

## A CHALCOLITHIC AND EARLY BRONZE AGE I BURIAL GROUND NEAR SHA‘AR EFRAYIM IN THE SHARON PLAIN

EDWIN C.M. VAN DEN BRINK

### INTRODUCTION

The Chalcolithic and Early Bronze Age I mortuary site near the modern settlement of Sha‘ar Efrayim is located on a plateau between Naḥal Alexander and its tributary, Naḥal Te’anim, in the hill country on the eastern edge of the Sharon coastal plain, some 10 km south-southeast of the coastal town of Netanya (map ref. NIG 20065/68795; OIG 15065/18795; Fig. 1). The site enjoys a typical Mediterranean climate, with a mean annual precipitation of 511 mm (*Meteorological Notes* 1967).

A karstic cave crowning the northwestern slope of one of the limestone hills in the area was noted and cursorily excavated in 1990 by Eli Yannai (IAA) and further probed in 1995 by Ronit Oren and Naama Scheftelowitz (Tel Aviv University, hereafter TAU Cave; Fig. 2). This cave had apparently been used during the Chalcolithic and EB I for burial purposes, then reused at the end of the Iron Age and, once

again, during the Roman and Byzantine periods (Oren and Scheftelowitz 1998:91).

In 2002, lower sections of this hillside were blasted and mechanically removed in preparation for construction of a section of the Cross-Israel Highway, exposing two locations identified by A. ‘Odi (IAA) as potential archaeological loci. Subsequent salvage excavations revealed them to be karstic caves (Caves 1 and 4; Fig. 2) used for burial purposes during the Chalcolithic period and EB I. In the course of these excavations, the much damaged remains of three additional karstic burial caves (Caves 2, 3, 5; Fig. 2) were discovered in the vicinity and also excavated.<sup>1</sup> Together with the TAU burial cave (see above) and the damaged remains of yet another karstic burial cave (Cave 6), discerned on the same hillside several months after conclusion of the 2002 excavations,<sup>2</sup> a total of seven burial caves are known on this section of the hillside alone (Table 1; Fig. 2). All seven provided evidence

**Table 1. Overview of Periods of Use per Cave**

Cave \ Period	Late Chalcolithic	EB IA	EB IB	Post-EB Usage
TAU (Oren and Scheftelowitz 1998:77 ff.)	+	-	+	Iron Age, Roman–Byzantine
1	+	+	+	-
2	+	Uncertain due to poor state of preservation	?	?
3	+	+	?	?
4	+	+	+	MB IIA, LB IIB
5	+	-	-	-
6 (see n. 2)	+	?	?	?

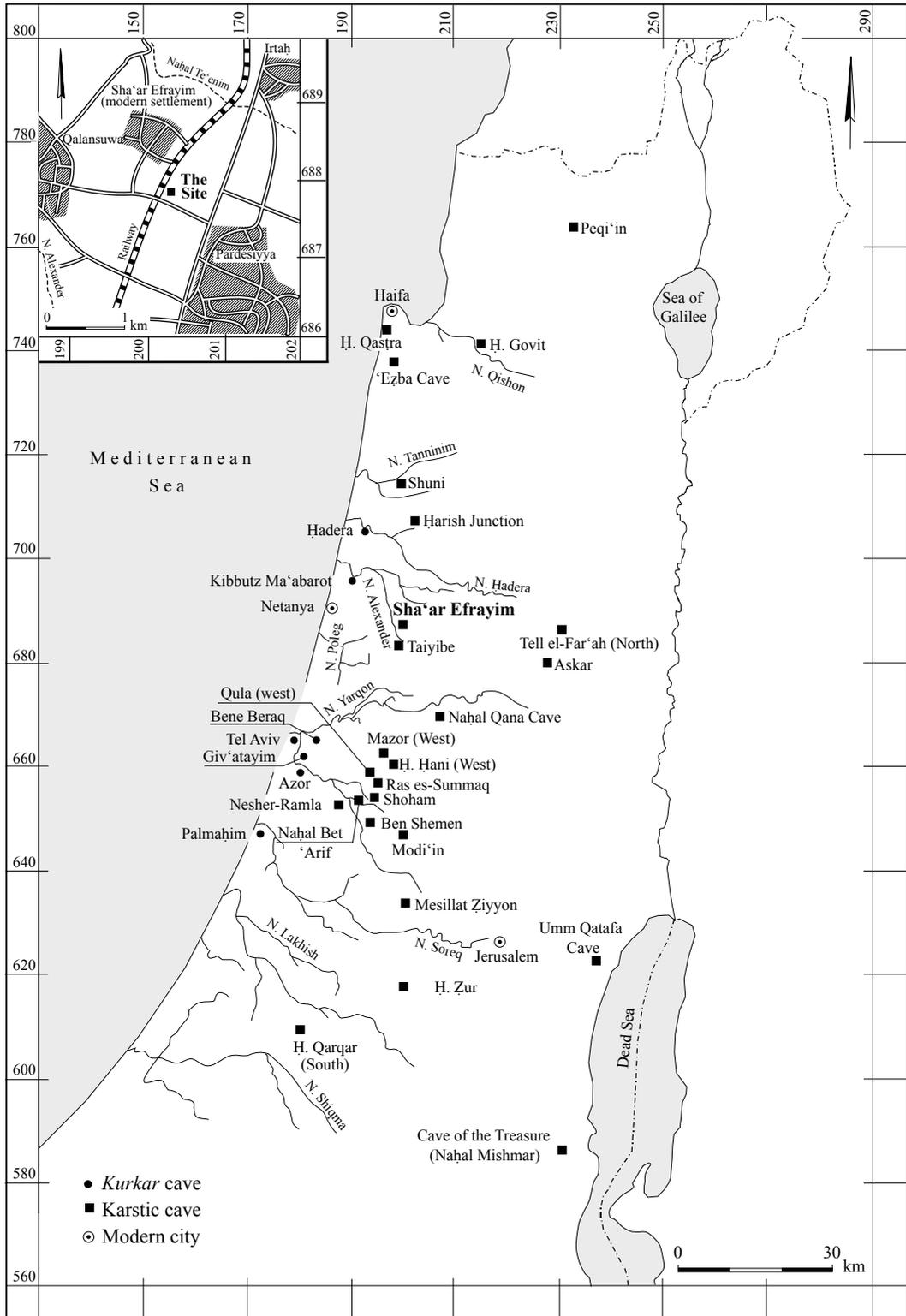


Fig. 1. Location map of Sha'ar Efrayim and distribution of karstic caves and caves hewn into the *kurkar* ridges used for burial purposes during the Late Chalcolithic period (updated after van den Brink 2005a: Fig. Exc. 1.1).

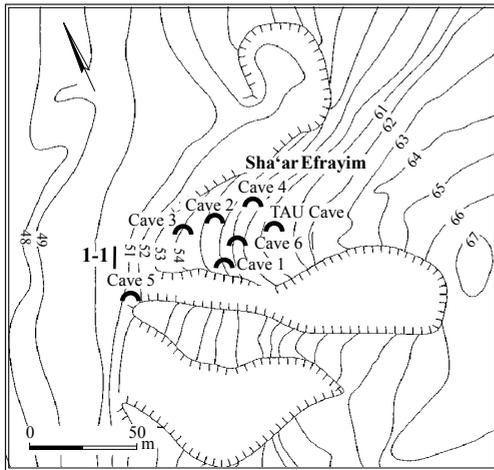
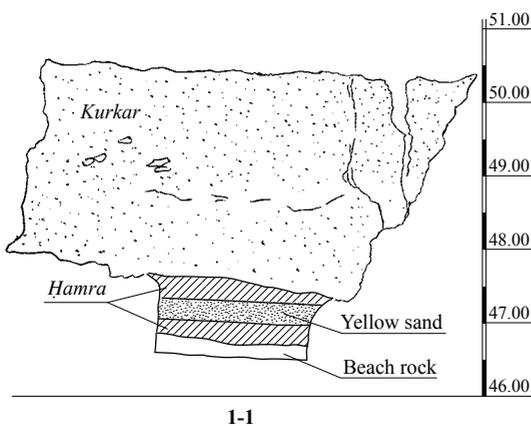


Fig. 2. Location map of the Sha'ar Efrayim burial caves (after Oren and Sheftelowitz 1998: Fig. 23).



Plan 1. Section of bulldozer trench west of Cave 1.

of an initial exploitation for burial purposes in the Chalcolithic period, while at least three of the caves were reused during EB IA or later. The current report presents the final excavation results of Caves 1–5.

At the time of the excavations, a brief survey was conducted by Khalaily and Milevski (2006) on the summit of this hill, which yielded an abundance of flint tools and flint-knapping debitage dating from the Epipaleolithic and Pre-Pottery Neolithic B.<sup>3</sup> An interesting geological note is the presence of ancient beach

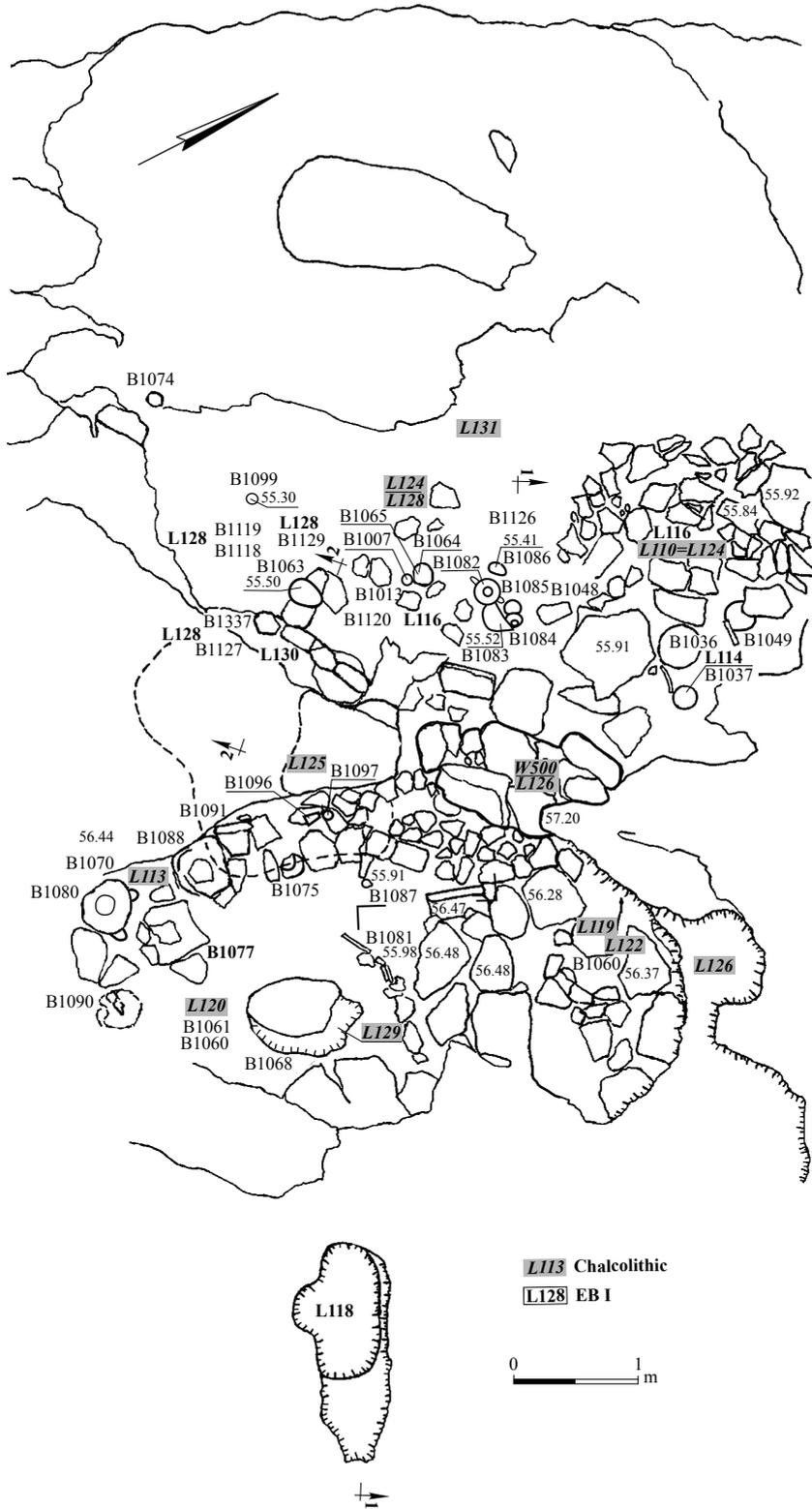
sediments, deposited millions of years ago at the foot of this hill, which was revealed in a 4 m deep bulldozer cut some 50 m to the west of Cave 1. These *in-situ* deposits consist of alternating layers of *kurkar*, *hamra*, sand and beach rock (Fig. 2: Section 1–1; Plan 1), indicating that the area was once submerged by the sea.

### THE CAVES

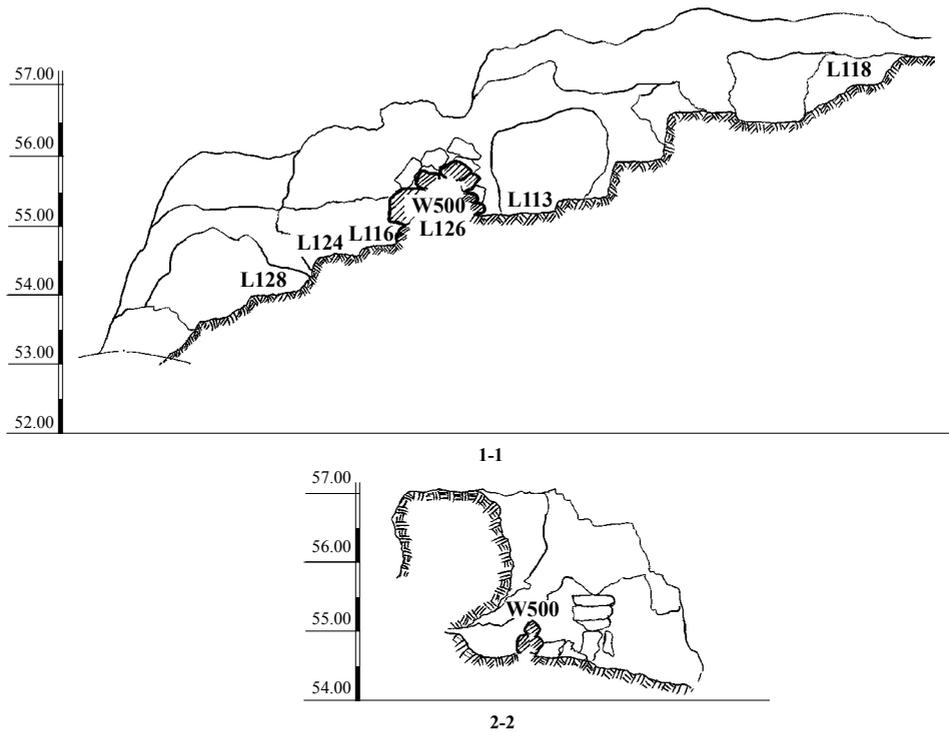
The five karstic caves are located close to one another at heights of 51–58 m above sea level, on the northwestern slope of the hill (Fig. 2). All five caves were filled with anthropogenic deposits mixed with soil sediments up to the ceiling, and completely excavated manually down to the bedrock floor (for Locus/Basket List see Appendix 1). Caves 1 and 4 were several meters higher up the hill than the other three caves and somewhat further from the epicenter of the dynamite blasting in Cave 5. Cave 1 was fully excavated, while the easternmost extreme of Cave 4 could not be excavated due to the perceived danger of ceiling collapse. Cave 2 was only preserved in one corner and only part of the floor of Cave 3 survived. Cave 5 was in the worst condition, as the TNT had been drilled through the cave itself in at least two spots, resulting in fragmentation of all the originally intact pottery.

#### *Cave 1*

This karstic cave measures c. 6.0 × 8.5 m and is 2.5 m high (Plan 2). Its bedrock floor has a rather steep east–west gradient. The lowest, southwestern part of the cave had been slightly undercut by the bulldozer (Fig. 3). Parts of its roof had caved in in antiquity, sometime between the Chalcolithic period and EB I, judging from the presence of a layer of stone debris separating the two strata in certain places within the cave. It was, therefore, not possible to identify the original entrance. A clay coffin (or chest), fragments of two domiform ossuaries and a secondary<sup>4</sup> ossuary jar, together



Plan 2. Cave 1: plan and sections (on opposite page).



Plan 2. (cont.).



Fig. 3. Cave 1, view of lower reaches of the cave, looking east. In foreground: scrape marks left by bulldozer; in background left: partition wall.

with accompanying funerary gifts, were found *in situ* in the upper part of the cave (Fig. 4; Plan 2: Loci 113, 119, 120, 122, 125, 126, 129), deposited on the bedrock floor (here covering an area of c. 2 × 5 m) and leaning against the cave's western wall. Unlike the remainder of the cave, this area was never re-used after the Chalcolithic period, due partly to the fact that here the cave is less than 1 m high and therefore

difficult to enter, as well as to a stone partition wall (W500) that effectively sealed this area off from the remainder of the cave (Fig. 5), presumably constructed during the subsequent EB IA.

In the lower reaches of the cave, remains of three clay coffins and four domiform ossuaries and accompanying grave gifts were also found *in situ*, resting on the natural bedrock floor, mainly in the northern extremes of this part of the cave (Loci 110, 124, 128, 131). As in the upper part of the cave, these Chalcolithic burials were covered by a layer of stone collapse from the cave's original roof.

Above this stone collapse, groups of two or three small ceramic vessels from EB IB were found, each individual pottery group probably representing a single (secondary) burial. Bone preservation, however, was very poor (see below) and the presence of bones could not always be certified.

Also in the northern part of the lower level of the cave (Loci 124, 128), several fragmented,



Fig. 4. Cave 1, the upper level of Cave 1, after clearance of caved-in roof and bedrock around the cave, looking south.



Fig. 5. Cave 1, stone wall separating the upper reaches of the cave from the lower reaches, looking east.

classic Gray Burnished Ware (GBW) bowls were found, indicating a date within EB IA.<sup>5</sup> Noteworthy are four bone and stone beads (see Fig. 40), twelve perforated, Red Sea shell pendants (see Mienis, this volume), as well as a pair of adult male, mountain-gazelle horncores associated with some of the burial remains from these two loci. Two additional bone beads, a burnt fragment of ostrich eggshell and another pair of adult male, mountain-gazelle horncores were recovered in other parts of the same cave (see Kolska Horwitz, this volume).

As the horncores were associated with some of the GBW bowls, they were presumably funerary gifts dating to EB IA. Many more ostrich eggshell fragments were found in a clear Chalcolithic burial context in Cave 3, thus providing a likely date for the single fragment deriving from Cave 1.<sup>6</sup>

A minimum number of 29 human burials for the Chalcolithic period and 36 for EB I can be established for this cave (see Nagar, this volume).

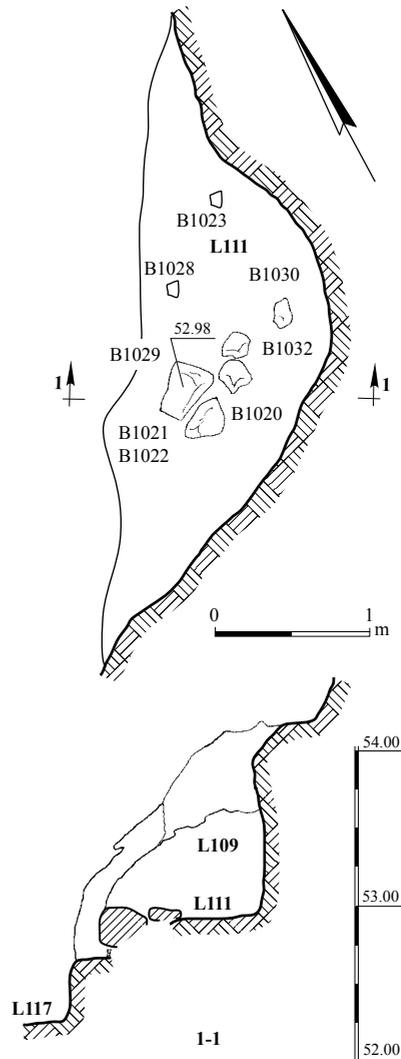
### Cave 2

Several meters down the slope of the hill and 10 m north of Cave 1 (Fig. 2), vestiges of yet another karstic cave used for burial during the Late Chalcolithic period were uncovered. Following recent blasting and removal of the debris by bulldozers, only a small part of the northeastern section of the cave remained, measuring  $1.2 \times 4.0$  and 1.5 m high (Plan 3; Fig. 6). The few *in-situ* finds here included a ceramic domiform ossuary (oriented east–west, opening to the west; L111, B1021, B1022) resting on three flat stones placed directly on the cave's bedrock floor, with at least three small, V-shaped bowls placed against the southern long side of the ossuary. A poorly preserved deep bowl that functioned as a bone receptacle was found next to its northern side.

A minimum of two human burials for the Chalcolithic period can be established for the preserved part of this cave (see Nagar, this volume).

### Cave 3

Further down the slope of the same hill, and less than 10 m southwest of Cave 2, the scant remains of yet another cave were identified ( $2.50 \times 3.25$  m, 0.5 m high). The original ceiling, as well as all the walls of the cave, had been blasted and removed in their entirety by bulldozers,



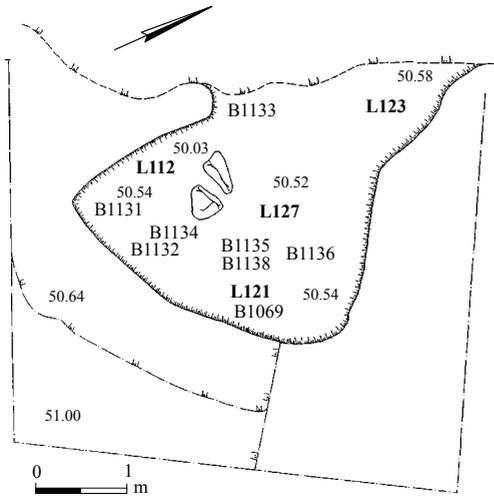
Plan 3. Cave 2: plan and section.



Fig. 6. Cave 2 after excavation, looking east. In foreground: bulldozer cut; center right: stones on which an ossuary was standing *in situ*.



