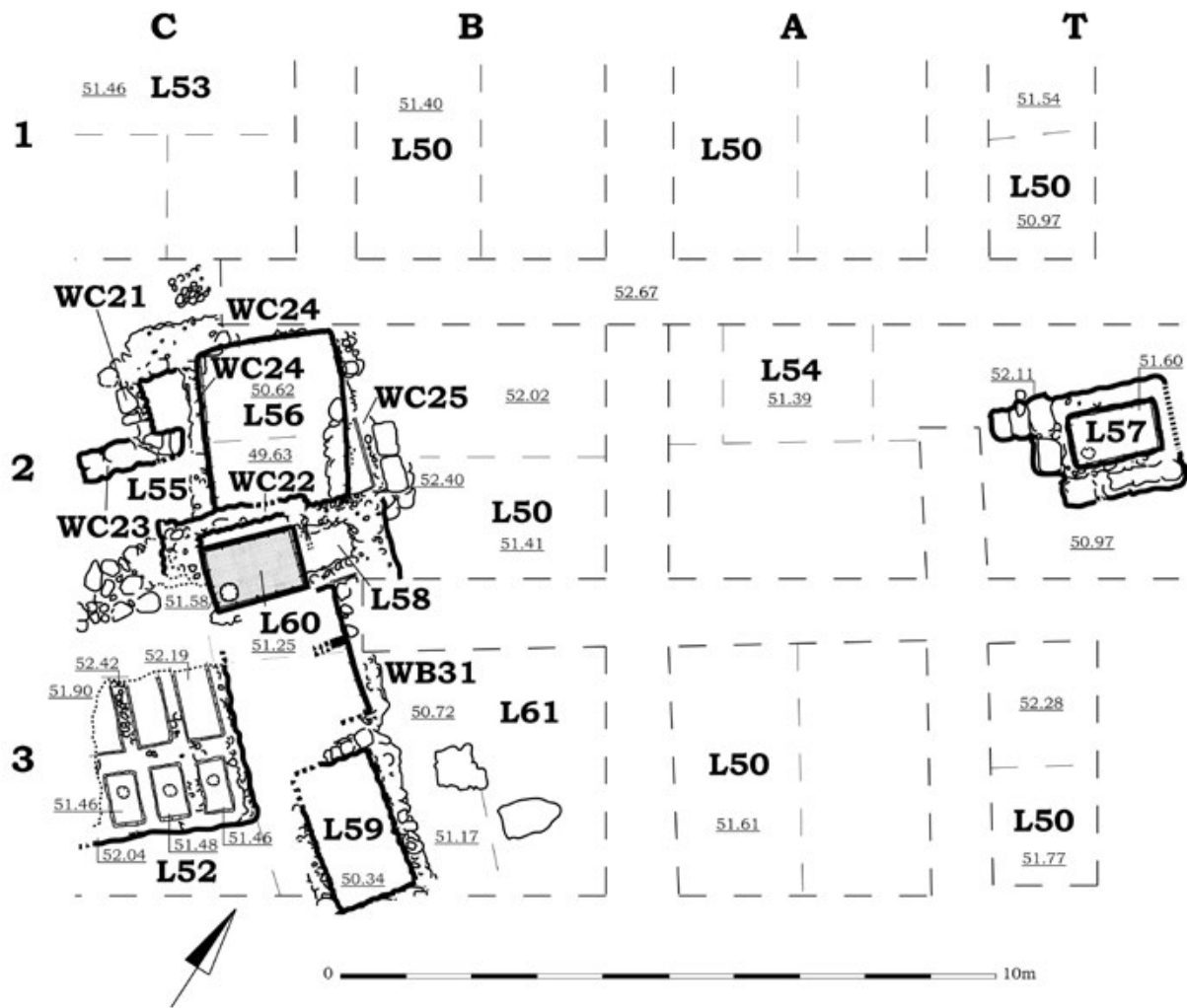


Figure 8. General plan of Area B.

soil mixed with the occasional Mamluk-Ottoman potsherd. At 1.0-1.5m depth we came upon a layer of light brown soil containing small amounts of Early Islamic pottery. Beneath this lay *hamra* soil, sterile and devoid of finds.

It appears that this area encompassed the western outskirts of the ancient and modern Arab village of Sarafand, some of the remains of which were undoubtedly contemporaneous with the building found in Area A nearby. In Area B we uncovered such features as subterranean household constructions, industrial/agricultural installations, and what appears to have been a waste disposal area close to the dry channel.

To begin with, all squares were excavated to a depth of ca. 0.4m, removing the Mandate-period occupation layer. Thereafter in the squares where no architecture was found—a quarter of the area—excavation continued down to the sterile *hamra*. A number of squares on the western side of the area (A1-C1, T1) were partially excavated by backhoe in order to confirm the apparent absence of architecture. Squares yielding architectural remains were excavated solely by hand, including baulks in order to obtain as complete as possible an architectural picture of the area.



Figure 9. General view of the L52 installation (facing northwest).



Figure 10. L52 (facing south).



Figure 11. The mosaic floor of the L60 plastered pool (facing northwest).

Mentioned here are the most noteworthy archaeological features of Area B. All date to the Early Islamic period.

### ***Structure (L52)***

In Square C3 a structure was exposed just below the surface (Figs. 8-10). This was constructed of small mortar-bonded stones, and took the form of six chambers in two rows, oriented northwest-southeast. The structure was built directly on the *hamra*. The northwestern section of the structure survived to a greater height than the rest, due to the existence of an ash-rich deposit in that area. All the chambers were identical to each other in length and width (ca. 1.0 x 0.5m) but varied in depth. The three southeastern chambers survived to a depth of ca. 0.8m, the northwestern to 0.3m. No access between the chambers was apparent. In each of the three southeastern chambers was found a collecting basin, 0.1m deep and 0.2m in diameter. The chambers were all plastered with a high-quality thin hydraulic plaster, which indicates that the chambers were intended to hold fluids. Beyond that, and an implied industrial association, the function of L52 is not clear. Based on parallels, however (e.g. Arbel 2008: Rabbi Hanina Street, Strata V-VI; Fig. 4), we can say that this was probably a cloth-dying facility or a tannery.

### ***Mosaic Pool (L60)***

Located centrally amongst the area's architectural remains (Square C2), a small pool measuring 1.0 x 1.5m was exposed close to the present-day surface (Fig. 11). This pool was lined with a high-quality hydraulic plaster (ca. 0.01m thick). Its floor was surfaced with a rough white mosaic. In the southeastern corner of the pool was a draining basin, 0.3m in diameter. East of the pool, parts of the plastered walls of an additional, badly-preserved pool or channel were found. West of the pool were uncovered the scant remains of a plastered floor. These remains belong to the later phase of the area, with which the L52 structure is also associated. On the mosaic floor a few sherds of the Early Islamic period were discovered (same type as Fig. 18:7).



Figure 12. General view of the L57 northern pool.



Figure 13. Buckets filled with potsherds from the floor of the L59 cesspit.



Figure 14. Eastern section of the L56 cesspit, showing the domed roof remains.

### *The Northern Pool (L57)*

We uncovered a built feature (L57, Square T2) approximately 10.0m north of L56 and the area's architectural remains concentration (Fig. 12). This consisted chiefly of a plaster-lined pool (1.5 x 0.8 x 0.5m). Covering the walls and floor, the plaster here was here also a high-quality hydraulic type, 0.02m thick. The pool's sides were built from large dressed stones, preserved mainly on the southern and eastern sides. In the southeastern corner of the plastered floor we uncovered a basin for draining fluids. In the pool fill a variety of sherds and Marseilles tiles were found. This installation was very similar to the L60 mosaic-surfaced pool in its design, and is presumably the sole surviving remnant of a larger structure.

### *Cesspits (L56 and L59)*

The remains of a cesspit dug into the sterile *hamra* were discovered in Squares B3 and C3, under the organic-rich black topsoil. The pit measured 2.4 x 1.3m and was lined with small and medium-sized limestones, one course wide. Its base was without stone or plaster seal, simply cut into a 0.2m-deep layer of yellowish sand. The pit was in a good state of preservation, except for its southwestern corner which did not survive. At the bottom of the pit large amounts of sherds had been discarded (Fig. 13). These included large numbers of cooking pots, lids, jars, juglets, and other vessel types (e.g. Fig. 17:3,4,7,11; Fig. 18:1,2,7,8,10) dating to the Early Islamic period (see finds report on facing page).

West of the aforementioned L60 mosaic pool, a second large cesspit was discovered (Fig. 14). It measured 2.8 x 2.3m, and was built under the plastered floor of a non-extant building (two dressed stones from which were re-used in a wall north of the cesspit). As with L59, the base of this cesspit was simply yellowish sand directly overlying the *hamra*. However, unlike L59 all of the L56 stone walls were plastered. They were built from small stones bonded by rough mortar. It appears that this cesspit had a dome-shaped roof, also constructed from small stones. These were discovered in the pit's black, organic and ceramics-scarce fill. The pit's eastern half was excavated down to the *hamra*.



## Finds

In Area B a vast amount of pottery was found, most of which was in the form of sherds thrown into the cesspits. Regarding these ceramic finds, particularly worthy of note are the large quantities of bowls, jars and cooking pots represented (see below). One complete jar was found (Figs. 15 and 18:11), dating to the Late Ottoman period. This was used to draw water from a nearby *antiliya* well (see Kohn-Tavor 2008). This vessel was found amongst the black topsoil debris, with no architectural context.

A full ceramic report is provided below.

## Area B Summary

In Area B we unearthed the remains of a residential structure and associated built features from the Early Islamic period. The archaeological features preserved were of two main types: cut features, mostly in the form of cesspits, and built features and structures, mainly plaster-lined installations that contained fluids. Of the actual architecture only a number of badly-preserved walls were extant, insufficient for the purposes of reconstructive models. However, we can confidently affirm that the area's main structure (Squares B2-3, C3-3) was built from large dressed stones set on a stone and mortar foundation in the natural *hamra*. These structures fell into disuse in the



Figure 15. A complete jar found in a section of the site's debris.

10<sup>th</sup> century CE. Most of the dressed stones of the buildings were robbed in antiquity for secondary use.

Like the Area A compound, this building was probably a farmhouse in the western outskirts of the Early Islamic village of Sarafand. It appears that the location close to a stream on the periphery of the settlement led to this area later becoming a dumping ground which created a deep layer of black soil over the *hamra*.

## THE FINDS

*Achia Kohn-Tavor*

The ceramic assemblage from Tsrifin (Figs. 16-18) represents domestic activity dating to the Umayyad and Abbasid periods. It seems that most of the vessels fit an early date in this range (probably 8-9<sup>th</sup> centuries CE). All the vessels are common in Ramla and its vicinities. Most are made of coarse wares or Ramla Buff Ware. The assemblage comprises a full domestic repertoire—both simple and finer serving, cooking and storage vessels. Two of the bowls are imported Late Roman wares (Fig. 16:4-5).

Of note are the vessels from L6, a cesspit in Area A (Sq. A3), the green-yellow stains in which indicate organic content. The group of miniature cooking pots and lids (Fig. 17:5-8), which bear no sign of use, are unique—as is a cooking pot with red slip (Fig. 17:3). One jar is an import from Egypt (Fig. 18:8). Similar jars were found at Ramla (Cytryn-Silverman 2010). Later activity is represented by the impressive Late Ottoman *antiliya* vessel (Fig. 18:11)—very common in the Ramla region, used for drawing water from this well type, and apparently discarded due to a hole near its base (the *antiliya* well itself was situated east of the current excavation [see Kohn-Tavor 2008]).

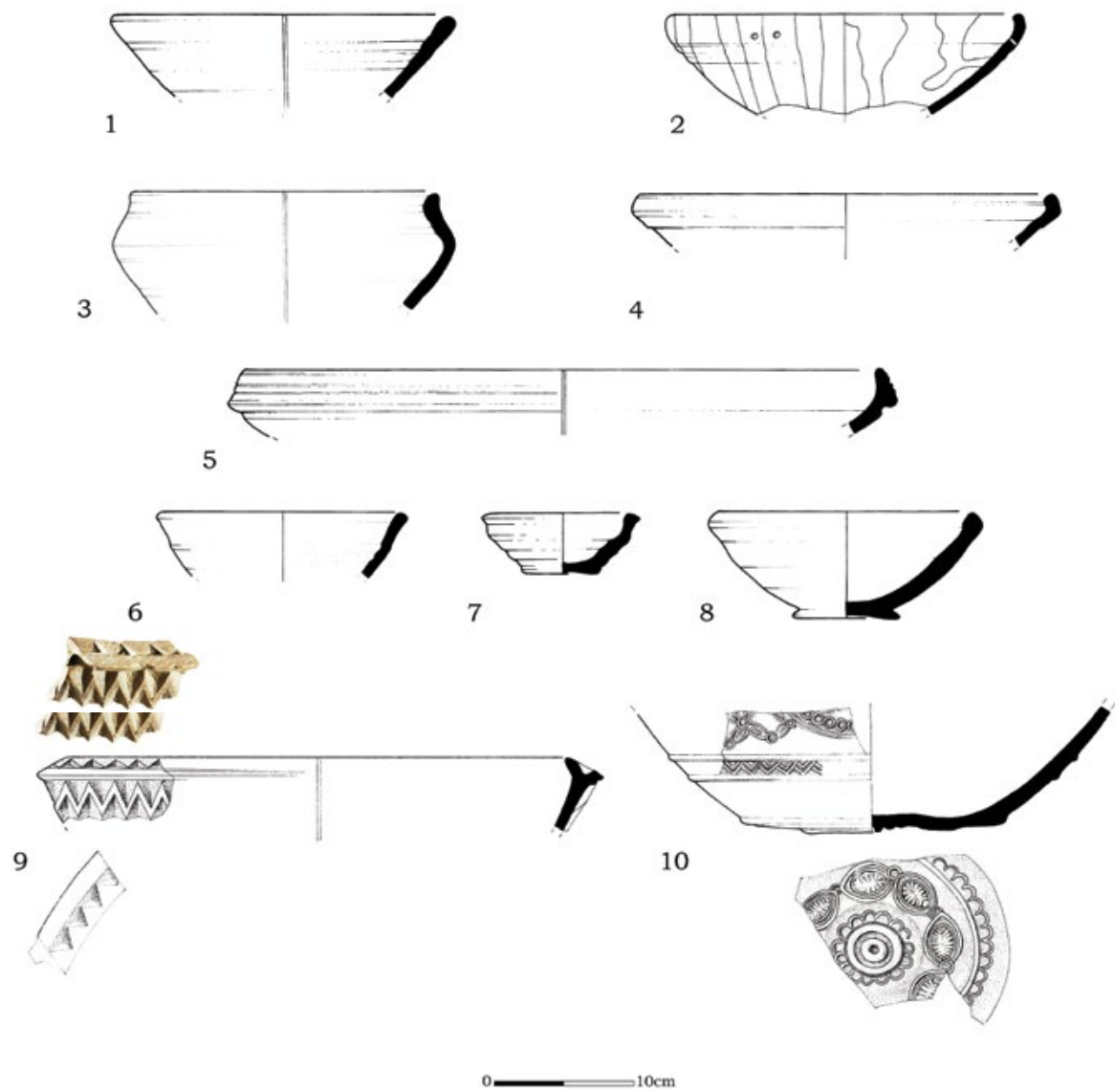


Figure 16. Bowls.

Figure 16.

No.	Object	Reg. no.	Locus	Description	Date	Parallels
1	Bowl	136	6	Gray clay, orange exterior, large white grits; green-yellow stains.		Magness 1993: Rouletted Bowl 4
2	Bowl	136	6	Polychrome glazed splashed and modeled; orange clay, black & white grits; green-yellow stains.	11-12 <sup>th</sup> CE	Ramla (Cytryn-Silverman 2010: Fig. 9.8: 17)
3	Bowl	136	6	Orange clay, large white grits; green-yellow stains.		
4	Bowl	136	6	Thin red clay.	Late 6 <sup>th</sup> CE	Hayes 1972: LRC 10a
5	Bowl	136	6	Thin red clay.	Late 6-7 <sup>th</sup> CE	Hayes 1972: CRS 10
6	Bowl	136	6	Buff Ware; white clay, black grits.		Ramla (Cytryn-Silverman 2010: Fig. 9.28: 5, 10)
7	Bowl	137	10	Buff Ware; white clay, mica.		Ramla (Cytryn-Silverman 2010: Fig. 9.5: 4)
8	Bowl	149	29	Orange clay, white grits; degraded surface.		Magness 1993: Rouletted Bowl 4
9	Bowl	101	2	<i>Kerbschnitt</i> Ware; gray clay.	Early Islamic	
10	Bowl	136	6	Buff Ware; molded.	Early Islamic	Khirbat al-Mafjar (Baramki 1944: Fig. 13:5-9)



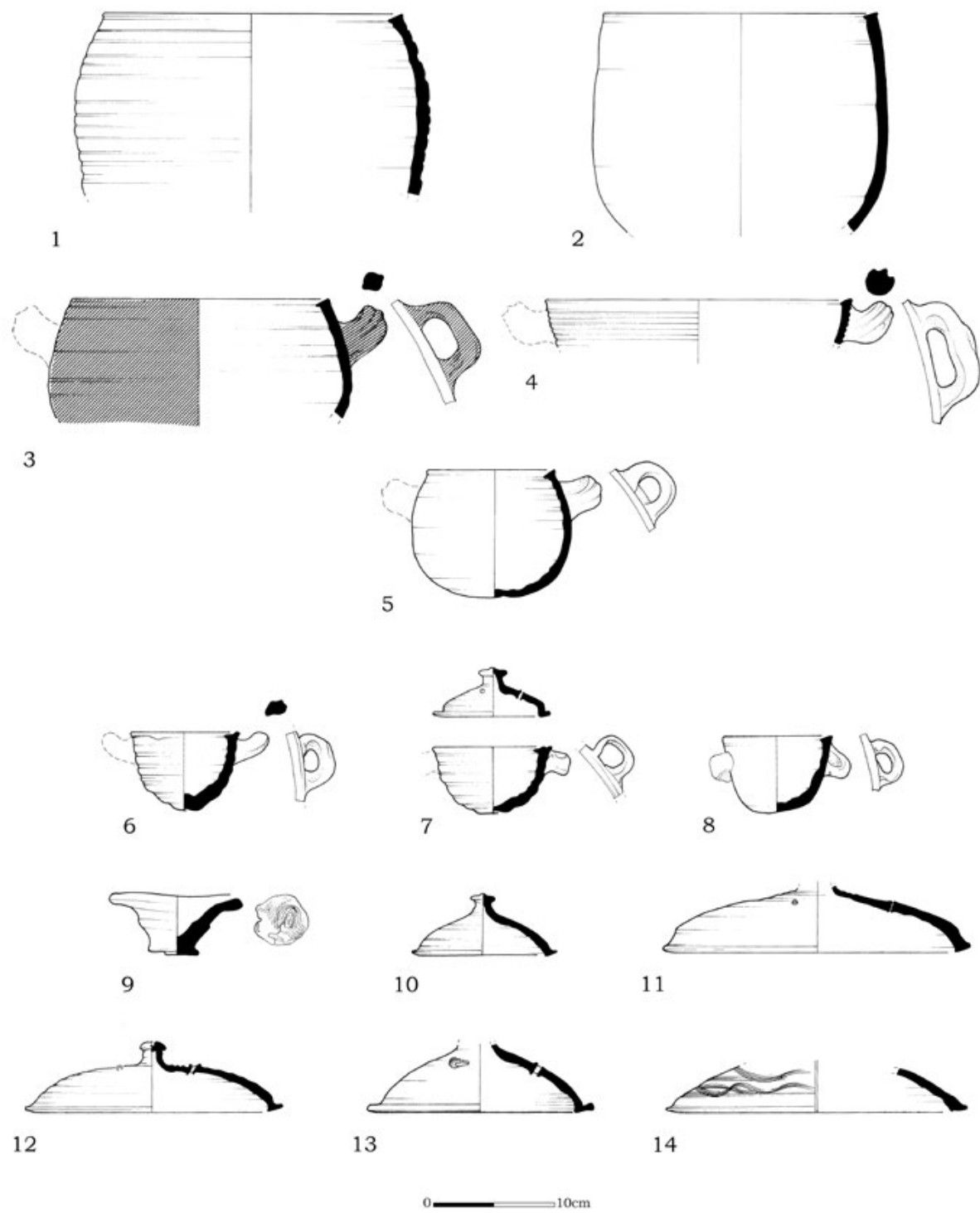


Figure 17. Cooking pots and lids.

Figure 17.

No.	Object	Reg. no.	Locus	Description	Date	Parallels
1	Cooking pot	136	6	Light gray clay, black grits; green-yellow stains.	Late 7 <sup>th</sup> / early 8 <sup>th</sup> - 9/10 <sup>th</sup> CE	Magness 1993: Casserole 3; Jerash (Zayadine 1983: 436, Fig. 13:1,2; Ramla (Cytryn-Silverman 2010: Fig. 9.6: 10); Khirbat al-Mafjar (Baramki 1944: Fig. 13:5-9)
2	Cooking pot	136	6	Gray clay, small white grits; green-yellow stains.	Abbasid	
3	Cooking pot	136	6	Orange-gray clay, large black and white grits, mica; red slip.	Abbasid	Khirbat al-Mafjar (Baramki 1944: Fig. 13: 5-9)
4	Cooking pot	136	6		7-8 <sup>th</sup> CE	Magness 1993: Casserole 1: 4,5
5	Cooking pot	136	6	Dark clay, white grits.	Late 7 <sup>th</sup> / early 8 <sup>th</sup> - 9/10 <sup>th</sup> CE	Magness 1993: Casserole 3; Jerash (Zayadine 1983: 436, Fig. 13:1,2); Ramla (Cytryn-Silverman 2010: Fig. 9.6:10); Khirbat al-Mafjar (Baramki 1944: Fig. 13: 5-9)
6	Cooking pot	136	6	Miniature; light gray clay, orange exterior, large white grits; green-yellow stains.		
7	Cooking pot	136	6	Miniature; orange clay, large white grits; green-yellow stains.		Lid: Magness 1993: Lid 1
8	Cooking pot	136	6	Miniature; dark clay, orange exterior, large white grits; green-yellow stains.		
9	Lid	525	58	Buff Ware; light clay, large orange grits.		Ramla (Cytryn-Silverman 2010: Fig. 9.20:4)
10	Lid	136	6	Fine orange clay; green-yellow stains.		
11	Lid	136	6	Orange-gray clay; green-yellow stains.	6 <sup>th</sup> -mid-8 <sup>th</sup> CE	Magness 1993: Lid 1; Ramla (Cytryn-Silverman 2010: Fig. 9.6:7; 9.9: 18)
12	Lid	136	6	Gray clay; green-yellow stains.	6 <sup>th</sup> -mid-8 <sup>th</sup> CE	Magness 1993: Lid 1; Ramla (Cytryn-Silverman 2010: Fig. 9.15: 9)
13	Lid	136	6	Orange clay, black grits; green-yellow stains.	6 <sup>th</sup> -mid-8 <sup>th</sup> CE	Magness 1993: Lid 1
14	Lid	136	6	Dark gray clay; green-yellow stains.	6 <sup>th</sup> -mid-8 <sup>th</sup> CE	Magness 1993: Lid 1; Ramla (Cytryn-Silverman 2010: Fig. 9.6:6)

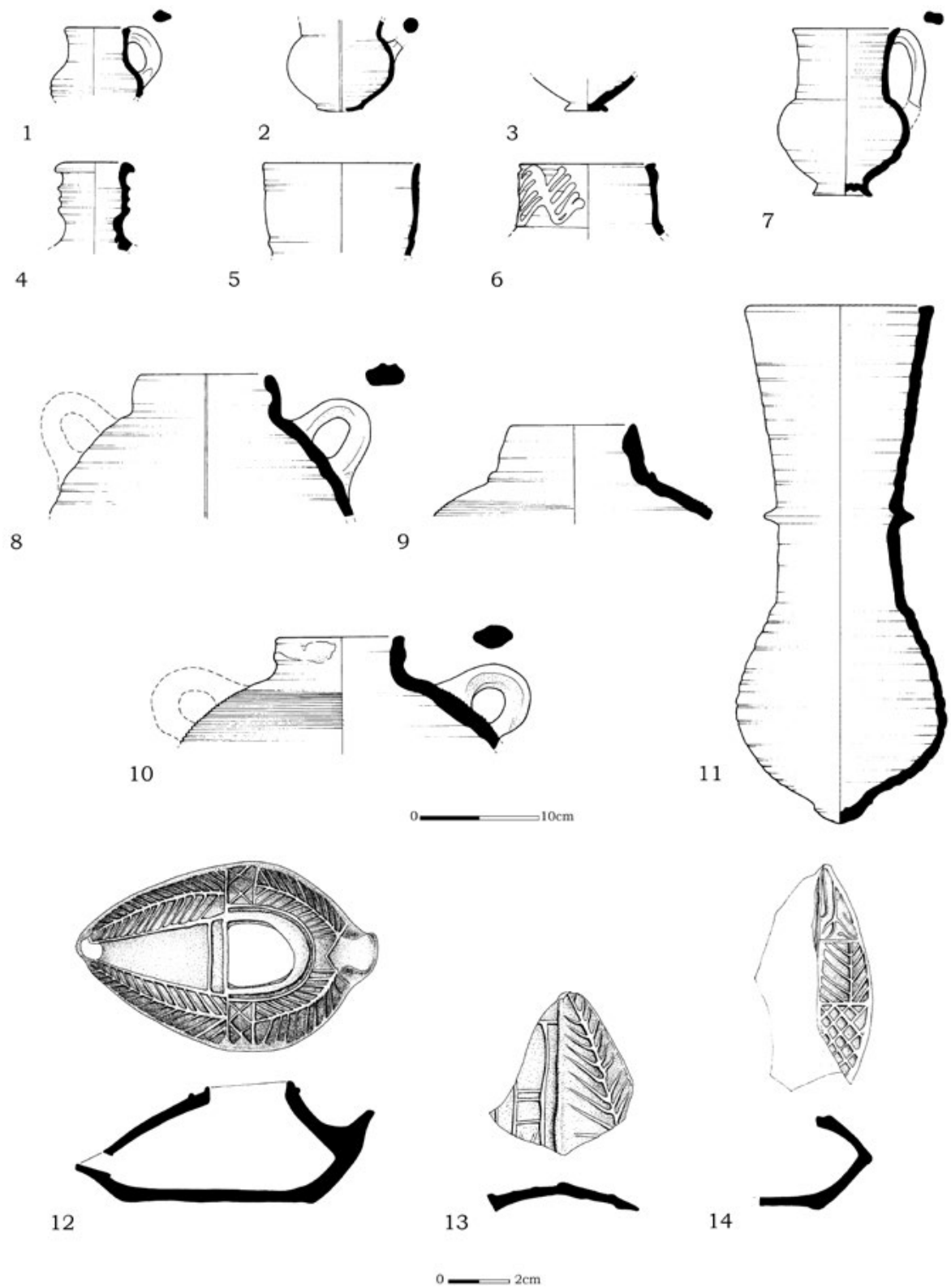


Figure 18. Storage vessels and lamps.

