An Early Bronze Age I Tomb, a Dwelling Cave, and a Quarry at the Mount of Olives, Jerusalem

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Abstract

A small salvage excavation was conducted in 2007 at the Mount of Offence (part of the Mount of Olives, Ras el-'Amud neighborhood), overlooking Jerusalem's old city. The excavation revealed finds of three periods: the EB Ib, late Iron Age IIc, the Early Roman, and the Byzantine periods. The EB Ib remains included a burial cave, which was only partly excavated. The remains provide important information about the inhabitants of early Jerusalem. Later, in the Late Iron Age IIc, part of the cave was cleared and used for temporary habitation, perhaps in anticipation of the impending Babylonian siege. Lastly, in the Early Roman and Byzantine periods, the mountainside was made into a quarry, unaware of the early cave. These three chronological episodes offer us a glimpse into some of the activities on the outskirts of ancient Jerusalem.

Keywords: Iron Age IIc; temporary habitation; quarries

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1. The Excavation

Research-driven excavations tend to focus on mounds and settlements, uncovering domestic, public, and military structures. Comparatively, settlements' hinterlands receive little attention, producing a gap often narrowed by salvage excavations. In this paper, I will present the results of a small salvage excavation conducted on the Mount of Offence, the southern part of the Mount of Olives ridge, east of the City of David, contributing to the history of the ancient city of Jerusalem. The excavation was conducted in August 2007 in the Industrial School's courtyard, Ras el-'Amud neighborhood, Jerusalem. The excavation was situated high on the western slope of the Mount of Offence, overlooking Jerusalem's old city (630650/222725 NIG; Fig. 1). It consisted of five squares (F100–104; Fig. 2) that were placed according to cut marks observed in the local *nari* (caliche) rock.

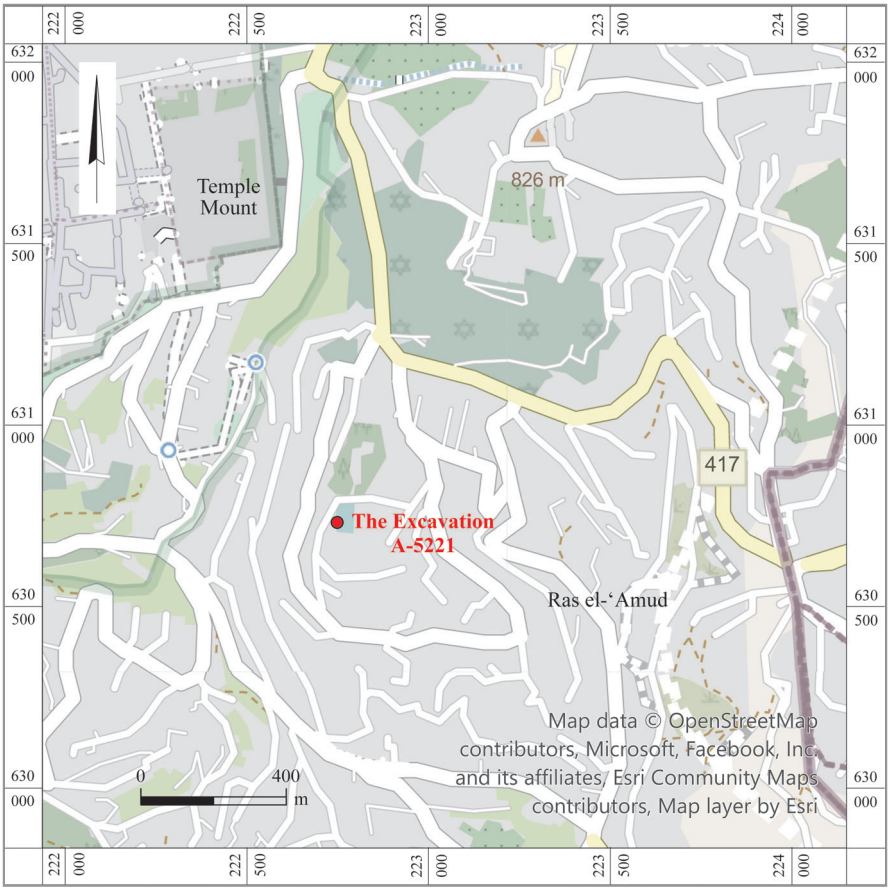

Fig. 1. Location map of the excavation.