Fig. 7. Cave 3, bedrock floor of the cave after excavation, looking north. Bulldozer cut visible in background left-center.



Plan 4. Cave 3.

leaving only part of the cave's bedrock floor still covered by c. 0.5 m of fill (Plan 4; Fig. 7). Resting directly on this floor were the *in-situ* remains of at least three ossuaries, one of which had a sculpted nose applied to its facade (L127, B1132). Noteworthy among the associated ceramic funerary gifts are many fragments of what appears to have been a single ostrich eggshell. Amongst the pottery retrieved from this cave were a few fragments of GBW bowls, indicating a reuse of this cave during the early part of EB I (EB IA).

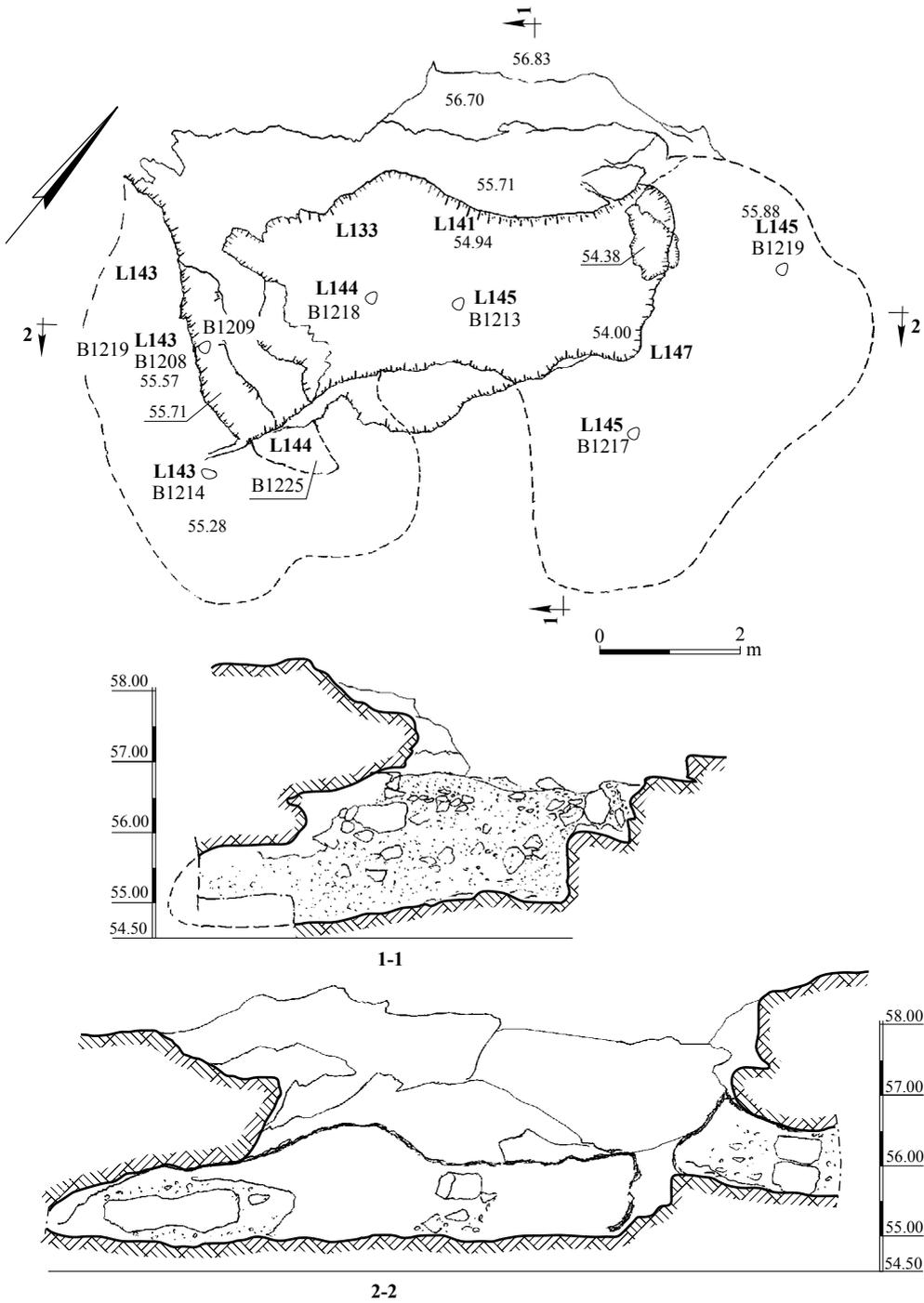


Fig. 8. Cave 4, northern face of balk in center of cave (see Plan 5), looking south.

A minimum of six human burials for the Chalcolithic period can be established for the preserved part of this cave (see Nagar, this volume).

#### Cave 4

This karstic cave, measuring  $6 \times 11$  m and 2 m high, is situated several meters higher up the hill above Cave 2 and less than 15 m north of Cave 1. It was relatively well preserved and not greatly damaged by the blasting or bulldozing. Parts of its ceiling had caved in during antiquity and these were removed mechanically prior to the excavations. As the remaining ceiling showed numerous deep cracks, it was decided not to excavate the deeper extremes of the cave due to safety concerns (Plan 5; Fig. 8).



Plan 5. Cave 4: plan and sections.

Unlike the other caves, Cave 4 revealed evidence for (domestic?) usage during MB IIA and burials during LB IIB, in addition to the Chalcolithic (Loci 143, 144) and EB IA (L145) burial remains, which resemble those of Caves 1 and 3 in particular. The MB IIA is represented by a single diagnostic fragment of a cooking pot, whereas LB IIB burials (at least two) are indicated by two bronze toggle pins, a bronze spearhead and a bronze ring (see below), as well as various types of imported Cypriot ceramic vessels.

A minimum number of 14 human burials for the Chalcolithic, EB IA and LB IIB periods can be established for this cave (see Nagar, this volume).

### Cave 5

This is the southernmost cave at the site, located a few meters down the slope from Cave 1 and c. 35 m to the southwest. Its ceiling and part of its western end had been blasted and bulldozed away. The remaining section measures  $4.5 \times 4.5$  m and 2 m high (Plan 6). As in Cave 1, the bedrock floor has a relatively steep incline. The badly damaged remains of at least seven

ceramic ossuaries (some with a sculpted human nose on their facade, others also decorated with clay nails), were recovered still partly *in situ* on the bedrock floor (Fig. 9).<sup>7</sup> Scores of small and large V-shaped bowls were found, as well as fragmentary bowls on fenestrated stands. Of particular interest in this cave are a clay female figurine (B1204; Fig. 39) and the remains of a turtle (see Kolska Horwitz, this volume). Cave 5 does not seem to have been reused after the Chalcolithic period.

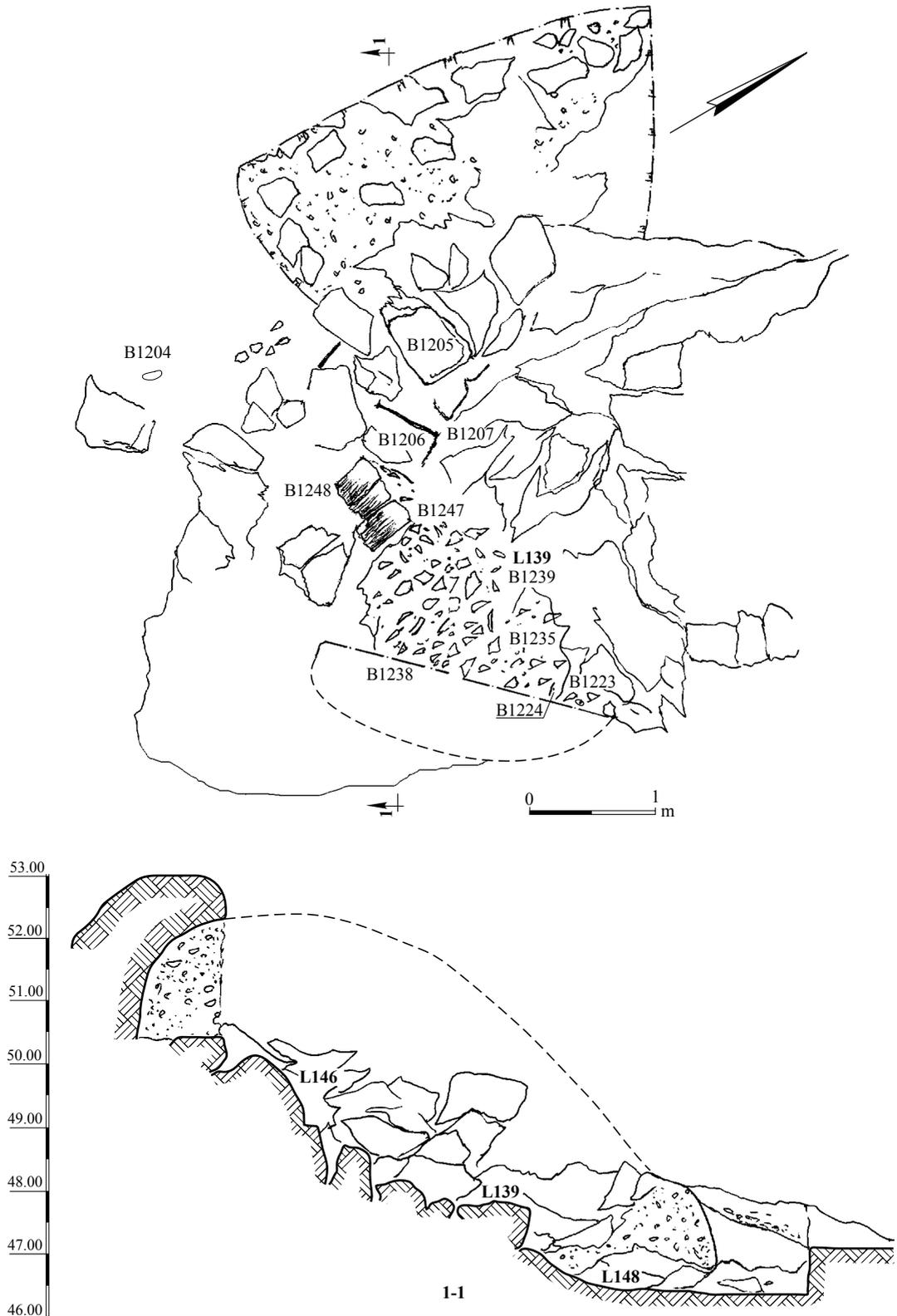
A minimum number of 11 human burials for the Chalcolithic period can be established for this cave (see Nagar, this volume).

### THE FINDS

The pottery and small finds, including beads, bone utensils and metal finds, are presented per cave in chronological order. Petrographic analyses of the pottery, as well as studies of the flint assemblages, human skeletal remains, faunal remains and molluscs, will be discussed separately in this volume (see Cohen-Weinberger, this volume; Kolska Horwitz, this volume; Khalaily, this volume; Mienis, this volume; Nagar, this volume).



Fig. 9. Cave 5, center of cave during excavation, showing the fragmentary state of ossuaries B1206 and B1207 (L139) after blasting and bulldozing, looking east.



Plan 6. Cave 5: plan and section.

## POTTERY

*Cave 1**Chalcolithic Period*

*Clay Coffins.*— The fragmentary remains of four open coffins or chests, all with red-painted designs, were recovered (Loci 113, 124); at least one is sub-rectangular (Fig. 10:1) and another, rectangular (Fig. 10:2–5). This type of bone receptacle is well attested in the Chalcolithic burial caves of nearby Ma‘abarot (Porath 2006) and eṭ-Taiyiba (Yannai and Porath 2006), but is less common in the Chalcolithic burial caves of the central and southern coastal plain.

*Domiform Ossuaries.*— Numerous fragments of a minimum number of six rectangular, domiform clay ossuaries were retrieved (Fig. 11), all with red-painted designs and at least one with a sculpted nose applied to its facade (Fig. 11:2). One fragment of a facade displays an applied clay nail (Fig. 11:3).

*Secondary Ossuary Jar.*— A large, short-necked storage jar (with rim still intact) has four vertical lug handles, the upper part decorated with red-painted bands (Fig. 12). This jar, in secondary use as a bone receptacle, was found *in situ* in the upper corner of the cave (L113).

*Related Funerary Pottery.*— The Chalcolithic ceramic burial assemblage in Cave 1 consists mainly of small and, less frequently, medium-sized open bowls (the so-called ‘V-shaped’ bowls; Fig. 13), some displaying a red-painted rim, as well as two tall beakers or cups (Fig. 14:1, 2),<sup>8</sup> fragments of two cornets (Fig. 14:3, 4) and a few fenestrated bowl stands (Fig. 14:5–8). Rotational wheel marks are evident on most of the small open bowls, as well as on the two cups, indicating that these vessels were wheel-finished. Further fragmentary finds include large deep bowls with painted designs (Fig. 15:1–4), basins (Fig. 15:5), fragments of holemouth jars (Fig. 15:6–9), a small jar with eight lug handles—four tubular vertically

pierced handles and four horizontally pierced—and the lower part of a possible second example (Fig. 15:10, 11), several necked jar fragments (Fig. 16:1–3), a possible neck fragment of a small churn (Fig. 16:4), two fragments of spoon or basket handles (Fig. 16:5, 6) and a number of lug handles, most of which are triangular in section (Fig. 16:7, 8). Cream ware vessels are absent in this cave, although a few sherds of this ware were noticed in other caves.

*Early Bronze Age IA*

In the southwestern part of the lower level of the cave, at the foot of a bedrock outcrop, sherds of seven carinated Gray Burnished Ware bowls were recovered, five of them with protruding knobs (Fig. 17), mainly from the mixed locus L128. These bowls indicate a date within EB IA for the burials in this specific part of the cave. It is noteworthy that four of the seven GBW bowls had their rims perforated after firing, not for mending breaks, but possibly for suspending the bowls with strings for use as lamps (Fig. 17:2, 4, 6, 7). Five of the bowls have outfolding rims, two have flaring rims.

A number of vessels, some from the same burial loci as the GBW bowls, are morphologically somewhat different from the later EB IB vessels found in other parts of the cave and can, therefore, also be attributed to EB IA. These include an asymmetrical bowl on a flat base (Fig. 18:1); a deep bowl with a bevelled rim (Fig. 18:2) found *in situ* beside a ledge-handled jar (Fig. 18:3); a crudely executed, flat-based cup with a high loop handle (Fig. 18:4), very different in execution from other loop-handled cups found in the cave; and a small, handleless cup with slightly inclining walls, a flat rim and two opposing perforations applied before firing (for suspension? Fig. 18:5). The latter is actually more reminiscent of the Chalcolithic period than EB IA.

Four shallow bowls with tapering rims (Fig. 18:6–9) and two small bowls with upright rims (Fig. 18:10, 11), one painted with vertical red lines, are possibly of slightly later date,

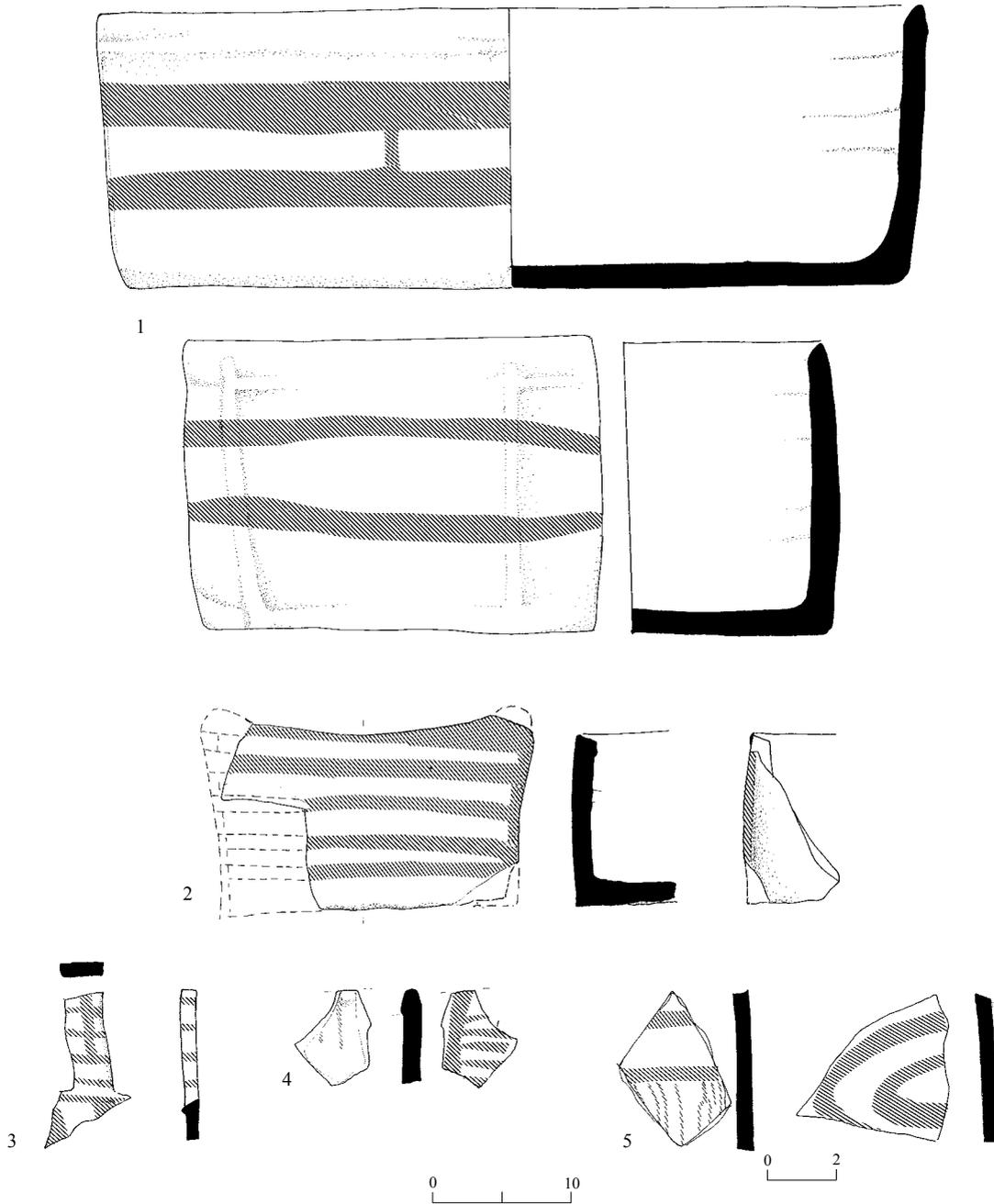


Fig. 10. Cave 1, rectangular coffin-like ossuaries.

No.	Locus	Basket	Description
1	113	1070	Rectangular coffin with rounded corners; red-painted geometric design of two continuous and parallel bands on ext.
2	124	1103	Back wall/corner fragment of a coffin; red-painted geometric design on ext.
3	124	1095	Fragment of clay coffin No. 2, displaying two separate corners of apertures
4	128	1140	Fragment of clay coffin No. 2, red-painted int. and ext.
5	124	-	Two fragments of clay coffin No. 2, red-painted geometric design

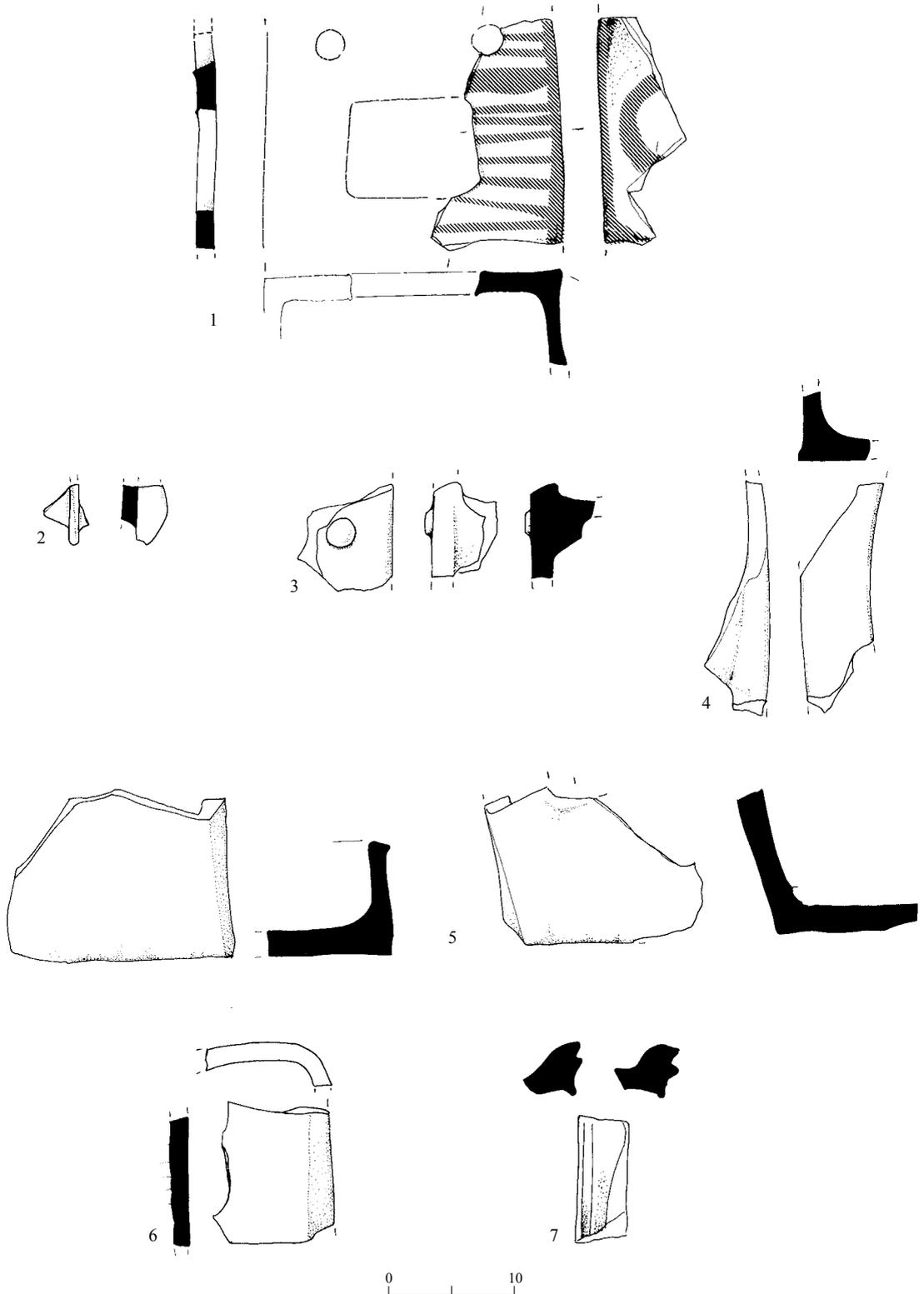


Fig. 11. Cave 1, domiform ossuaries.