Figure 18.

No.	Object	Reg. no.	Locus	Description	Date	Parallels
1	Juglet	129	5	Orange clay, gray core, white grits.		Khirbat al-Mafjar (Baramki 1944: Fig. 14:10)
2	Jug	113/1	6	Buff Ware; fine white clay.		
3	Base	136	6	Buff Ware; fine white clay, small black grits.		Khirbat al-Mafjar (Baramki 1944: Fig. 15: 29)
4	Flask	129	5	Pink clay, small grits.		Khirbat al-Mafjar (Baramki 1944: Fig. 5:10)
5	Jug	136	6	Buff Ware; white clay, large white grits.		Ramla (Cytryn-Silverman 2010: Fig. 9.4:3,6,9)
6	Krater	530	61	White painted ware; orange clay, small white grits.	First half of 8 <sup>th</sup> CE	Jerash (Zayadine 1983: Pl. XIV:27)
7	Jug	530/1	61	Fine orange clay, white grits.	Umayyad	Jerash (Zayadine 1983: Pl. XVII:1)
8	Jar	525	58	Dark clay, red exterior.	Early 8 <sup>th</sup> -10 <sup>th</sup> CE	Egyptian-made (Watson 2006: Fig. 9: 3)
9	Jar	136	6	Dark red clay.	Late 7 <sup>th</sup> -9/10 <sup>th</sup> CE	Magness 1993: Storage Jar 7; Ramla (Cytryn-Silverman 2010: Fig. 9.18:1)
10	Jar	136	6	Dark red clay.	Late 6 <sup>th</sup> -7/8 <sup>th</sup> CE	Magness 1993: Storage Jar 6B; Ramla (Cytryn-Silverman 2010: Fig. 9.1:10)
11	<i>Antiliya</i> vessel	518	54	Orange clay, large black grits.	Late Ottoman	Ayalon 2000: 224-225
12	Oil lamp	136	4	Dark clay, orange exterior, large white grits.	Umayyad	Hadad 2000: Type 32-2; Ramla (Cytryn-Silverman 2010: Fig. 9.21:1)
13	Oil lamp	113	6	Orange clay, large white grits.	Umayyad	Hadad 2000: Type 32-2; Ramla (Cytryn-Silverman 2010: Fig. 9.21:1)
14	Oil lamp	526	9	Orange clay, large white grits; green-yellow stains.	Umayyad	Hadad 2000: Type 32-2; Ramla (Cytryn-Silverman 2010: Fig. 9.21:1)

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# Excavation at Azor - 2000

## Early Bronze Age, Mamluk and Ottoman Period Remains

Yehuda Govrin

*with contributions by Anna de Vincenz & Conn Herriott*

*This excavation was carried out in 2000 by Y.G. Contract Archaeology Ltd. (excavation license B-221/2000). The project was directed by Yehuda Govrin, under the academic auspices of Bar-Ilan University. In post-excavation, the finds were analyzed by the author, as well as Anna de Vincenz (Ottoman-period pipes) and Conn Herriott (Early Bronze Age artifacts). The finds were photographed by Vladimir Naikhin, and illustrated by Noga Ze'evi (Mamluk/Ottoman vessel), Anna Dodin (ceramics) and Conn Herriott (stone).*

### INTRODUCTION

This Tel Azor excavation was preceded by two Israel Antiquities Authority (IAA) archaeological testing projects. The first was conducted by Merrick Molokndov on 27 September 1999, during which ten test sections were dug. The second phase, involving four more test sections, was carried out by Larissa Zack on 27 March 2000. This testing was the first stage in the archaeological investigation of a small portion of the site – what might be termed a sample investigation. It was carried out in order to expose the archaeological strata of this area down to the virgin soil with the purpose of obtaining ‘cover for generations’, a long-term IAA-issued permit that would free up the area for construction.

On 18 September 2000 a manual excavation was commenced at the behest of the site owners. The excavation was directed by Ido Ginton and Yossi Bordovic on behalf of the Department of Land of Israel Studies of Bar-Ilan University, in conjunction with the IAA. The area of excavation was determined jointly by the IAA and the excavators. One area was marked for excavation (Area A) and four squares (S1, S2, S3 and S4) were laid out in it (Fig. 2). This area was

then excavated, with a preliminary report submitted to the IAA on 27 November 2000.

In the excavation area severe disturbances were encountered in the form of construction material and recent septic tanks, which were partially made of metal barrels that in places penetrated to a depth of 2.0m below the present surface level.

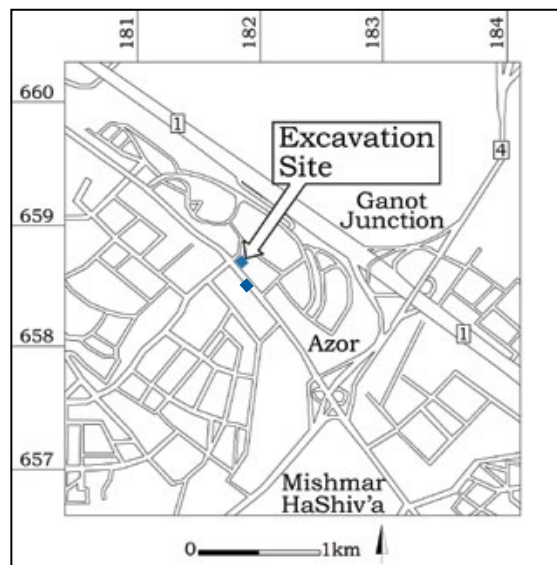


Figure 1. The excavation's location (New Israel Grid: 181718-658578; 27m asl).



The archaeological excavation reached a depth of approximately 5.0m. However, work was then postponed due to safety concerns that arose from a combination of the squares' depth, the instability of the surface and sections, and rain, which further destabilized the ground and caused the collapse of soil into the deep squares.

On 4 December 2000, excavation was renewed after it was decided to graduate square depths by using stepped rather than straight vertical sections. This terracing was carried out by machine, under the direction of safety engineer Zlio Diamandy who coordinated with engineer Jacob Shefer, the director of

the IAA's Conservation Department, and other IAA inspectors. In order to further reduce the risk of section collapse, the excavation was confined to a single 5.0 x 5.0m square that would be excavated down to pre-archaeological levels (Fig. 3). The square chosen was S5. Excavation reached to a depth of 7.5m, beneath which lay virgin hamra soil. Within the 7.5m of occupation, three broad archaeological phases were identified:

- I. Modern (Ottoman and later): down until approximately 2.0m below the present surface.
- II. Mamluk-Late Islamic: from 2.0m until approximately 5.0m below the surface.

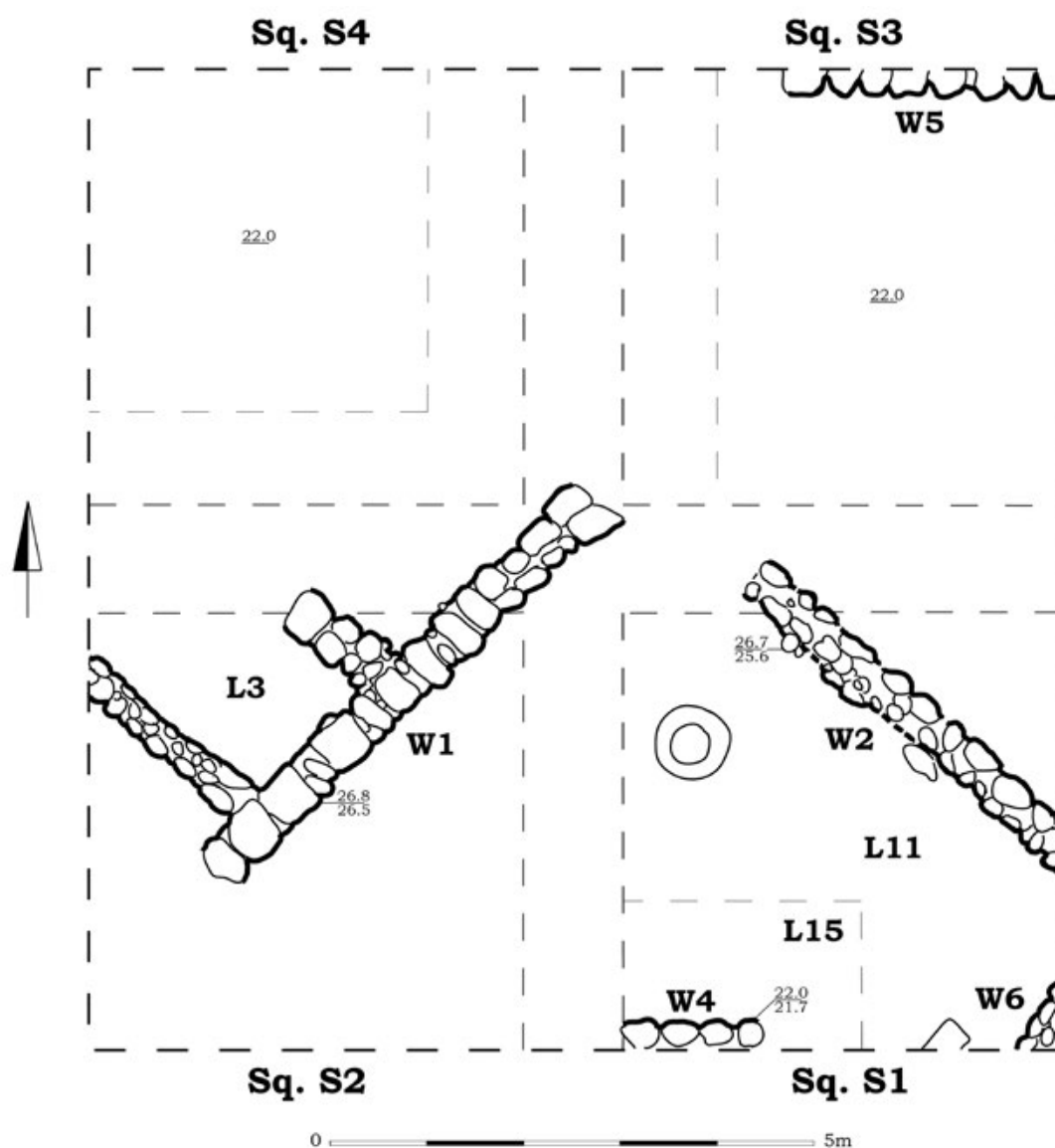


Figure 2. Squares S1-4, Strata I-II.

III. Early Bronze Age (EB): 5.0m until approximately 7.5m below the surface (virgin soil).

## THE EXCAVATION

### Stratum I: Ottoman Period – recent (16-20<sup>th</sup> centuries)

The main evidence from this stratum consists of the remains of a structure (L3) discovered about 0.2m below the surface in Square S2. From this structure there remained one course of a row of ashlar stones

which belonged to an external wall (W1) measuring 5.5m long and 0.6m wide. Perpendicular to this were two narrower parallel walls (0.3m wide, surviving to one course) which probably indicate the existence of a room that was 1.2m wide and at least 2.0m long. In the three other squares only mixed debris was found. Most worthy of mention from amongst the small finds are the Ottoman pipes (see report below [p. 160] and Fig. 12:1-3) and an unidentifiable coin with an Arabic inscription (since lost). Immediately above this structure was the thin concrete floor of a modern building. In Square S3 this stratum was up to 2.0m deep.

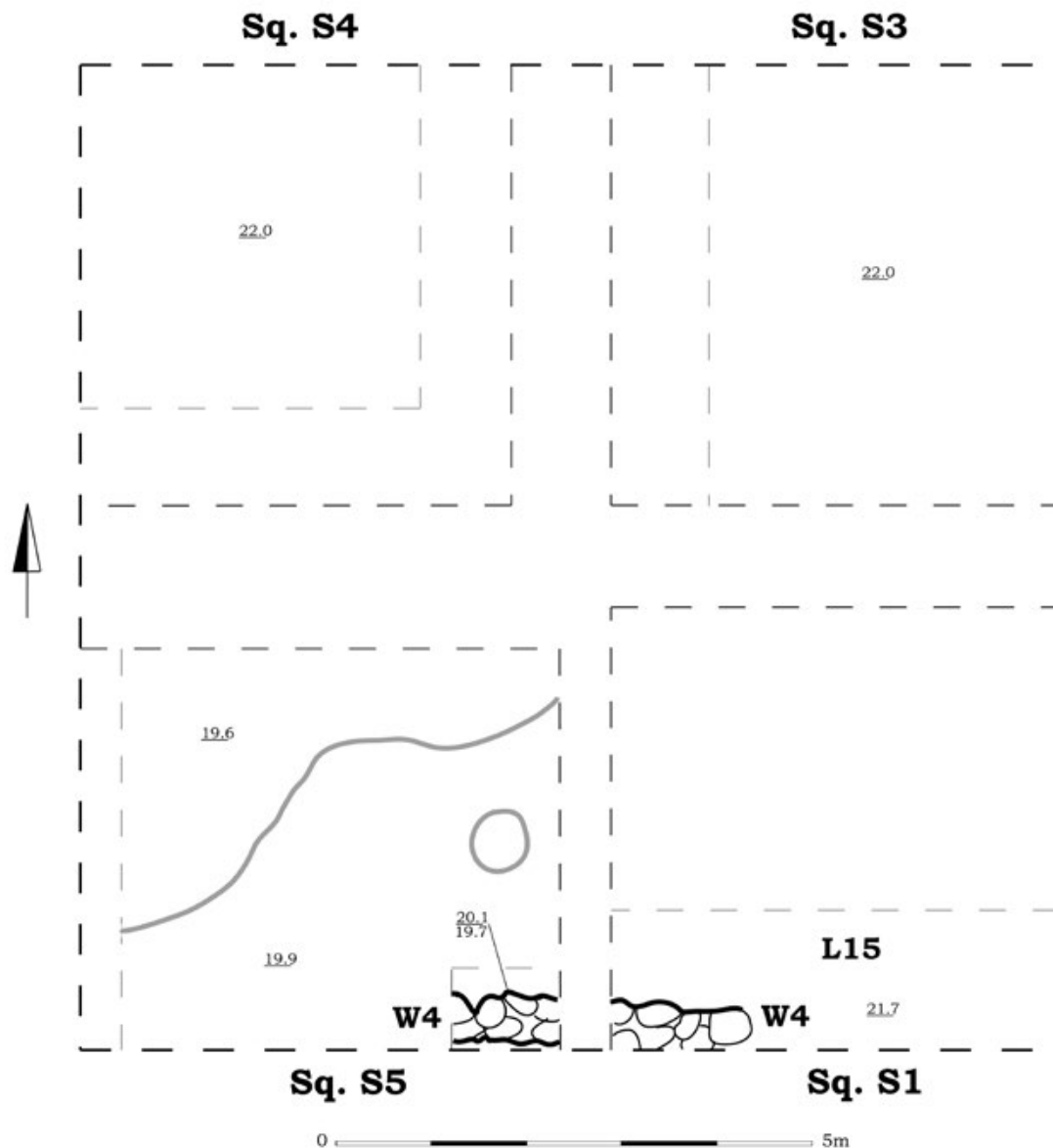


Figure 3. Excavation of Square S5, Stratum III.

In Square S1 the remains of walls indicate the existence of a courtyard or building (L11), oriented north-south (Figs. 2 and 4). It should be noted that we exposed only one of L11's corners; this impeded conclusive interpretation. In the northwest corner of L11, at a depth of 1.1m, was found a near-complete *tabun* (clay oven, 0.8m diameter), mixed with ash on a leveled surface. It appeared that L11 was a courtyard associated with a building of which we could uncover only a corner (northeast corner of Square S1), but which continued east of the excavation area. The *tabun* was found adjacent to a wall (W2) built of fieldstones, 4.5m long, 0.4m wide, 0.8m high, and found at a depth of 0.3m. The corner of the structure that extended beyond the excavation limit also included wall W6, the top of which was found at a depth of 0.3m and extended down another 0.8m. Like W2 it was built of fieldstones. W6 appears to have been perpendicular to W2. We have inferred that they intersected but W6's continuation beyond the excavation area was only partly exposed. Along W6 another wall abutted it at right angles by means of a doorpost built of large ashlar blocks. This intersection forms the building/courtyard's corner and possible entrance (perhaps an entrance to the L11 yard containing the *tabun*, which was in turn perhaps associated with the building continuing east from the excavation area). The W6 building/courtyard's floor was exposed at a depth of 1.4m.

Two 'rubbish pits' found 2.0m below the surface in Square S3 also belong to this stratum. These pits' excavation was not completed. In Square S4 stones that might have been part of a floor are probably also from this stratum (but due to bad preservation it was not possible to be sure).

## Stratum II: Mamluk-Late Islamic (12-16<sup>th</sup> centuries)

No architectural remains from these periods were found. Most of the information came from stratified occupation levels, interposed with ash and sand layers. A finely-decorated Ottoman-period smoking pipe was recovered (Figs. 6 and 12:4; see also the pipes report below, p. 160), clearly an intrusion from more recent times. Present also was the glazed and painted



Figure 4. A recent wall (W2) close to the surface, L11 (facing northeast).

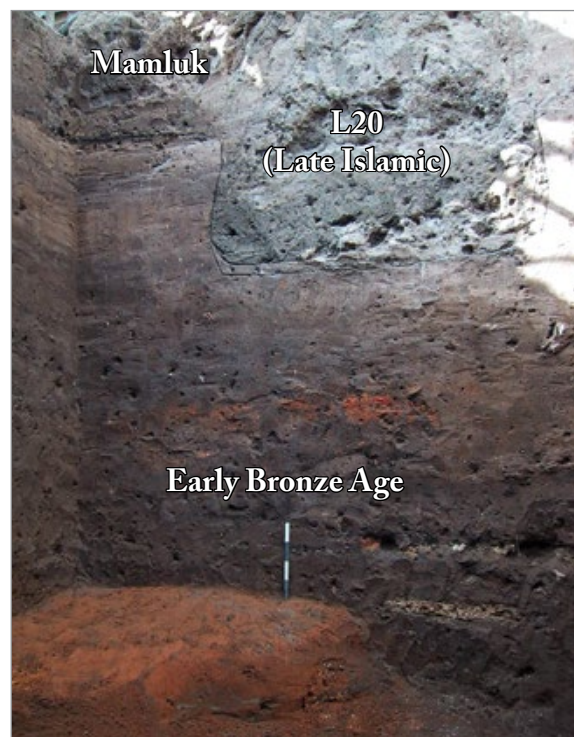


Figure 5. The east-facing section of Square S5. At the top the L20 pit filled with ash, pottery and bones from the Late Islamic period is seen penetrating the thin occupation level of the Mamluk period. Under the scale we can see the natural hamra soil sloping down from south to north.

pottery characteristic of the Late Islamic period (Fig. 12). This horizon was cut by a number of rubbish pits of different sizes.

In the western part of Square S5 a bell-shaped pit was discovered (L20) (Fig. 5). Its width was 2.5m and its preserved height 2.0m. The pit was filled with thin layers of ash and sand mixed with animal bones and



Figure 6. A decorated ceramic pipe from the Ottoman period (see also Fig. 12).



Figure 7. The southern section of Square S5. The upper pit is from the Late Islamic Period and the lower pit is probably of Mamluk date (the latter cuts the EB occupation level). On the left (under the scale) are the remains of the base of the only wall found from the EB (W4).

potsherds (non-diagnostic). At the bottom of the pit was a concentration of stones. It is possible that L20 was used as a rubbish pit or as a sump.

### Stratum III: Early Bronze Age (ca. 3600-2200 BCE)

To this stratum belongs a single wall (W4). This was first discovered in Locus L15, against the southeastern section of Square S1, and it was found to continue in S5. W4 had a total extant length of 3.0m, was 0.6m wide and was discovered at a depth of 5.0m below the surface. From this wall only one course was preserved, constructed of small and medium-sized *kurkar* stones. It is possible that this wall was the foundation of a sun-dried mud brick wall, fragments of which were seen in the square.

Close to this wall were found a number of ledge handles and a diagnostic EB sickle blade (Fig. 14:3; finds report below, p. 165). Above the wall, in S5's southern section, we revealed a 2.0m-thick, black layer sparsely mixed with potsherds. Some of the ceramics date to the Mamluk period, most likely penetrating to this stratum by means of rodents and man-made pits, such as L21 and L22. Evidence of these layers was also found in the rest of the square's sides and in the sections of the other four squares.

Between W4, discovered at a depth of approximately 5.0m and the natural *hamra* soil at 7.5m, it was possible to distinguish between a number of EB occupation levels.

- At ca. 5.7m down (19.9m asl), an archaeological context was exposed, mainly comprising a flattened area measuring approximately 1.0 x 2.0m, which was rich in fired mud-brick fragments, ash and pottery.
- An additional living surface, rich in potsherds and ash, was exposed at ca. 6.3m from the surface in the center of Square S5. In this context we found a large rope-decorated pithos (Figs. 8 and 13; see finds reports below, p. 165). It lay on its side, fragments of the rim scattered nearby. Close to the rim we recovered a near-complete deer antler (Figs. 8 and 10). Among other artifacts discovered at this level were a number of Canaan-type chipped stone sickle





Figure 8. Pithos on the left (see also Fig. 13) and a deer antler on the right, on an EB (L31).



Figure 9. The level of natural hamra soil (7m below present-day surface, facing east), into which were cut pits we found filled with ash and EB potsherds.

blades and a point (Figs. 9 and 14; finds report below, p. 165), as well as a juglet and a large number of characteristic sherds, including holemouth jar fragments and ledge handles (since gone missing). This occupation level also contained concentrations of *kurkar* stone mixed with soil and potsherds which created compact layers probably reflecting floor surfaces.

- The lowest archaeological context was discovered at a depth of 6.9-7.5m. This directly overlay the natural *hamra* soil discovered throughout the entire square, sloping from south to north in keeping with the area's topography. A number of pits of varying sizes were dug into the *hamra* (Fig. 9). In these pits were found sherds, ash, bones and several EB flint tools (Fig. 15:2-3; finds report below, p. 165).

## THE FINDS

### Ottoman/Mamluk

#### *Clay Tobacco Pipes*

*Anna de Vincenz*

#### *Introduction*

In travel journals of the late 19<sup>th</sup> century we read that pipe smoking was practiced in the Levant as early as 1599 (Bent 1893: 49, note 1). After its introduction into Egypt between 1601 and 1603, pipe smoking became common in Turkey by 1605. Subsequently it spread rapidly throughout the Ottoman Empire.



Figure 10. The deer antler discovered on an Early Bronze Age occupational surface (L31).

Many Ottoman pipe production centers were opened; for example, the town of Lüleburgaz was named for the numerous pipe workshops situated there. Other workshops were established in Istanbul, Sivas, Konya, Kayseri, Diyarbakır, Kütahya and Iznik (Bakla 2007: 363). By the middle of the 18<sup>th</sup> century, pipe smoking was a fashion for both men and women, regardless of age or social position.

The pipes in use across Africa and the Eastern Mediterranean, the so-called *chibouks*, are small, attractive items with miniature decorations, comprising a bowl with a separate stem. They are found at archaeological sites with Ottoman occupation layers, and until not long ago very few originated from clearly-dated contexts. These pipes have also been recovered from as far away as Russia, in tombs dating to the 19<sup>th</sup> century (Stančeva 1975/76: 129-137).

In recent years the study of Ottoman pipes has attracted scholarly attention. Major studies have been conducted on pipes from Athens and Corinth (Robinson 1983), as well as Istanbul and Saraçhane (Hayes 1980; 1992: 391-395). An important study of the pipes from Tophane, Istanbul was published by Erdiñç Bakla (2007). This work deals not only with pipes, but with the entire pipe-smoking and coffee-drinking culture of the Ottoman period. Elsewhere, Kocabaş (1963) analyzed pipes and the Tophane workshops. In Israel, Ottoman pipes were traditionally included in excavation reports but only as isolated finds. Examples of this approach are that of Avissar (1996), who published a number of pipes from Yoqne'am, and also a publication of archaeological finds from Akko (Edelstein and Avissar 1997). Nowadays pipes are more holistically studied and researched, such as the work of Baram (1996; 1999 [the later in connection with coffee cups]). Smoking pipes from Jerusalem have been studied by Simpson (2008), who also examined the pipes from Tell Jezreel (2002). Research of assemblages from Baniyas in northern Israel has indicated that this town was a production center for pipes during the Ottoman period (Dekkel 2008: 117-118). Pipes have been found in shipwrecks such as that from Sharm el-Sheikh, dated to the 18<sup>th</sup> century (Raban 1971),

and from the shipwreck off Sadana Island, also in the Red Sea (Ward 2000).

### *The Pipes*

Four fragmentary clay pipes were found at Azor. They came from a Stratum I structure (L3, Square S2) dating to the Ottoman period. Three of the pipes (Fig. 11:2-4) date to the 18<sup>th</sup> century, while Fig. 11:1 dates to the 19<sup>th</sup> century.

*Fig. 11:1* – The shank of this pipe is 4.8cm long, with an opening 1.4cm in diameter. The shank itself is undecorated but has a swollen end which is decorated with 2-3 irregularly rouletted bands. The clay is pinkish gray, is slipped deep brown and is highly burnished. This sort of shank was used for different pipe types during the latter part of the 19<sup>th</sup> century (Jaffa Type J-19J and J-19K). Parallels for this shank have been found at Belmont Castle (Simpson 2000: Figs. 13.5:115-117, 119, 129; 13.6:124) and also from Zir'in (Simpson 2002: Figs. 1:8; 2:9).

*Fig. 11:2* – Fragmentary pipe; bowl broken but shank preserved. The bowl would have been round with a straight upper part. The shank is short with an upturned ending, forming a thickened wreath with a ring. Below the wreath there is an incised line around the shank. The shank is 3cm long and the opening is 1cm in diameter. The pipe is made of light pinkish clay, burnished on the exterior and bearing splashes of dark yellow glaze.

Glazed pipes are not very common in pipe assemblages, but have been found in rather large quantities among the Jaffa assemblages (Jaffa Type J-18J-A). All seem to have been made of the same pinkish clay and all bear the same splashes of dark yellow glaze which raises questions as to their provenance<sup>1</sup>. Yellow glazed pipes have also been reported from Ramla (Vincenz 2011: Fig. 3:29). The peculiar way of glazing—which does not cover the entire pipe but rather results only in splashes—has been explained by Robinson as the result

1 Petrographic analysis has been performed on pipes of this type from Jaffa and preliminary results indicate that they were not locally produced. Their exact provenance has not yet been clarified.





Figure 11. Ottoman-period pipes from Stratum I.

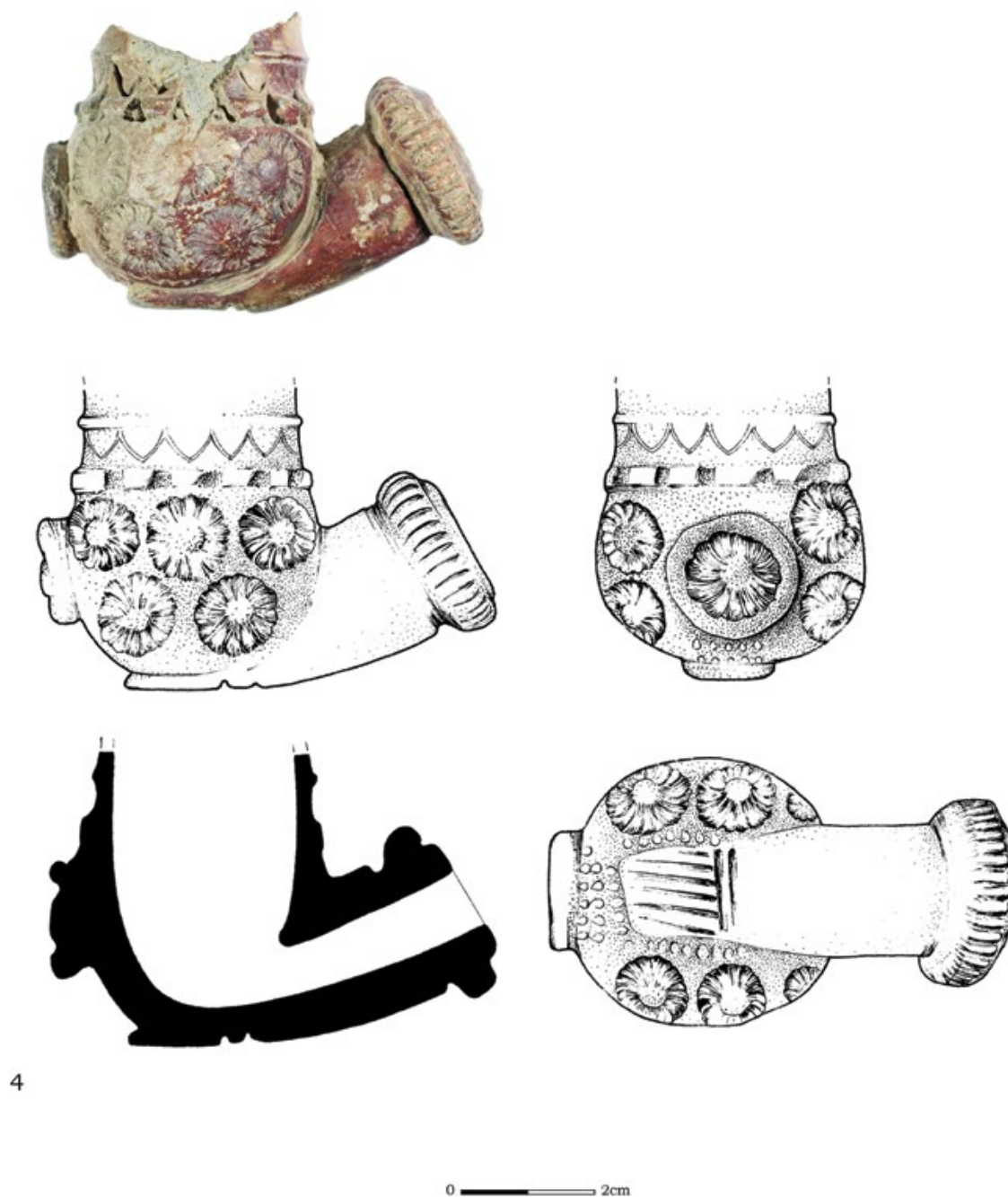


Figure 11.

No.	Artifact type	Reg. no.	Square	Locus	Description
1	Tobacco pipe	26	S2	9	Pinkish gray clay; deep brown slip; highly burnished
2	Tobacco pipe	25	S2	6	Light pinkish clay; exterior burnish; splashes of dark yellow glaze
3	Tobacco pipe	24	S2	10	Pink clay, exterior burnish; splashes of dark yellow glaze
4	Tobacco pipe	28	S2	13	Light brownish clay; purplish red slip; burnished

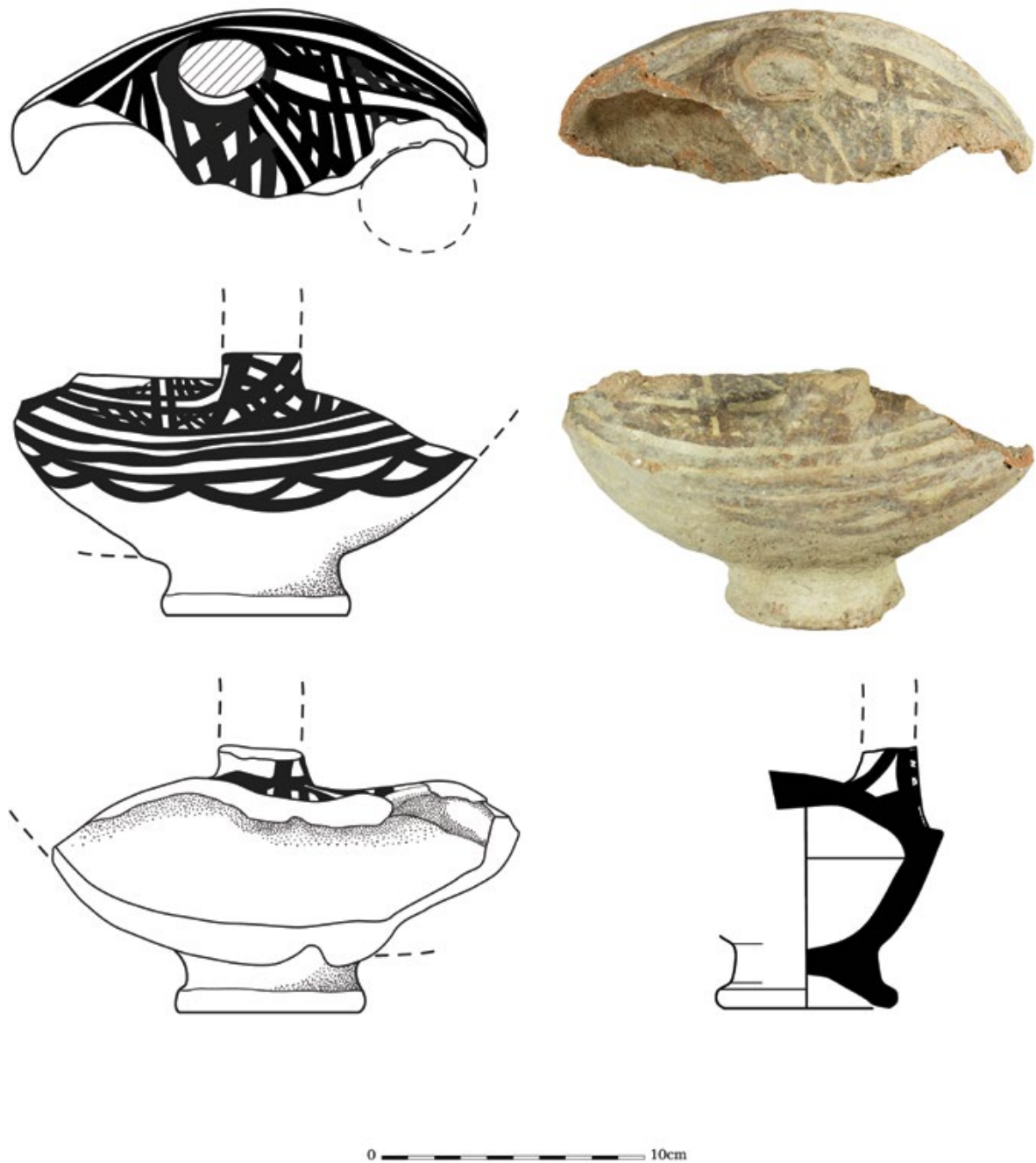


Figure 12. A Mamluk/Ottoman-period vessel from Stratum II (L15, Reg. no. 30).

of a pipe maker's by-product (Robinson 1983: 273). This type of pipe can be dated to the late 18<sup>th</sup> century.

*Fig. 11:3* – Fragmentary bowl; the upper part of the bowl and the shank are missing. The bowl is large and round. It is decorated with a vertical rouletted net pattern. This roulette is set between undecorated panels, which gives the bowl the appearance of a flower with closed petals. The broken upper part would have been straight and undecorated, as can be inferred from preserved examples found in Jaffa, in excavations at the old police station<sup>2</sup>. As in *Fig. 11:2*, the broken shank here would have been short, with an upturned end forming a thickened and ringed wreath. This pipe is made of pink clay, burnished on the exterior and bearing splashes of dark yellow glaze.

*Fig. 11:4* – This large, heavy pipe is almost completely preserved except for parts of the bowl. The latter is large and round, and is decorated with stamped petaled flowers. Opposite the shank there is a rosette in sharp relief. The shank is short (4cm) and upturned, and ends in a thickened wreath decorated with incised lines. With an opening diameter of 1.4cm, the shank continues under the bowl and forms a flat-standing keel which is also decorated with incised oblong lines and two lines separating the shank from the keel. The pipe is made of light brownish clay, slipped purplish red and additionally burnished. Pipes of the same type have been found in Jaffa, although their decorations are less elaborate (Jaffa Type J-18O). They also incorporate the protruding rosette and the same flat keel. A pipe with a similarly decorated keel has also been found in Banias (Dekkel 2008: *Fig. 4.10:58*). This type of pipe can be dated to the late 18<sup>th</sup> century.

### ***Ottoman/Mamluk Vessel***

This vessel (*Fig. 12*) was designed to look like a spinning and weaving bowl, wherein yarn was threaded

through holes in the base. The vessel dates to the Mamluk or Ottoman period (Ayala Lester, pers. comm.).<sup>3</sup>

## **Early Bronze Age finds**

### ***Conn Herriott***

#### ***Ceramics***

These included holemouth jar fragments, ledge handles, a juglet and a large number of diagnostic and non-indicative body sherds. However, all were subsequently lost except one pithos (*Fig. 13*). This appears to have been an EB I type. Its plastic rope decoration on the shoulder and lower body has parallels on storage vessels dating to throughout the EB period, e.g. Tel Halif (Alon and Yekutieli 1995: 159, *Fig. 15*) and Lachish (Gophna and Blockman 2004: 877, *Fig. 15.2:9-10*). But the simple everted rim and neck are best paralleled by EB I types, such as one from Tel Halif which has been dated to late EB Ib (Alon and Yekutieli 1995: 159, *Fig. 15:1*) and others from Yiftah'el (Braun 1997: 82, *Fig. 9.20:1*). The crossing incisions on the neck exterior have no clear meaning. Perhaps this was the potter/owner/merchant's personal mark. Such marks were typically made near the rim (Amiran *et al.* 1973: 194).

#### ***Sickle blade segments (n=5)***

These sickle fragments and segments have been identified largely on the basis of gloss. Of course, gloss is not the exclusive preserve of sickles. Studies have shown that a similar lustrous effect can be produced on flint tools by cutting canes, reeds, woodworking, and perhaps even by hoeing and digging (Rosen 1997: 55, referring to Curwen 1930, 1935; Neuville 1934-5; Anderson 1980 and Unger-Hamilton 1984, 1991).<sup>4</sup> Therefore microscopic analysis of these tools would be required to conclusively establish their identification

2 The report of these excavations awaits publication and includes an large assemblage of clay smoking pipes from the 17<sup>th</sup>-20<sup>th</sup> centuries.

3 This identification was made on the basis of photographs and drawings only, so should be treated with some caution.

4 Presumably the other activities which produced gloss were no longer carried out or, with the increased availability of metal, more efficient tools were developed for those activities. Flint sickles were exceptional in that they were not replaced with copper or bronze versions, partly because flint is superior to copper as a sickle material and is at least the equal of bronze (Coles 1973: 34-39, Steensberg 1943: 11-26).

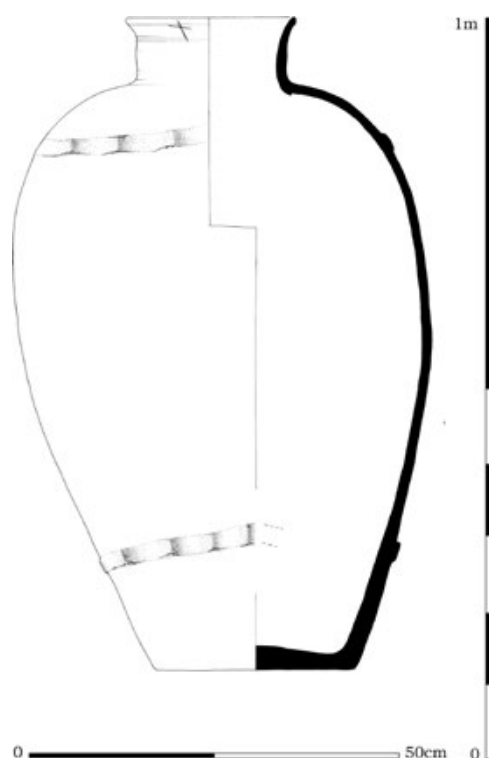


Figure 13. The Early Bronze Age I pithos from Stratum III (L31, Reg. no. 71/1; light orange/brown clay, poorly fired, large white grits).

as sickles. In the meantime, basing our interpretation on typology and the balance of evidence, we are confident in categorizing them as such.

Four sickles (Fig. 14:1-4) very much fit the Canaanean type: a prismatic profile, made by snapping typical Canaanean blades into segments to accommodate a sickle's necessarily curving form. This sickle type was in use throughout the 4<sup>th</sup> and

3<sup>rd</sup> millennia, and conceivably occurred as far back as the Chalcolithic (see Rosen 1997: 60; Rowan and Levy 1994; contra Milevski *et al.* 2011). The parallel longitudinal sides of this Canaanean sickle are a technical feat that may have been achieved using a punch, which could have been made of copper (Rosen 1997: 48). One of these Canaanean sickles (Fig. 14:1) was partly backed, suggesting that it was hafted.

One other sickle (Fig. 14:5) is in the backed-and-truncated sickle segment tradition, which is a Chalcolithic phenomenon in the southern Levant (apart from the Negev; Rosen 1997: 60).

Four of these sickles (Fig. 14:1-3,5) were made from light brown/gray medium-grained Eocene/Cretaceous flint. This is difficult to source but is widely available in the hills of Samaria, northern Galilee, the Shephelah and the central Negev (Rosen 1997: 33). The fourth sickle (Fig. 14:4) segment was made from a dark, fine-grained flint with white inclusions. The 'En Zetim and Meshash Formations (Senonian Age) are likely source candidates from this region (Khalaily 2003: 59).

### **Blades (n=2)**

We uncovered one Canaanean (Fig. 15:2) and one *ad hoc* (Fig. 15:3) blade, the latter too fragmented for us to identify its type.

### **Projectile point (n=1)**

This piece (Fig. 15:1) was most likely an arrowhead (but see discussion in Rosen 1997: 42-43). Such small projectile points developed as hunting was becoming less and less important in subsistence strategies, after the Pre-Pottery Neolithic B period (*ibid.*). Typologically this point seems to follow the Haparsa

Figure 14.

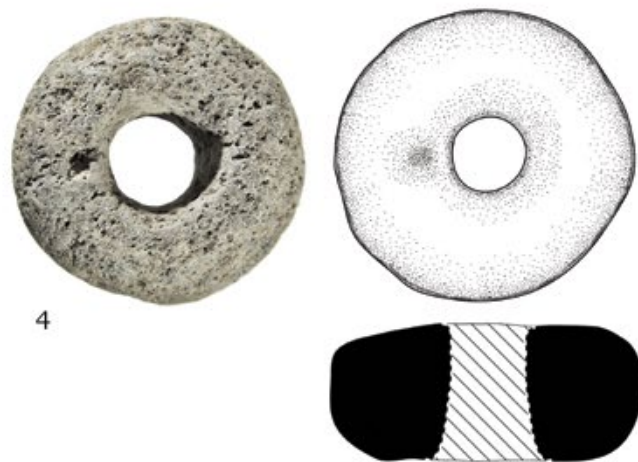
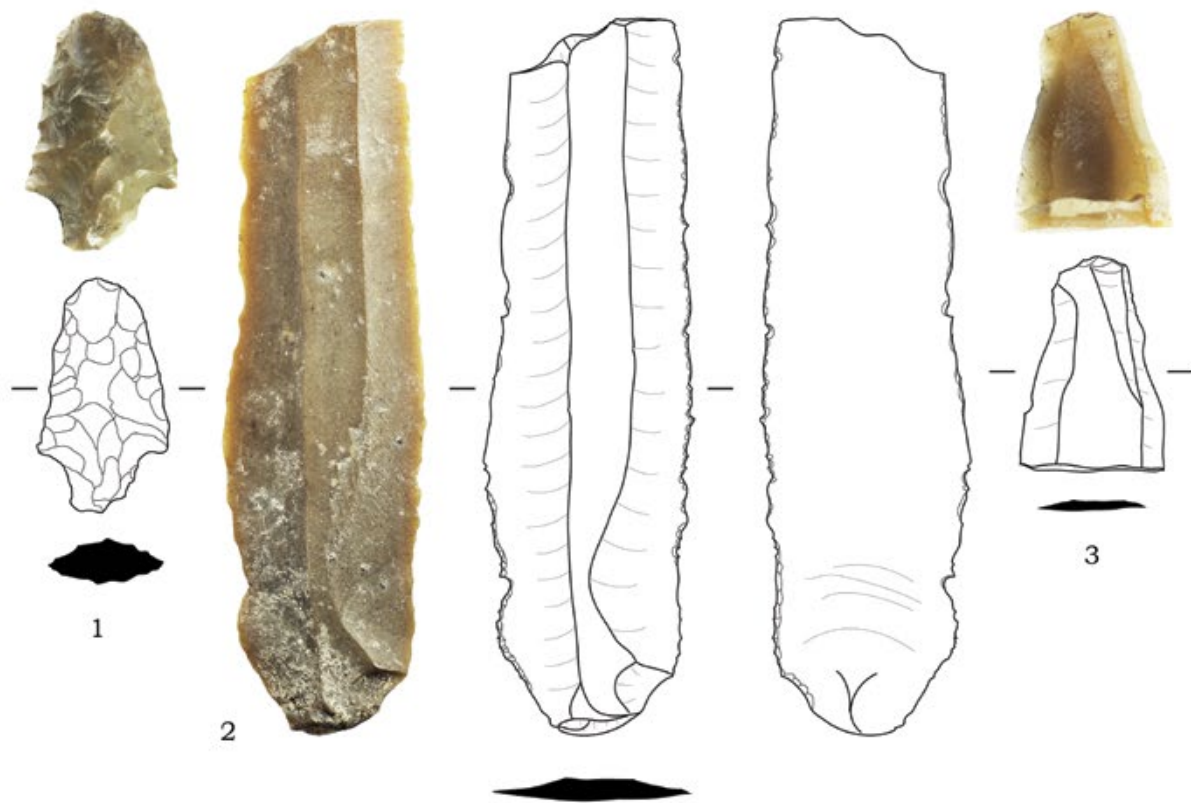
No.	Artifact type	Reg. no.	Square	Locus	Description
1	Sickle (Canaanean)	61/2	S5	27	Partly backed
2	Sickle (Canaanean)	58/1	S5	23	
3	Sickle (Canaanean)	65/1	S5	28	
4	Sickle (Canaanean)	61/1	S5	27	
5	Sickle (backed-and-truncated)	61/3	S5	27	





Figure 14. Early Bronze Age sickles from Stratum III.





0 10cm

Figure 15. Early Bronze Age blades and a basalt weight from Stratum III.

Figure 15.

No.	Artifact type	Reg. no.	Square	Locus	Description
1	Projectile point	71/2	S5	31	Light brown flint
2	Blade	65/2	S5	28	Light brown flint
3	Blade	61/4	S5	27	Light brown flint
4	Weight	65/3	S5	28	Basalt

tradition, although in a less pronounced form; it has a tang but no ‘wings’. Retouch is bifacial, and semi-abrupt.

Such pieces seem to date from the Neolithic through the EB I. Most are found in the desert regions of the southern Levant, although interestingly microlithic lunates—a related tool type—were also found in EB I tombs elsewhere in Azor (Ben-Tor 1975; Rosen 1983).

### ***Weight (n=1)***

This ring-shaped ground vesicular basalt piece (Fig. 15:4) most likely functioned as a suspension weight.

## **SUMMARY**

Tel Azor, situated on the road between Jaffa and Jerusalem, was hardly excavated prior to this project. At the top of the mound are the remains of a Crusader fortress, *Casal de Plains*, the ruins of which cover large areas of the *tel*. The current test pits and rescue excavation were concentrated mainly around the edges of the mound, so the full stratigraphic sequence of the *tel* has not yet been revealed. The excavation was conducted at the northern edge of the *tel*, where no archaeological investigations had taken place to date. Probably for this reason we did not expose remains from other periods known to have existed at the *tel* thanks to previous surveys and excavations (Ory 1942; Dothan 1961, 1989; Perrot 1961; Druks and Tsferis 1970; Ben-Tor 1973, 1975; Amiran 1985). On the other hand, the finds from our excavation support a picture of intensive occupation in the area during certain periods.

To recap, the excavation revealed a building or courtyard, and other constructions and rubbish pits

that most likely dated to recent centuries—the later Ottoman period. Pits and living surfaces, without any architecture, were also found that date to the Mamluk through early Ottoman periods.

Beneath the Late Islamic levels, an Early Bronze Age stratum was found, 2.5m thick and incorporating occupation surfaces and architectural elements. Due to the limited extent of the excavation it is hard to assess the nature of the site’s earliest settlement, but we have inferred that the EB occupants based their economy on agriculture. We find evidence for this in the many sickle blades and the large pithos, which was used for storage. The subsistence pattern also included hunting, as evidenced by the flint arrowhead and the deer antler found next to the pithos.

The EB is the first archaeological period in this part of the site, its remains being found directly on the virgin *hamra* soil. No finds from the Chalcolithic period were recovered despite the many tombs from this period in an adjacent Azor cemetery (Perrot 1961). However, there is a possibility that the remains of the EB settlement found by our excavation were in fact associated with tombs discovered south and west of the *tel* (Ben-Tor 1975).

From the EB to the Mamluk period there appears to have been no settlement in the immediate area (though it should be reiterated that we know from previous surveys and probes that there was Middle Bronze, Late Bronze and Iron Age activity at the *tel*). From the Ottoman period onward, our excavation site was probably settled continually by the Arab village Yazur, up until 1948. The most recent phase of this settlement severely damaged earlier levels, as a result of intensive digging for rubbish pits and septic tanks.

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# Excavation at Tsur Yitzhak - 2010

## Two Byzantine Tombs

*Eyal Freiman & Yehuda Govrin*  
*with a contribution by Shulamit Hadad*

*In December 2010, a rescue excavation (license B-358/2010) was conducted in two double arcosolia tombs on the western outskirts of Khirbat Majdal. The tombs were uncovered during the expansion of settlement Tsur Yitzhak, whereupon the Israel Antiquities Authority requested that Y.G. Contract Archaeology Ltd. conduct an excavation. The field work was directed by Eyal Freiman, with guidance by Yehuda Govrin and anthropological consultation and analysis by Dr. Vered Eshed. The finds were analyzed by Shulamit Hadad, photographed by Vladimir Naikhin and illustrated by Anna Dodin.*

## INTRODUCTION

This site was located in the agricultural hinterland of Khirbat Majdal, a hillside ruin 600m to the east, where previous excavations had exposed the remains of a Byzantine settlement (6-7<sup>th</sup> centuries CE),

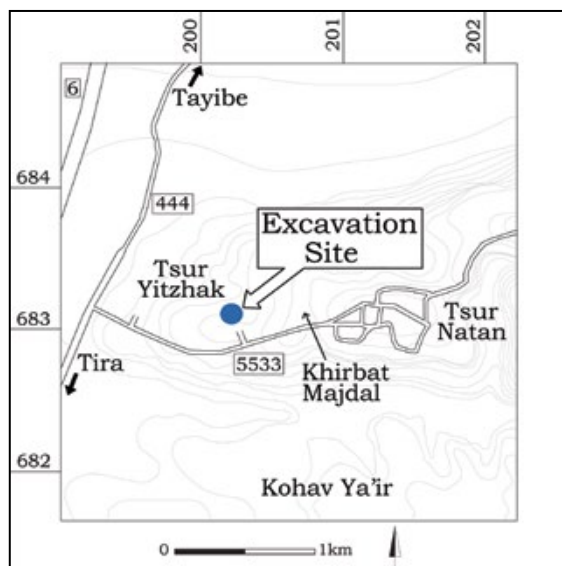


Figure 1. Excavation site location (New Israel Grid: 200157-683041; 128m asl).

including many installations, residential buildings, and a large public building with an apse, identified as a Samaritan synagogue (see Ayalon 2002, Sion *et al.* 2008).