◀ Fig. 11

No.	Locus	Basket	Description
1	124	1089	Fragment of domiform ossuary; facade with indication of square aperture/door and small, circular opening above it; red-painted geometric design on int. and ext.
2	124	1103	Small sculpted nose, probably originally attached to facade of ossuary
3	119	1060	Fragment of upper part of facade; applied knob/nail
4	131	1150	Wall fragment adjoining aperture/door in facade
5	110	1017	Bottom/corner fragment of ossuary
6	131	1143	Wall/roof fragment of ossuary
7	128	1124	Ledge fragment of ossuary

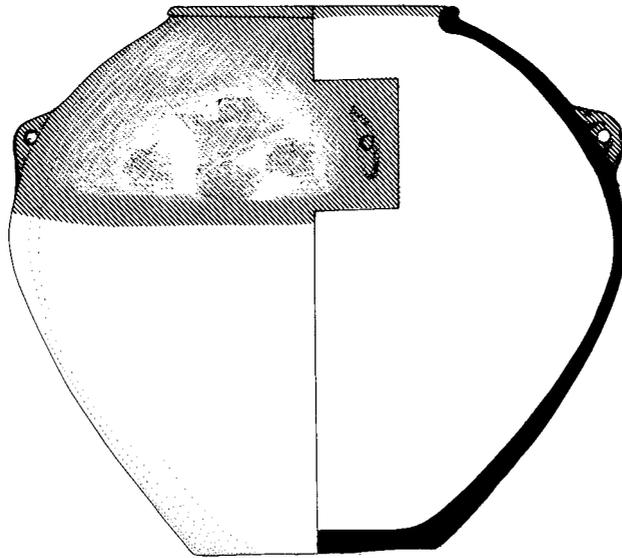


Fig. 12. Short-necked secondary ossuary jar with lug handles (L113, B1080).

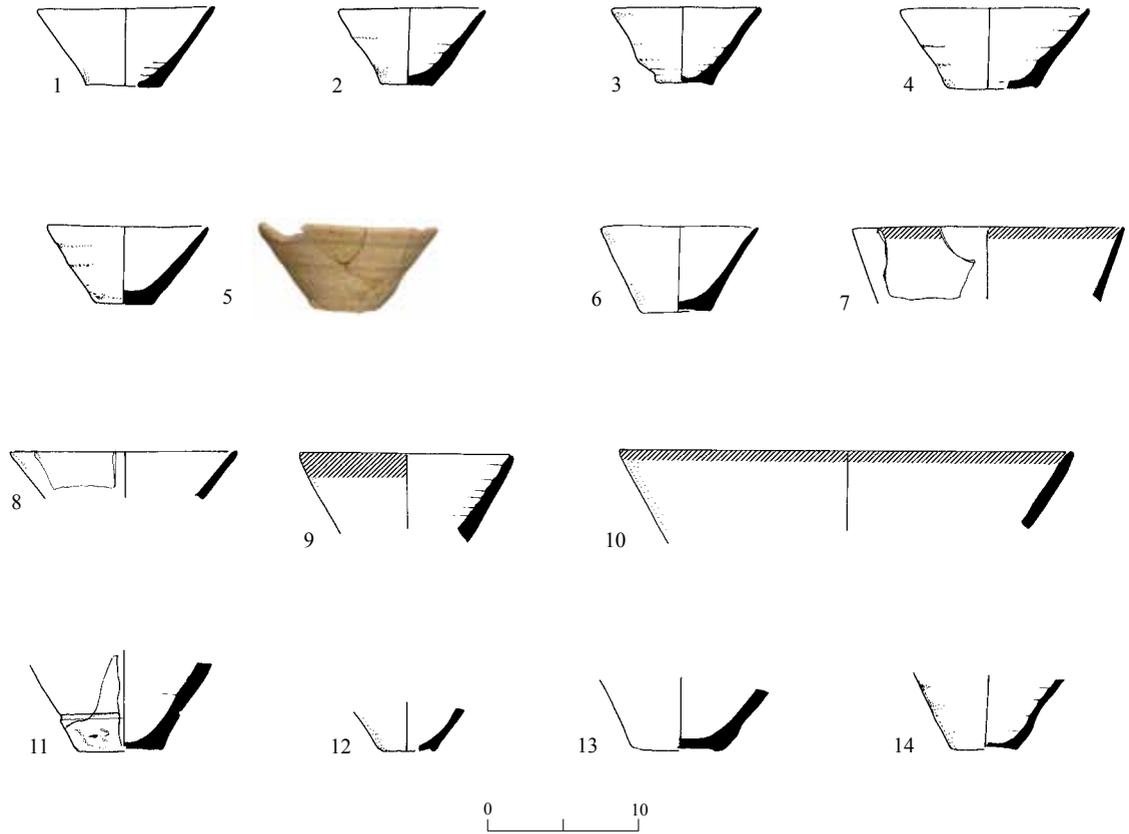


Fig. 13. Cave 1, Chalcolithic pottery: bowls.

No.	Type	Locus	Basket	Description
1	Small V-shaped bowl	113	1088	Wheel-finished
2	Small V-shaped bowl	-	-	Wheel-finished
3	Small V-shaped bowl	119	1060	Wheel-finished
4	Small V-shaped bowl	122	1071	Wheel-finished
5	Small V-shaped bowl	125	1097	Wheel-finished
6	Small V-shaped bowl	124	1108	Wheel-finished
7	V-shaped bowl	-	-	Medium-sized; red-painted rim int. and ext.
8	V-shaped bowl	124	1103.2	Medium-sized
9	V-shaped bowl	125	1093.3	Medium-sized; red-painted rim int.
10	V-shaped bowl	131	1150	Large; red-painted rim int. and ext.
11	Small bowl	128	1112	Wheel-finished
12	Small bowl	128	1140.4	Wheel-finished
13	Small bowl	125	1093.4	Wheel-finished
14	Small bowl	128	1140.3	Wheel-finished

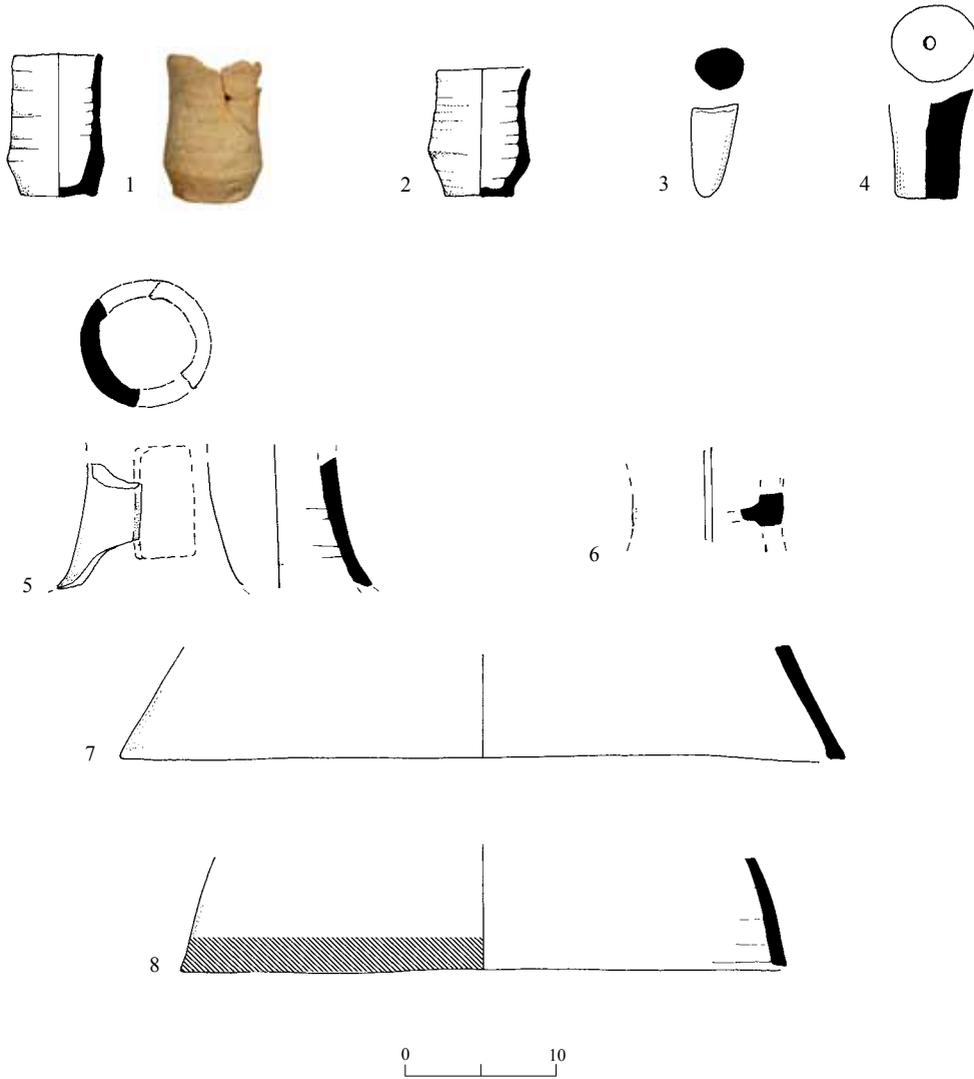
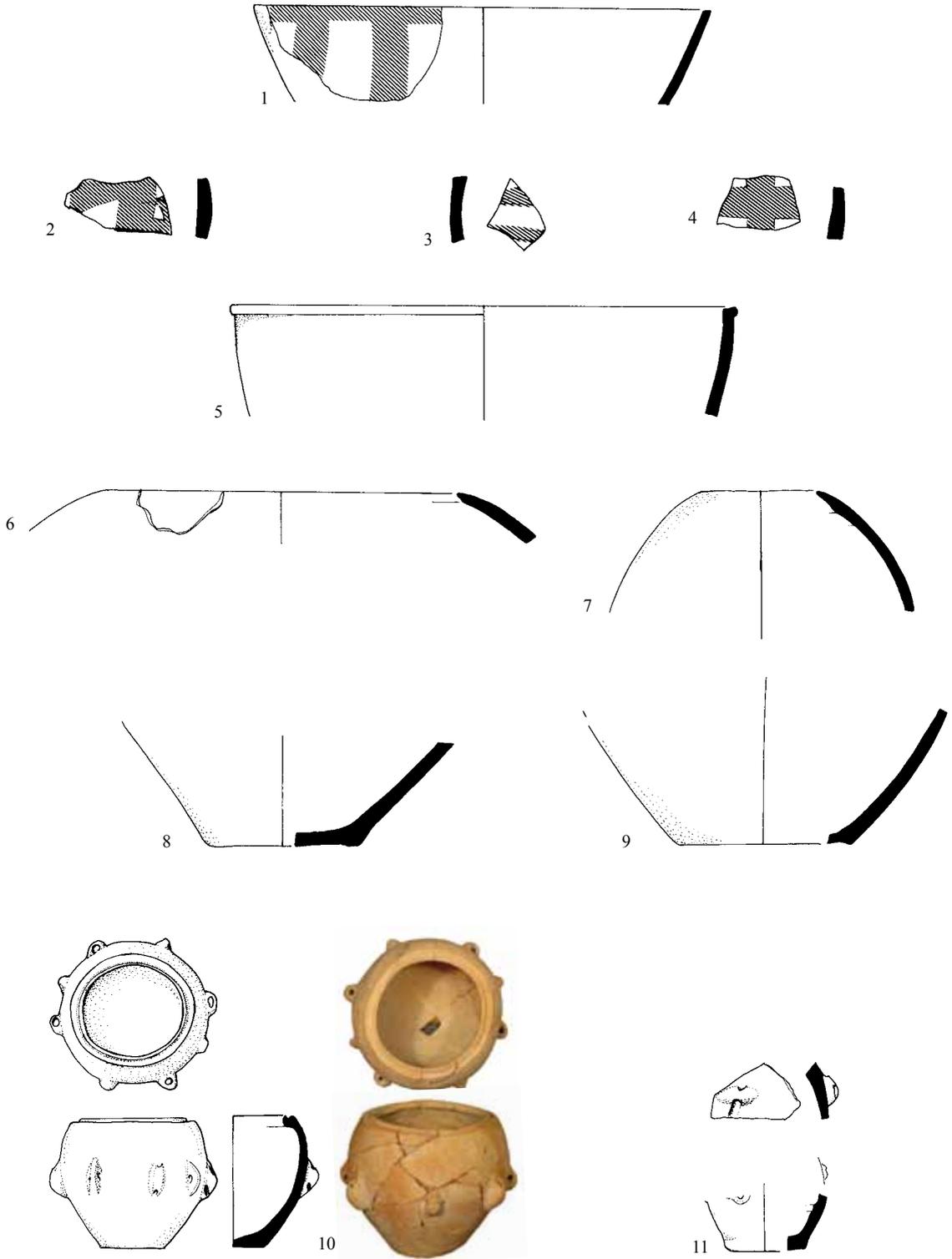


Fig. 14. Cave 1, Chalcolithic pottery.

No.	Type	Locus	Basket	Description
1	Tall cup	122	1081	Wheel-finished
2	Tall cup	125	1096	Wheel-finished
3	Cornet	119	1057	Terminal base fragment
4	Cornet	122	1078.2	Medial piece
5	Fenestrated stand	110	1016	Lower part
6	Fenestrated stand	107	1013	Medial part
7	Fenestrated stand	124	1095	Base fragment; red-painted design on ext.
8	Fenestrated stand	124	1103	Base fragment; red-painted base rim



0 10

Fig. 15. Cave 1, Chalcolithic pottery.

◀ Fig. 15

No.	Type	Locus	Basket	Description
1	Large, deep bowl	122	1078	Red-painted geometric design
2	Large, deep bowl	122	1078	Wall fragment of No. 1; red-painted
3	Large, deep bowl	122	1078	Wall fragment of No. 1; red-painted
4	Large, deep bowl	122	1078	Wall fragment of No. 1; red-painted
5	Basin	128	1112.5	Upper part
6	Holemouth jar	125	1093.1	Rim fragment
7	Holemouth jar	125	1093.2	Upper part
8	Large holemouth jar	113	1075	Base
9	Holemouth jar	125	1101.2	Lower part of No. 7
10	Multiple-handled jar	122	1087	Small, flat-based, guttered rim (for lid?)
11	Multiple-handled jar	125	1101.1	Small, flat base and wall fragment

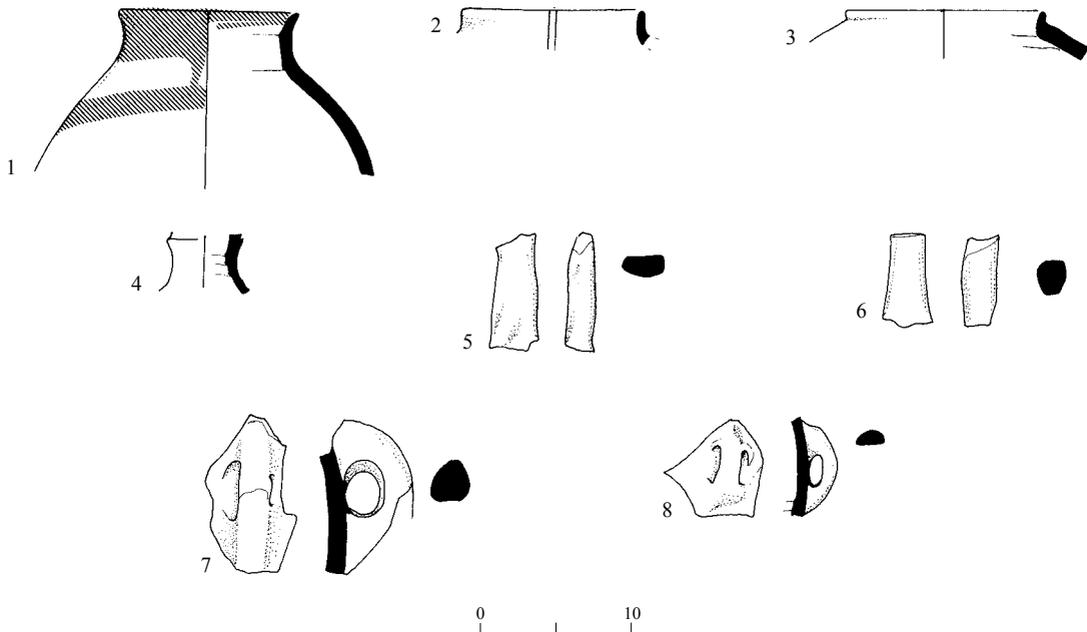


Fig. 16. Cave 1, Chalcolithic pottery.

No.	Type	Locus	Basket	Description
1	Tall-necked jar	124	1102	Red-painted; turning marks visible on int. of rim; coiling joints visible on int.
2	Necked jar	125	1093.3	Traces of red paint on ext. of rim
3	Small, short-necked jar	128	1142	
4	Small churn(?)	128	1115	
5	Spoon/basket handle	131	1150.2	Lime-washed
6	Spoon/basket handle	120	1061	
7	Lug handle	110	1016.2	Large, triangular in section
8	Lug handle	128	1140.5	Large

although still within the EB IA horizon. Apart from the bowls in Fig. 18:6, 10 and 11, these later bowls are red-slipped. The bowls in Fig. 18:7–11 show knife-trimming marks on the lower part of the body.

*Early Bronze Age IB*

Attributed to EB IB are groups of two to three small vessels, usually consisting of a small red-painted, loop-handled jar and a red-painted hemispherical bowl with a single lug

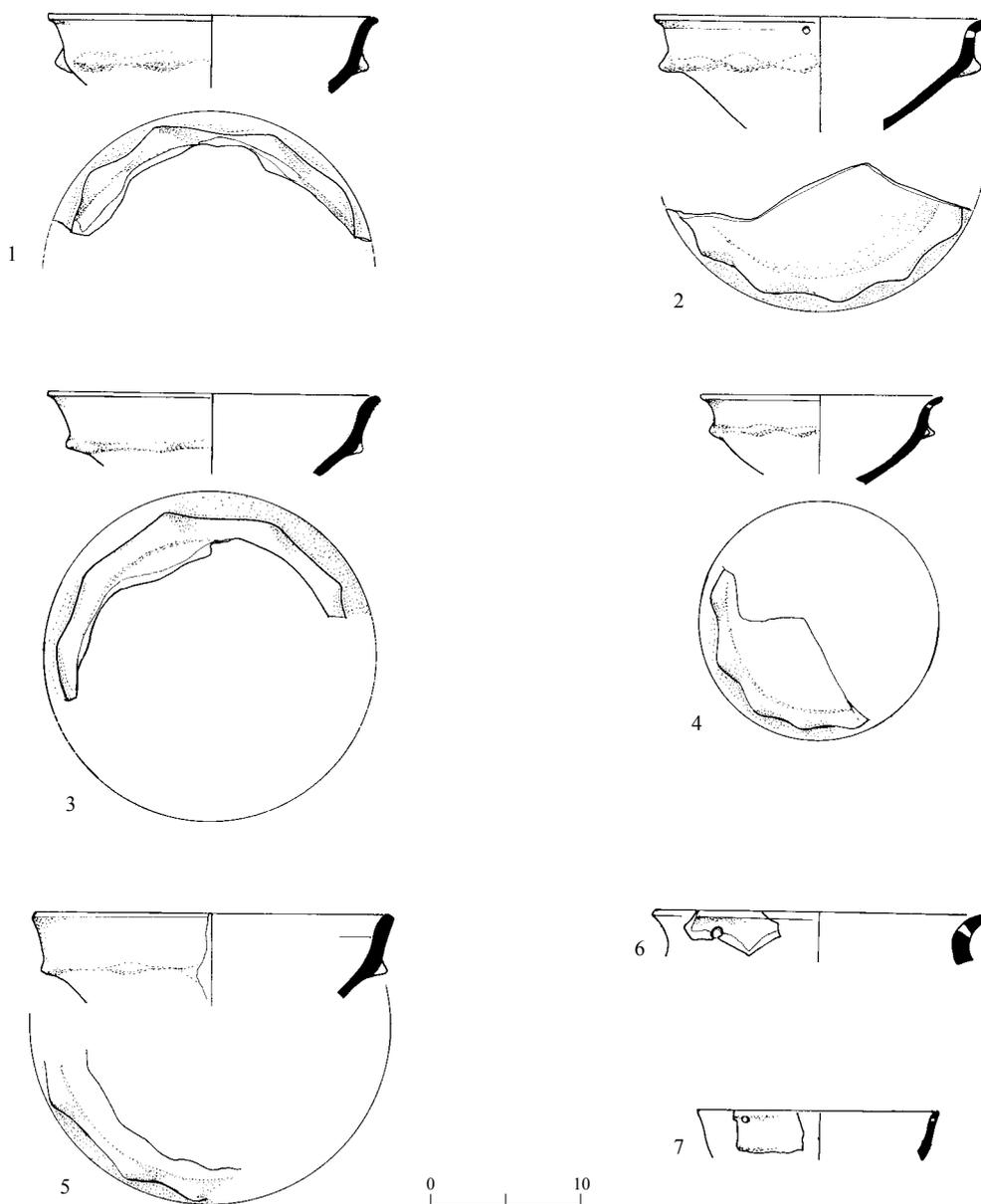


Fig. 17. Cave 1, EB IA pottery: GBW bowls.