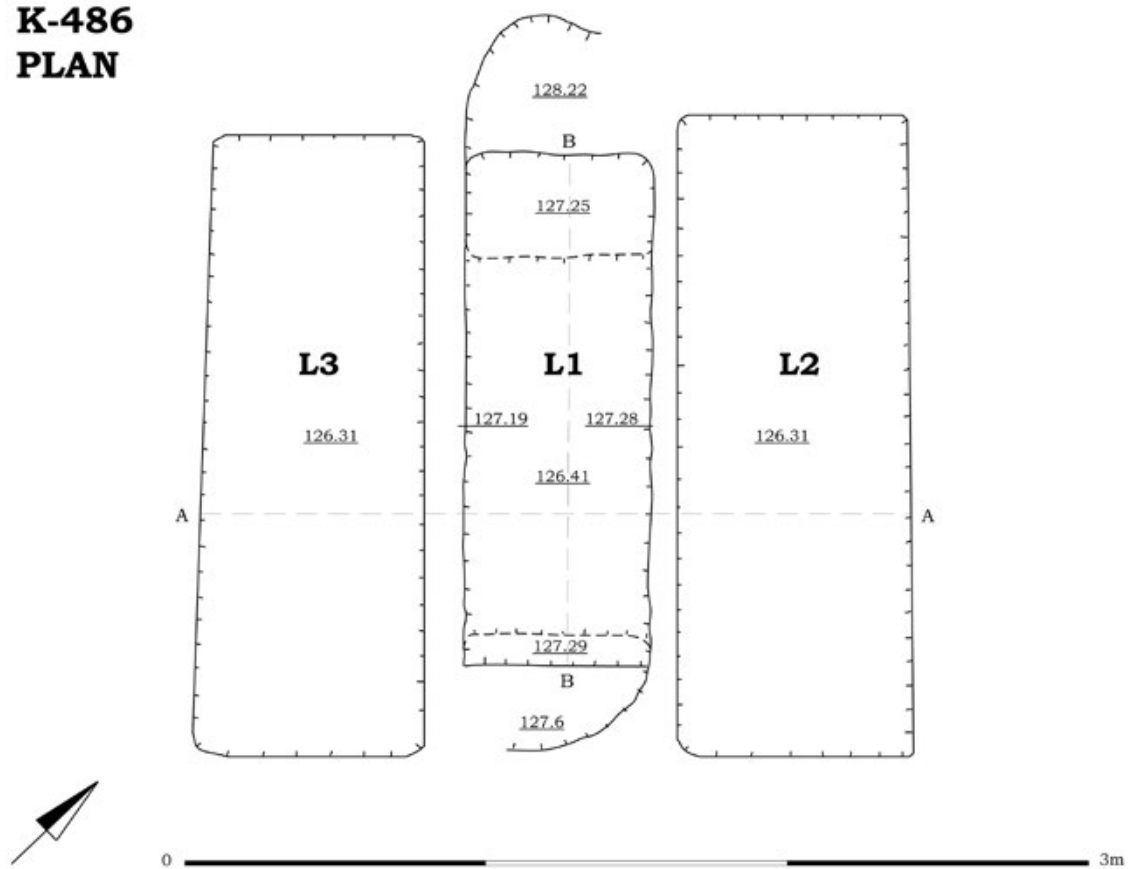
In 2010 the Israel Antiquities Authority (IAA) conducted test and rescue excavations around Khirbat Majdal, under the direction of Uzi Ad. In the south part of that site were found two double *arcosolia* tombs (K-486 and K-487) hewn into the native bedrock. These had been looted in the past, and were left open to be filled with debris and waste. We excavated these tombs and documented all architectural and artifact findings. The latter included broken glass bottles and decorated oil lamps, including one with multiple wick holes (see below).

## THE EXCAVATION

### *Tomb K-486 (Figs. 2-4)*

This was the southern of the two *arcosolia* tombs. Oriented northwest-southeast, access from the surface down into the tomb was through an opening which measured 1.56 x 0.6m. Within the tomb, the central space (L1) was cut to a depth of 1.8m from the

# **K-486** **PLAN**



# **SECTION**

← SW

NE →

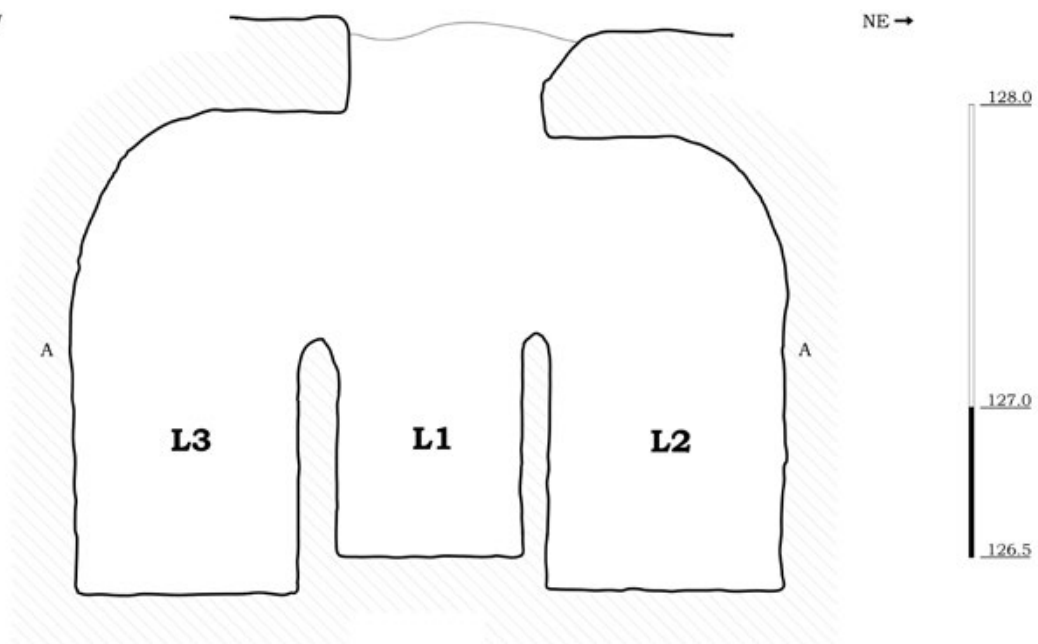


Figure 2. Plan and lateral section of Tomb K-486.





Figure 3. Tomb K-486 after excavation (facing northwest).

surface. To either side of L1 were carved the *arcosolia* (L2, L3), the floors of which were cut to a depth 0.05–0.15m below L1, forming bedrock-hewn sarcophagi (*cubicula*). Between these and the L1 central space were left walls ca. 0.12m wide and 0.8–0.9m high. The L2 and L3 *arcosolia* measured an average of 2.15 x 0.8m, and were about 1.5m high. At the northwest end of L1 a large ashlar stone was laid (0.55 x 0.5 x 0.35m), which served as an access step. About 0.5m above this ashlar stone there was carved in the wall a small notch, apparently intended to be used to facilitate access. The fill of L1 was comprised of modern sediments, waste and rocks.

Near the southwest corner of the middle pit a complete, *in situ* glass vial was discovered (Figure 9:2). The fill of L2 included bone fragments and little-worn pottery fragments. The western *arcosolium* (L3) contained a gray soil mixed with bones. Among other finds recovered on the floor here were a number of broken glass artifacts (Fig. 9:1,3–5), as well as three Samaritan-type decorated lamps, one of which incorporated multiple wick holes (Fig. 8:1–3). Also recovered from this tomb were several metal objects (Fig.

## SECTION

← NW

SE →

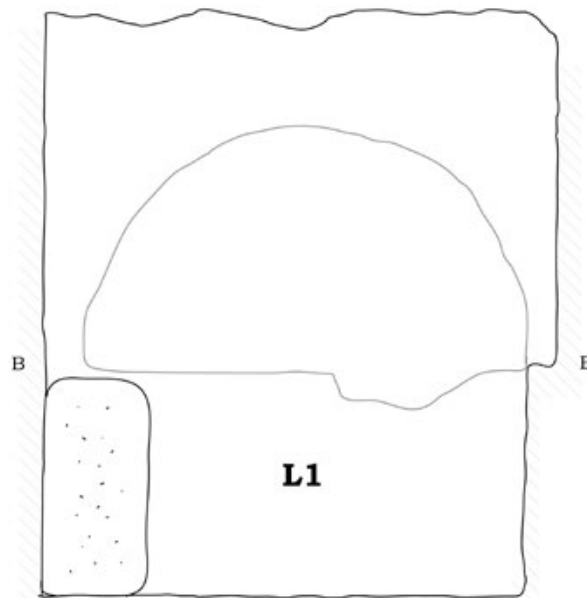


Figure 4. Longitudinal section of Tomb K-486, showing the L2 *arcosolium* from the side.



Figure 5. Tomb K-487 after excavation (facing north).

10). These finds probably dated to the 4-5<sup>th</sup> centuries CE and suggest that Tomb K-486 was associated with the local Samaritan community. Byzantine-period tombs of this type are known to us, and continued in use until the 7<sup>th</sup> century CE.

#### ***Tomb K-487 (Figs. 5-7)***

This tomb was located several meters north of Tomb K-486, and was oriented north-south. The tomb

entrance had apparently been damaged in antiquity. The ceiling of the western *arcosolium* (L6) was almost completely broken. The tomb's contents were looted. In the L5 and L6 *cubacula* we found only non-articulated bone fragments. The tomb entrance measured 1.8 x 0.5m, and stood ca. 1.6m above the floor of the tomb's central space (L4). Two steps had been put in at the north end of L4 to provide access down into the tomb. The floors of L5 and L6 were 0.15-0.4m lower than L4; these *cubacula* measured 1.8 x 0.6m.

Grave gifts would originally have been left with interments here, as in Tomb K-486. However, due to looting we recovered only non-articulated bones.

## **THE FINDS**

### ***Shulamit Hadad***

Several artifact types were found in Tomb K-486: lamps, glass vessels and metal objects, which will be presented in that order. Based on these finds the tomb should be dated to the 5<sup>th</sup> century CE.

## **SECTION**

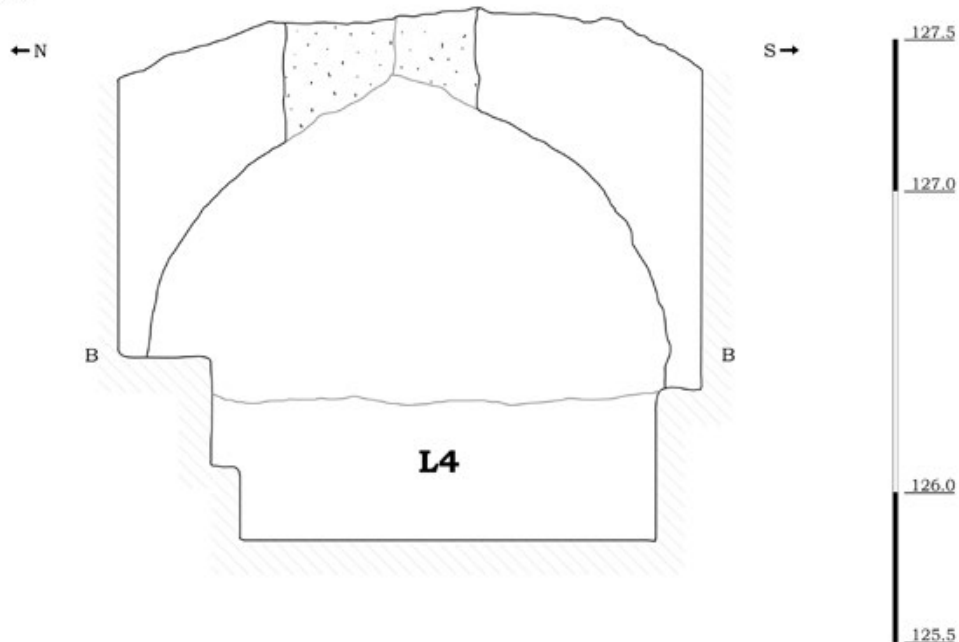
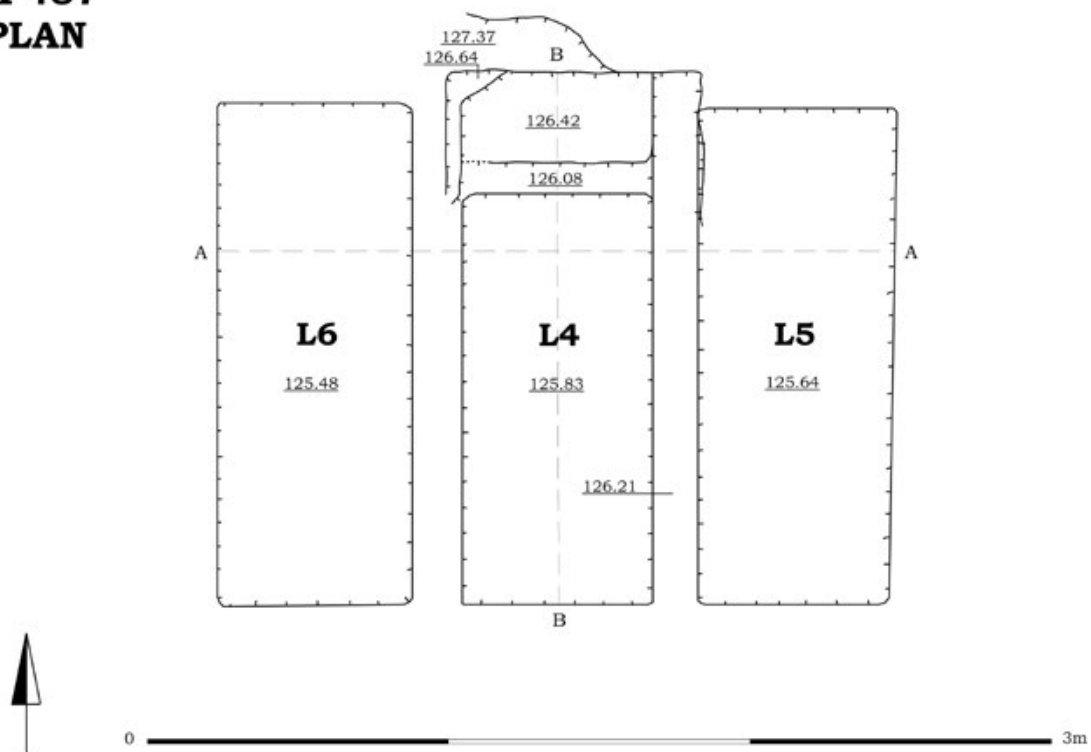


Figure 6. Longitudinal section of Tomb K-487, indicating the form of the L5 arcosolium from the side.

# **K-487** **PLAN**



## **SECTION**

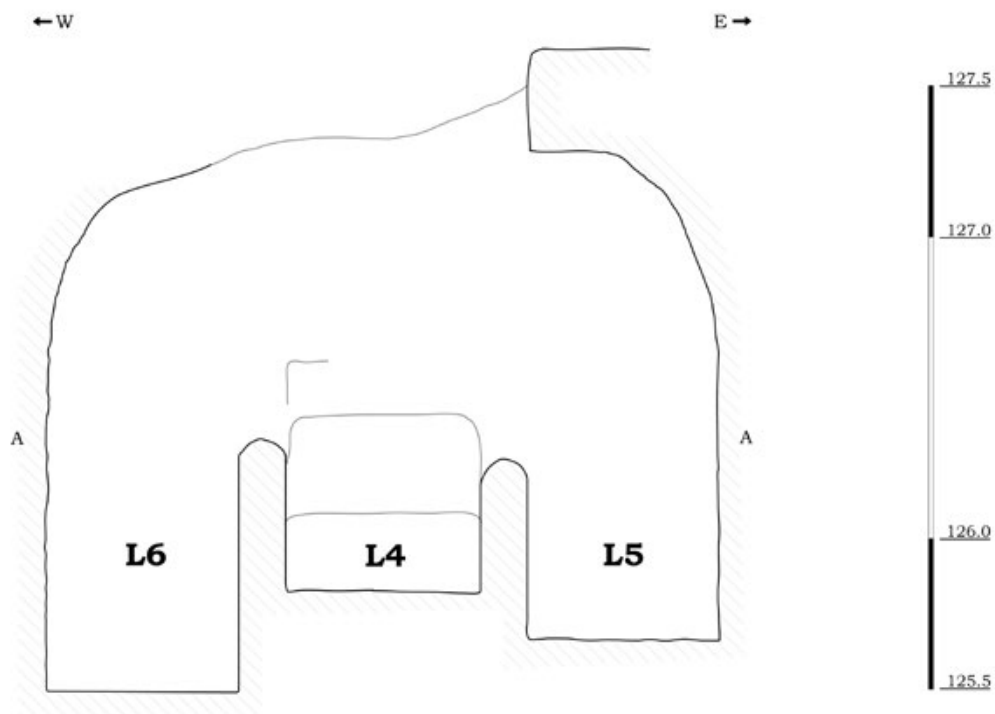


Figure 7. Plan and lateral section of Tomb K-487.

### *The Lamps*

Three lamps were recovered, all in *cubiculum* L3 of Tomb K-486. Two lamps are complete, small and share a similar shape (Fig. 8:1,2).. Both have a nozzle which is slightly concave on both sides; the Fig. 8:2 nozzle has small wings. In each case the filling hole was formed by breaking the discus after this was defined by a ridge. The lamps both have a small knob handle and a ring base. They differ in decoration. Fig. 8:1's nozzle is decorated with a circle, while the rim is decorated with half circles and dots. The Fig. 8:1 lamp appears not to have been used at all, while the Fig. 8:2 wick hole is quite sooty. This item was decorated with a square on the nozzle, while the rim is adorned with small dot-centered circles. Near the handle several parallel lines divide the rim decoration.

Fig. 8:3, of which only part of the nozzle survives, is a lamp with multiple wick holes (*polylychnoi*); three such holes are preserved. This fragment is decorated with triangles, lines and dots, and is very sooty. Based on the flatness of this sherd it seems that the lamp was quite large.

The lamps presented here belong to the early subset of the "Samaritan" typological group. They fit with my Type 18, dated to the 4-5<sup>th</sup> centuries CE (Hadad 2002: 35-37), and Sussman's Types S1 and S4, dated to the late 3-5<sup>th</sup> centuries CE (Sussman 2002: 341-343).

### *The Glass Vessels*

Six glass vessels were found, again all from Tomb K-486 and mostly from *cubiculum* L3. Most of the glass vessels are closed—a phenomenon typical

of tomb artifacts dating to this period. Fig. 9:1 is a bottle/jug of which the ring base and part of the wall are preserved. Two bottles were found (Fig. 9:2-3); the former is almost complete. It has a wide opening, the neck is constricted near where it meets the globular body, and the base is flat. Fig. 9:3 has a simple rim. The sole recovered jug (Fig. 9:4) has an inward-folded rim and one handle attached from rim to shoulder. It is decorated with two thin threads on the rim and a thick thread on the neck. Fig. 9:5 is part of a double tube adorned with threads. The vessel is made of green glass, while the threads are blue.

In addition were found (not illustrated): one handle fragment, perhaps belonging to a double tube; a small base fragment, possibly from a mold-blown beaker decorated with indents; a neck bottle decorated with a thick thread; and other unidentifiable glass sherds.

According to Barag (1970: 175-179, Type 12), the double tube first appeared in the 5<sup>th</sup> century CE. Double tubes, sometimes with bronze and bone kohl sticks inside, have been found in almost every tomb dating to the late Roman and Byzantine periods (Hadad 2010: 192-193, Pls. 14.4:2; 14.5:3, 4).

### *The Metal Objects*

The metal objects include a small ring (Fig. 10:1) and an undefined cylindrical bronze object, within which was incorporated a small iron piece (Fig. 10:2). In addition was found a possible bracelet made of bronze and covered with iron (Fig. 10:3).

Figure 8.

No.	Vessel	Reg. no.	Locus	Tomb	Description
1	Oil lamp	104	3	K-486	Yellowish-brown clay
2	Oil lamp	103	3	K-486	Orange-brown clay
3	Oil lamp	102	3	K-486	Orange-brown clay

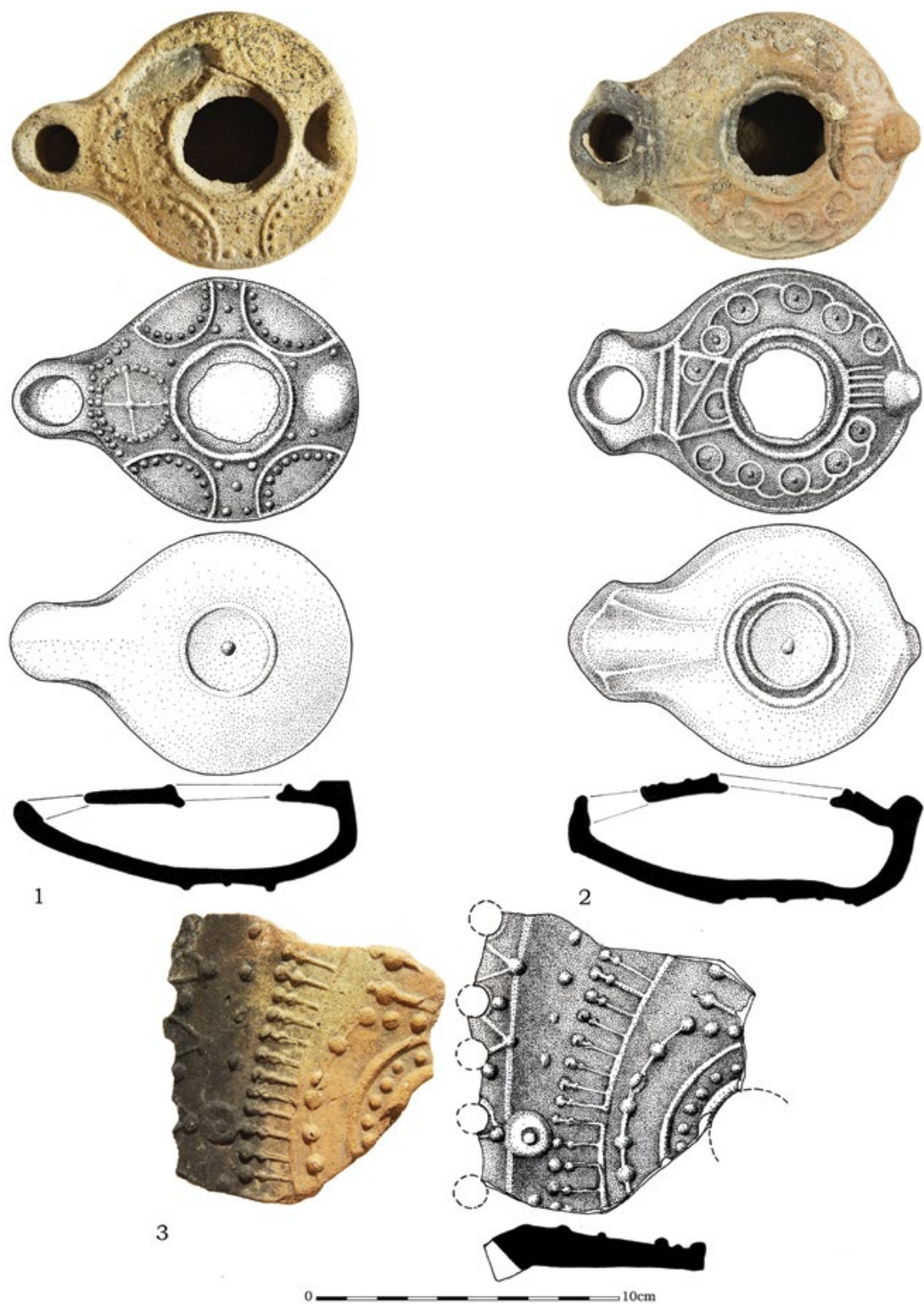


Figure 8. The ceramic oil lamps.





Figure 9. Glass vessels.

No.	Vessel	Reg. no.	Locus	Tomb	Description
1	Bottle/jug	106	3	K-486	Green glass
2	Bottle	100	1	K-486	Light bluish green glass
3	Bottle	105	3	K-486	Light bluish green glass
4	Jug	101	3	K-486	Green glass
5	Double tube	107	3	K-486	Green glass, blue threads





Figure 10. Metal objects.

No.	Object	Reg. no.	Locus	Tomb	Description
1	Ring	111	-	K-486	Bronze
2	Unidentified	112	-	K-486	Bronze exterior, iron interior
3	Possible bracelet	113	-	K-486	Bronze covered with iron

## SUMMARY

These tombs were associated with the multi-period site of Khirbat Majdal. According to the Samaritan oil lamps discovered in Tomb K-486, one might associate the tombs with the Samaritan population in this locality—attested to by the aforementioned nearby Samaritan synagogue (Ayalon 2002). The tombs were probably 4-5<sup>th</sup> century in date. This rock-cut

tomb type continued in use until the 7<sup>th</sup> century CE, and was a common burial tradition of the Byzantine period. The tombs were evidently looted in ancient times, incurring damage to the tomb entrances. This looting activity may also have contributed to the disarticulation of skeletal remains. It is also possible that secondary burial was practiced here, whereby bones may have been collected and redeposited within the tomb.

Table 1. Catalogue of objects from Tomb K-486.

Reg. no.	Object	Locus	Tomb	Description
100	Bottle	1	K-486	Light bluish-green glass
101	Jug	3	K-486	Green glass
102	Lamp	3	K-486	Orange-brown clay
103	Lamp	3	K-486	Orange-brown clay
104	Lamp	3	K-486	Yellowish-brown clay
105	Bottle	3	K-486	Light bluish-green glass
106	Bottle/jug	3	K-486	Green glass
107	Double tube	3	K-486	Green glass, blue threads
108	Double-tube?		K-486	Handle fragment?
109	Beaker?		K-486	Base fragment; decorated with indents
110	Bottle?		K-486	Decorated with thick thread
111	Ring		K-486	Bronze
112	Unidentified		K-486	Cylindrical form; bronze and iron
113	Possible bracelet		K-486	Bronze and iron

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# Mortuary Remains from the Byzantine Period at Ono (Or Yehuda) - 2009

*Levana Tsfania-Zias & Nissim Golding-Meir*  
(Pp. 5\*-26\*)

This excavation was conducted along the southeastern fringes of ancient Kafr 'Anna, today known as Ono (Permit No. B-342/2009; map ref. NIG 1879/6589; Fig. 1). Two areas (A2, A3) were excavated prior to construction of planned buildings.

*Area A2.* Here were exposed two built tombs which shared an adjoining wall (Tombs I and II; Figs. 2, 6-7). Each tomb is quadrilateral in plan and divided into three burial troughs set against the tomb walls, with the entrance from the east via a corridor. The tombs contained numerous offerings, including pottery vessels and mirrors (Fig. 8). Several types of cosmetic glass vessels with a single or double tube were collected in the area (Fig. 9); most are complete, or are missing only a few small fragments. Rich metal artifacts were also recovered, such as a hammer, a key, kohl sticks, bells, cymbal, crosses and bracelets (Fig. 11). These tombs were originally built in the 5-6<sup>th</sup> centuries CE and apparently fell into disuse during the 9<sup>th</sup> century CE.

These two tombs probably belong to a type described as built tombs with vaulted ceilings, which were limited to the southern coastal plain where the soil is sandy and alluvial. Such built tombs have been discovered in Asdod, Ashqelon and lately in Khirbat el-Ni'ana.

*Area A3.* Two rectangular cist graves, oriented north-south and built of massive ashlar, were discovered here. Each grave contained piles of bones from secondary interments. No datable grave goods were recovered (Figs. 2-5).

Based upon their similar building materials and orientation, it would appear that the four tombs and graves were a burial plot belonging to an extended family. Metal crosses accompanying the deceased (Fig. 11:4-5) indicate that they were Christians.

## *Captions to Illustrations*

- Fig. 1. The site location.
- Fig. 2. Plan and section of Areas A2 and A3.
- Fig. 3. Area A3 cist graves (facing west).
- Fig. 4. Cist grave (L4) (facing north).
- Fig. 5. Cist grave (L9) (facing east).
- Fig. 6. Tomb I (facing west).
- Fig. 7. Tomb II (facing west).
- Fig. 8. Ceramic finds.
- Fig. 9. Glass finds.
- Fig. 10. Beads.
- Fig. 11. Metal finds.

# Excavation at Kibbutz Eyal - 2012

## Quarrying Features, Walls and an Ottoman Cave

*Gideon Suleimany*  
(Pp. 27\*-33\*)

This site was located on a hill south of Kibbutz Eyal (Fig. 1), in an area including:

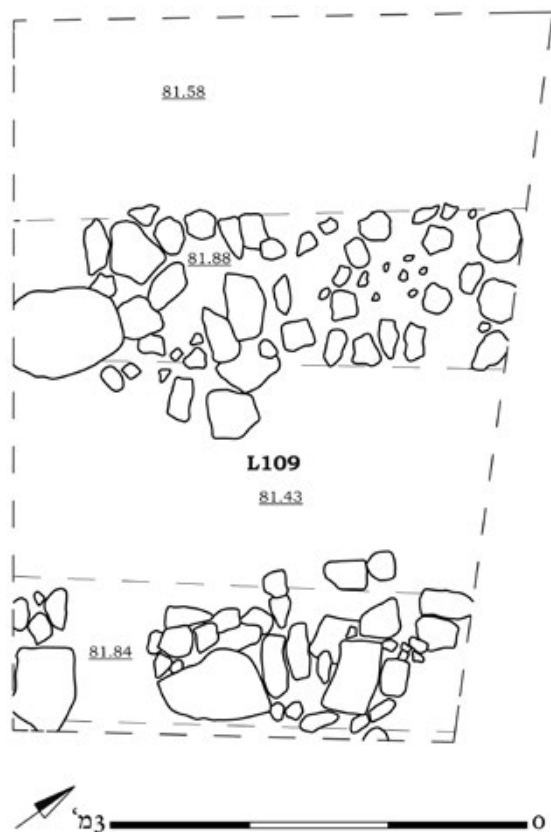
- Two stone quarries: that in Area A (3.5 x 3.5m) was partly filled with soil containing modern finds (Figs. 2 and 3); the quarry in Area B (3 x 3m) revealed tool marks but yielded no datable artifacts (Figs. 5 and 6)
- Three terrace walls: that in Area B was exposed to a length of 4m (Figs. 5 and 6); and the two in Area E (Figs. 13 and 14) were parallel and wider (0.8m)
- One cave in Area C, yielding Ottoman-period finds (Fig. 10), as well as a *tabun*, a layer of ash and a wall-like construction (Figs. 7-9)

### *Captions to Illustrations*

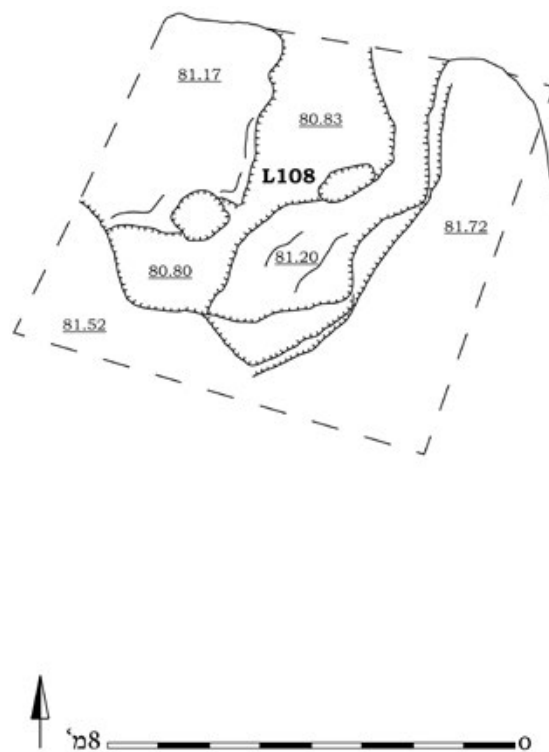
- Fig. 1. The site location.  
Fig. 2. Plan of Area A.  
Fig. 3. Area A (facing east).  
Fig. 4. General plan of the site.  
Fig. 5. Plan of Area B.  
Fig. 6. Area B (facing east).  
Fig. 7. Plan and section of Area C.  
Fig. 8. Area C (facing northeast).  
Fig. 9. A general view of the *tabun* in Area C.  
Fig. 10. Ceramic finds from Area C.  
Fig. 11. Plan of Area D.  
Fig. 12. Area D (facing northwest).  
Fig. 13. Plan of Area E.  
Fig. 14. Area E (facing northeast).

## סיכום

השרידים שנתגלו בשטחים השונים הם כולם עדות לפעילות חוץ ישובית: מחצבות אבן, קירות טרסה, גדרות ומערת מגורים עונתית ששימשה רועים. אפשר היה לתארך רק את מפלסי החיים במערה, ושניהם מעידים על השימוש בה בתקופה העות'מאנית.



איור 13. שטח E.



איור 11. שטח D.



איור 14. שטח E, מבט לצפון-מזרח.



איור 12. שטח D, מבט לצפון-מערב.

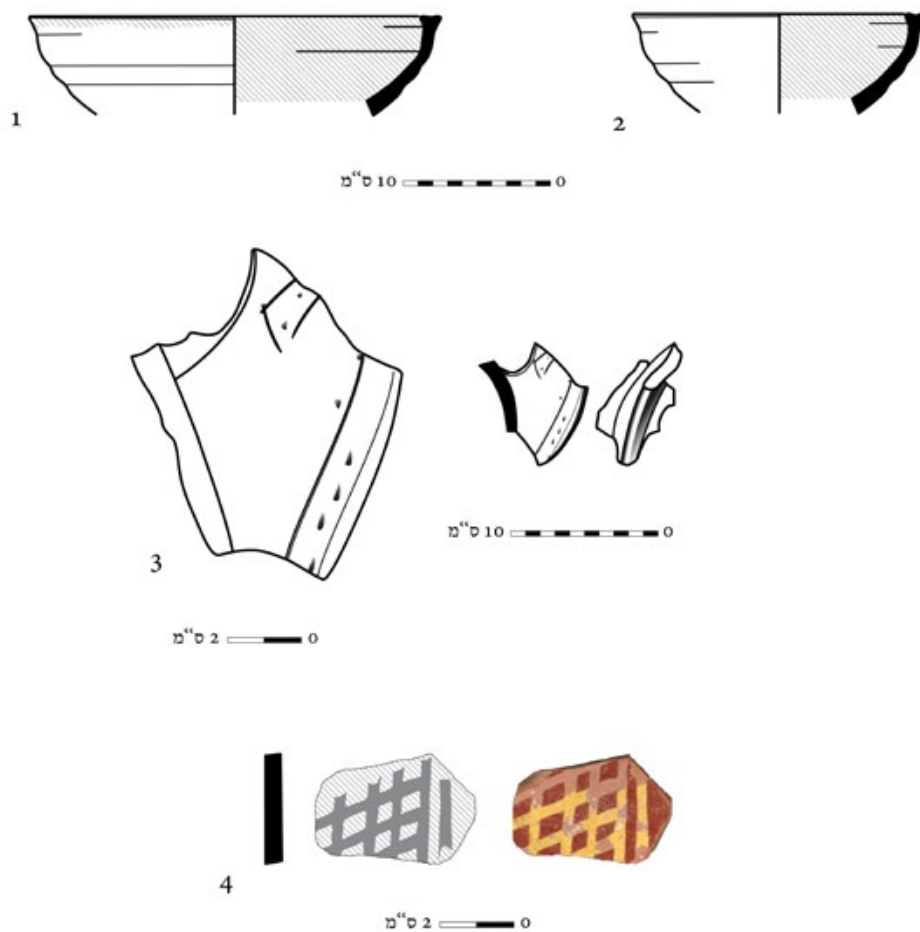
#### שטח E

נפתח ריבוע חפירה (לוקוס 109;  $4 \times 4$  מ'; איורים 13 ו-14), שבו נחשפו שני קירות (0.8 מ' רוחב) מקבילים, המושתתים על הסלע. הקירות בנויים מאבני גויל בנוניות וגדולות שהשתמרו לגובה נדבך אחד. נראה כי הקירות שימשו כגדרות לציון חלוקת שטחים, ונבנו על ידי הכפריים במהלך מאה השנים האחרונות.

#### שטח D

נחפר מחשוף סלע טבעי (לוקוס 108;  $5 \times 5$  מ'; איורים 11 ו-12). התברר כי המחשוף נוצר מהתמוטטות תקרת סלע. המחשוף נמצא מכוסה באדמת סחף ללא ממצא.

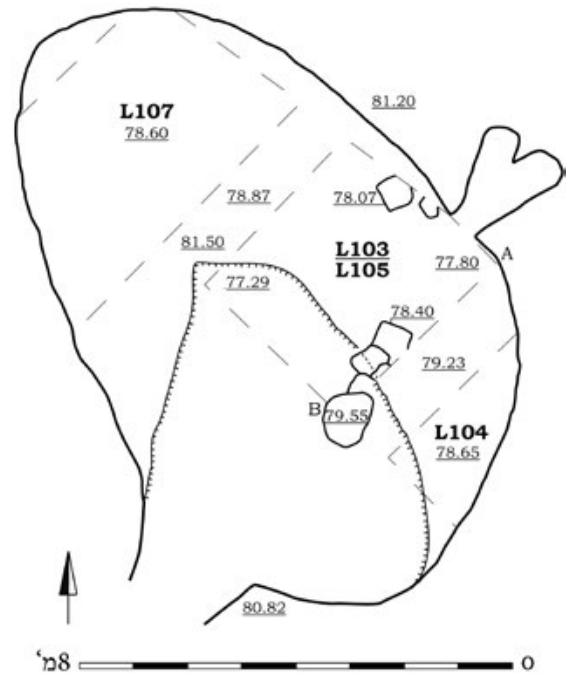
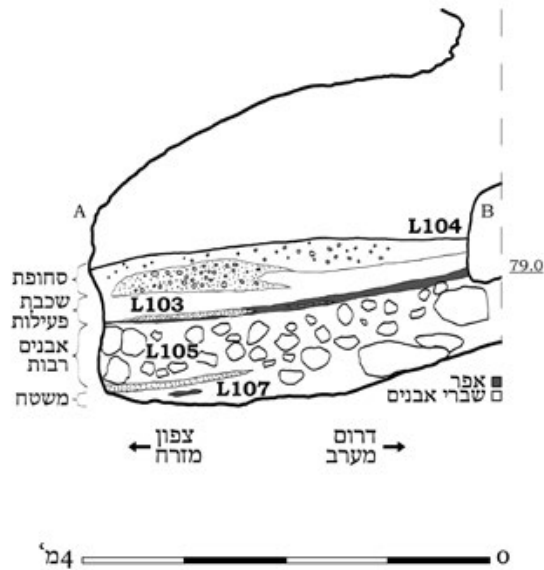




איור 10. כלי חרס משטח C.

מס'	הכלי	לוקוס	מס' רישום	תיאור
1	קערה	103	–	זיגוג בצבע ירוק
2	קערה	103	1003	זיגוג בצבע ירוק
3	קנקן	105	1005	ידית
4	?	105	1005	זיגוג חום כהה עם פסים בצבע צהוב

## חתך (A-B)



איור 7. שטח C: תוכנית וחתך של המערה.



איור 9. מבט כללי של הטבון בשטח C.

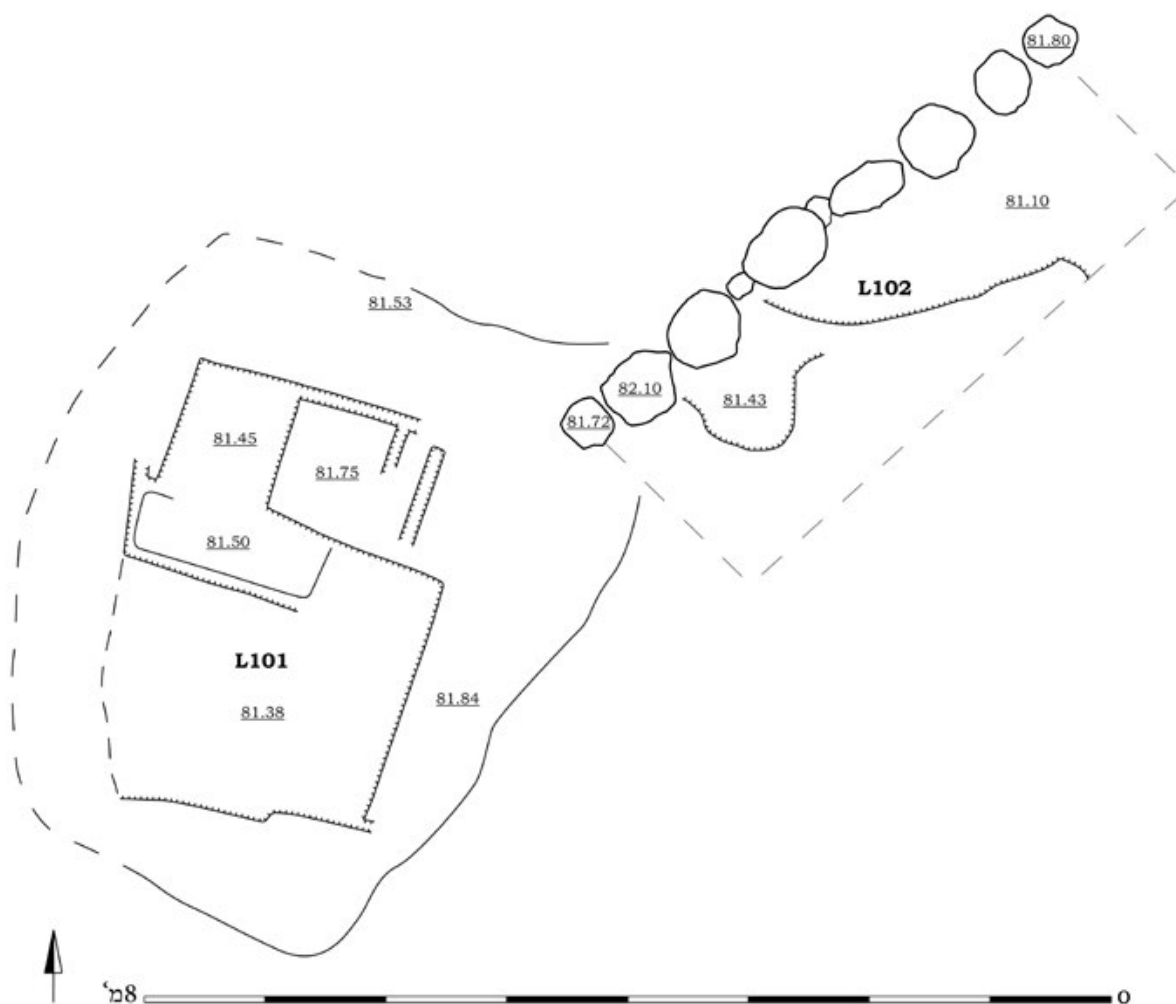


איור 8. שטח C, מבט כללי לצפון-מזרח, חתך החפירה ותקרה ממוטטת.

אבנים גדולות ובנוניות (לוקוסים 107), שנועד לפלס את פני הסלע של המערה לקראת התקנתה. בתוך רובד האבנים נמצא מעין מפלס אפר (לוקוס 105), ככל הנראה שריד של מפלס חיים מוקדם יותר שגם בו הייתה פעילות של שריפה ובישול. ממצא כלי החרס משני מפלסי החיים (איור 10) כלל קערות מזוגגות בצבע ירוק (מס' 1, 2), ידית קנקן (מס' 3) ושבר מזוגג חום כהה עם פסים בצבע צהוב (מס' 4), שזמנם התקופה העות'מאנית. נראה כי המערה הייתה בשימוש עונתי של רועים וחקלאים בתקופה זו.

## שטח C

נוקתה מערה טבעית גדולה בעלת תוכנית לא רגולרית (לוקוסים 103-105, 107; כ-15 מ' אורך, כ-6 מ' רוחב; איורים 7-9), שתקרתה התמוטטה במרכז ולצד הדופן המערבית. נפתחו שלושה ריבועי חפירה. בריבוע המרכזי נחשפה מתחת לשכבה של אדמת סחף (לוקוס 104) רצפת עפר מכוסה באפר (לוקוס 103), שמקורו בטבון (0.8 מ' קוטר) שהוקם על הרצפה. הרצפה הותקנה על מילוי של



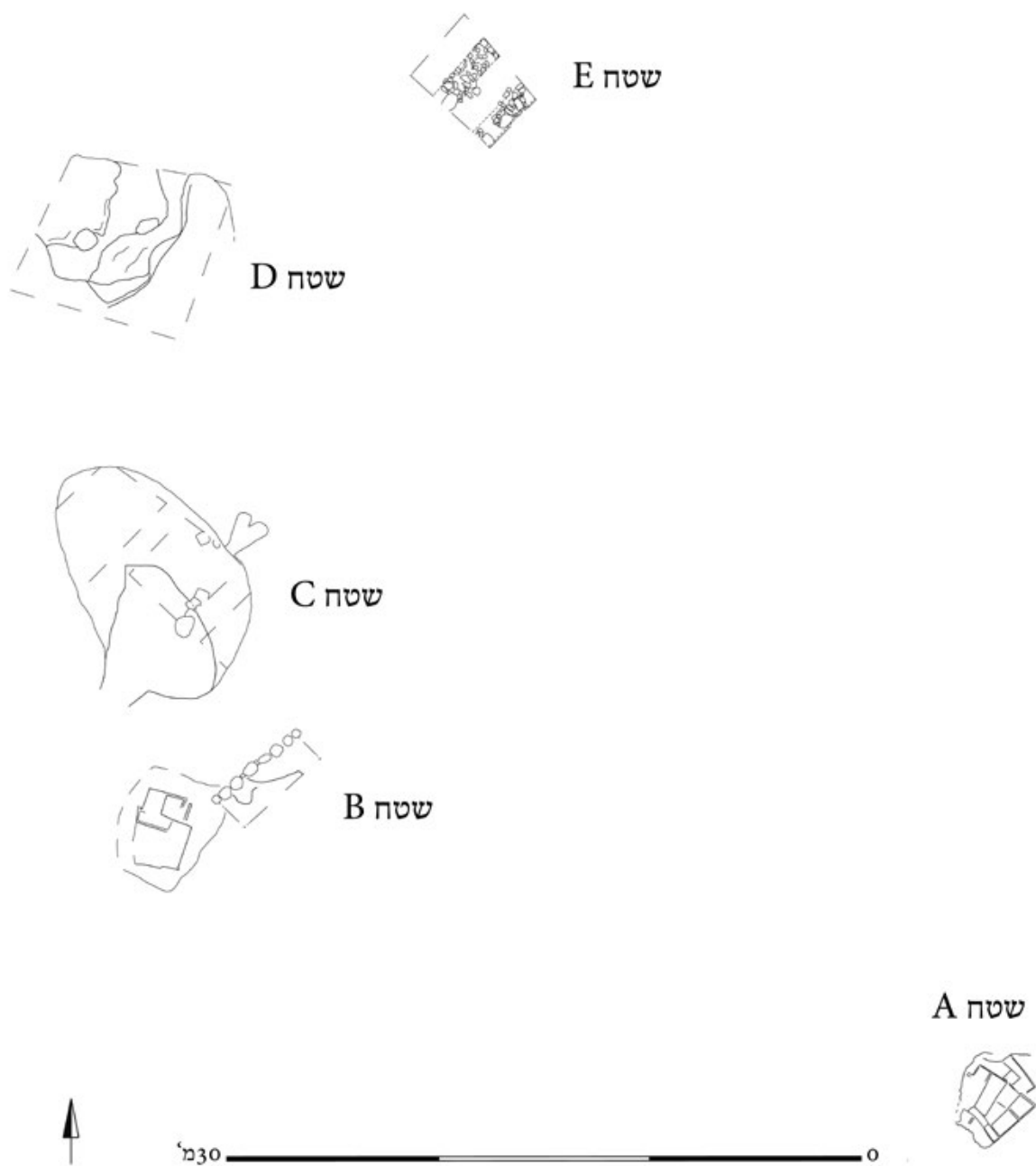
איור 5. שטח B.



איור 6. שטח B, מבט למזרח.

## שטח B

נחשפו מחצבה וקיר טרסה (איורים 5 ו-6). בקרקעית המחצבה (לוקוס 101; כ-3 × 3 מ') ניכרים תשלילי האבנים שנחצבו ותעלות חציבה. המחצבה נמצאה מכוסה באדמת סחף מודרנית ללא ממצא. קיר הטרסה (לוקוס 102) נחפר לאורך 4 מ'. הקיר בנוי משורה יחידה של אבני גוויל גדולות לגובה נדבך אחד. מצדו הדרומי של הקיר נמצא מילוי של אדמה חומה מעורבת באבנים קטנות, ללא ממצא. הקיר נמשך מעל המחצבה ומאוחר לה.



איור 4. תוכנית כללית של האתר.

# חפירות בקיבוץ אייל – 2012

## מחצבות, קירות ומערה מהתקופה העות'מאנית

גדעון סולימני

החפירה (רשיון B-386/2012) נערכה במימון חברת הריבוע הכחול ובראשותו של גדעון סולימני מטעם חברת י.ג. ארכיאולוגיה חזית בע"מ ובחסות המכון למקרא ולעתיקות ע"ש נלסון גליק בע"מ. מדידות וצילומים נעשו על ידי סרגי אלון.



איור 2. מפת איתור.

### מבוא

בחודש מרץ 2012 נערכה חפירת הצלה מדרום לקיבוץ אייל (נ"צ רי"ח 380–679280–360/198240; איורים 41 2). על גבעה (80 מ' מעפה") נחפרו חמישה שטחי חפירה (E–A), ונחשפו בהם מחצבות אבן עתיקות, קירות טרסה, גדרות ומערת מגורים מן התקופה העות'מאנית.

### החפירה



איור 1. שטח A.

### שטח A

נחשפה מחצבת אבן עתיקה (לוקוס 100;  $3.5 \times 3.5$  מ'; איורים 1 31), שבה ניכרים תשלילי האבנים שנחצבו ותעלות חציבה בקרקעית הסלע. המחצבה נמצאה מכוסה במילוי אדמה מודרני, ללא ממצא.



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הממלוכיים בנויים על פי רוב על ציר מזרח-מערב, ובכל קבר נקבר פרט אחד שראשו פונה למכה. לעומת זאת, שלושה קברי ארגז הנושאים מאפיינים דומים לאלה שנתגלו בחפירותינו, קרי בנויים על ציר צפון-דרום ומדופנים באבני גיר מסותתות, נחשפו כ-50 מ' מערבה לשטח החפירה ותוארכו על ידי החופרים לתקופה האסלאמית הקדומה (ברקן ויקואל 2010). דומה, לפיכך, כי יש לקבוע שקברי ארגז אלה, כמו גם הקברים שנתגלו בחפירותינו היו חלק מבית קברות שהתקיים בשולי היישוב אונו בתקופות הביזנטית והאסלאמית הקדומה.