◀ Fig. 17

No.	Locus	Basket	Description
1	131	1150	
2	128	1129.3	Perforated rim
3	128	1112.3	
4	124	1106	Perforated rim
5	128	1140.7	
6	128	1140.8	Perforated rim
7	128	1140.6	Perforated rim

Fig. 18 ▶

No.	Type	Locus	Basket	Description
1	Bowl	128	1129	Asymmetric; disk base; red-slipped int. and ext.
2	Deep bowl	114	1037	
3	Necked, flat-based jar	114	1036	Wavy ledge handle
4	Cup	128	1125.3	Crudely made; high loop handle; traces of red paint on ext.
5	Small cup	130	1137	Straight, slightly inclining wall; flat rim; two opposing perforations below rim prior to firing
6	Shallow bowl	128	1126	Rim scraped and inverted as if to fit composite-vessel, e.g., amphoriskos
7	Hemispherical bowl	128	1125.1	Red-slipped int. and ext.
8	Hemispherical bowl	128	1140	Red-slipped int. and ext., possibly belonging to No. 7
9	Small bowl	128	1140.2	Red-slipped int. and ext.; scrape marks visible below carination outside
10	Small carinated bowl	128	1125.2	Vertical, red-painted stripes; scrape marks visible below carination outside; two pre-firing perforations in rim
11	Small bowl	124	1105	Highly fired

handle, found especially in the central-west and northwestern parts of the cave (L116 in particular). Each individual group probably represents a single (secondary) burial. The EB IB assemblage includes eight small, hemispherical bowls with single lug handles (Fig. 19:1–8), some with an omphalos base; two small, flat-based cups (Fig. 19:9, 10); a small, high loop-handled cup (Fig. 19:11); five high loop-handled jugs and juglets (Fig. 20:1–5); two amphoriskoi (Fig. 20:6, 7); a ledge-

handled, pillar-spouted jar (Fig. 20:8); a necked, flat-based jar with vertical red-painted stripes (Fig. 21:1); a non-diagnostic base fragment (Fig. 21:2); and a biconical red-painted potstand (Fig. 21:3).

The amphoriskoi and some of the jugs and juglets were manufactured from two separate parts joined together in a later stage of production (see below), coined the ‘dual mode’ production technique (for a discussion of this technique, see van den Brink and Grosinger 2004).

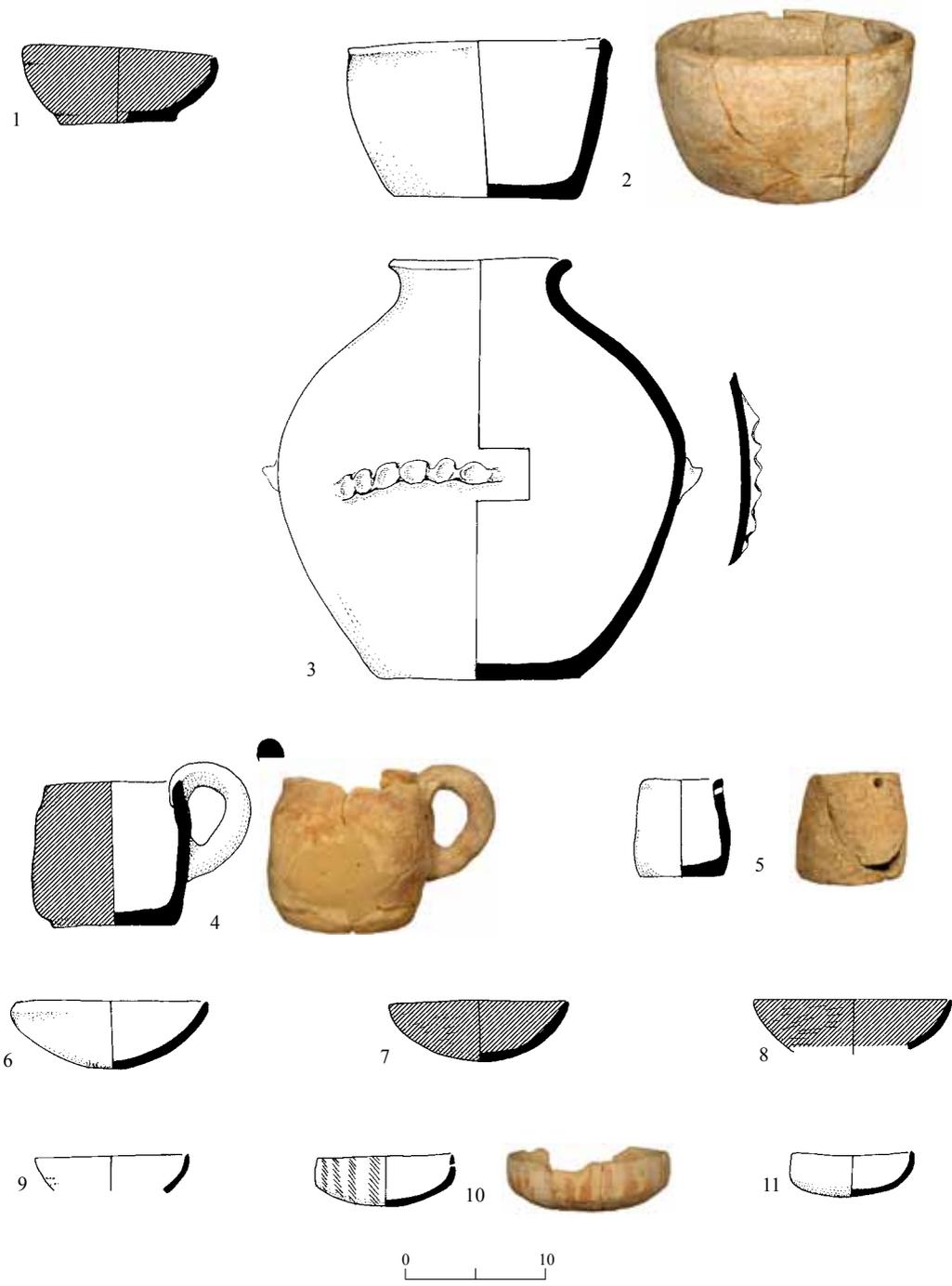


Fig. 18. Cave 1, EB IA pottery.

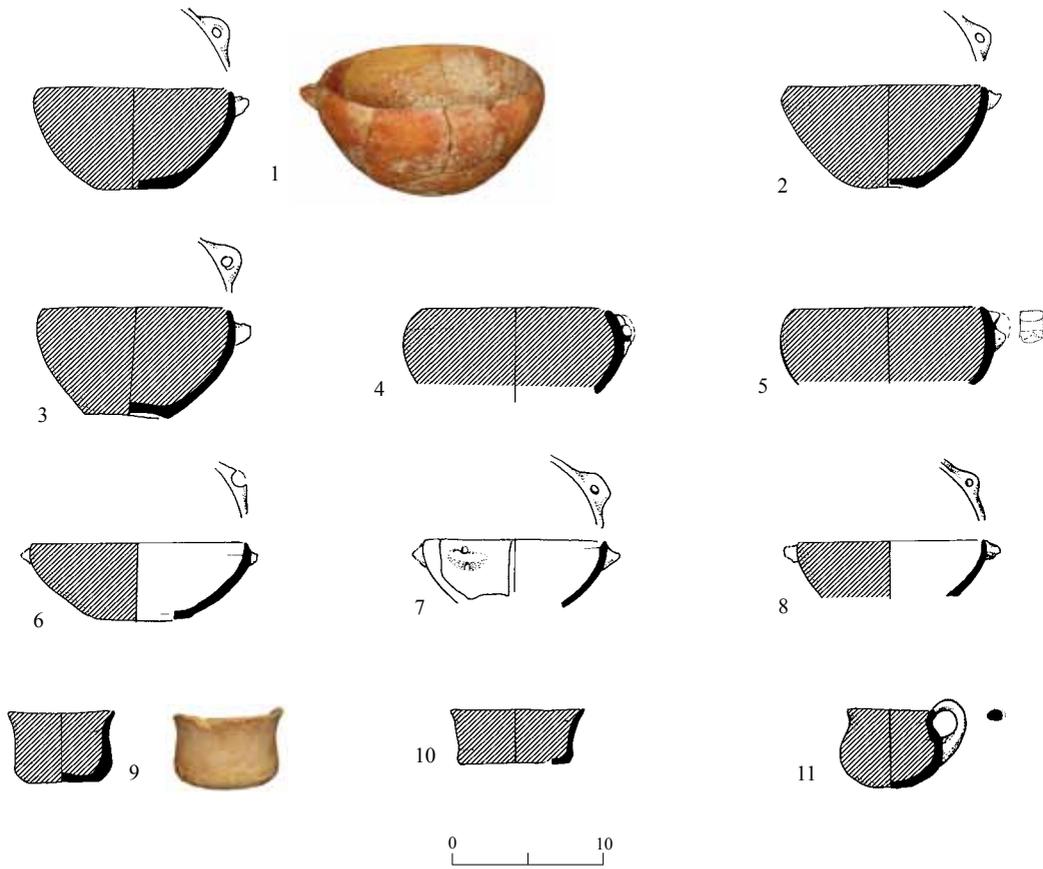


Fig. 19. Cave 1, EB IB pottery.

No.	Type	Locus	Basket	Description
1	Hemispherical bowl	116	1084	One vertically pierced lug handle; red-slipped int. and ext.; flat base
2	Hemispherical bowl	128	1118	One vertically pierced lug handle; red-slipped int. and ext.; flat base
3	Hemispherical bowl	116	1064	One vertically pierced lug handle; red-slipped int. and ext.; flat base
4	Hemispherical bowl	116	1085	One horizontally pierced lug handle; red-slipped int. and ext.
5	Hemispherical bowl	116	1083 1084	One horizontally pierced lug handle; red-slipped int. and ext.
6	Shallow bowl	116	1050.1	Two vertically pierced lug handles; traces of red slip on ext.
7	Shallow bowl	100	1007	Two vertically pierced lug handles
8	Shallow bowl	116	1050.2	Two vertically pierced lug handles; traces of red slip on ext.
9	Small, flat-based cup	124	1099	Red-slipped int. and ext.
10	Small, flat-based cup	116	1045	Red-slipped int. and ext.
11	Small, high loop-handled cup	113	1148	Red-slipped int. and ext.

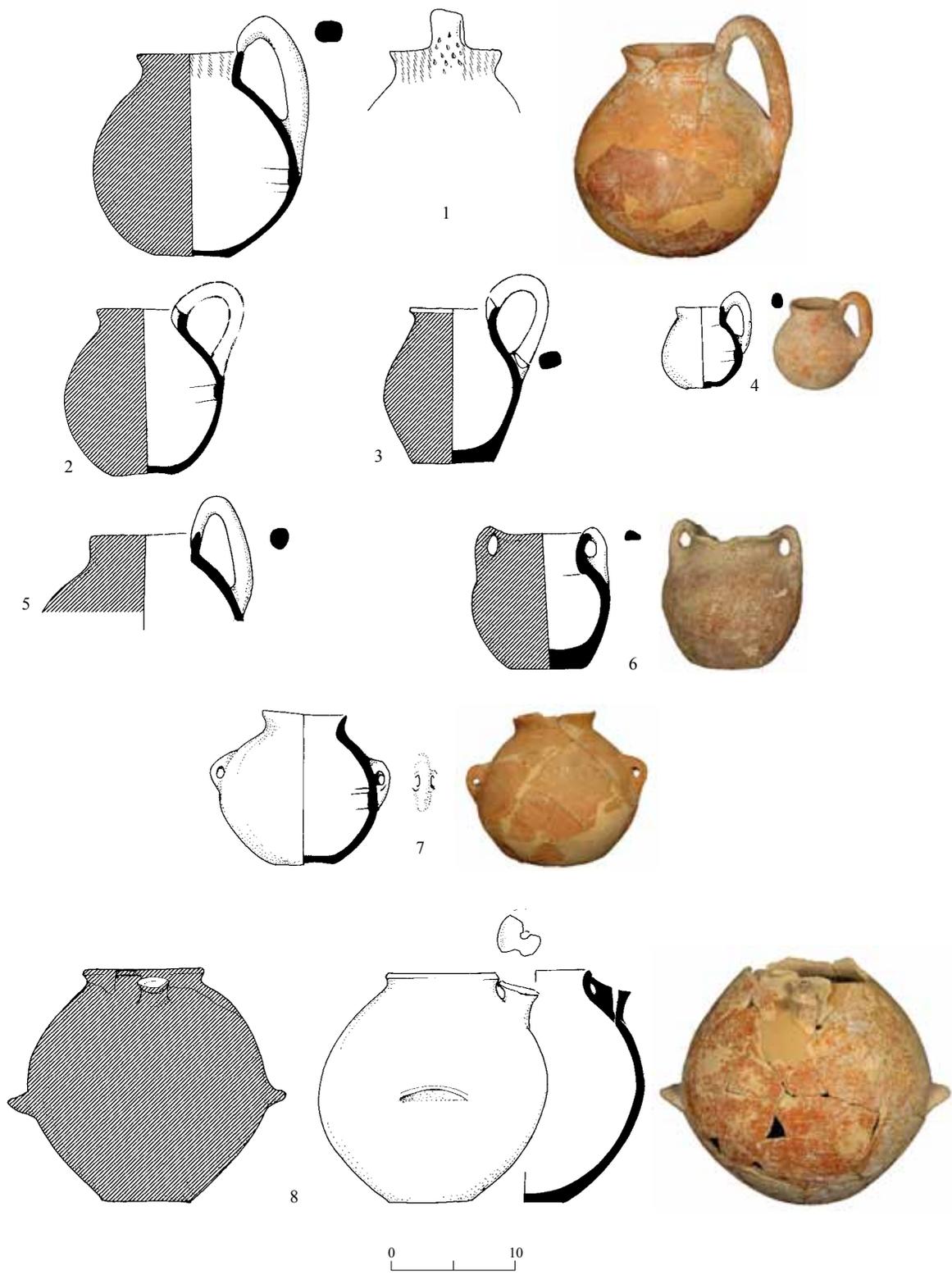


Fig. 20. Cave 1, EB I pottery.

◀ Fig. 20

No.	Type	Locus	Basket	Description
1	High-loop-handled jug	116	1063	Red-slipped ext.; vertical red-painted lines on int. rim; punctures on int. handle attachment; omphalos base
2	High-loop-handled jug	128	1118	Red-slipped ext.; soot mark on ext.; omphalos base, made in dual-mode technique
3	High-loop-handled jug	118	1048	Red-slipped ext.
4	High-loop-handled juglet	116	1085	Miniature; red-painted; omphalos base, made in dual-mode technique
5	High-loop-handled jug	116	1058	Red-slipped ext.
6	Flat-based amphoriskos	128	1120	Traces of red slip ext.
7	Amphoriskos	116	1086	Two horizontally pierced lug handles; traces of red-slipped ext.; made in dual-mode technique
8	Flat-based, pillar-spouted jar	116 124	1082 1039	Ledge handles; red-slipped ext.

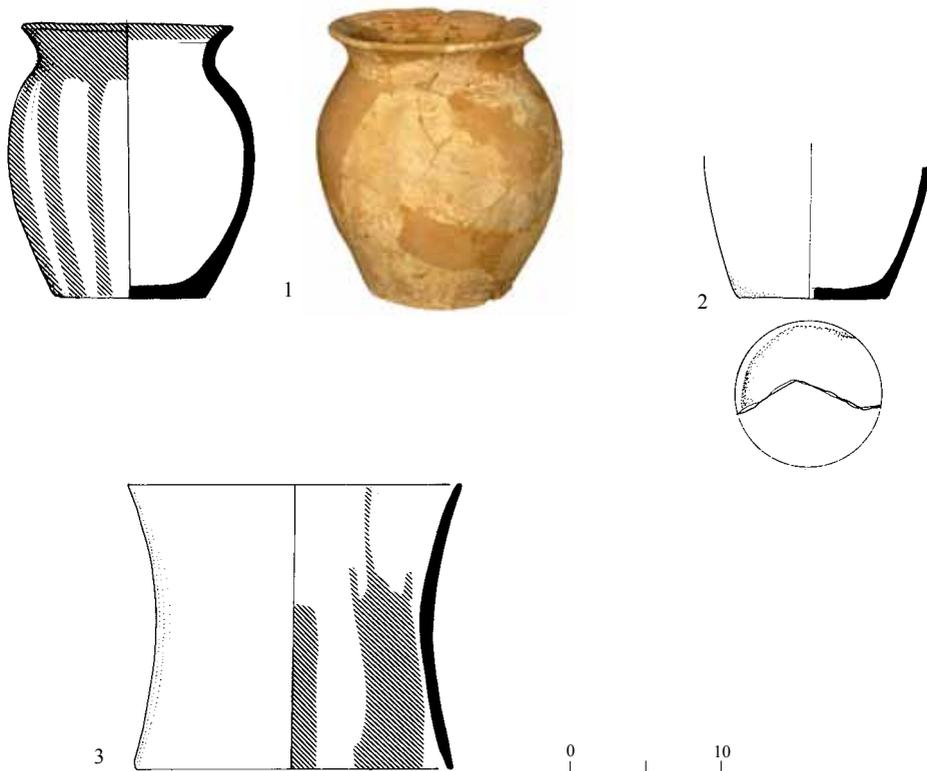


Fig. 21. Cave 1, EB I pottery.

No.	Type	Locus	Basket	Description
1	Necked, flat-based jar	128	1125.4	Vertical, red-painted stripes on a white slip (pyjama-style)
2	Large jar	124	1128	Flat-base; smear marks on int.
3	Potstand	128 128	1124 1142	Large; thin-walled; red-painted int. and ext.

*Cave 2**Chalcolithic Period*

*Ossuaries.*— The very fragmentary remains of a domiform ossuary (oriented east–west, opening to the west; L111, B1021, B1022), with a sculpted nose and two female breasts applied to its facade (Fig. 22), were found resting on three flat stones placed directly on the cave’s bedrock floor. A few fragments of a second domiform ossuary (L111, B1030; not illustrated) were retrieved to its east, against the cave wall. A poorly preserved deep bowl (L109, B1014; Fig. 23), also presumably used as a bone receptacle, was found between the two domiform ossuaries.

*Related Funerary Pottery.*— Three small, wheel-finished, V-shaped bowls stood along the northern and eastern sides of the domiform ossuary with the sculpted nose, and a small holemouth jar (Fig. 24:2) was found at the back of the ossuary. A medium-sized V-shaped bowl (Fig. 24:1) was recovered close to the second domiform ossuary in the rear of the cave.

*Cave 3**Chalcolithic Period*

*Ossuaries.*— Remains of three domiform ossuaries were uncovered. The most complete specimen has red-painted bands on all four sides (Fig. 25) and on the facade a sculpted nose flanked by two applied, button-like eyes. A second specimen is attested by a left corner fragment of a facade with a red-painted, geometric design on both sides (Fig. 26:1). The fabric of this fragment differs from that of the first ossuary. A third ossuary is represented by a wall fragment with applied rope decoration (Fig. 26:2).

*Related Funerary Pottery.*— Very few diagnostic pottery fragments survived from this cave. Apart from base and rim fragments of a minimum of six small, wheel-finished, V-shaped bowls, they include a small, near-

hemispherical bowl with a red-painted rim (Fig. 27:1), a rim sherd of a holemouth jar (Fig. 27:2) and a spout with red-painted decoration (Fig. 27:3). The holemouth jar and in particular the small near-hemispherical bowl seem to be characteristic of EB I (for similar bowls uncovered in Cave 1, see Fig. 18:6–9), thus indicating a reuse in the later period, possibly also for burial purposes. In addition, a handful of GBW body sherds (not illustrated) were also found in this cave, corroborating a reuse of the cave as early as EB IA.

*Cave 4**Chalcolithic Period*

*Ossuaries.*— The sparse ossuary remains found in this partially excavated cave consist of the right corner of the facade of a domiform ossuary (Fig. 28:1) and a base fragment of another example bearing the impression of a reed mat (Fig. 28:2). Sherds of a deep basin with a red-painted garland design around its rim (Fig. 28:3) and a short-necked storage jar with a red-painted design and small, vertically pierced lug handles (Fig. 28:4), were also recovered; both most likely functioned as bone receptacles.

*Related Funerary Pottery.*— Related funerary pottery, equally sparse, includes a minimum of four small, wheel-finished, V-shaped bowls (Fig. 29:1–4), a single fragment of a fenestrated pedestal (Fig. 29:5) and red-painted rim fragments of two large, deep bowls (Fig. 29:6, 7). A shoulder fragment of a jar decorated with incisions (Fig. 29:8) and a flat base of a large storage jar (Fig. 29:9), although they originated in the same layer as the Chalcolithic pottery (above), appear to be of EB I date and are possibly intrusive.