במישור החוף ובנגב (אבני תשנ"ז: 69). אולם, פינוי מסודר של נקברים וקבורה חוזרת בקבר; בנייתם בציר צפון-דרום, במקביל לקברים הבנויים; ובעיקר, השימוש באבני גיר מסותתות הדומות לאבני הבנייה של המחיצות במשכבי הקבורה בקבר I; כל אלה מרמזים שקברי הארגז הם בני אותה תקופה של הקברים הבנויים. קברי ארגז שהותקנו סמוך לקברים בנויים הם תופעה שכיחה, ונתגלו בחפירות שונות (הוסטר ושיאון תשס"ו: 61; פיפאנו 1990: 15; וולך תשנ"ח). השוואה בין קברי הארגז שנתגלו בחפירותינו לאלה שנתגלו בבית הקברות מן התקופה הממלוכית שנחשף לאורך השוליים הצפוניים והמזרחיים של כפר עאנה על ידי פ' ויטו (בעל פה) ואוניברסיטת תל-אביב (Gophna, Taxel and Feldstein 2007), מעידה כי אינם שייכים לאותו טיפוס. הקברים

נספח 1. רשימת לוקוסים

מס' לוקוס	שטח	גובה עליון	גובה תחתון	לוקוס מתחת	לוקוס מעל	תיאור
1	A-2, A-3	31.40	31.40	10, 5, 2		ניקוי שטח
2	A-3	31.40	31.18	9, 4	1	מילוי בין קברי הארגז
3	A-2	31.44	31.12	11, 8-6	1	מילוי מעל משכב קבורה (לוקוס 13)
4	A-3	31.37	31.04	----	2	קבר ארגז
5	A-2	31.12	30.84	18	1	מילוי מעל משכב קבורה (לוקוס 18)
6	A-2	31.12	30.90	15, 13	3	מילוי מעל קיר
7	A-2	31.14	31.00	19	3	מילוי מעל משכב קבורה (לוקוס 19)
8	A-2	31.18	31.07	----	3	מילוי
9	A-3	31.24	30.87	----	2	קבר ארגז
10	A-2/3	31.34	31.22	14	1	הסרת מחיצה בין הריבועים
11	A-2	31.18	31.10	16	3	בוטל, לוקוס סופי -- 16
12	A-1	31.20	30.91	----	17	מילוי מעל פינת קבר I
13	A-2	30.90	30.67	----	6	משכב קבורה (קבר II)
14	A-2	31.22	31.09	----	10	הסרת מחיצה
15	A-2	31.10	30.63	----	6	משכב קבורה (קבר I)
16	A-2	31.09	30.63	----	11	משכב קבורה (קבר I)
17	A-2	30.90	30.60	----	12	משכב קבורה (קבר I)
18	A-2	31.05	30.76	----	5	משכב קבורה (קבר II)
19	A-2	31.00	30.76	----	7	משכב קבורה (קבר II)
20	A-2	31.56	31.35	----	----	מילוי מעל קיר (קבר II)
21	A-2	32.94	----	----	----	מילוי מעל מעבר (קבר II)
22	A-2	32.87	----	----	----	מילוי מעל מעבר (קבר II)

מס'	לוקוס	סל	הכלי	חומר	תיאור ומידות (ס"מ)
1	19, קבר II	199	פטישון	ברזל	שלם; אורך: 5; גובה: 0.8; חור לקיבוע הידית: $0.3 \times 0.9$
2	5, קבר II	142	מפתח	ברונזה	שלם; חתך עגול; עיטור דולפינים; אורך: 5.2; קוטר טבעת: 3; עובי טבעת: 0.3
3	13, קבר II	167	תליון חותם	ברונזה	קוטר חותם: 1.5 (שחוק); עובי: 0.2; קוטר ידית: 1.2; עובי ידית: 0.2; גובה: 1.4
4	15, קבר I	170	תליון צלב	כסף	שלם; קצה כל זרוע מעוגלת, חתך עגול; גובה: 3.8; רוחב: 2.1; שיבוץ עגול במרכז הצלב שלא שרד (קוטר 0.6); קוטר חור התליון: 1.0
5	5, קבר II	143	תליון צלב (הזרוע המרכזית)	ברונזה	שבור; צורת פפיון מעוטר בחריטה של שלושה מעגלים חד-מרכזיים שבמרכזם נקודה; רוחב 3.0; אורך: 0.8; עובי: 0.2
6	5, קבר II	113	מצילה לאצבע	ברונזה	שלם; קוטר 5.3; גובה: 1.3; עובי: 0.2 לערך
7	17, קבר I	202	פעמון כדורי	ברונזה	שלם; קוטר: 2.2; גובה: 2.6; קוטר תליון: 1.0; עובי: 0.5
8	3, קבר II	118	פעמון כדורי	ברונזה	שבור; עיטור סרוק בדופן החיצוני התחתון; קוטר: 2.4; גובה: 1.4; עובי: 0.6
9	15, קבר I	173	מקל איפור	ברונזה	שלם; חתך עגול; ראש מעובה; אורך: 8.9; עובי: 0.3
10	5, קבר II	138	מקל איפור	ברונזה	שלם; חתך עגול; אורך: 10; עובי: 0.2
11	5, קבר II	146	מקל איפור	ברונזה	שלם; חתך עגול; אורך: 9.5; עובי: 0.2
12	5, קבר II	139	צמיד	ברונזה	קצוות שבורים; חתך סגלגל; עובי: 0.4
13	5, קבר II	148	צמיד	ברונזה	קצה שבור; חתך סגלגל; עובי: 0.4
14	18, קבר II	186	צמיד	ברונזה	שלם; חתך סגלגל; עובי: 0.5
15	13, קבר II	157	צמיד	ברונזה	שבור; חתך עגול; קוטר כ-6.2; עובי: 0.3
16	18, קבר II	190	צמיד	ברזל	קצוות שבורים; חתך לא אחיד; קוטר: 5.5 לערך; עובי: 0.4
17	5, קבר II	144	צמיד	ברזל	שלם; חתך עגול לא אחיד; קוטר: 6.0; עובי: 0.7
18	5, קבר II	150	צמיד	ברזל	שלם; חתך עגול; קוטר 8.1; עובי: 0.6
19	18, קבר II	184	צמיד	ברזל	שבור; קוטר: 5.0; עובי: 0.5
20	5, קבר II	112	צמיד	ברזל	שבור; חתך עגול; גודל העלה: 2.0; עובי: 0.5

שני קברי הארגז נתגלו ללא מנחות קבורה, ועל כן קשה לתארכם. לדעת אבני, המבנה הפשוט של קברי הארגז ושכיחותם הרבה אינה מאפשרת לזהות בהם קווי התפתחות כרונולוגיים: הם מופיעים לאורך כל התקופות ונתגלו הן באזורי קבורה עירוניים צפופים הן בישובים קטנים, בעיקר

קברים אלה שימשו תחילה את האוכלוסייה הפגאנית, ומאוחר יותר אומצו על ידי נוצרים ואולי גם על ידי שומרונים (הוסטר ושיאון תשס"ו: 61). ואכן, בהנחה שהקברים הבנויים שנחשפו בחפירותינו הם קבר משפחתי, מעידים תליוני הצלב שנמצאו בשני הקברים, כי הנקברים היו נוצרים.



איור 11. חפצי המתכת מקברים I ו-II.

מחלוקי נחל קטנים או משברי צדפים, אבני גיר וגושי כורכר (הוסטר ושיאון תשס"ו: 50). מפולת כזו נמצאה במילויים בשני הקברים. רוב הקברים מטיפוס זה כוללים חדר יחיד עם חלוקה פנימית לשקתות או לתאים. קברים בעלי תוכנית דומה לזו שנתגלתה בחפירתנו, קרי שני חדרים עם דופן משותפת, מוכרים בחורבת בריכה (למדן ואחרים תשל"ח: 183) ובאל-ג'ורה שבאשקלון (קוגן-זהבי 2010).<sup>5</sup> בשני אתרים אלה תוארכו הקברים לתקופה הביזנטית. לדעת הוסטר ושיאון,

ריכוזי קברים אלה נפוצים בעיקר באזור אשקלון, אשדוד וצפון הנגב.<sup>4</sup> דומה ששני הקברים הבנויים שייכים לטיפוס קבורה זה: כל אחד מהקברים קורה בגג מקומר; הדופן העבה שהפרידה בין שני הקברים נועדה לשאת את שני הקמרונות. בקברים שבהם השתמר הקמרון, הוא נבנה על פי רוב

4 תפרוסת הקברים הבנויים כפי שהייתה מוכרת עד היום היא מח'רבת אל-נענה בצפון עד חורבת ריק בדרום ומחולות חוף הים במערב עד תל ערני במזרח (הוסטר ושיאון תשס"ו: 49-67). שני הקברים הבנויים שנתגלו באונו מעידים כי יש להרחיב את תפרוסתם של קברים אלה צפונה.

5 לדופן המשותפת בין שני הקברים באל-ג'ורה עובי הדומה לזה של שאר הקירות, ולכן נראה ששני החדרים קורו בקמרון אחד.



איור 11. חפצי המתכת מקברים I ו-II.

המאוחרת והביזנטית, ושימשו כנראה כקמעות להגנה מפני עין הרע (Vitto 2011:122–123, ור' הפניות ודיון שם).

### מקלות איפור (איור 11-9:11)

נתגלו שלושה מקלות איפור, אחד מהם (מס' 11) בתוך כלי תמרוקים (איור 5:8); מקלות איפור מס' 10 ו-11 עשויים בצורה דומה: קצה אחד ישר והקצה השני מעוגל. מקל מס' 9 מעובה בקצה האחד ואילו קצהו השני מעוגל; סמוך לקצה המעוגל חרוטים ארבעה קווים מקבילים.

### צמידים (איור 12-11:20)

נתגלו 9 צמידים. חלקם עשויים ברונזה (מס' 12–15) ואחרים מברזל (מס' 16–20).

נתגלו כחמישה צמידים עשויים ברונזה; שניים מהם שלמים (מס' 13–14). הם עשויים חוט צר שחתכו סגלגל לא אחד וקצותיו מעוגלים (מס' 12–14). צמיד אחד מטיפוס זה, שנתגלה שבור, עשוי חוט שקצותיו הפשוטים חופפים ומלופפים זה בזה כדי לאפשר התאמת הצמיד לגודל הרצוי (מס' 15).

נתגלו ארבעה צמידים עשויים ברזל, רובם שבורים. אפשר לזהות בהם שלושה טיפוסים: (א) מס' 16 עשוי חוט דק בעל חתך עגול לא אחיד; (ב) מס' 17 עשוי חוט עבה בעל חתך עגול; (ג) למס' 19, שנתגלה שבור בשניים, ולמס' 20, שממנו נותרו שברים מעטים, חתך עגול, והם כוללים מדליון דמוי-עלה. צמידים דומים לאלה האחרונים נתגלו בקברים המתוארכים למן התקופה הרומית עד התקופה הביזנטית (Vitto 2011:120–121, Fig. 13:3–5, ור' הפניות ודיון שם).

## דיון וסיכום

באתר באור יהודה נחשפו שני קברי ארגז ושני קברים בנויים, מרובעים בעלי דופן משותפת. כל הקברים נמצאים בשוליים הדרומיים-מזרחיים של היישוב כפר עאנה. ממצאי החפירה באזורים הסמוכים לאתר החפירה מלמדים שקברים אלה הוקמו בשולי היישוב אונו, סמוך למתקני תעשייה שונים ולכבשנים לייצור כלי חרס (ברקן ויקואל 2010; שיאון ורפואנו 2010). מיקום קברים סמוך לאזורי תעשייה היה תופעה שכיחה בארץ בתקופות הביזנטית והאסלאמית (Vitto 1986: 59).

הממצא הקרמי ופריטי הזכוכית שנמצאו בקברים הבנויים מלמדים שקברים אלה נבנו בראשית התקופה הביזנטית (המאות ה'–ה' לסה"נ) והמשיכו לשמש בתקופה האסלאמית הקדומה, כנראה עד למאה ה' לסה"נ. בתקופות הרומית המאוחרת והביזנטית נהגו במישור החוף הדרומי לקבור בקברים בנויים מקורים בקמרון. קברים אלה נפוצו בקרב תושבים אמידים, ונבנו באזורים ללא מחשופי סלע, בקרקעות מסוג לס, חמרה וחולות (הוסטר ושיאון תשס"ו).

### תליון חותם (איור 3:11)

תליון עם דיסק שטוח, שחוק, שאל מרכז חלקו התחתון צמודה טבעת. תליון דומה נתגלה בקיסריה בהקשר לא ברור (Rafael 2008: 451, No. 282).

### תליוני צלב (איור 4:11, 5)

שני התליונים נתגלו במשככי הקבורה. תליונים דמויי צלב נפוצים במכלולי קבורה החל מסוף המאה ה' עד המאה ה' לסה"נ, ואפשר למוצאם לעתים גם במכלולים מן המאות ה' עד ה' לסה"נ (Davidson 1952: 258, Pl. 110:2073, 2074). תליון מס' 4 עשוי כסף ונשא במרכזו שיבוץ שלא שרד. תליונים דומים נתגלו בקברים המתוארכים למאות ה'–ה' לסה"נ עד שלהי התקופה הביזנטית וראשית התקופה האומיית (המאות ה'–ה' לסה"נ). תליונים דומים נתגלו במערת קבורה באל-נבי חוסין באשקלון מן המאות ה'–ה' לסה"נ (קול-יעקב ופרחי תשע"ב: 90, איור 5:3); בח'ירבת אל-שביכה מן התקופה הביזנטית (טצ'ק ונגר 2002: 11:11); בחורבת לוזית מן המאות ה'–ה' לסה"נ (Avni and Dahari 1990:311, Fig. 10); ובמערת קבורה בבאקה אל-ערבייה, המתוארכת לשלהי התקופה הביזנטית ולראשית התקופה האומיית (המאות ה'–ה' לסה"נ; שרביט 2009: איור 4).

תליון מס' 5 עשוי מפח ברונזה; רק הזרוע המרכזית של הצלב שרדה. הזרוע מעוטרת בחריטה של שני מעגלים חד-מרכזיים שבמרכזם נקודה. בפריטים דומים חוברה טבעת בחלקו העליון, וזו אפשרה את תלייתו על שרשרת (טצ'ק ונגר Avni and Dahari 1990:311, Fig. 10:11; איור 286:2002, 10).

### מצילה (איור 6:11)

מצילות נפוצות בקברים, ונועדו כנראה לסלק רוחות רעות. מצילות דומות נתגלו בקברי נוצרים בחורבת לוזית, שזמנם המאות ה'–ה' לסה"נ (Avni and Dahari 1990:311–312, Fig. 11); בקבר ביוזני בגזר (Macalister 1912: Pl. 59:10); במערת קבורה בבאקה אל-ערבייה משלהי התקופה הביזנטית וראשית התקופה האומיית (המאות ה'–ה' לסה"נ; שרביט 2009: איור 6); ובקבר ארגז מבאר שבע משלהי התקופה הרומית או ראשית התקופה הביזנטית (ניקולסקי 2004: איור 6).

### פעמונים (איור 7:11, 8)

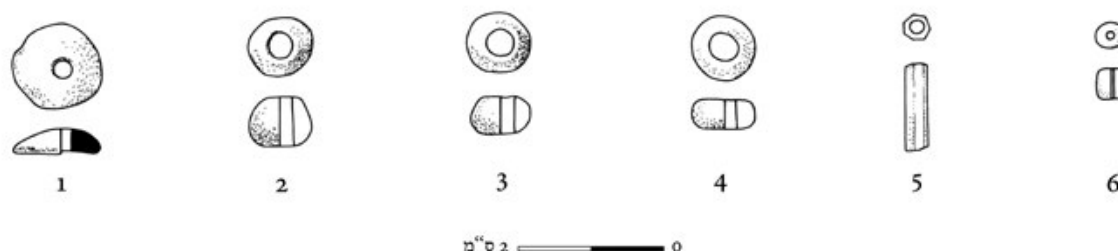
נתגלו שני פעמונים כדוריים עשויים ברונזה. לפעמון מס' 7 יש לולאה עשויה ברזל, אך הענבל לא נתגלה, ובפעמון מס' 8 נשתמרה רק הקעריית שעוטרה בשלושה קווים דקים מקבילים על חלקו התחתון של הפך החיצון. פעמונים שימשו כנראה כקישוט בצמידים או כתליונים, והיו חלק ממנחות הקבורה. פעמונים נפוצים מאוד במערות קבורה מהתקופות הרומית



## חרוזים (איור 10)

רחב ומעוטר בטיפות זכוכית (מס' 4). חרוזים מטיפוס זה מתוארכים למן המאה הג' לסה"נ עד התקופה הביזנטית (Winter 1996:113–114, Fig. 7.2:10–12). חרוז נוסף מוארך ובעל חתך הפטגונילי, טיפוס המכונה על ידי שפאר capped millifiori (מס' 5; Spaer 2001:121, 126, Nos. 221–223, Fig. 53, Pl. 17:221–223). חרוזים דומים נתגלו בקברים שזמנם למן המאה הג' עד סוף המאה הו' או ראשית המאה הז' לסה"נ (Barag 1985:383, Fig. 9:12). כן נתגלה חרוז מוארך בעל חתך עגול (מס' 6).

בחדרי הקבורה נמצאו שישה חרוזים. חרוז אחד עשוי אבן (מס' 1). מתארו סגלגל, הוא שטוח ונקב עגול נמשך עגול במרכזו. חמשת החרוזים החארים עשויים זכוכית. שניים (מס' 2, 3) רחבים, פחוסים, עשויים זכוכית אטומה בגוון שחור ומעוטרים בנקודות לבנות לא אחידות, שלא השתמרו היטב – טיפוס המכונה על ידי שפאר crumb beads (Spaer 2001:127–128, Nos. 226–228, Fig. 55). חרוזים אלה מוכרים בעיקר מן המאות הג'–הה' לסה"נ. חרוז אחד



איור 10. חרוזים מקברים I ו-II.

מס'	לוקוס	סל	טיפוס	תיאור	מידות (ס"מ)
1	קבר I, 15	174	שטוח לא-רגולרי	אבן חום בהיר	קוטר: 1.3; גובה: 0.5
2	קבר II, 5	147	חביתי פחוס מעוטר בנקודות לבנות	זכוכית כהה, בלייה קשה	קוטר: 0.9; גובה: 0.8
3	קבר I, 6	129	חביתי פחוס מעוטר בנקודות לבנות	זכוכית כהה, בלייה קשה וכסופה	קוטר: 0.9; גובה: 0.6
4	קבר II, 19	204	חרוז חביתי פחוס מעוטר בנקודות לבנות ומוספות לא אחידות	זכוכית כהה, בלייה קשה וכסופה, נקודות חסרות צבע	קוטר: 1.0; גובה: 0.5
5	קבר I, 15	179	חרוז מאורך הפטגונילי	זכוכית, בלייה כסופה	קוטר: 0.4; גובה: 1.3
6	קבר I, 17	198	חרוז גלילי פחוס	זכוכית ירוקה, אטומה	קוטר: 0.5; גובה: 0.6

## מפתח (איור 2:11)

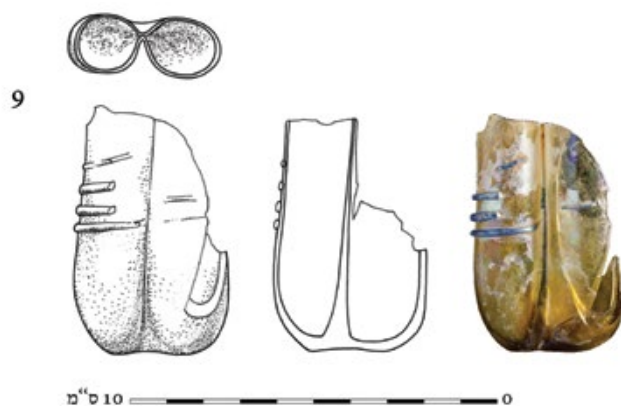
המפתח, העשוי ברונזה, מורכב מזרוע חלולה שבחלקה התחתון לשון עשויה מלוח שטוח עם שתי שיניים. בראש הזרוע קבועה טבעת המחברת בין זרוע המפתח לטבעת נוספת. החיבור מעוטר משני צדיו בדולפינים שראשיהם פונים לחיבור. מפתח דומה נתגלה בבאב אל-הוא בגולן, שם תוארך לתקופה הביזנטית (הרטל תשס"ג: איור 14:167). ממדיו מעידים שנועד לסגירת מנעול קטן, של מגירה או של קופסת תכשיטים. נראה כי הטבעת נועדה לאפשר את ענידת המפתח על האצבע. מפתחות כאלה היו בשימוש כבר בתקופה הרומית, אך הם נפוצו יותר בתקופה הביזנטית, כאשר פחת השימוש במפתחות הארכובה שהיו נפוצים בתקופה הרומית.

## חפצי מתכת (איור 11)

חפצי המתכת נתגלו בשני הקברים הבנויים, אך מרביתם נמצאו במילוי מעל משכב קבורה 18 (לוקוס 5) שבקבר II.

## פטישון (איור 1:11)

פטיש זעיר זה מסתיים בצדו האחד בחוד קעור בעוד שלצדו השני צורת פטיש (hammer); במרכזו חור מלבני לקיבוע הידית. פטישונים בעלי צורה דומה, חלקם מעט גדולים יותר, נתגלו בבור מתחת לבית מגורים בטבריה מהתקופה הפאטימית (Lester 2004: Fig. 5.3:1) ובבית המלאכה ברמלה, שזמנו המאות הח'–הט' לסה"נ (Hasson 1987:101, Pl. 4b). נראה כי הפטישון שימש צורף לצורך ריקוע, וככל הנראה נקבר עמו.

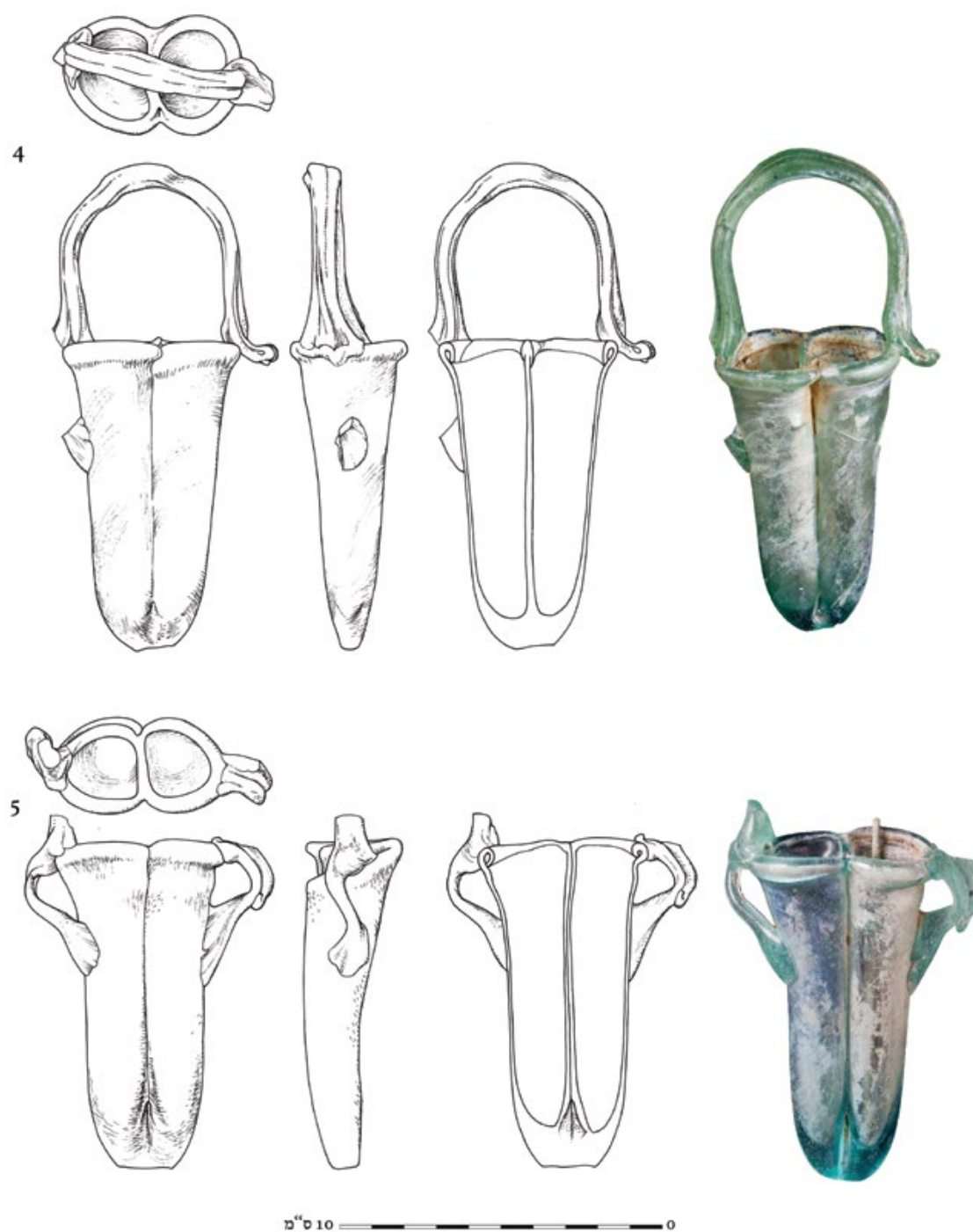


איור 9. כלי הזכוכית מקברים I ר-II.

מס'	לוקוס	סל	הכלי	תיאור	מידות (ס"מ)
1	3, קבר II	108	בקבוק	ירקרק בהיר; עוטר בחוט חום-אדום כהה ובהיר; בועות קטנות	קוטר השפה: 6
2	17, קבר I	199	בקבוקון תמרוקים	ירקרק-כחלחל בהיר; ידית ירקרקה; מעוטר בחוט חום-אדום; מכוסה בלייה כסופה דקה מאוד; שרד מקום הליפוף הסוגר של החוט; מנופח; שבור	גובה: 9.2; קוטר השפה: 3.8; קוטר הבסיס: 3.6
3	5, קבר II	149	דו-שפופרת תמרוקים ללא עיטור	ירקרק; בועיות גדולות וקטנות; מנופח; שבור ומרופא; מעט בלייה כסופה מכסה את הידית סל והשפה	גובה עם הידית: 17.4
4	17, קבר I	164	דו-שפופרת תמרוקים ללא עיטור	ירקרק; בועיות קטנות; מעט בלייה עכורה כסופה; מנופח; ידיות האוזן לא השתמרו	גובה עם הידית: 15.2
5	5, קבר II	146	דו-שפופרת תמרוקים ללא עיטור	ירקרק; בועיות קטנות; מנופח; על פני הכלי מעט ערפול בלייה; ידית סל לא השתמרה	גובה עם שרידי ידית: 11.2
6	17, קבר I	205	דו-שפופרת תמרוקים(?)	ירקרק; בועיות קטנות; מעט בלייה עכורה וכסופה	גובה הידית שהשתמרה: 6.4
7	17, קבר II	164	דו-שפופרת תמרוקים	ירקרק; קרום בלייה כסופה מכסה את רוב הכלי; מנופח; חוט בצבע כחלחל כרוך 6 פעמים עד לשפת הכלי; ידית סל לא השתמרה	גובה: 10.4
8	5, קבר II	145	דו-שפופרת תמרוקים	ירקרק; מנופח; חוט בגוון ירקרק כרוך עד לשפת הכלי; ידיות שבורות	גובה: 12.2
9	18, קבר II	169	דו-שפופרת תמרוקים	ירוק זיתי; מעט בלייה כסופה; בועיות קטנות; חוט בצבע כחול עמוק שרק קטעים קטנים ממנו שרדו; שבור	רוחב: 4.2



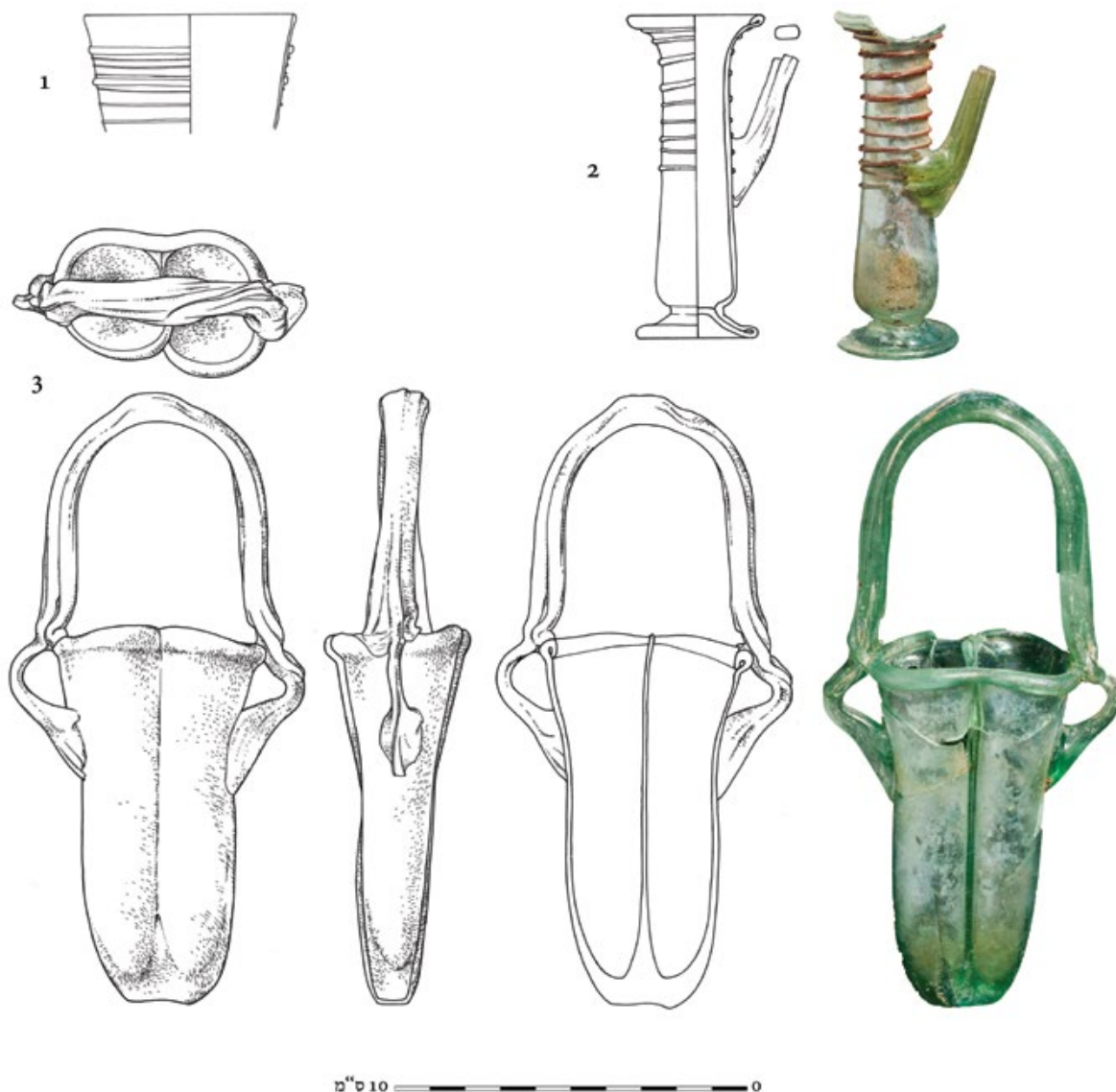
איור 9. כלי הזכוכית מקברים I ו-II.



איור 9. כלי הזכוכית מקברים I ו-II.

הגוף; קטעים רבים מהחוט חסרים. הבסיס שטוח וניכרת עליו צלקת מוט הזגג. דרשפופרות מעוטרת החלו להופיע באמצע המאה ה'ד' לסה"נ והמשיכו להתקיים לאורך התקופה הביזנטית עד תחילת המאה ה'ז' לסה"נ (בר"ג תש"ל: 175).

עולה מהחלק העליון של הכלי, שם היא חוברה בגסות. כלים אלה עוטרו בדרך כלל בחוט מוסף בעל גוון שונה מהכלי, אך בכלי זה החוט בעל אותו גוון ושוטח מעט אל תוך הכלי המנופח. מכלי מס' 9 שרד רק החלק התחתון של הכלי, ועליו שרידי חוט בצבע סגול עמוק, הכרוך ארבע פעמים סביב



איור 9. כלי הזכוכית מקברים I ו-II.

**כלי זכוכית (איור 9)**

כלי הזכוכית התגלו על רצפות משכבי הקבורה ובמילויים שבשני הקברים הבנויים (II, I), אף כי רובם נמצאו בקבר II. מכלול כלי הזכוכית מוצג כאן בשלמותו. כל הכלים עשויים מזכוכית בגוון ירקרק-כחלחל או ירוק זית. למעט כלי אחד, כל הקבוצה שייכת לקטיגוריה של כלי תמרוקים בעלי שפופרת אחת או שתיים, שהכילו כנראה כוחל; אחד מהם נתגלה עם מקל איפור בתוכו (איור 5:9). רוב הכלים נתגלו שלמים, וחסרים בהם רק חלקים קטנים. על סמך הקבלות תוארכו כלים אלה לשלהי התקופה הרומית ולראשית התקופה הביזנטית (המאות הד'-ה' לסה"נ).

**בקבוק מעוטר בחוטים (איור 1:9)**

לבקבוק צוואר חרוטי ארוך ושפה מעוגלת. הצוואר מעוטר בליפוף של חוט מוסף בצבע חום-אדום, היוצר טבעות דקות ועבות. בדרך כלל לבקבוקים אלה גוף כדורי או אגסי. העיטור בטבעות עבות ודקות של חוט זכוכית מוסף אופייני בעיקר לתקופה הביזנטית המאוחרת (המאה ה' וראשית המאה הז' לסה"נ; בר"ג תש"ל: 194, לוח 23:43, ור' שם הקבלות; גורין-רוזן 2002:316, איור 39:8).

**שפופרת תמרוקים (איור 2:9)**

לכלי זה גוף מוארך, המתרחב כלפי מטה לכעין שק עם שפת משפך מקופלת פנימה ובסיס טבעת צינורי ועבה התחוב פנימה, שבמרכזו בליטה כיפתית עם צלקת מוט הזגג. ידית אחת משוכה ממרכז הגוף לשפה שהחיבור אליה לא שרד. הידית עשויה בגסות בהשוואה לגוף ואינה פרופורציונאלית לגוף העדין. חוט מוסף בצבע חום-אדום מעטר בצורה לוליינית שתיים-עשרה פעמים את החלק שבין השפה לבין מרכז הכלי. בקבוקוני תמרוקים בעלי שפופרת אחת נתגלו בקברים רבים, ומתוארכים לתקופה הרומית המאוחרת (המחצית השנייה של המאה הג' עד המאה הד' לסה"נ; בר"ג תש"ל: 155-158, טיפוס ז', לוח 1:35, 2, ור' הפניות ודיון שם). אולם, נראה שכלים אלה ממשיכים לראשית התקופה הביזנטית, שכן כלים דומים נתגלו בקבר VI בח'ירבת אל-נענה (Gorin-Rosen and Katsnelson 2007:109-110, Fig. 16:1), המתוארך לראשית התקופה הביזנטית; בקבר 200 בגבעת שרת, המתוארך לרבע האחרון של המאה הד' ולרבע הראשון של המאה הה' לסה"נ (Seligman, Zias and Stark 1996:50, 56, 59, Fig. 17:1); וכן במערת קבורה ליד נתיב הל"ה, המתוארכת לסוף המאה הד' – תחילת המאה הה' לסה"נ (גצוב, אבשלום-גורני ומוקארי תשנ"ח: 206, איור 2:9).

**דו-שפופרות תמרוקים (איור 3:9-9)**

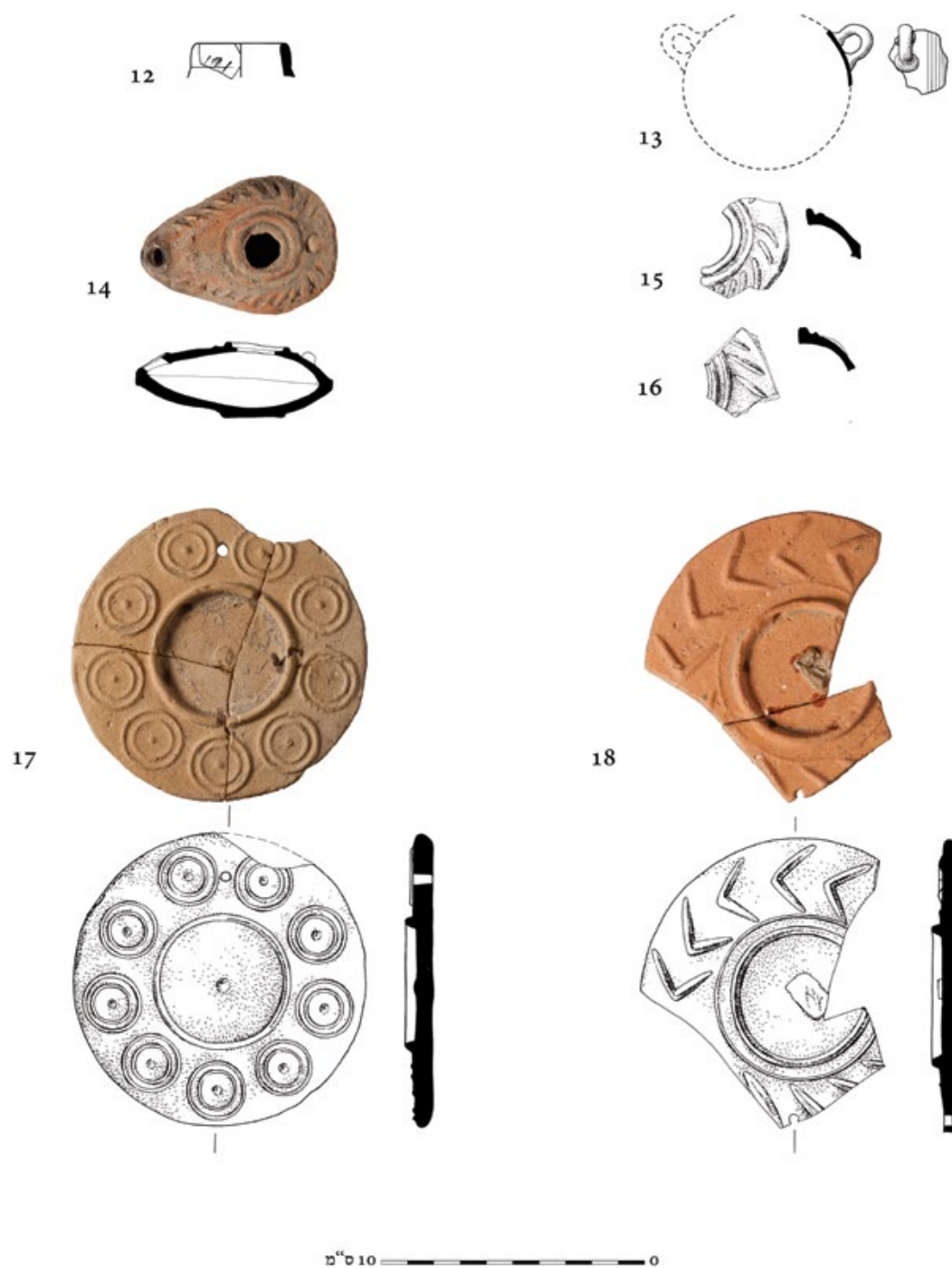
על פי אופן עיטורם ומערך ידיותיהם הובחנו שלושה טיפוסים של כלי זה, שגופו עשוי בצורת שתי שפופרות. הטיפוס הראשון נעדר עיטור ובעל שלוש ידיות (איור 3:9-6). מבין ארבעה הכלים שנתגלו מטיפוס זה, שלושה שלמים ברובם (מס' 3-5) וחסרים ידית אחת או שתיים; שברים של שתי ידיות סל עם שפת שפופרת (מס' 6) שייכים כנראה אף הם לכלי מטיפוס זה. לכלי תמרוקים אלה צורה פשוטה ולא אחידה: שפתם צינורית, עבה ומקופלת פנימה בצורה לא אחידה, בסיסם משוטח ועליו צלקת מוט הזגג. שתי ידיות עולות ממרכז הגוף אל השפה, וידית סל מחברת ביניהן. בכלי מס' 5 נתגלה מקל איפור עשוי ברונזה (איור 11:11). בבדיקה שנערכה בכלי דומה שבו היה נעוץ מקל כחל, שנתגלה במערת קבורה בנחלת אחים בירושלים, זוהה החומר כעופרת פחמתית (קוגן-זהבי תשס"ז: 65\*). דו-שפופרות תמרוקים דומות נפוצות במכלולי קבורה למן תחילת המאה הד' עד המאות הה'-ה' לסה"נ (Gorin-Rosen and Katsnelson 2007: 111-112, ר' הפניות ותיארוך שם). הדמיון בין שפופרות עם שלוש ידיות לאלה שנתגלו בח'ירבת אל-נענה מרמזת כי יוצרו באותו בית יוצר (Gorin-Rosen and Katsnelson 2007:111, 114, Figs. 17:3, 19).

גם לטיפוס השני שלוש ידיות, אך הוא מעוטר (איור 7:9). לכלי זה גוף בעל שתי שפופרות גליליות, בסיס משוטח ושפה צינורית עבה מקופלת פנימה. שתי ידיות אוזן בגוון זהה לזה של הכלי עולות מן החלק העליון של הגוף ומחוברות בקיפול מתחת לשפה, וידית סל מעל הגוף מחברת אותן. הכלי מעוטר בחוט כחלחל שנכרך בצורה לוליינית מספר פעמים עד לשפת הכלי. עיטור החוט הוסף בשלב הראשוני של הייצור, כלומר לאחר שנופח הגליל, ולפני שנצבט במרכזו ליצירת שתי שפופרות, אך בטרם הוספו הידיות. טיפוס זה מתוארך אצל בר"ג למחצית השנייה של המאה הד' ולמחצית הראשונה של המאה הה' לסה"נ (בר"ג תש"ל: 175-177, טיפוס יב': 2, 3). כלי דומה נתגלה במערת קבורה בשכונת נחלת אחים, ירושלים (קוגן-זהבי תשס"ז: 65\*, איור 13:4, ור' הפניות ודיון שם). בקבר בכפר סבא תוארך כלי דומה למן סוף המאה הג' עד המאה הה' לסה"נ (איילון תשנ"ה: איור 8:5).

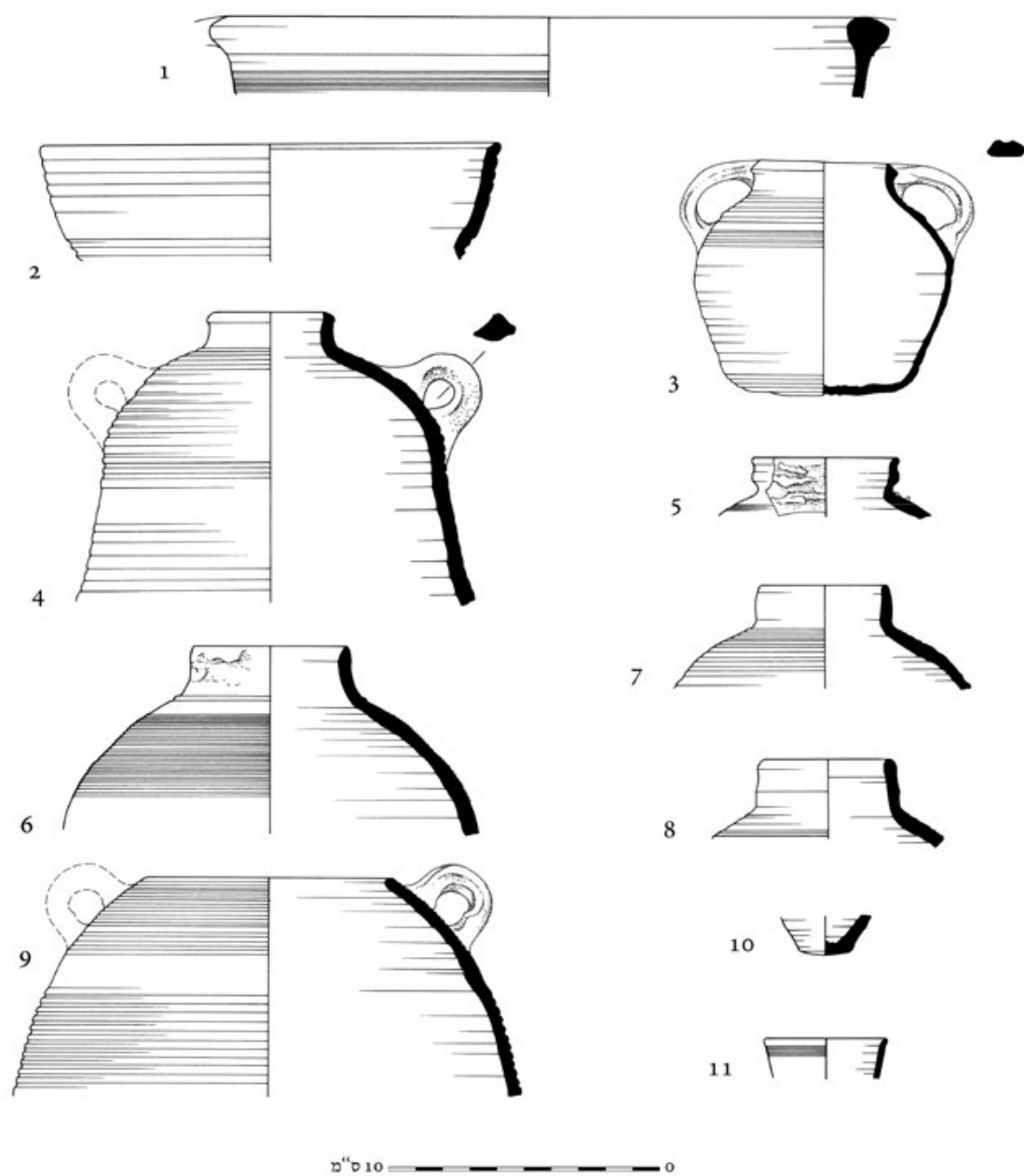
הטיפוס השלישי הוא של כלים מעוטרים (איור 8:9, 9). לכלי מס' 8 שפה מעובה, מקופלת פנימה ובסיס משוטח שעליו צלקת מוט הזגג. חוט בצבע הכלי נכרך סביב הגוף שמונה פעמים לפני שהכלי חולק לשתי שפופרות. בחלק התחתון של הכלי הצלעות מטושטשות לגמרי, ולעומת זאת הן ניכרות על הצוואר. ידית, שחלקה העליון לא שרד,



מס'	הכלי	לוקוס	סל	תיאור
1	קדרה	16, קבר I	195	טין כתום, ליבה אפורה בהירה, חיפוי צהוב בחוץ, גריסים לבנים מעטים, עיטור סרוק
2	קדרת בישול	15, קבר I	163	טין כתום, מעט גריסים לבנים גדולים וקטנים, מיקה
3	סיר בישול	17, קבר I	193	טין חום-אדמדם כהה, סימני פיח מבחוץ
4	קנקן	17, קבר I	162	טין כתום-אדמדם, חולי, גריסים לבנים גדולים וקטנים, הדבקות טין על הגוף
5	קנקן	5, קבר II	135	טין כתום-אדמדם, גריסים לבנים קטנים, הדבקות טין על השפה
6	קנקן	3, קבר II	115	טין כתום-ורוד, חולי, גריסים לבנים גדולים, הדבקות טין על השפה והגוף
7	קנקן	15, קבר I	163	טין כתום-אדמדם, גריסים לבנים גדולים וקטנים רבים
8	קנקן	6, קבר I	123	טין חום-כתום, גריסים לבנים גדולים וקטנים
9	קנקן עזה	6, קבר I	123	טין חום-כתום, גריסים לבנים גדולים וקטנים, חולי
10	קנקן עזה	5, קבר II	135	טין חום-כתום, גריסים לבנים גדולים וקטנים
11	פך	5, קבר II	135	טין צלהב, מנופה היטב, עיטור סרוק
12	פך	5, קבר II	135	טין ורוד, גריסים לבנים רבים
13	צפחת	10, קבר II	133	טין צלהב, חולי, שרידי חיפוי אדום על הידית
14	נר	7, קבר II	127	עשוי בדפוס, טין חום-אדמדם, גריסים לבנים קטנים, סימני שריפה סביב הפה
15	נר	15, קבר I	163	עשוי בדפוס, טין חום-כתום
16	נר	5, קבר II	135	עשוי בדפוס, טין חום-כתום, חיפוי לבן
17	מראה	15, קבר I	168	טין צהבהב, גריסים לבנים, שרידי שיבוץ זכוכית
18	מראה	17, קבר I	162	טין חום-אדמדם, גריסים לבנים, שרידי שיבוץ זכוכית



איור 8. ממצא כלי החרס מקברים I ו-II.



איור 8. ממצא כלי החרס מקברים I ו-II.

ידועה בשם Pilgrim bottle, והיא בעלת צוואר גבוה ושתי ידידות אוזן על הכתף. צפחות דומות נפוצות במכלולים מן התקופה האומאית עד לסוף התקופה העבאסית (המאות הז'–הח' לסה"נ; Baramki 1944: Fig. 5:10, Pl. XXI:1; Avissar 1996:164–165, Fig. XIII.145:1). צפחת תמימה דומה התגלתה בחפירות הצלה ברמלה, במכלול מן התקופה העבאסית (טואג ודתי-ארנון 2011: איור 16). בחפירות בית שאן נתגלו בתי יוצר אחדים לצפחות מטיפוס זה (Bar-Nathan and Atrash 2011:272–274).

#### נרות (איור 14:8–16)

נמצאו נר אחד תמים ושני שברי כתף של נרות נוספים. כל הפריטים נשאו סימני פיה סביב הפיות, המעידים כי היו בשימוש. הנרות שייכים לטיפוס נרות פמוט: צורתם אגסית מוארכת, ולהם בסיס טבעת נמוך וידידת זיז קטנה. הכתף מעוטרת לרוב בדגם ריאתי. חרטום הנר של מס' 14 שחוק ברובו, אך אפשר להבחין בעיטור של עיגול עם נקודה במרכזו. נרות אלה שייכים לטיפוס 28 של חדר, המתוארך מהמאה ה' לסה"נ עד התקופה האומאית (Hadad 2002:66–68).

בלוקוס 3 נתגלו שברים קטנים של נר<sup>3</sup>, ככל הנראה מן הטיפוס הידוע כ'נר גזר', הנפוץ בדרום השפלה. מן השברים עולה שחלקו העליון של הנר מעוטרים בקווים ריאתיים, ולו ידידת זיז פירמידאלית זעירה, חרטום רחב עם קערים מודגשים בצדיו, עין עם טבעת עבה ובסיס טבעת. טיפוס זה של נרות היה נפוץ מסוף המאה ה' עד למאה ה' לסה"נ (Sussman 2007:58–63, Gezer 2007:58–63, ר' דיון והפניות שם).

#### מראות (איור 17:8, 18)

במכלול נתגלו שתי לוחיות חרס של מראות עגולות ושטוחות עם עיגול מרכזי וסביבו עיטור עשוי בתבליט (8.9–9.9 ס"מ קוטר, 0.6–0.5 ס"מ עובי). בעיגול המרכזי היתה קבועה מראה זכוכית ששרידיה עדיין ניכרים במראה מס' 18. מראה מס' 17 מעוטרת במעגלים חד-מרכזיים, ומס' 18 – בדגם אדרה. שתי מראות דומות למס' 17 נתגלו, האחת במערת קבורה בחורבת לוזית, שם תוארכה למאות ה'–הז' לסה"נ (Avni 1990:310, Fig. 7, and Dahari 1990:310), והשנייה בחורבת חרמשית (עירון-לובין תשנ"ה:60), הנושאת שרידים של עיטור של נקודות אדומות. מראה הנושאת דגם דומה לזה המופיע על מראה מס' 18 נתגלתה במערת קבורה בכפר דיכרין ליד בית גוברין, המתוארכת למאה ה' לסה"נ (Rahmani 1964:55, Pl. 16A). לדעת רחמני, ממדיהן הקטנים של מראות אלה מצביע על כך ששימשו את בעליהן כקמיעות נגד עין הרע בהיותם בחיים, ונקברו עמם כדי לשמשם לאחר מותם (ibid.:55–60, ר' שם דיון והפניות נוספות).

3 שברי הנר היו קטנים מדי לרפאות או לציוור. הם עשויים טין חום בהיר ונושאים סימני פיה.

עם רכס במרכזו. קנקנים אלה נפוצים בשפלה, בשומרון, ביהודה ובנגב (ישראל תשנ"ה:127; 1992:160 Magness), ומתוארכים באתרים השונים למאות ה'–הז' לסה"נ. בעבר נהגו לתארך את הקנקן החל מן המאה ה' לסה"נ, אך כנראה שתאריך זה שגוי. קנקנים מטיפוס זה נמצאו ברחובות בנגב, במכלולים שתוארכו למאה ה' לסה"נ (Rosenthal-Heginbottom 1988: Pl. 2:55, 59, 90; Landgraf 1980:69ff, Fig. 22; Adan-Bayewitz 1986:91ff, Fig. 1:1–6).