*Early Bronze Age I*

The presence in this cave of fragments of two GBW bowls (Fig. 30:1, 2) indicates, as in Caves 1 and 3, a reuse during EB IA. The small hemispherical bowls (Fig. 30:3, 4) probably

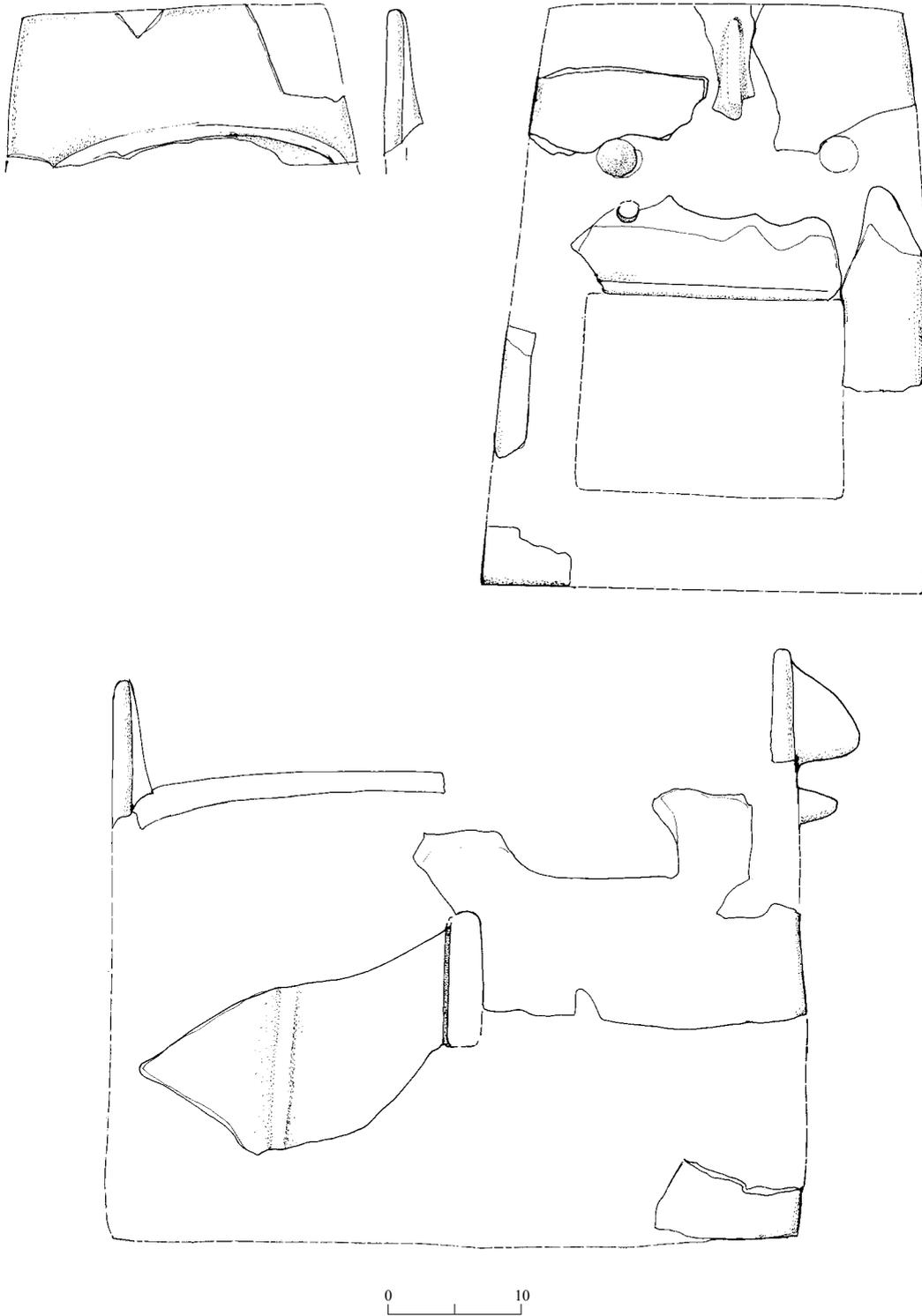


Fig. 22. Cave 2, domiform ossuary with sculpted nose and female breasts (L111, B1022).

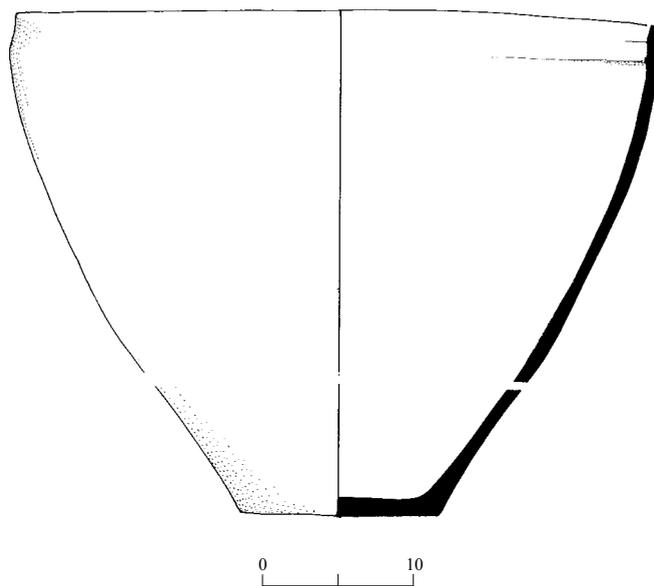


Fig. 23. Cave 2, large, deep, thin-walled ossuary bowl (L109, B1014).

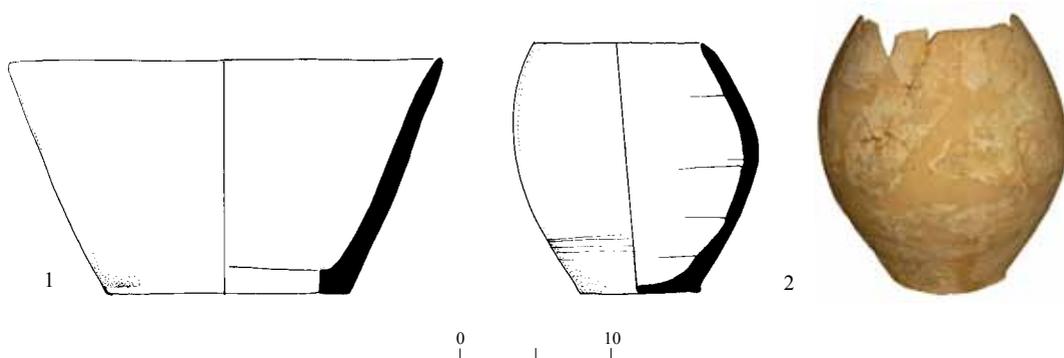


Fig. 24. Cave 2, Chalcolithic pottery.

No.	Type	Locus	Basket
1	V-shaped bowl	111	1023
2	Holemouth	111	1029

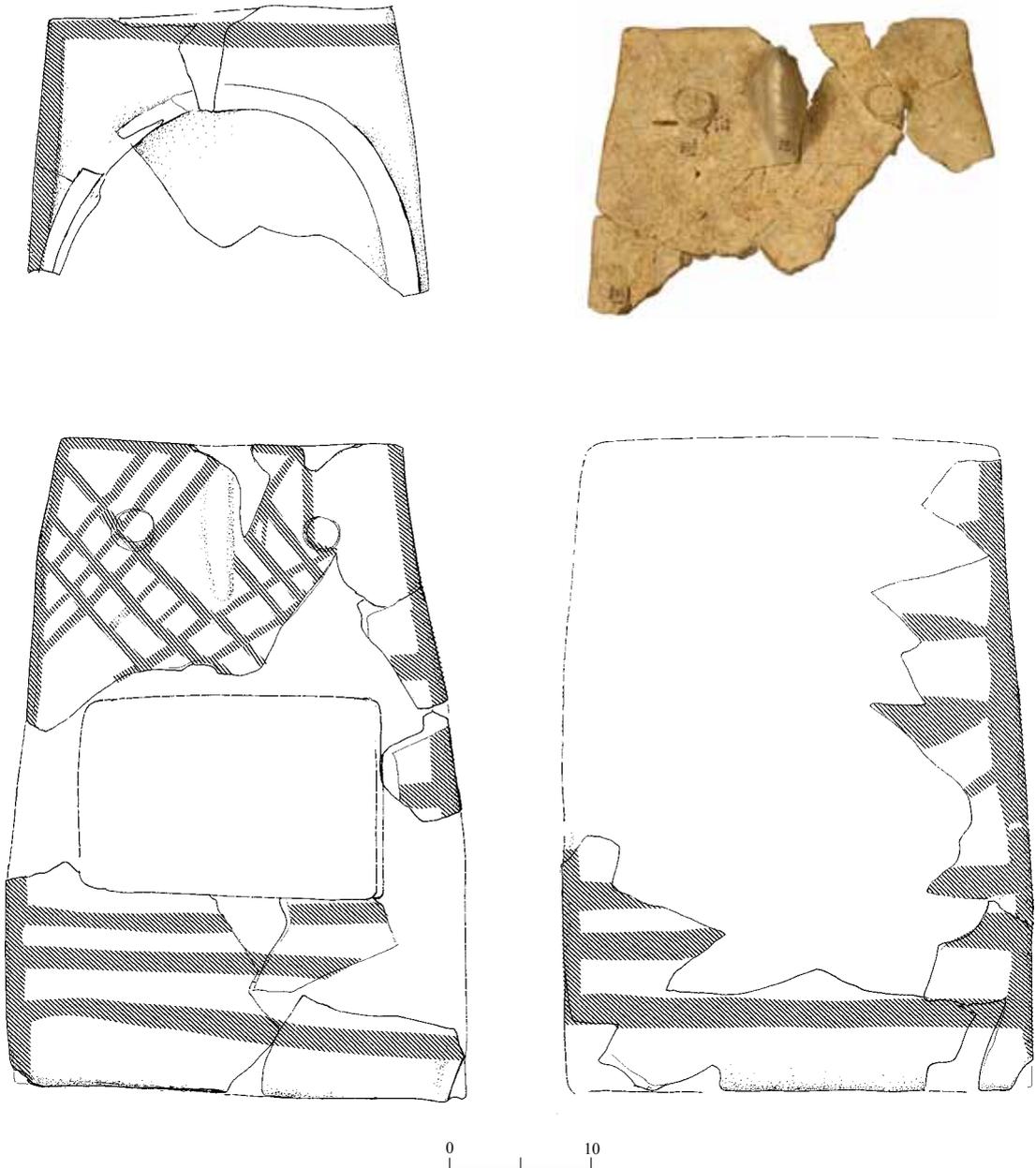
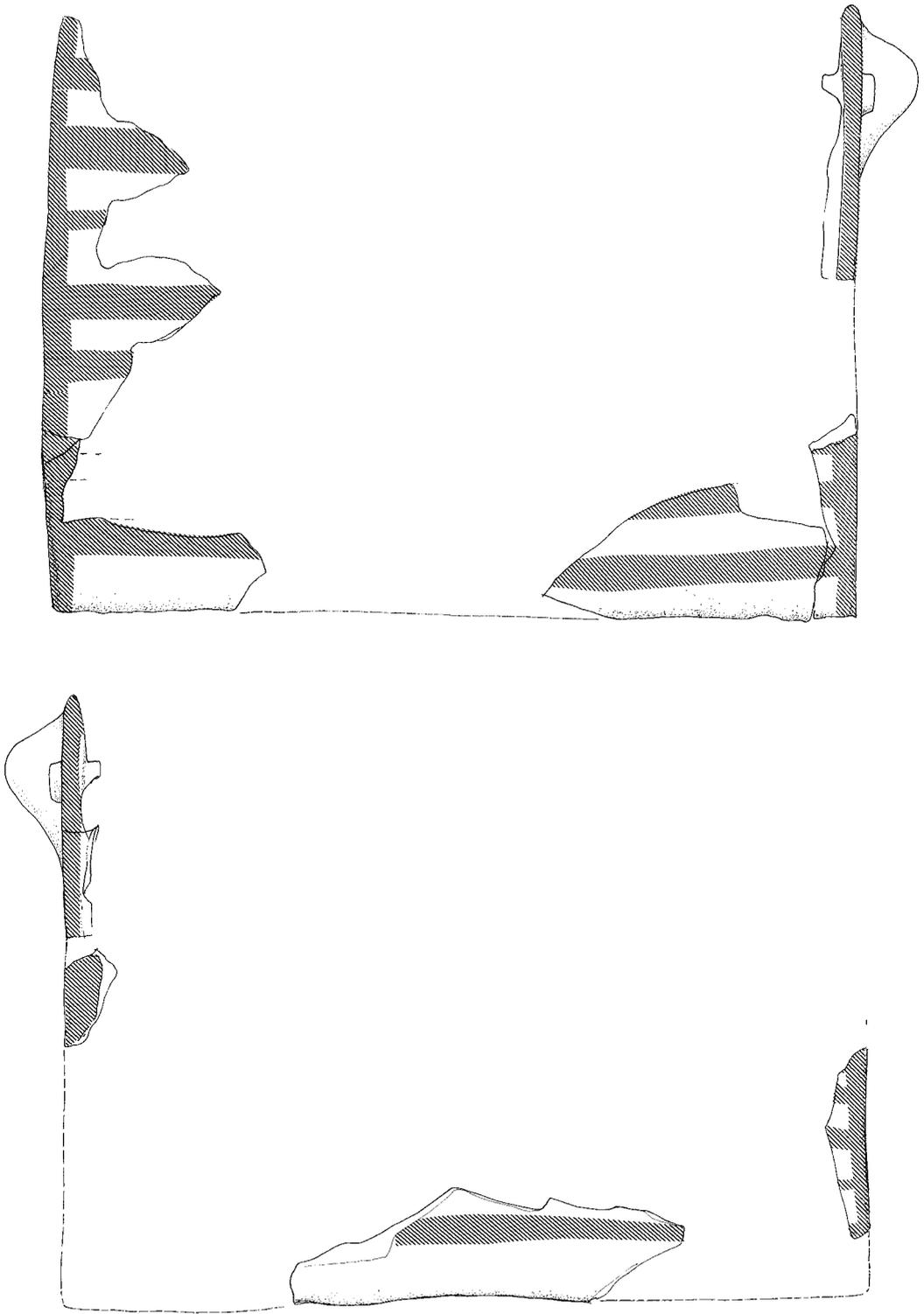


Fig. 25. Cave 3, four sides of a domiform ossuary (see also next page), red-painted with applied, sculpted nose and eyes on facade (L127, B1131, B1132, B1136).



0 10

Fig. 25. (cont.).

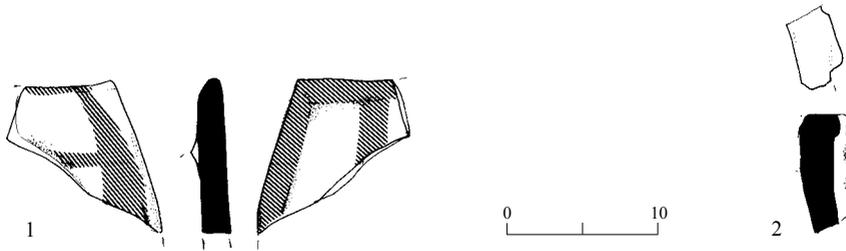


Fig. 26. Cave 3, domiform ossuaries (L127).

No.	Type	Basket	Description
1	Ossuary	1123.1	Corner fragment of facade; red painted
2	Ossuary	1123.2	Fragment with applied rope decoration

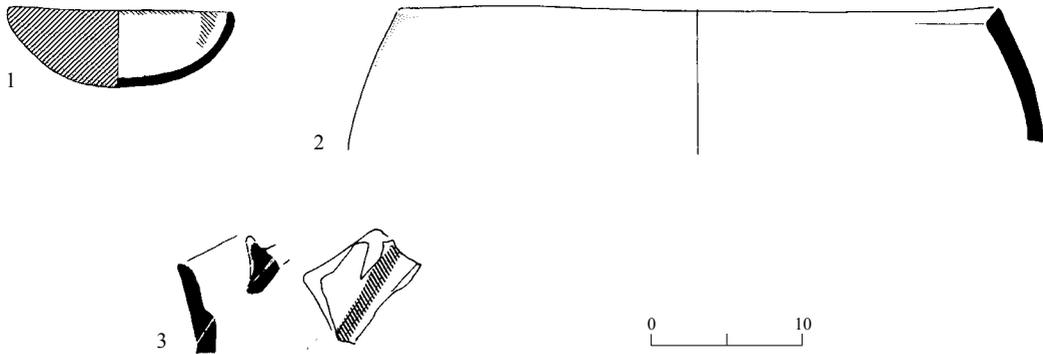


Fig. 27. Cave 3, Chalcolithic and EB I pottery (L127).

No.	Type	Basket	Description
1	Hemispherical bowl	1104	Red-slipped ext.; drip paint int.
2	Holemouth jar	-	
3	Spout	1135	Red-painted stripe

Fig. 28 ▶

No.	Type	Basket	Description
1	Ossuary	1226	Corner fragment of facade
2	Ossuary	1225	Base with reed-mat impression
3	Deep basin	1225	Red-painted garland design; probably a secondary bone receptacle
4	Short-necked, lug-handled jar	-	Red-painted design; probably a secondary ossuary jar

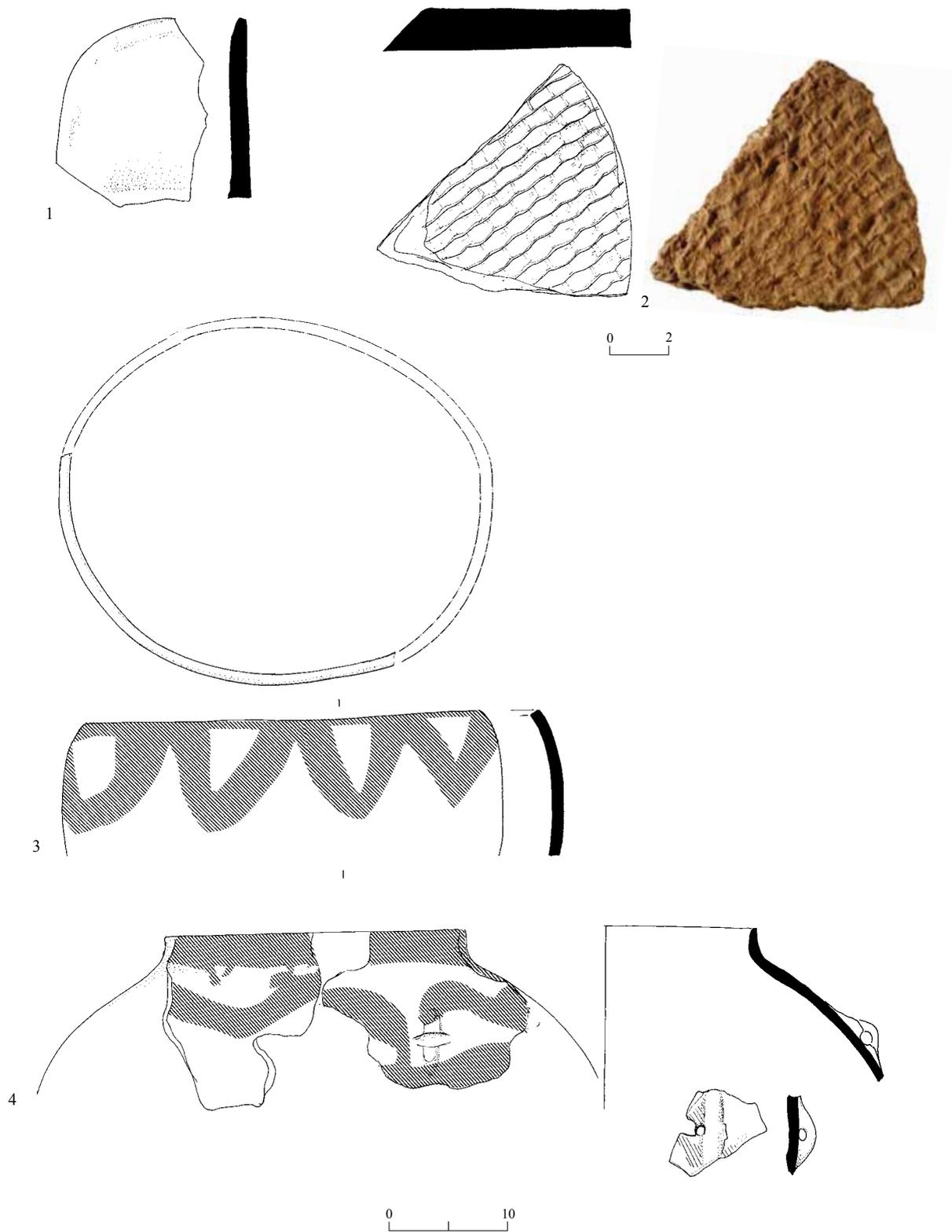


Fig. 28. Cave 4, ossuaries and bone receptacles (L144).

belong to the same horizon. The presence of several red-slipped bowls (Fig. 30:5-8), at least one of which was provided with a single, horizontally-pierced lug handle (Fig. 30:8),

and a single pillar-spout fragment (Fig. 30:9), are evidence that the cave was reused, or continued in use, during EB IB, as observed in Cave 1.

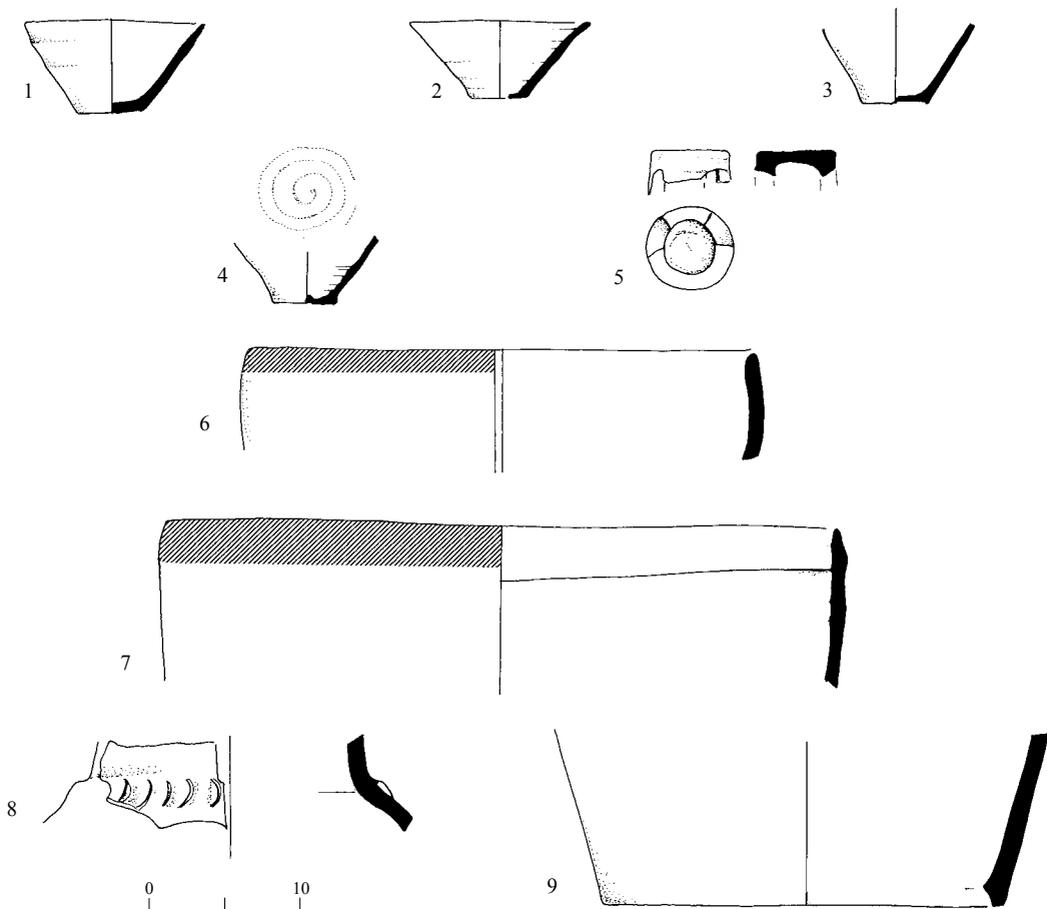


Fig. 29. Cave 4, Chalcolithic and EB I pottery.

No.	Type	Locus	Basket	Description
1	Small V-shaped bowl	141	1178	
2	Small V-shaped bowl	143	1202	
3	Small bowl	143	1208	Tool mark on base
4	Small bowl	144	1225.1	Spiral/coiling marks int.
5	Fenestrated bowl stand	147	1232	Medial fragment
6	Large deep bowl	143	1209	Red-painted ext. rim
7	Deep basin	143	1214	Red-painted ext. rim
8	Neck of jar	143	1197	Punctured decoration around neck
9	Large jar	133	1171	Base

*Middle Bronze Age IIA*

This is the only cave among the five excavated during this excavation in which a post-EB I usage could be positively identified. This later usage was dated on the basis of the finds to MB IIA and LB IIB.

The presence of MB IIA is represented by a single rim sherd of a cooking pot (Fig. 31). Needless to say, based on a single sherd, little can be determined concerning the nature of the MB IIA presence, other than to note the domestic nature of the vessel type.

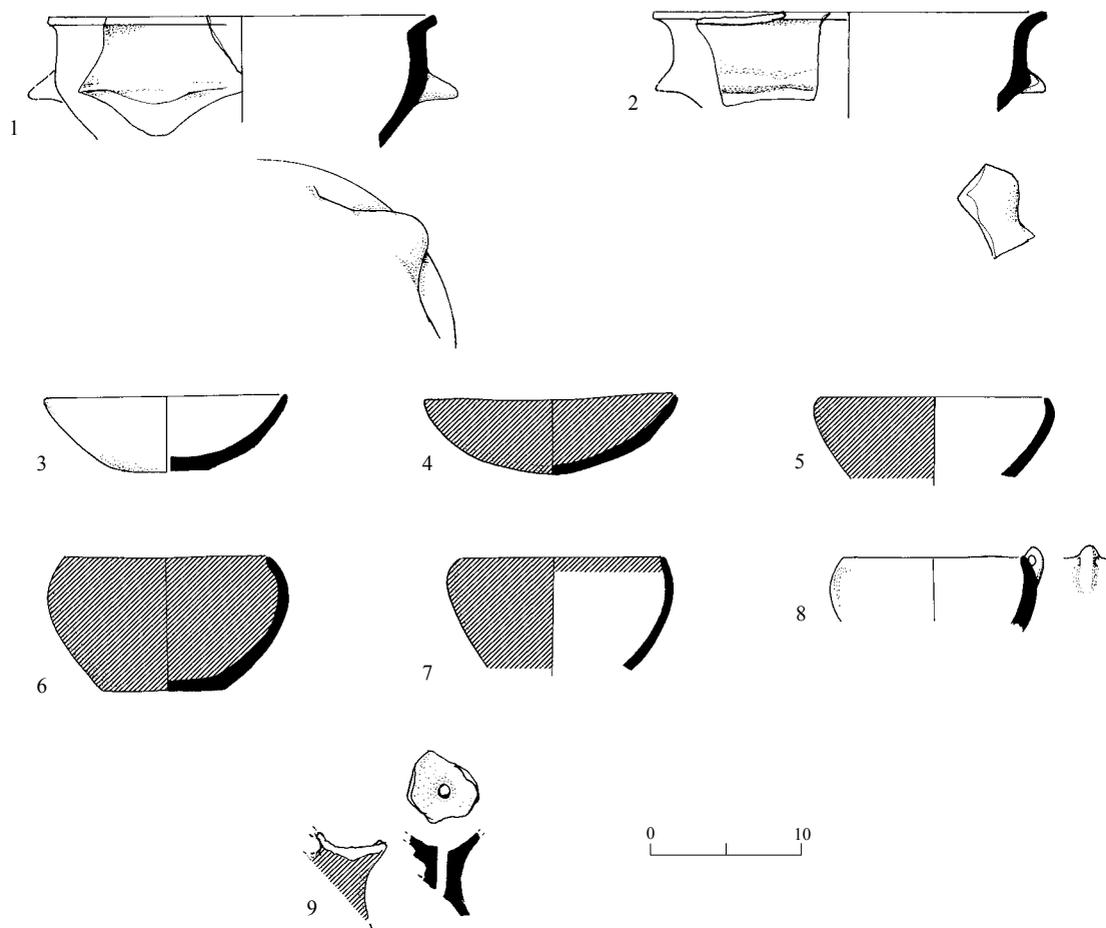


Fig. 30. Cave 4, EB I pottery.

No.	Type	Locus	Basket	Description
1	GBW bowl	144	1211	
2	GBW bowl	143	1192	
3	Small bowl	133	1171	
4	Small bowl	145	1213	Red-slipped int. and ext.
5	Hemispherical bowl	145	1210	Red-slipped ext.
6	Closed bowl	145	1217	Red-slipped int. and ext.
7	Bowl	147	1232	Red-painted ext. and int. rim
8	Closed bowl	145	1217.2	Red-polished ext.
9	Pillar spout	142	1182	Red-slipped

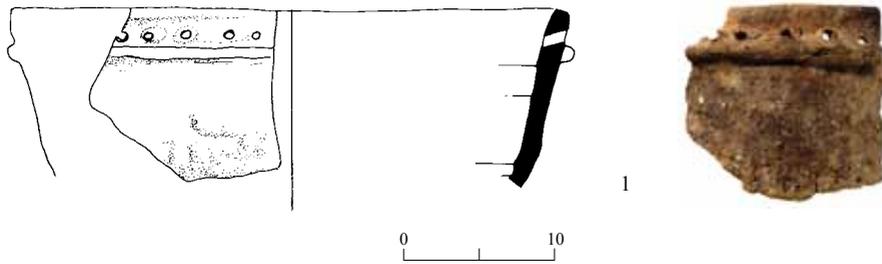


Fig. 31. Cave 4, MB IIA cooking pot with perforated rim and applied rope decoration, soot marks on exterior (L144, B1237).

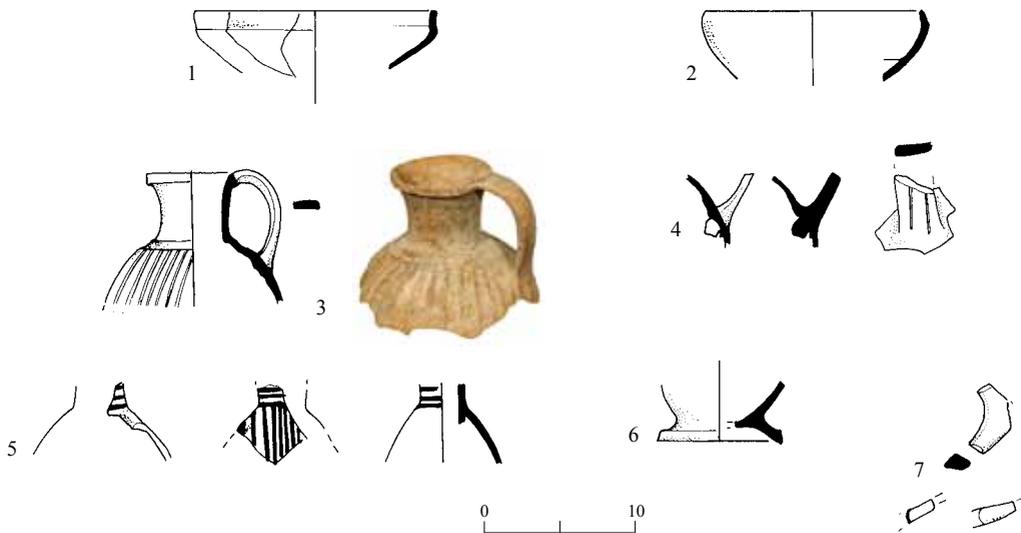


Fig. 32. Cave 4, LB IIB pottery: local wares and Cypriot imports.

No.	Type	Locus	Basket	Description
1	Bowl	145	1212	
2	Bowl	147	1232	
3	Bucherino	145	1219	Painted
4	Bucherino(?)	148	1185	Handle fragment
5	Jar	147	1232	Painted
6	Ring base	147	1182	Black-slipped
7	Wish-bone handle	147	1184	

*Late Bronze Age IIB*

The LB IIB burial phase is represented by several metal finds (see below), fragments of at least two locally produced bowls (Fig. 32:1, 2), as well as a number of Cypriot imports (Fig. 32:3–7), including fragments of two bucherino

jars (Fig. 32:3, 4), a painted neck/shoulder fragment of a jar (Fig. 32:5), a black-slipped ring-base (Fig. 32:6) and a fragment of a ‘wish-bone’ handle (Fig. 32:7), presumably belonging to a milk bowl.

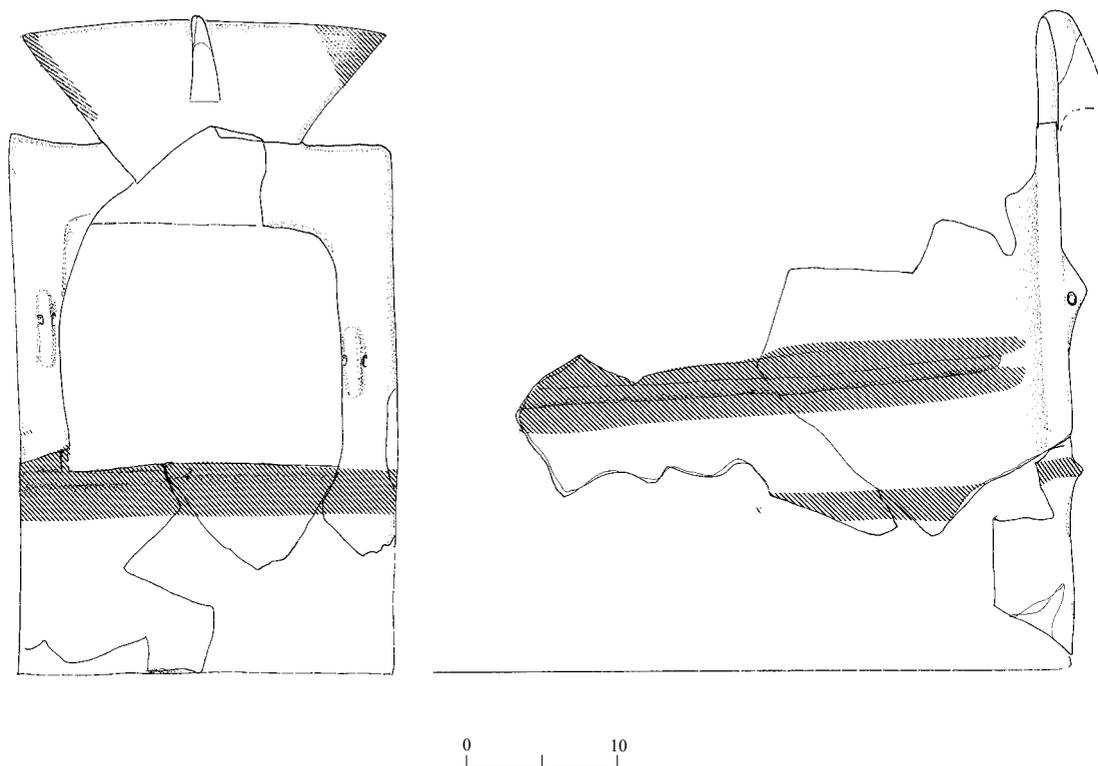


Fig. 33. Cave 5, domiform ossuary with sculpted nose on facade, door with two horizontally pierced lugs, red-painted bands (L139, B1234; L146, B1226).

### *Cave 5*

#### *Chalcolithic Period*

*Ossuaries.*— Among the ossuary remains retrieved from the floor of this cave are three fragmentary facades of domiform ossuaries bearing a sculpted nose (Figs. 33; 34:1, 2). While eyes are apparently absent on two of the facades, they are indicated on the example represented in Fig. 34:1 by the application of a clay nail(s) or button(s). Clay nails, representing eyes or an architectural structural detail, are encountered on fragments of another five domiform ossuaries (e.g., Fig. 34:3–5). Figure 34:3 and 5 both represent the right upper corner of a facade and are both decorated

with an elaborate red-painted geometric design. The example in Fig. 34:4 forms part of the left side of a facade, with an equally elaborate red-painted design. It is possible that three additional red-painted corner fragments (Figs. 35:1–3) represent additional facades or perhaps are parts of the back walls of the ossuaries presented in Figs. 33–35. Figure 35:4 represents one of two ‘door jambs’ or ‘window frames’ that delineate the opening in the ossuary’s facade. The opening was closed by inserting a stick horizontally through the lugs and the lid or ‘door’ of the ossuary, an example of which is the red-painted lid/door in Fig. 36:4 (compare, for instance, Perrot and Ladiray 1980:24, Fig. 25). Additional ossuary fragments are presented in Fig. 36:1–3.

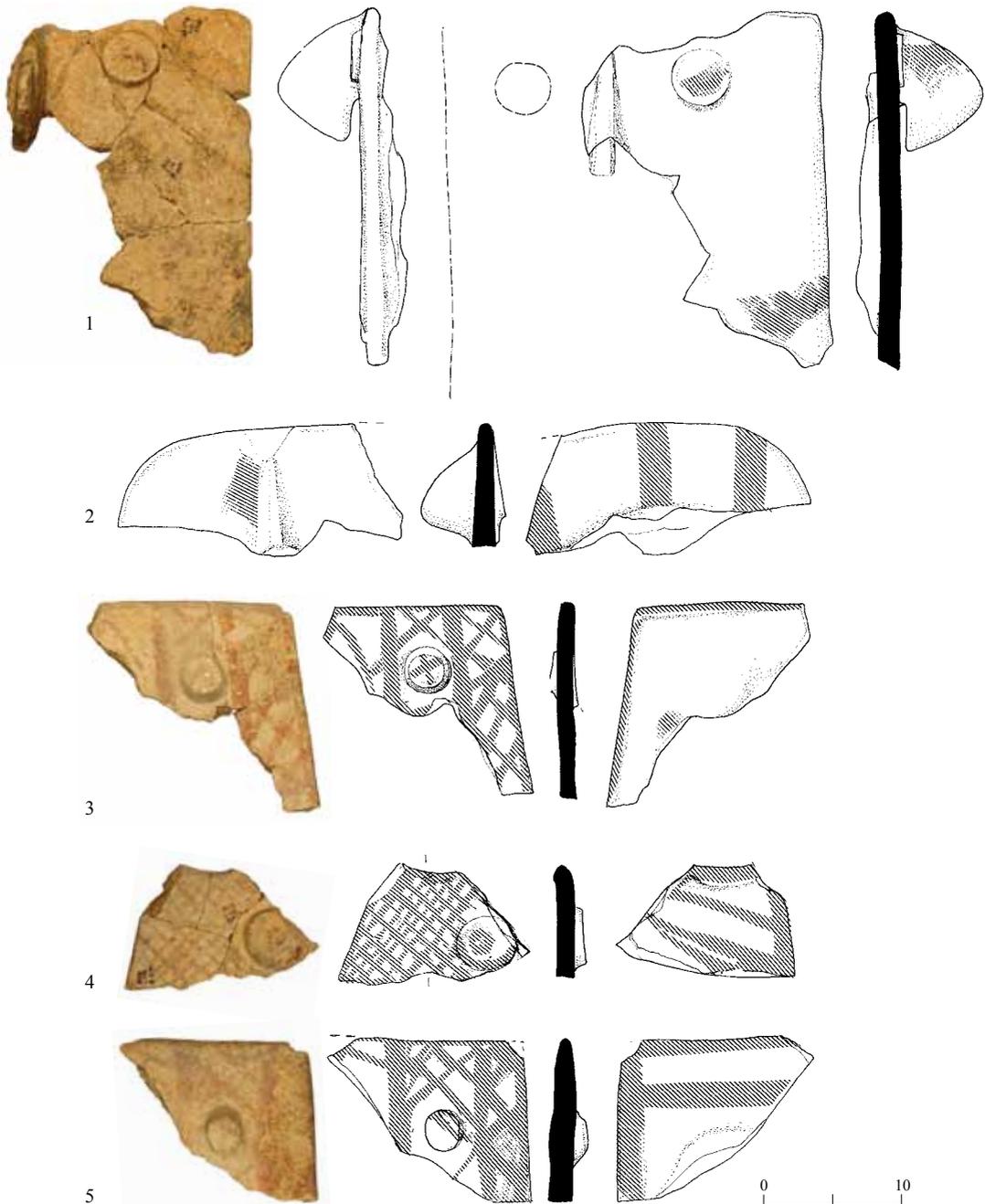


Fig. 34. Cave 5, domiform ossuaries.

No.	Locus	Basket	Description
1	139	1241 1244	Right corner fragment of facade; sculpted nose; applied clay nail (eye?) left of nose
2	139	1198 1241 (3×) 1247	Left corner fragment of facade; sculpted nose; red-painted; curve/inclination of roof visible at back
3	139	1234 1235 1238	Right corner of facade; applied nail; red-painted lattice design on front and back; curve/inclination of roof visible at back
4	146	1228	Fragment of facade; red-painted lattice on front; bands on back; applied clay nail; edge of small (circular?) 'window'
5	139	1238	Right corner of facade; applied clay nail; red-painted lattice design on front (and on nail); bands on back

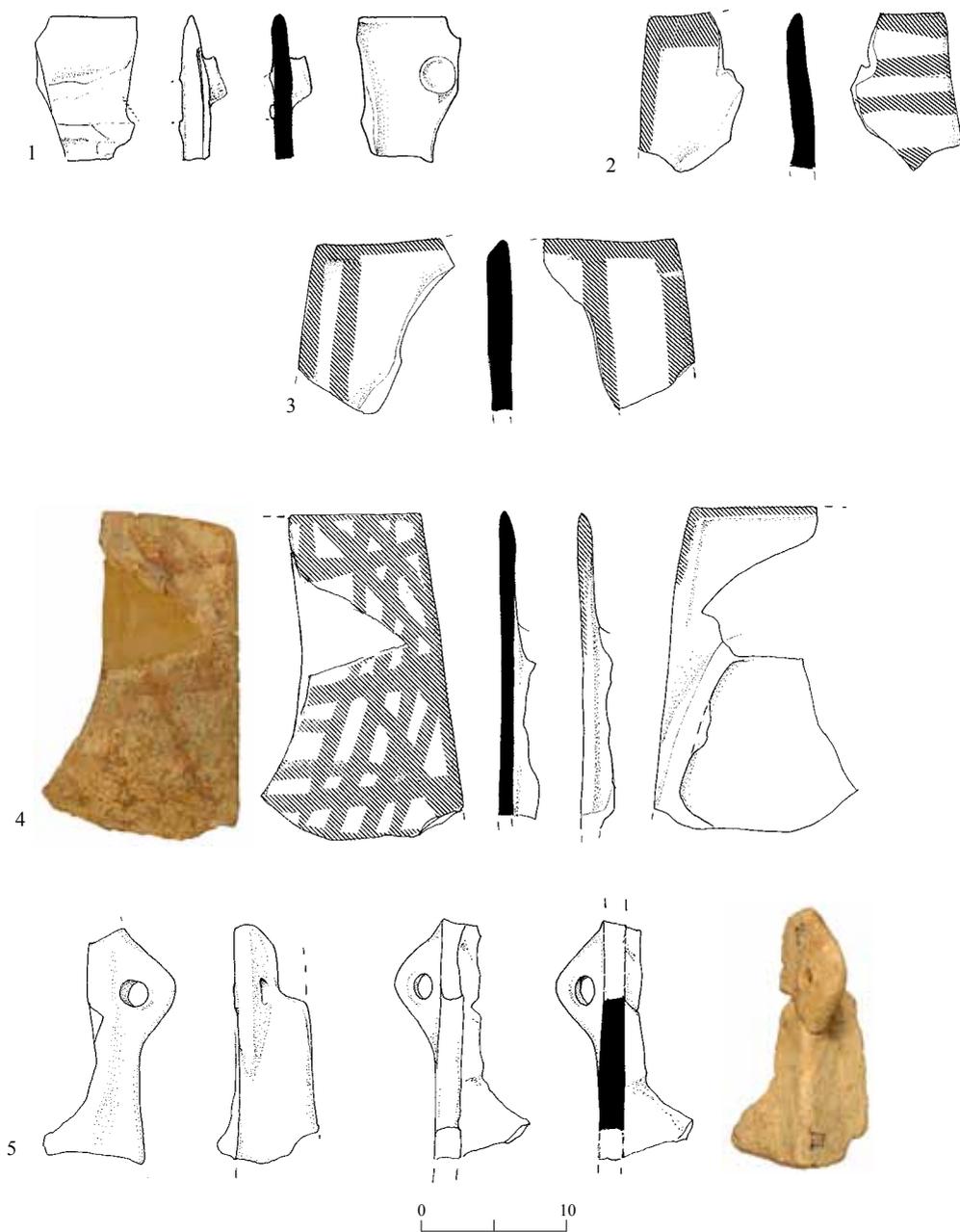


Fig. 35. Cave 5, domiform ossuaries.