נתגלו שני שברים של קנקני 'עזה'. האחד הוא חלק עליון של קנקן בעל גוף סגלגל, שפה קעורה, שתי ידידות אוזן על הכתף מתחת לשפה וצילוע הנמשך מהחלק העליון של השפה (איור 9:8). יש לזהותו כטיפוס B1 לפי לחלוקתה של א' קילברו (Killebrew 2010:168–169), וכטיפוס 4 לפי חלוקתה של עוקד (2001:233, 236, לוח 1). מאיירסון הציע להגדיר קנקן זה כטיפוס בשם "אשקלוניון" (Askalonion jar), שכנראה הכיל יין לצרכים רפואיים (Mayerson 1992). בעבר הוצע שטיפוס זה קדום לקנקן 'עזה', אך לאחר ששני הטיפוסים נמצאו זה לצד זה בפסולת של בית יוצר אחד, נשללה הנחה זו (Gadot and Tepper 2003). השבר השני הוא של בסיס מחודד, קטום ומצולע, כנראה של קנקן 'עזה' בעל גוף חרוטי (איור 10:8). בסיס זה שייך לטיפוס A לפי קילברו (Killebrew 2010:168–169), ולטיפוס 6 לפי עוקד (2001:233, 237, לוח 1). שני טיפוסים אלה של קנקני 'עזה' נפוצו בתקופה הביזנטית (המאות ה'–הז' לסה"נ), והשימוש בהם פסק במהלך התקופה האסלאמית הקדומה (מגנס תשמ"ז:218). כבשן לייצור קנקני עזה נתגלה בחפירות הצלה באתר אונו על ידי א' קוגן-זהבי (2011).

#### פכים (איור 11:8, 12)

נמצאו שני טיפוסים פכים. האחד הוא פך עשוי טין צלח, מפולם וצורף היטב, בעל צוואר גלילי ארוך ושפה פשוטה, הנושא עיטור סרוק בדגם פסים מתחת לשפה (איור 11:8). כלי שלם מטיפוס זה עדיין לא התגלה. מגוון דומה של פכים נמצא באתרים מהתקופה האסלאמית הקדומה (המאות הז'–ה' לסה"נ; לדיון והפניות ר': Cytryn-Silverman 2010:104–108). לדעת אבישר, הטין הלבן מתחיל להופיע כבר בתקופה האומאית, אך ייצורם המסיבי של כלים מטין זה מתחיל מאוחר יותר, בתקופה העבאסית (Avissar 1996:155–156). כן נמצא שבר שפה של פך (איור 12:8), הנושא חריתות אחדות; לא נמצאו מקבילות לטיפוס זה.

#### צפחת (איור 13:8)

הצפחת שייכת למשפחה הטיפוסית לתקופה האסלאמית הקדומה (Buff Ware), המאופיינת בטין צלח, מפולם וצורף היטב. מן הצפחת נשתמר רק חלק מהכתף עם ידידת אחת היוצאת ממנו. נראה שהשבר השתייך לצפחת שבה חלק אחד של הגוף שטוח והחלק השני מעוגל ועם בטן. צפחת זו

### כלי חרס (איור 8)

מרבית כלי החרס נתגלו על רצפות משכבי הקבורה, ומקצתם נתגלו במילויים מעליהם. הממצא מועט, אך מגוון, וכולל קדרה, כלי בישול, קנקנים, פכים, נרות ומראות. רובו של ממצא זה שייך לטיפוסים קרמיים הנפוצים בתקופות הביזנטית והאסלאמית הקדומה. שבר צפחת אחד (איור 13:7) נתגלה בעת הסרת המחיצה שבין שני שטחי החפירה, ומתוארך לתקופה האסלאמית הקדומה.

### קדרה (איור 1:8)

נמצא שבר של קדרה בעלת שפה מעובה ודופן עבה. לטיפוס זה שתי ידיות אנכיות, אך רק חלק של אחת מהן שרד. הדופן החיצונית עוטה מרחק לשפה בעיטור סרוק בדגם פסים ישרים. קדרות אלה נפוצו בעיקר באזור שפלת החוף בשלהי התקופה הביזנטית, ושימשו עד למאות ה'ט'–ה' לסה"נ, ובשינויים אחדים אולי אף עד למאה ה'א לסה"נ (Magness 1993:209, Form 3, Arched-rim basins; Avissar 1996:126, Type 26, Fig. XIII.79).

### כלי בישול (איור 2:8, 3)

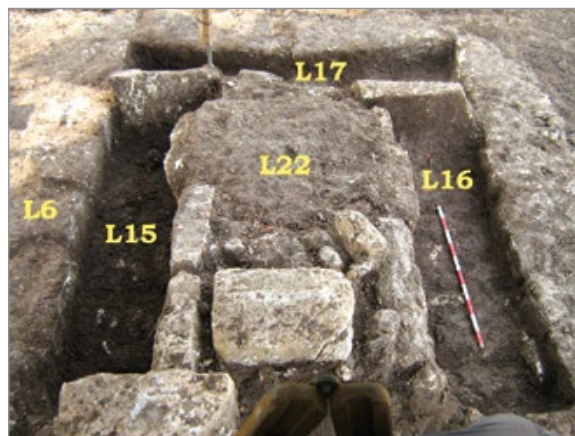
נתגלו שני כלי בישול. הראשון הוא קדרת בישול עמוקה בעלת שפה עם שיפוע נוטה פנימה, המותאם למכסה, דופן עבה וצילוע רחב על הדופן החיצונית (איור 2:8). בדרך כלל מופיעות קדרות אלה עם בסיס רחב וקעור. תפוצתן רחבה והן מוכרות עם שינויים קלים למן סוף המאה ה'ג' לסה"נ עד המאות ה'ח'–ה'ט' לסה"נ (Magness 1993:211–213, Form 1); לדיון נוסף ר': (Vincenz and Sion 2007:23–24).

הכלי השני הוא סיר בישול שלם עם שפה דקה בעלת חתך משולש בולט חוצה, צוואר נמוך, צילוע צפוף על הכתף, ידיות המשוכות משפת הכלי לכתף ובסיס שטוח (איור 3:8). סירי בישול מטיפוס זה מתוארכים למן המאות ה'ה'–ה'ו' עד סוף המאה ה'ז' או תחילת המאה ה'ח' לסה"נ (Magness 1993:219–221, Form 4A).

### קנקנים (איור 4:8–10)

למכלול זה שייכים שני טיפוסים של קנקני אגירה: קנקנים 'דמויי-שק' (איור 4:8–4) וקנקני עזה (איור 9:8, 10).

קנקנים 'דמויי-שק' מתאפיינים בשפה פשוטה או נוטה מעט חוצה, בצוואר קצר ובצילוע עדין המכסה את הכתף ואת גוף הקנקן. לקנקן מס' 4 שפה מעוגלת, צילוע הנמשך מן הכתף עד לאזור שמתחת לידית וצילוע נוסף בחלק התחתון של הקנקן. לקנקן מס' 5 צוואר עם עיבוי במרכז, שפה מעוגלת הנוטה מעט חוצה ומעט שאריות טיץ' על השפה והצוואר. לקנקן מס' 6 רכס בחיבור בין הכתף לצוואר, שפה פשוטה וצילוע צפוף על הכתף. לקנקן מס' 7 צוואר מעובה וזקוף ושפה פשוטה, ולמס' 8 שפה פשוטה וצוואר נטוי פנימה



איור 6. קבר I, מבט למערב.



איור 7. קבר II, מבט למערב.

הונח חומר מליטה בגוון אפור בהיר. האריחים השתמרו לגובה שבעה נדבכים (כ-0.6 מ' גובה). שלושת משכבי הקבורה נחפרו עד לקרקעיתם, שרוצפה באבנים. פתח הכניסה לקבר לא נחשף, אך כנראה נקבע, כמו זה של קבר I, בקיר המזרחי, וכמותו נבנה ממזוזות אבן מונוליתיות, כעדות אחת המזוזות (0.30 × 0.25 × 0.075 מ'), העשויה אבן גיר, שנתגלתה במערב.

## הממצא

על רצפתם של קברים I ו-II נחשפו עצמות אדם במצב השתמרות גרוע שהקשה על שחזור מדדים אנתרופולוגיים. כן נתגלו כלי חרס מעטים, ובהם מראות עשויות חרס; מגוון של כלי תמרוקים עשויים זכוכית, רובם שלמים; חרוזים וחפצי מתכת. רוב הממצא נתגלה על רצפות משכבי הקבורה (לוקוסים 5, 13, 15, 17, 18). לאור הממצאים יש לקבוע את זמן בנייתם של מבני הקבורה לתקופה הביזנטית (המאות ה'ה'–ה' לסה"נ).



לוחות הכיסוי של הקבר. במרכז הקבר נתגלו שתי ערמות של עצמות עם גולגולות, שמקורן בקבורה משנית.

#### קבר ארגז 9 (איור 5)

בדומה לקבר 4, זהו קבר מלבני (כ-2.2 מ' אורך, כ-1.2 מ' רוחב, כ-0.5 מ' עומק), הבנוי מנדבך אחד של לוחות מסותתים עשויים אבן גיר קשה (גודל ממוצע:  $0.8 \times 0.2$  מ'). הדפנות הארוכות בנויות משלושה לוחות, בעוד הקצרות – מלוח אחד. בקבר נתגלו עצמות בעומק של 0.4 מ' מפני השטח וכן שבירי חרס אחדים, לא־אינדיקטיביים. הקבר הכיל קבורה משנית של שלושה פרטים ללא מנחות קבורה.

#### שטח A2 (איורים 2, 6 ו7)

כ-0.7 מ' מערבית לשטח A3 נפתחו שני ריבועי חפירה. נחשפו בהם שני קברים בנויים, צמודים זה לזה, היוצרים יחד מבנה מלבני שצירו צפון-מזרח-דרום-מערב (כ-7.5 × 4.1 מ'). שני הקברים (I, II) זהים כמעט בגודלם, וביניהם מפריד קיר משותף (כ-0.9 מ' עובי) בנוי אבני גויל. שאר הקירות (כ-0.6 מ' עובי) נבנו אף הם באבני גויל בגודל בינוני שלוכדו במלט. שני הקברים התמוטטו, אך קירותיהם שרדו לגובה מרבי של 0.7 מ'. החלק המרכזי של שני הקברים לא נחפר בשל הפסקת החפירה, אך יש להניח שלשניהם הייתה תוכנית דומה: צירם דרום-מזרח-צפון-מערב, פתח הכניסה נקבע בקיר המזרחי, וממנו הוליך כנראה גרם מדרגות למעבר, שמצפוניו, מדרומו וממערבו לו הותקנו שלושה משכבי קבורה. שני הקברים נמצאו מלאים במפולות של אבנים, שמקורן כנראה בתקרה שהתמוטטה.

#### קבר I (איורים 2 ו6)

הקבר מרובע (מידות פנימיות:  $3.0 \times 2.4$  מ'), ורובו התמוטט, אף שקירותיו שרדו לגובה 0.4 מ'. הפתח נקבע בקיר המזרחי בין שתי מזוזות מונוליתיות עשויות אבן גיר; אחת נמצאה באתרה בעוד השנייה נתגלתה במעבר שלא נחפר. המעבר המרכזי (לוקוס 22; 0.8 מ' רוחב) נמצא מלא במפולת ובסחף. שלושת משכבי הקבורה (לוקוסים 15, 16, 17; 2.1–2.4 מ' אורך, 0.6–0.7 מ' רוחב, 0.25–0.30 מ' עומק) נחפרו עד למפלסם התחתון, שרוצף באבנים. בין המעבר למשכבי הקבורה הפרידו מחיצות דקות (0.2 רוחב), הבנויות כל אחת משלושה לוחות אבן גיר מסותתים (גודל ממוצע:  $0.7 \times 0.2$  מ', 0.7 מ' גובה).

#### קבר II (איורים 2 ו7)

קבר רבוע בעל תוכנית דומה לזו של קבר I (גודל פנימי  $2.8 \times 3.0$  מ': מעבר מרכזי (לוקוס 21) ושלושה משכבי קבורה סביבו (לוקוסים 13, 17, 18; 2.1–2.8 מ' אורך, 0.6–0.7 מ' רוחב). את משכבי הקבורה תוחמות מחיצות דקות הבנויות מאריחי חרס (גודל ממוצע:  $0.04 \times 0.25 \times 0.30$  מ'), שביניהם



איור 4. קבר ארגז (לוקוס 4): מבט לצפון.



איור 5. קבר ארגז (לוקוס 9), מבט לצפון.



נוצרי, כולל בחפירה המתוארת כן, מטילים ספק בזיהוי האתר כאונו הקדומה. לאחרונה, הציעו ר' גופנא וא' טקסל שיש לזהות את אונו הקדומה עם כפר ג'ונה, הנמצא כ-0.7 ק"מ צפונית לאתר (Gophna, Taxel and Feldstein 2007: 110).

## החפירה

שטח החפירה (כ-86 מ"ר) נמצא בשוליים הדרומיים-מזרחיים של כפר עאנה. בחפירה נפתחו שני שטחים (A2, A3) ונחשפו בהם שני קברים בנויים ושני קברי ארגז (איור 2). כל הקברים שייכים כנראה לאותה שכבה.

### שטח A3 (איורים 2 ו-3)

בשטח זה הושלמה חשיפתם של שני קברי ארגז, המרוחקים כ-1.5 מ' זה מזה, שצירים צפון-דרום; שני הקברים, נחשפו בחלקם כבר במהלך חפירת הבדיקה של רשות העתיקות (מרכוס 2010). הקברים נכרו בקרקע חרסיתית חומה וכבדה, ודופנותיהם נבנו מלוחות מסותתים של אבן גיר. במילוי הקברים ובסביבתם נתגלה ממצא דל, שכלל כלי חרס שחוקים הקשים לזיהוי. שני הקברים נתגלו ללא לוחות כיסוי. עצמות הנקברים שנתגלו בקברים כוסו מיד לאחר חשיפתן ולא נערכו בהן בדיקות אנתרופולוגיות.

### קבר ארגז 4 (איור 4)

הקבר מלבני (כ-2.4 מ' אורך, כ-1.1 מ' רוחב, כ-0.4 מ' עומק), ובנוי מלוחות מסותתים של אבן גיר קשה (גודל ממוצע:  $0.70 \times 0.25$  מ'). הדפנות הארוכות בנויות משלושה לוחות אבן גדולים, הדופן הקצרה הצפונית בנויה מלוח אחד, ואילו הדרומית בנויה משני לוחות. לאורך הפן החיצון של הדופן המזרחית של הקבר נמצאו שלושה לוחות של אבני גיר. אין ידוע אם אלה נועדו למנוע את קריסת דופן הקבר או שאלה



איור 3. שטח A3: קברי ארגז, מבט לצפון.

הקטעים מחזק את הזיהוי עם הכפר הערבי כפר עאנה. קטע אחר מכיל קינה, המיוחסת לסוף התקופה הביזנטית, ובה מוזכר חורבן בית כנסת שהיה בעיר אונו (איש אונו (פרידמן) תשמ"ג).

בחפירות שנערכו בשולי כפר עאנה בשנים האחרונות נמצאו שרידי יישוב מן התקופות הכלקוליתית והביזנטית, וקברים מן התקופות הביזנטית-האסלאמית הקדומה והממלוכית. כן נתגלו מתקן מטויח ושלושה (?) קברי ארגז שהותקנו בציר צפון-דרום, שהממצא בהם אינו אינדיקטיבי, אך המילוי סביבם הוא מראשית התקופה האסלאמית הקדומה. לצדם נתגלה מתקן תעשייתי לאחסון מן התקופה האסלאמית הקדומה, כבשנים לייצור כלי חרס וקבר ארגז נוסף מן התקופות הביזנטית והאסלאמית הקדומה (ברקן ויקואל 2010).

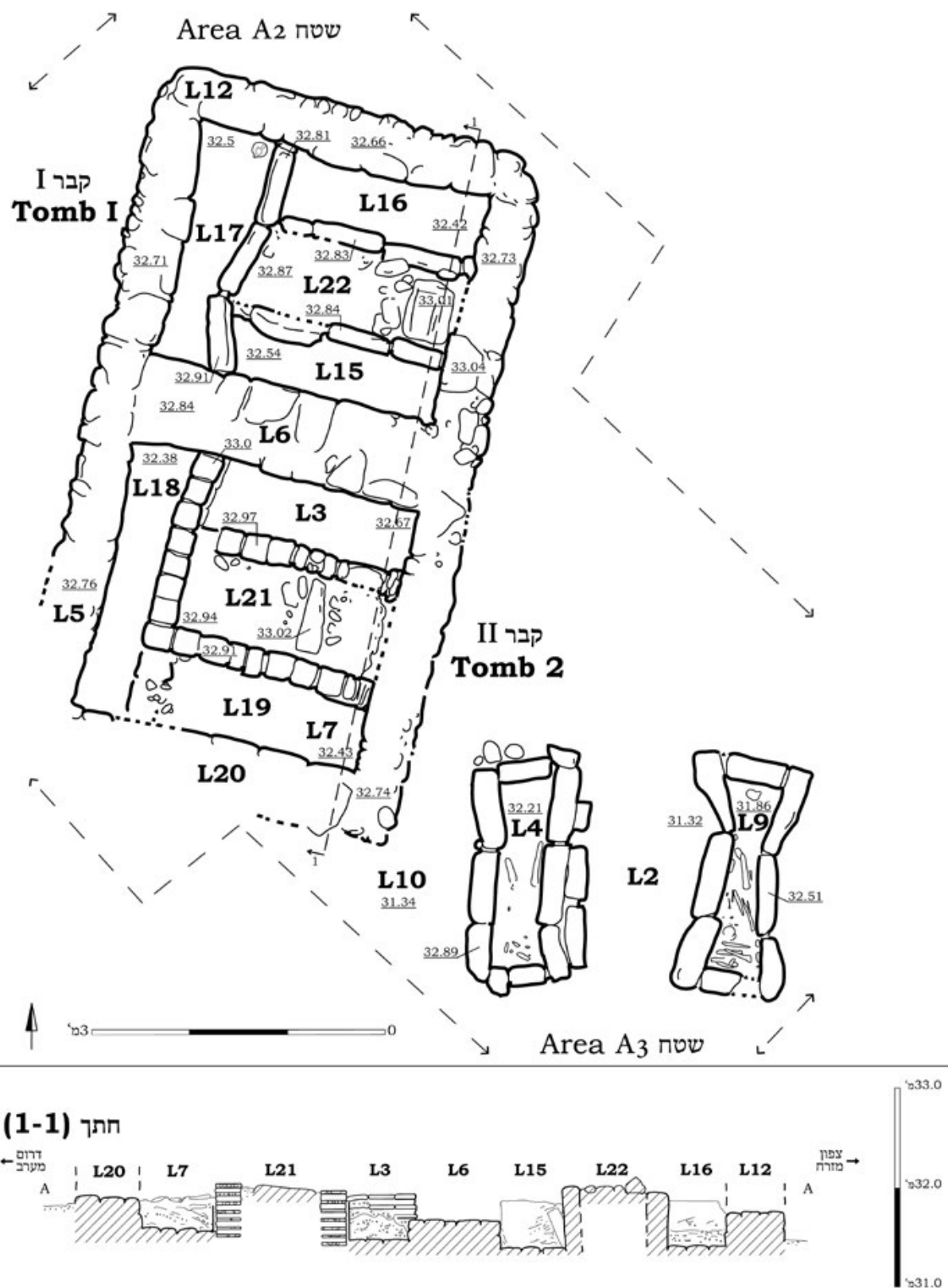
בשוליים הצפוניים-מזרחיים של כפר עאנה נתגלו שרידי בור אשפה מהמאות ה'ה'-ה'לסה"נ (שמואלי תשנ"ז). בור אשפה נוסף, שהכיל פסולת של בית יוצר, כנראה של קנקני עזה מהמאות ה'ה'-ה'לסה"נ, נחשף בקרבת מקום. בתחתית הבור נתגלו חרסים מהתקופה הכלקוליתית והברונזה הקדומה (קוגן-זהבי 2011). בחפירות של שיאון ורפיואנו (2010) נתגלו שלושה סרקופגים עשויים אבן משלהי התקופה הרומית או מן המחצית הראשונה של התקופה הביזנטית; שפכי פסולת חרסים, השייכים כנראה לבית יוצר מן התקופה הביזנטית (המאות ה'ה'-ה'לסה"נ); ושרידי מבנה מהתקופה העותמאנית. סמוך לחפירה זו נחשף קבר מהתקופה הכלקוליתית (בושנינו תשס"ג א)).

בחפירות אחדות שנערכו לאורך השוליים הצפוניים והמזרחיים של כפר עאנה נתגלה בית קברות נרחב מהתקופה הממלוכית (Gophna, Taxel and Feldstein 2007; בושנינו תשס"ג ב); גולן 2004; ויטו, בעל פה<sup>2</sup>). סמוך אליו, בחלק הצפון-מערבי של בית הקברות, נתגלו חמישה קברי ארגז ושרידי מבנה עם רצפת פסיפס משלהי התקופה הביזנטית – ראשית התקופה האסלאמית הקדומה (גורזלזני 2000). כן נתגלו פריטים ארכיטקטוניים אחדים, המעידים כי במקום ניצבה כנסייה (Gophna, Taxel and Feldstein 2007:12).

מן החפירות עולה שהאתר נושב לראשונה בתקופה הכלקוליתית. לאחר הפסקה ארוכה, חודש היישוב במקום בתקופה הביזנטית, שאז הגיע לשיא גודלו והמשיך להתקיים לאורך התקופות האסלאמית הקדומה, הצלבנית והממלוכית. בתקופה הביזנטית, כאשר היה היישוב בשיא גודלו, נשא אופי חקלאי ותושביו היו נוצרים. היעדרם של שרידים הקדומים למאות ה'ה'-ה'לסה"נ וחשיפתם של ממצאים בעלי אופי

2 לסיכום קצר של חפירות פ' ויטו באונו (הרשאה מס' 3023-A), ר':

Gophna, Taxel and Feldstein 2007: 24.



איור 2. תוכנית וחתך של שטחי החפירה (A2 ו-A3).

# קברים מן התקופה הביזנטית באונו (אור יהודה) – 2009

לבנה צפניה-זיאס וניסים גולדינג-מאיר

החפירה נערכה מטעם י.ג. ארכיאולוגיה חוזית בע"מ ובחסות המכון למקרא ולעתיקות ע"ש נלסון גליק (B-342/2009), נוהלה על ידי נ' גולדינג-מאיר, בסיועם של א' רובאן, נ' זאבי וק' הריט (ציור כלי חרס והכנת לוחות), ד' פורוצקי וק' הריט (מדידות) ומ' לביא (ניקוי מתכות). צילומי שטח וממצא נעשו על ידי א' פרץ, ו' נייחין ונ' גולדינג-מאיר. לא נערכה בדיקה אנתרופולוגית פיסית בשל התנגדותם של נציגי משרד הדתות.



איור 1. תוכנית וחתך של שטחי החפירה (A2 ו-A3).

התקופות ההלניסטית והרומית נכלל אזור אונו בתחומי הטופורכיה של לוד (Lydda), שהייתה מרכז יהודי חשוב בימי הבית השני. בתחילת המאה ה'ג' לסה"נ, כאשר הוקמה העיר הרומית לוד-דיוספוליס, עבר המרכז היהודי של העיר לוד צפונה, אך באונו ובסביבותיה המשיכו להתגורר יהודים רבים עד סוף התקופה הביזנטית (Gophna, Taxel and Feldstein 2007:109). בסוף המאה ה'ג' לסה"נ, הופרדה אונו מתחום לוד והפכה למחוז עצמאי עם מועצת עיר (בוליי). מתוך אזכורים שונים במשנה ובתלמוד עולה שיהודי אונו סבלו מחיל המצב הרומי שישב בעיר לוד (מדרש איכה רבה א' י"ז). בגניזה הקהירית נתגלו שלושה קטעים המזכירים את "אונו". אחד

## מבוא

בחודש דצמבר 2009 נערכה חפירת הצלה באתר העתיקות אונו, כ-100 מ' מערבית לכביש בית-דגן-יהוד (כביש 412), בתחומי העיר אור יהודה (כפר עאנה; נ"צ ר"ח 9000-187960/658960-7990; איור 1). החפירה החלה לאחר ששרידים ארכיאולוגיים נתגלו במהלך בדיקות מקדימות של רשות העתיקות לקראת הקמת מגדלי אוריון בשכונת נווה רבין.<sup>1</sup> החפירה באתר הופסקה על ידי נציגי משרד הדתות בטרם הושלמה, והשרידים כוסו על ידי רשות העתיקות כדי לשומרם לדורות הבאים.

האתר שוכן בעמק הפשט של נחל איילון, הידוע כ"בקעת אונו" או "שפלת לוד". רוב שטחה של בקעת אונו מישורי ומכוסה בקרקעות סחף פוריות ועשירות בסדימנטים חרסתיים או אלוביאליים המכילים גיר, היוצרים את "המישורים האלוביאליים של חוף פלשת" (דן תש"ל: 64, 69, 72).

הכפר הערבי כפר עאנה זוהה על ידי גרן (Guérin 1875:319-321) ולאחריו על ידי אנשי הסקר הבריטי (Conder and Kitchen 1882:251-252) כאונו העתיקה. במקורות ההיסטוריים נזכרת אונו לראשונה ברשימת הערים שכבש תחותמס הג' במסעו לארץ ישראל (קלאי 1967:353). במקרא מופיעה העיר כמקום אשר נבנה על ידי משפחת אלפעל מבני שבט בנימין (דברי הימים א' ח' י"ב), ולפי מסורת חז"ל היתה אונו עיר מוקפת חומה מימות יהושע בן נון (משנה ערכין ט' ו'). תושבי אונו גלו עם חורבן הבית הראשון (עזרא ב' ל"ג) ושוב אליה עם שיבת ציון, והעיר כנראה הייתה חלק מפחוות יהודה בימיו של נחמיה (נחמיה י"א, ל"ה). במהלך

1 חפירת הבדיקה מטעם רשות העתיקות נערכה על ידי ג' מרכוס בחודש יולי 2009 (הרשאה מס' A-5710; מרכוס 2010).



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סדר ועיצוב: **אנה הייט**

דפוס: **גרפוס פרינט**

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רח' דוד המלך 13, ירושלים 94101

ISSN 2227-9008

צילומי עטיפה: מאתר החפירות בצור נתן

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י. ג. ארכיאולוגיה חוזית בע"מ