No.	Locus	Basket	Description
1	-	-	Upper part of facade; applied clay nail; two layers of applied clay visible at back
2	139	1209	Right-hand corner of facade; red-painted horizontal bands on front and back
3	139	1249	Right-hand corner of facade; red-painted horizontal bands on front and back
4	-	-	Right-hand corner of facade; red-painted lattice design on front; red band on back; beginning of edge of roof visible on back
5	139 146	1238 1226	Left-side door jamb; horizontally pierced lug handle

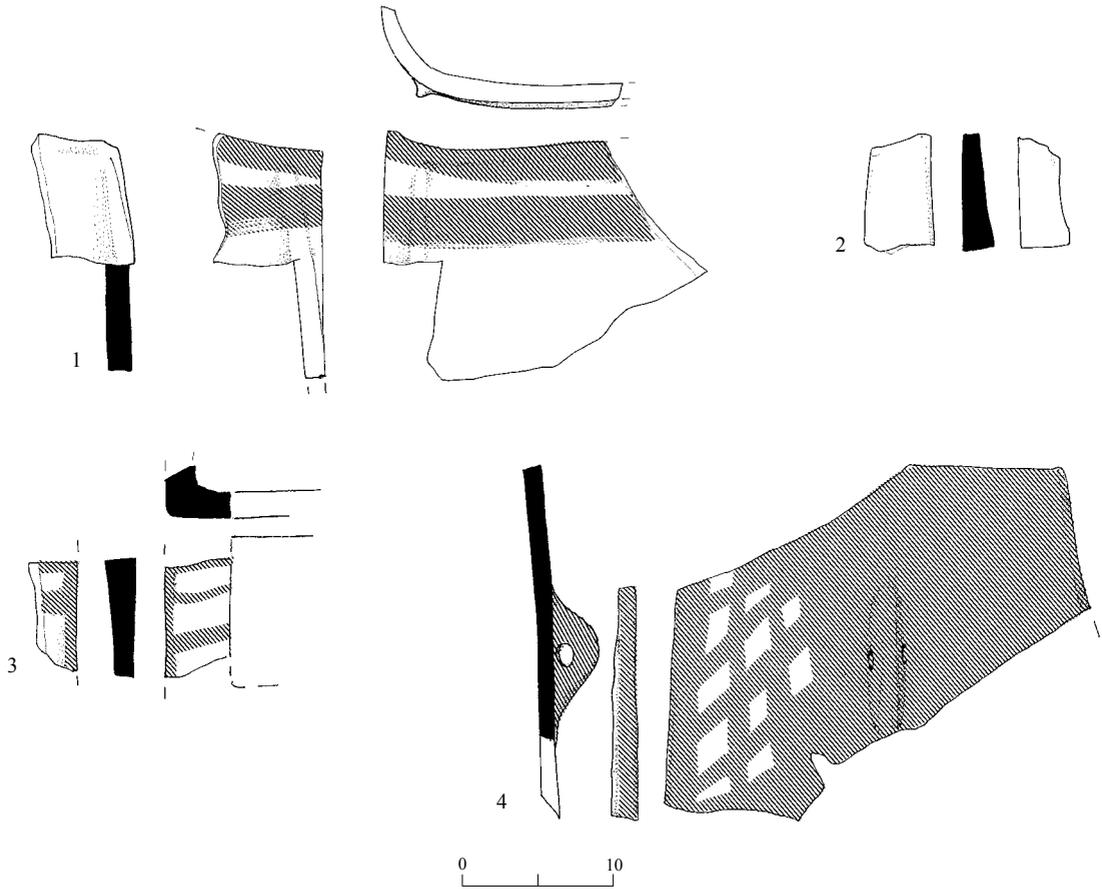


Fig. 36. Cave 5, domiform ossuaries.

No.	Locus	Basket	Description
1	139	1222	Left-side, back corner and roof; red-painted bands
2	-	-	Fragment of door jamb
3	-	-	Left-side door jamb; red-painted
4	139 146	1244 1228	Door/lid fragment; central, horizontally pierced lug; red-painted lattice design ext.

*Related Funerary Pottery.*— The fragmentary ceramic burial assemblage consists of numerous small, wheel-finished, V-shaped bowls (Fig. 37:1–7), bowls on fenestrated stands (Fig. 37:9–11), several large, deep bowls or basins (Fig. 38:1–3) and several holemouth jars with red-painted designs (Fig. 38:4, 5). One large, deep basin has distinctive horizontal parallel incised/combed lines (Fig. 38:3). A number of fragmentary spouts belong to spouted bowls (Fig. 38:6–8).

Considering the almost complete absence of cornets at the site, it is assumed that the thin body sherd, uniquely red-painted both inside and out (Fig. 37:8), probably belongs to a small V-shaped bowl.

An outstanding pottery find from this cave is a female clay figurine (Fig. 39), displaying finger-impressed eyes and a red-painted sexual organ, with sculpted breasts and originally, perhaps, a nose (now missing). Arms and legs are not indicated.

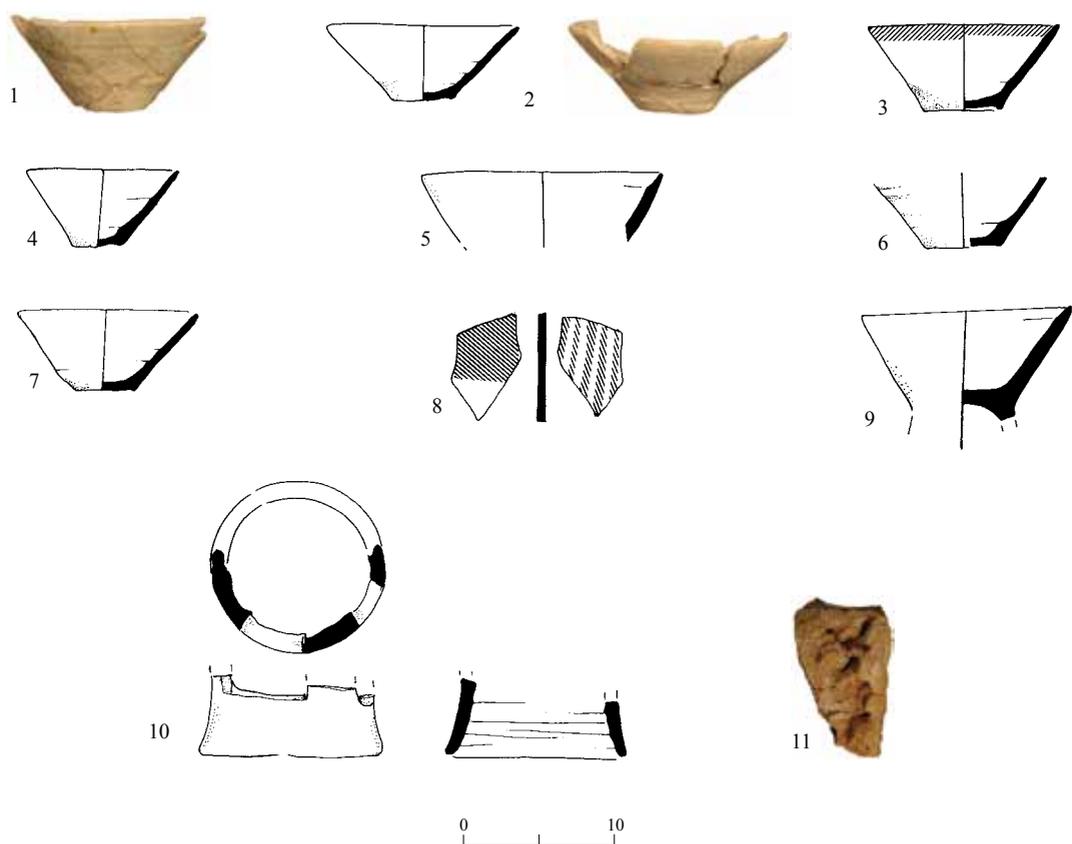


Fig. 37. Cave 5, Chalcolithic pottery.

No.	Type	Locus	Basket	Description
1	Small V-shaped bowl	-	-	
2	Small V-shaped bowl	-	-	
3	Small V-shaped bowl	148	1124	Red-painted rim int. and ext.
4	Small V-shaped bowl	139	1215	
5	Small V-shaped bowl	-	-	
6	Small V-shaped bowl	139	1230	
7	Small V-shaped bowl	-	-	
8	Small bowl	-	-	Red-painted design int. and ext.
9	Small bowl on fenestrated stand	139	1235.1	Soot inside
10	Small fenestrated stand	139	1235.2	Ring base; traces of wheel-finish on int.
11	Small fenestrated stand	139	1235.3	Leg fragment

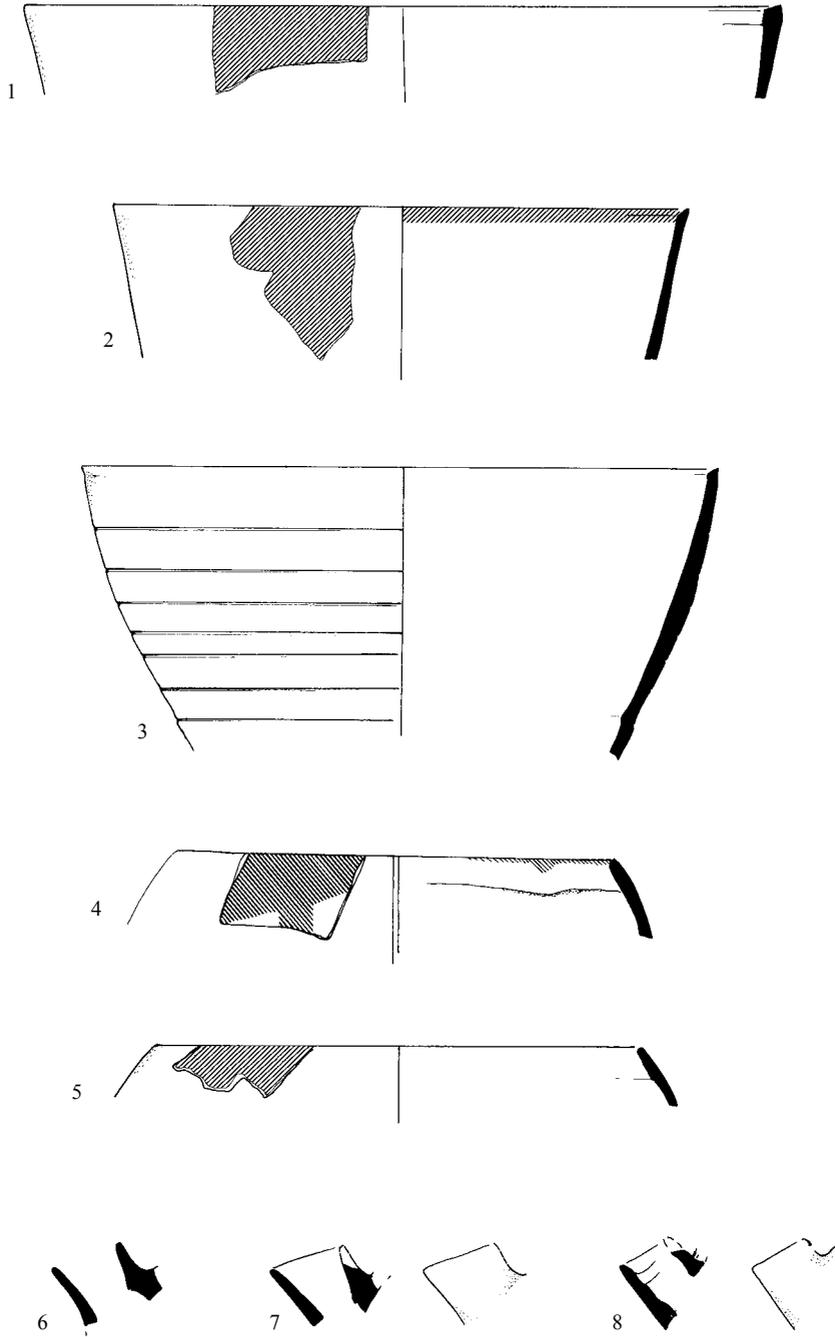


Fig. 38. Cave 5, Chalcolithic pottery.

◀ Fig. 38

No.	Type	Locus	Basket	Description
1	Bowl or basin	139	1207	
2	Bowl or basin	146	1224	
3	Basin	-	-	Deep parallel, horizontally incised lines on int.
4	Holemouth jar	-	-	Red-painted design ext.
5	Holemouth jar	146	1227	Red-slipped ext.
6	Spout	-	-	
7	Spout	139	1222	
8	Spout	-	-	

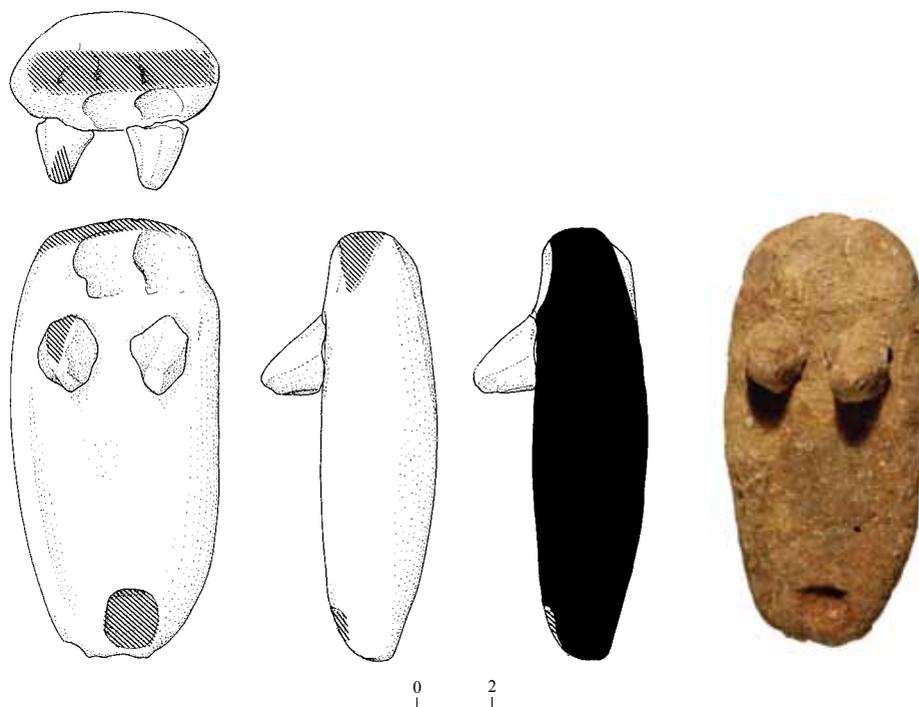


Fig. 39. Cave 5, clay female figurine (L139, B1204).

*Summary: Chalcolithic Pottery from Caves 1–5*

The minimum number of ceramic bone receptacles (after pottery restoration) retrieved from the five caves includes four open coffins, twenty domiform ossuaries and four secondary ossuary vessels (Table 2). The accompanying Chalcolithic ceramic funerary assemblages (Table 3) consist mainly of small and, less frequently, medium-sized bowls, all coil-built and wheel-finished to various degrees,

**Table 2. Minimum Number of Primary and Secondary Ceramic Ossuaries**

Cave No.	Coffins	Domiform Ossuaries	Secondary Ossuary Receptacles
1	4	6	1 necked jar
2	-	2	1 deep bowl
3	-	3	-
4	-	2	1 basin 1 necked jar
5	-	7	-
Total	4	20	4

**Table 3. The Chalcolithic Funerary Assemblage (Total Sherd Count)**

Type Cave	Ossuary Fragments	Cornets	Small Wheel- Made Bowls	Medium- Large Bowls	Tall Cups	Fenest- rated Stands	Spouted Basins	Hole- mouth Jars	Small- Medium Necked Jars	Churns	Handles	Body Sherds
1	68	5	151	111	2	2	1	9	6	3	16	2308
2	12	-	5	2	-	-		-	-			156
3	20	1	16	3	-	-	1	3	1	1	1	514
4	26	1	44	26	-	-		1	7	1	2	648
5	3419	-	235	142	-	16	1	11	12	-	8	5257
Total	3545	7	451	284	2	18	3	24	26	5	27	8883

several displaying a red-painted rim, as well as a few tall cups and fenestrated stands. Other fragmentary finds include large deep bowls with painted designs; basins with spouts typical of the period; various holemouth jars, some with red-painted design; several small to medium-sized jars, two with multiple tubular and lug handles; five fragments of churns, including a neck fragment of a single small churn; and two fragments of either spoon handles or basket handles. Very few fragments of cream ware and hardly any cornets were discerned.

Table 3 presents the breakdown of Chalcolithic pottery sherds per cave, including diagnostic and body sherds, both plain and decorated (mainly red-painted), a large selection of which is illustrated in Figs. 12–16, 23–29, 33–39. This count excludes the whole or completely restored ossuaries presented in Table 2. The relatively high number of ossuary fragments and body sherds in Cave 5 is a direct result of the fact that this cave was seriously damaged by blasts during road construction (see above), severely fragmenting the ceramic finds.

#### BONE AND STONE BEADS AND BONE UTENSILS

##### *Cave 1*

*Beads.*— Only six beads were recovered at the site, all from the lower reaches of Cave 1, of

which four are of bone (Fig. 40:1–4) and two of carnelian (Fig. 40:5, 6). Two beads (Fig. 40:1, 2) were found in direct association with ossuary fragments and human remains, while the other four beads were scattered in the fill near bedrock level, below the layer of stone debris that separates the Chalcolithic burials from the superimposed EB I finds (see above).

Two long beads are barrel-shaped (Fig. 40:1, 2), two others are near cylindrical (Fig. 40:3, 4), while the two carnelian beads are disc-shaped and biconically drilled (Fig. 40:5, 6).

*Bone Artifacts.*— Two additional bone artifacts derive from the same area in the cave. One item (Fig. 40:7) is a pestle-like bone utensil, its broader end clearly abraded, perhaps used for preparing cosmetics. The function of the small conical disc (Fig. 40:8) is unclear. Its flat surface has an almost polished appearance, possibly from use-wear, with a hole drilled in its center (not all the way through), which was apparently intended to fit onto something else.

#### METAL FINDS

##### *Cave 4*

All the metal finds at the site derive from LB II burial contexts in Cave 4, together with the various Cypriot ceramic imports. The bronze artifacts include two toggle pins (Fig. 41:1, 2),

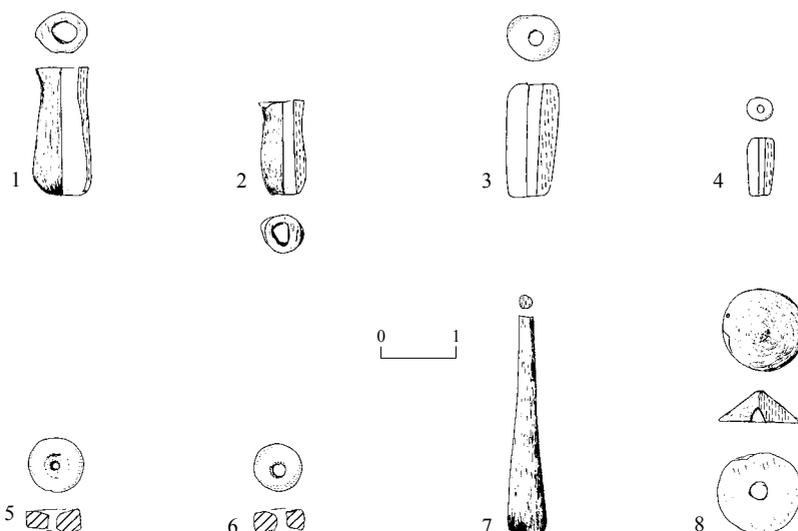


Fig. 40. Cave 1, beads and bone utensils.

No.	Locus	Basket	Function	Material
1	124	1106	Bead	Bone
2	124	1106	Bead	Bone
3	131	1155	Bead	Bone
4	131	1155	Bead	Bone
5	124	1103	Bead	Carnelian
6	124	1103	Bead	Carnelian
7	108	1011	Utensil	Bone
8	128	1140	Utensil	Bone

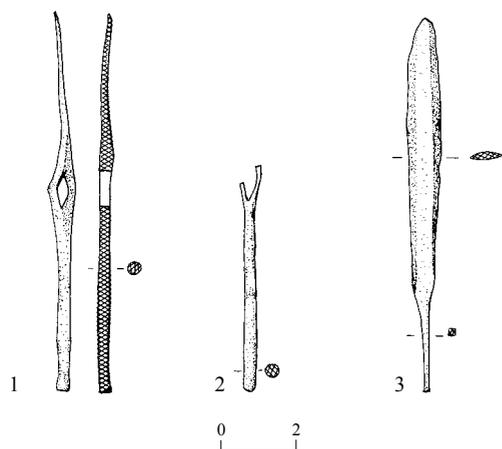


Fig. 41. Cave 4, metal finds.

No.	Type	Locus	Basket
1	Toggle pin	133	1164
2	Toggle pin	145	1217
3	Spearhead	133	1163

a small spearhead (Fig. 41:3) and a possible fragmentary earring. The plain toggle pins (one intact, one broken), with a central eyelet, correspond chronologically and morphologically to Henschel-Simon's Type 3 (1938: Pl. LXVIII), although the shape of the eyelet of both items is rhomboid rather than circular.

## DISCUSSION AND CONCLUSIONS

### *The Chalcolithic Period*

The introduction of formal cemeteries, spatially separated from permanent settlement sites, is but one of the major innovations characterizing societal dynamics during the Chalcolithic period in Israel (Callaway 1963). Formal cemeteries could be either extensive open-air burial grounds<sup>9</sup> or, as is the case of

Sha'ar Efrayim, and more common in the present archaeological record of the Land of Israel, burial caves (see van den Brink 1998). The five caves at Sha'ar Efrayim excavated by the IAA, together with the still unexcavated Cave 6 and the partially excavated TAU cave, are part of a single Chalcolithic burial ground. Burial caves are either natural karstic caves, as at Sha'ar Efrayim, or hewn into the *kurkar* (see Fig. 1).<sup>10</sup> They all contain multiple, and mainly secondary, burials. To date, 41 burial-cave sites containing over 80 caves are known (van den Brink 2005b). As in the case of Sha'ar Efrayim, burial caves frequently appear in clusters;<sup>11</sup> thus, they are suitable as collective burial grounds for extended families, partial or entire communities, or other corporate groups living in nearby (in most cases still unexcavated) settlements (for the association of Chalcolithic burial grounds with contemporaneous settlement sites, see Gophna and van den Brink 2005:168–169; van den Brink 2005b). At least some of these burial caves provide evidence of mortuary cults, possibly related to ancestor worship. The introduction of formal burial grounds and mortuary sites during the Chalcolithic period could indicate “a concern [of the populace] with more clearly defining territorial boundaries and a method of insuring that a corporate group has rights over the use and/or control of crucial but restricted [e.g. water?] resources” (Levy 1995:235).

Although most burial caves were ‘initiated’ during the Chalcolithic period, a few were used in earlier periods. Many caves, such as those at Sha'ar Efrayim, were reused in later periods.<sup>12</sup>

The secondary Chalcolithic burials attested to in Caves 1–5 at Sha'ar Efrayim were deposited either in ossuaries (i.e., open ceramic coffins, chests or closed domiform receptacles), or in secondary ossuary vessels (i.e., large bowls, basins or jars). Petrographic analyses reveal that the ossuaries were most likely produced on or near the present site; their fabric differs from that of the EB I ceramics found at the site (see Cohen-Weinberger, this volume). Primary ossuary jars, as attested, for example, at

Kissufim (Goren and Fabian 2002: front cover) and Shoham North (van den Brink 2005a: Figs. 4.1–2; 4.9–12; 4.15), are notably absent at the site, although one should keep in mind the incomplete preservation of several of the caves. Secondary ossuary jars (both open and closed containers), however, were attested in Caves 1, 2 and 4.

Amongst the rectangular, or domiform, ossuaries from Sha'ar Efrayim are numerous examples displaying a sculpted nose on the facade. A similar feature is displayed on various ossuaries recovered at Peqi'in (Gal, Smithline and Shalem 1999), et-Taiyiba (Porath 1991), Ma'abarot (Porath 2006), Hadera (Sukenik 1937: Fig. 10), Qula (Milevski 2001:63\*), Shoham North (van den Brink 2005a: Fig. 4.9:1, in this case appearing on a primary ossuary jar), Ben Shemen and Azor (Perrot and Ladiray 1980), Bene Beraq (Kaplan 1963; Perrot and Ladiray 1980) and Giv'atayim (Perrot and Ladiray 1980). In view of the wide distribution of ‘nosed’ ossuaries (northwestern Galilee, coastal plain, Shephelah), they seem to represent a supra-regional phenomenon. Some of the ossuaries uncovered at Sha'ar Efrayim display applied ceramic nails on their facades, which are well attested on domiform ossuaries deriving from burial sites in the coastal plain and in the Shephelah, for instance Azor (Perrot and Ladiray 1980: Figs. 15, 16) and Shoham North (van den Brink 2005a: Figs. 4.7:3; 4.14:8–12). Another distinctive element on the facade of domiform ossuaries or ossuary jars is the application of pairs of animal horns, as attested, for instance, at Bene Beraq (Perrot and Ladiray 1980: Figs. 141, 142) and Shoham North (van den Brink 2005a: Fig. 4.9:1–3), but notably absent on the ossuaries recovered from Sha'ar Efrayim. The open clay coffins at Sha'ar Efrayim may represent a more regional phenomenon: they are well represented in the northern coastal plain at burial sites like Hadera, et-Taiyiba and Ma'abarot, but seem almost totally absent further south.

The ceramic funerary assemblages compare well to those recovered from other Chalcolithic

burial caves, e.g., Ben Shemen and Azor (Perrot and Ladiray 1980). A rather unusual pottery find from Cave 5 is the clay female figurine described above (Fig. 39). A similar clay female figurine was recently (2006) uncovered by Yigal Israel in a Chalcolithic pit context (perhaps a *favissa*) at the site of Nahal Shalva, southeast of Qiryat Gat.<sup>13</sup> The only other comparanda is an incompletely preserved clay figurine uncovered at Wadi Gaza Site H, albeit in a slightly later context (EB IA; see, e.g., Gophna 1990: Pl. 1:C). A more elaborate male ceramic counterpart of the Sha'ar Efrayim and Nahal Shalva figurines was uncovered in a near-contemporary burial context at Qula (Milevski 2002).

Although basalt vessels have been found in several Chalcolithic burial contexts in Israel (van den Brink 2005b:181–182, Fig. Exc. 1.3), they are conspicuously absent from Sha'ar Efrayim, with the exception of a single, non-diagnostic basalt fragment deriving from Cave 1.

Khalaily's (this volume) cautious suggestion, based on the presence of two isolated Pottery Neolithic tools, that there may have been a short event of exploitation of Caves 1–3 prior to the Chalcolithic period, is not supported by any additional material deriving from these caves, ceramic or otherwise. His conclusion that these three caves were used for domestic, rather than burial purposes, perhaps in an earlier phase of the Chalcolithic, seems contradicted by the lack of clear domestic pottery, such as storage and cooking jars. The Chalcolithic burial assemblages in Caves 1–3 were found resting directly on the bedrock floors of the caves, with no earlier deposits below them. However, there is an apparent presence of predominantly domestic Chalcolithic flint tools in the burial caves that can't be easily explained. Perhaps the caves were carefully swept clean before the Chalcolithic burial arrangements were made? One should also bear in mind the deplorable and very incomplete state of preservation of Caves 2 and 3 in particular, which is well

reflected in the overall frequencies of the various flint categories (see Khalaily, this volume: Table 1).

The faunal remains retrieved from the caves, as noted by Kolska Horwitz (this volume), provide the first convincing evidence of animal offerings in a Late Chalcolithic/EB IA context. Of special interest are the fragments of ostrich eggshells in Caves 1 and 3 in Chalcolithic contexts and the two pairs of gazelle horncores found in close association with two GBW bowls in Cave 1, thus providing an EB IA date for the horns.

The presence of bone beads and shell pendants at the site attest to a desire for personal adornment. The shells identified as *Conus flavidus* derive from the Red Sea and were intentionally preferred from among the 23 species of Cone shells that live in the shallow waters off the Gulf of Aqaba (see Mienis, this volume).

#### *Early Bronze Age I*

Finds in Caves 1, 3 and 4 at Sha'ar Efrayim attest to a reuse for (secondary) burial practices during EB IA–B. It is of particular interest that the Chalcolithic burial remains deposited in the upper part of Cave 1 had been carefully screened off by a stone partition wall—presumably during the EB IA—from the lower reaches of the cave. The screened-off area in the upper part of the cave was left intact and not (re)used during EB I or any subsequent period. The lower part of the cave, on the opposite side of the partition wall, was reused for burial purposes during both the earlier and a later phases of EB I (EB IA–B). This deliberate separation of the two mortuary populations within the same cave seems further corroborated by a notable change in burial customs: whereas infant burials amongst the Chalcolithic skeletal sample are absent (as seems to be the norm, see Nagar and Eshed 2001), they are present within the EB I sample from the same cave (see Nagar, this volume).

The EB IA funerary assemblage is characterized foremost by the presence of the carinated and knobbed GBW bowls. Several specimens from Cave 1 had perforated rims, perhaps for suspending the bowls with strings as lamps. Petrographic analyses have shown that they were imported to the site, although the exact source of production of these bowls, made of foraminiferous marl clay, has not yet been determined. Based on the spatial distribution of such marl vessels, the Senonian marl of the Galilee has been suggested as a possible source of the raw material (see Cohen-Weinberger, this volume).

The EB IA vessels associated with the GBW bowls, including shallow, near-hemispherical bowls and a loop-handled cup, differ in fabric and execution from the later, EB IB hemispherical bowls and loop-handled cups found at the site, mainly in Cave 1. The funerary pottery assemblage of the latter phase is composed of several spatially-distinct groups of two to three small, usually red-slipped vessels, also recovered mainly, although not exclusively, from Cave 1, which include lug-handled bowls, small cups, high loop-handled jugs and juglets, amphoriskoi and jars with and without a pillar-spout.

The amphoriskoi and most of the loop-handled jugs and juglets of EB IB were manufactured from two separate parts joined together in a later stage of production (van den Brink and Grosinger 2004:91–92). This technique is a major characteristic of similar contemporary shapes found at Tell el-Far'ah (N). A possible link between Sha'ar Efrayim and the Tell el-Far'ah (N) region during EB IB is further corroborated by the results of the petrographic analyses (see Cohen-Weinberger, this volume). Finally, of note is a biconical, red-painted potstand uncovered in Cave 1. Such potstands are very rare during EB I in the southern Levant, in both burial and dwelling contexts, but similar specimens have been found, for example, at Gadot (Greenberg 2001:85) and Tel Qashish (Zuckerman 2003: Photograph 14, Fig. 7.16).

### *Middle Bronze Age II and Late Bronze Age II*

Only Cave 4 presented evidence of post-EB I activity. This cave may have been reused for domestic purposes during MB IIA and for burial purposes during LB IIB. The imported Cypriot vessels and metal finds associated with two LB II burials in this cave are noteworthy.

### SUMMARY

The Chalcolithic burial caves exposed at Sha'ar Efrayim are but one link in a long chain of formal burial grounds situated in karstic caves in the limestone foothills of the Shephelah, spilling over onto the *kurkar* ridges of the western coastal plain. To date, this system is known from Wadi Ayala in the south to the vicinity of Haifa (Horbat Qastra) in the north and even beyond, in particular Peqi'in in Upper Galilee (see Fig. 1). The present site adds to our knowledge of these Chalcolithic burial grounds.

The rarity of certain pottery types at the site, such as cornets and churns, as well as bowls and small jars made of so-called cream ware, and diagnostic surface treatment, such as pattern combing, attested to at several other Chalcolithic sites, e.g., Shoham North (Commence 2005: Figs. 6.18–20),<sup>14</sup> may eventually provide a better understanding of the chronological position of this particular burial ground within the Chalcolithic period. Based on similarities between the funerary pottery of the Sha'ar Efrayim caves and other Chalcolithic burial grounds (e.g., Ben Shemen and Azor), and similarities between these funerary assemblages and domestic ceramic assemblages (in particular from the Be'er Sheva' sites of Abu Ma'ar and Bir Safadi), the burials deposited in the caves at Sha'ar Efrayim most likely date from a rather late phase within the Chalcolithic, around the beginning of the fourth millennium BCE, although given the absence of combed pottery from the caves, apparently not the final phase.

The only Chalcolithic ceramic find that is 'unique' to this site is the female clay figurine from Cave 5.

The reuse of some of the burial caves in the subsequent EB I and later periods is a phenomenon that has been recorded at other

sites as well. The careful screening-off of the Chalcolithic burials in Cave 1 prior to reuse during EB IA is exceptional, and perhaps provides us with a rare glimpse of how the early EB I populace related (emotionally) to their Chalcolithic predecessors.

## APPENDIX 1: LOCUS/BASKET LIST

Locus	Description	Baskets
<i>Cave 1</i>		
100	Cleaning surface after mechanic removal of cave's collapsed ceiling	1000; 1007
102	Cleaning surface of narrow ledge created by bulldozer cut	1002
107	Dark brown soil fill around possible entrance to cave, 0.3–0.6 m below original ceiling	1009; 1013
108	Soil fill containing GBW sherds, 0.30–0.45 m below level of original ceiling; all soils dry sieved	1010; 1011
110	Original, dark brown top soil/roof collapse fill inside cave covering ceramic ossuary fragments with <i>in-situ</i> human bones; all soils dry sieved	1016; 1017; 1025
113	Dark brown soil covering Chalcolithic burial remains (lug-handled ossuary jar, open clay coffin) in SE upper level of cave	1031; 1039; 1046; 1051; 1055; 1056; 1070; 1072; 1073; 1075; 1077; 1080; 1088; 1090; 1091; 1092
114	Dark brown soil covering small burial locus in N of lower level of cave	1033; 1036; 1037
115	Dark brown soil fill in area limited by stones in upper level of cave	1040
116	Dark brown soil fill mixed with stone ceiling-collapse debris in central W part of lower level of cave, containing EB I burial remains	1041; 1045; 1048; 1049; 1050; 1058; 1062; 1063; 1064; 1065; 1067; 1074; 1079; 1082; 1083; 1084; 1085; 1086
118	Reddish soil fill mixed with flints in natural bedrock depression in upper level of cave, sloping toward L116	1047; 1053
119	Dark brown soil mixed with stones of ceiling collapse in NE upper level of cave	1057; 1060
120	Fill in SE upper level with one large bolder, E of burial L113	1061; 1068
122	Brownish-red soil below stone collapse L119 in NE upper level of cave	1071; 1078; 1081; 1087; 1094
124	Brownish soil below stone ceiling-collapse debris L116, containing mix of Chalcolithic ossuary fragments and GBW sherds	1089; 1095; 1098; 1099; 1100; 1102; 1103; 1105; 1106; 1107; 1108; 1109; 1116; 1122; 1128
125	Soil fill in SE extreme of cave, below L113, resting on bedrock and still containing some burial gifts	1093; 1096; 1097; 1101; 1114
126	Stone wall screening upper level from lower level of cave	-
128	Below L124, reaching bedrock, still containing EB I burial gifts	1111; 1112; 1115; 1118; 1119; 1120; 1121; 1124; 1125; 1126; 1127; 1129; 1140; 1142
129	Pit/natural depression in S upper level of cave	1113
130	Cluster of human bones, including 3 skulls, in limy soil in SE lower level of cave, resting on bedrock	1130; 1137; 1139

## APPENDIX I: (cont.)

Locus	Description	Baskets
131	Reddish-brown soil fill and few medium-sized stones (debris) nearing lowest bedrock, descending to ledge (L102) created by bulldozer cut; containing human bone fragments	1143; 1146; 1148; 1150; 1155; 1157; 1191
150	Below wall L126	1251
<i>Cave 2</i>		
101	Cleaning surface; soil fill of 0.10–0.25 m above bedrock	1001; 1006; 1012
103	Cleaning around ossuary jar	1003
109	Remainder of original topsoil fill, c. 1 m thick, over an area of c. 0.5 × 1.5 m, covering ossuary visible in bulldozer cut of W slope of hill	1014; 1015
111	Removal of ossuary (B1020) placed on three adjoining flat stones resting on bedrock, surrounded by few small (B1024, B1028) and medium-sized V-shaped bowls (B1023) and a jar(?) (B1029) resting on cave floor; below the flat stones was another small V-shaped bowl (B1034)	1018; 1020; 1021–1022; 1023; 1024; 1026; 1028; 1029; 1030; 1032; 1034; 1035
117	Clearing bulldozer cut below bedrock floor of cave	1038; 1042
<i>Cave 3</i>		
112	The first c. 0.2 m of dark brown topsoil on bedrock floor, in 2 × 5 m probe W of Cave 2, yielding human bones and ossuary fragments	1019; 1027; 1032; 1043; 1044; 1052; 1059; 1066
121	Cleaning limy soil surface after bulldozer and excavation of topsoil, c. 0.3 m thick, in an additional 2 × 5 m probe E of probe L112 in search of back wall of cave	1069
123	Reddish brown soil fill in N half of probe, below L121	1076
127	Reddish brown soil fill in S half of probe, below L121, exposing the south extreme of cave with <i>in-situ</i> Chalcolithic ossuary remains and accompanying pottery vessels on bedrock floor	1104; 1110; 1117; 1123; 1131; 1132; 1133; 1134; 1135; 1136; 1138; 1141
<i>Cave 4</i>		
132	Cleaning after bulldozer around possible cave entrance	1144
133	Cleaning after bulldozer removed most of collapsed roof in N of cave, overlying sherd-rich, reddish soil fill	1145; 1160; 1166; 1169; 1171; 1176
134	Stone roof-collapse debris embedded in black topsoil in S of cave, south of L133	1147; 1151; 1156; 1161; 1163; 1164
135	Black topsoil between large boulders in N of cave	1149; 1152
138	Excavating black topsoil after bulldozer removed most of collapsed roof in south of cave down to top of reddish soil level (L142)	1167; 1168; 1172; 1177; 1181; 1186; 1187; 1189
141	Dark brown topsoil starting from ceiling in N of cave, along wall down to reddish soil level	1178; 1180
142	Top of reddish soil fill in north of cave	1182; 1185
143	Black topsoil in S part of cave (adjoining L138) covering a Chalcolithic ossuary on bedrock	1190; 1192; 1193; 1195; 1197; 1199; 1202; 1208; 1209; 1214
144	Black soil fill in south of N section of cave between large boulders	1196; 1200; 1211; 1218; 1221; 1225; 1233; 1237
145	Brown soil in N of cave down to bedrock, containing mix of EB I and LB pottery	1201; 1210; 1213; 1217; 1219; 1220; 1231
147	Top 0.6–1.0 m of gray soil fill mixed with many stones in E part of cave (where ceiling still intact), searching for E extreme of cave	1232; 1236

## APPENDIX I: (cont.)

Locus	Description	Baskets
149	Above the extreme SE of cave ceiling, in search of possible shaft leading into cave	1246
152	Removing the top of E–W oriented balk in the middle of cave; black soil mixed with stone roof-collapse debris	1253; 1258
<i>Cave 5</i>		
136	Cleaning bedrock around cave	1153
137	Cleaning dark brown topsoil mixed with natural limestone chips after TNT blasting and bulldozer in cave	1154; 1158; 1162; 1165
139	Burial locus with <i>in-situ</i> ossuary and small V-shaped bowl embedded in reddish soil, which is c. 1 m thick in center of cave but only tens of centimeters along walls	1170; 1173; 1174; 1179; 1183; 1184; 1188; 1194; 1198; 1203; 1204; 1205; 1206; 1207; 1212; 1215; 1216; 1222; 1223; 1234; 1235; 1238; 1239; 1240; 1241; 1242; 1243; 1244; 1247; 1248; 1249;
140	Black topsoil/stone debris, c. 0.6 m thick, overlying sherd-rich reddish soil fill L139 in W of cave	1159
146	Sherds from immediately W of balk, in uppermost part of cave	1224; 1226; 1227; 1228; 1229; 1230
148	Reddish soil (like L139) at lowermost extreme W of cave, immediately W of ossuaries B1205 and B1206	1245; 1250
151	Exposure of remaining burial materials below balk in uppermost E part of cave	1252; 1254; 1255; 1257; 1259; 1260
<i>Surface Cleaning West of Cave 1</i>		
104	5 × 5 m probe at base of Cave 1, limy topsoil containing many washed-down sherds	1004
105	5 × 5 m probe, 0.3 m N of probe L104, limy soil with concentration of sherds washed into cave	1005
<i>Surface Cleaning West of Cave 3</i>		
106	Surface cleaning; dark brown soil with natural limestone chips, few sherds and some flints	1008

## NOTES

<sup>1</sup> Salvage excavations (Permit No. A-3577) were conducted by the author from January 29, 2002, through April 28, 2002, on behalf of the Israel Antiquities Authority, with the assistance of Haim Dangor (administration), Deborah Sklar Parnos and Yossi Nagar (physical anthropology), Gregory Birman (GPS), Avraham Hajian (surveying, drawing of maps and sections), Tsila Sagiv (field photography), Clara Amit (studio photography) and Roni Gat assisted by Hamoudi Khalailiy (pottery restoration).

<sup>2</sup> Under pressure from the orthodox community, Cave 6, adjoining Cave 4 to the south, could only be examined cursorily on two separate occasions (two days each) by the author and Sigal Golan (2008), respectively.

<sup>3</sup> For previous surface surveys on the same range of hills, see Shavit 1994:7 and Barkai 1998.

<sup>4</sup> For the distinction between primary and secondary ossuary jars, see van den Brink 2005a:27.

<sup>5</sup> Note that these two loci yielded mixed Chalcolithic and EB IA material.

<sup>6</sup> Several complete ostrich eggshells in a Chalcolithic context are also known, for example, from L1167, Str. IIc at Gilat (Levy et al. 2006:110, 188, Pl. 5.35).

<sup>7</sup> A modern drill hole for inserting explosives that had penetrated one of the ossuaries was observed during the excavation.

<sup>8</sup> A similar specimen derives from the cave excavated on the same hill by Oren and Scheffelowitz (1998: Fig. 27:13).

<sup>9</sup> Open-air burial grounds include mortuary complexes, such as those exposed at Adeimeh in the lower Jordan Valley (Stekelis 1935), Mezad Aluf in the northern Negev (Levy and Alon 1979;

1985), Naḥal Seker in the northern Negev (Goren and Fabian 2002:2) and, most recently, Palmaḥim in the central coastal plain (Gorzalcany 2006). They display a variety of burial structures, including dolmens, clusters of tumuli, circular stone graves and stone-lined cist structures.

<sup>10</sup>Karstic caves and caves hewn into the *kurkar* used for burial in the Late Chalcolithic period are discussed in van den Brink 2005b:175–178. Figure 1 presents an updated map with the following sites added to the list in van den Brink 2005b: Table Exc. 1.1:

Site	Burial Caves	Permit No.	References
Nesher-Ramle	At least 2 (excavated)		Avrutis, in prep.
Modi'in	1 (unexcavated)	A-5666	Safifk, forthcoming
H. Zur	1 (excavated)	A-4511	Eirikh-Rose 2009
H. Qarqar South	At least 7 (excavated)	A-4635	<a href="http://www.antiquities.org.il/Dig_Item_eng.asp?id=463">http://www.antiquities.org.il/Dig_Item_eng.asp?id=463</a>
Askar*	1 (excavated)		Guyot 2009

\* Note the change of name from Shekhem to Askar.

<sup>11</sup>At Giv'atayim, for instance, seven Chalcolithic-period burial caves were found grouped together (Caves 1–3, 5–8; Sussman and Ben-Arieh 1966). Other (near) contemporary examples of cave clusters

are known at Bene Beraq (Ory 1946; Kaplan 1963), Azor and Ben Shemen (Perrot and Ladiray 1980), Shoham North (van den Brink and Gophna 2005), Qula (Milevski and Shevo 1999; Milevski 2001; 2002), Palmaḥim Quarry (Gophna and Lifshitz 1980:1) and H. Qarqar South (Peter Fabian, pers. comm.).

<sup>12</sup>Post-Chalcolithic reuse of caves has been observed, e.g., at Palmaḥim Tomb 2 (Gophna 1968), Giv'atayim Tomb 1 (Kaplan 1963; I. Kornfeld, pers. comm.), Ben Shemen T.510 (Perrot and Ladiray 1980), Shoham North (van den Brink and Gophna 2005), Mazor West (Ianir Milevski, pers. comm.) and Naḥal Qana Cave (Gopher and Tsuk 1996).

<sup>13</sup>The author wishes to thank Yigal Israel (IAA) for his permission to mention this still unpublished find. Ianir Milevski (IAA) is presently studying the Naḥal Shalva figurine.

<sup>14</sup>Combed pottery has been uncovered in both Late Chalcolithic burial-cave sites (Shoham, Mazor, Ben Shemen and H. Qarqar South), as well as in Chalcolithic habitation sites (Nevallat, Yehud, Tel Lod, Palmaḥim Quarry, Modi'in and Revadim Quarry). For references to these sites, see Gophna and van den Brink 2005:169–170.

Most Chalcolithic sites with appreciable amounts of combed pottery are located in the Shephelah. The distribution pattern of this pottery type seems to overlap with that of the sites associated with rock-cut grinding facilities. Such installations were recently recognized as a *fossile directeur* of the Chalcolithic landscape (van den Brink 2008; forthcoming). It is suggested here that this set of artifacts should be recognized as a new facies of the Chalcolithic period in the southern Levant, namely 'Shephalite'.

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