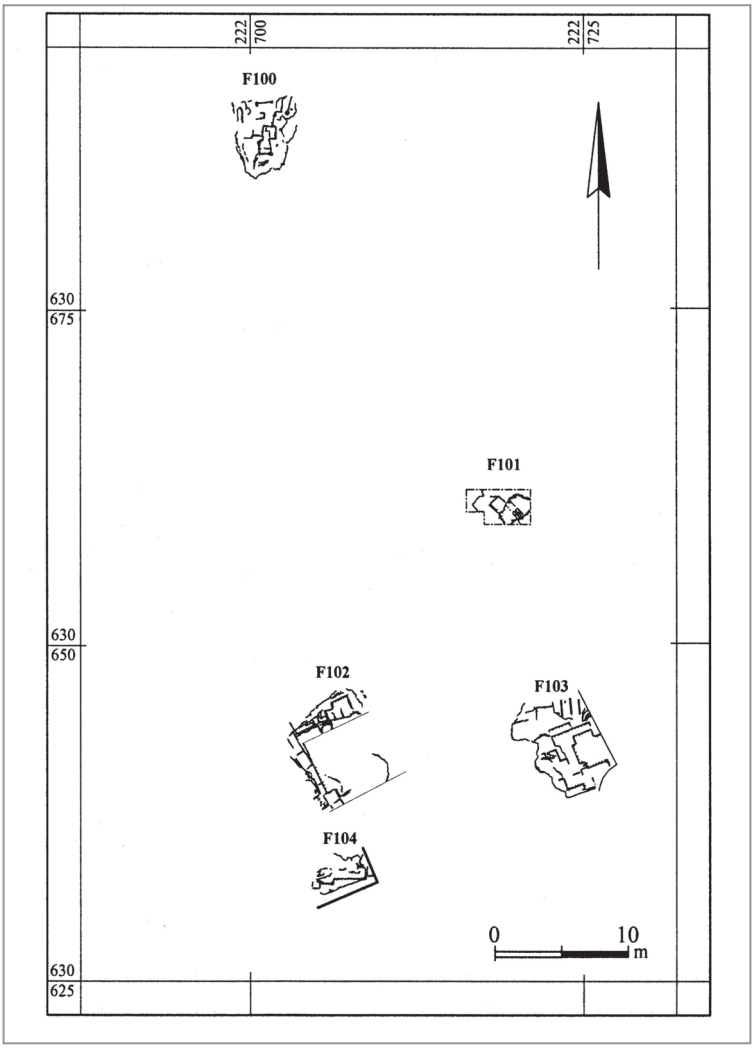

Fig. 2. Plan of the excavated areas and features.

Stone quarries were uncovered in all excavation squares, filled and superimposed by quarrying debris and later deposits (Figs. 3–6) that produced pottery of the Iron Age II, Early Roman, Byzantine, and modern periods. The quarries used the elevated rock surface for cutting square stones, 0.4–0.5 × 0.5–1.0 m in size, and their cutting channels were 10–15 cm wide. Similar quarries were excavated nearby, and judging by their nature and small finds, they were probably of the Roman and Byzantine periods (Cohen 2021). White tesserae and roof tiles in the fills suggest the proximity of Byzantine buildings, whereas ceramics of the Iron Age II may have originated from a nearby settlement (e.g., Nagorsky and Greenhut 2015).

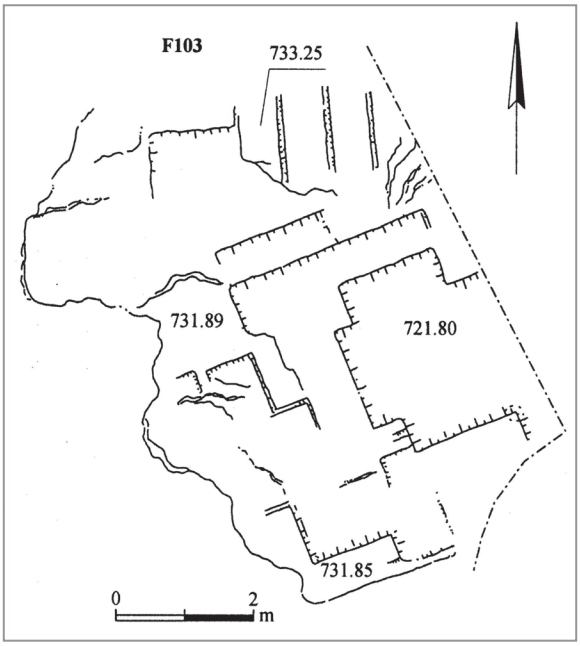

Fig. 3. Plan of Quarry F103.

Fig. 4. Quarry F100, looking east.

Fig. 5. Quarry F103, looking north.

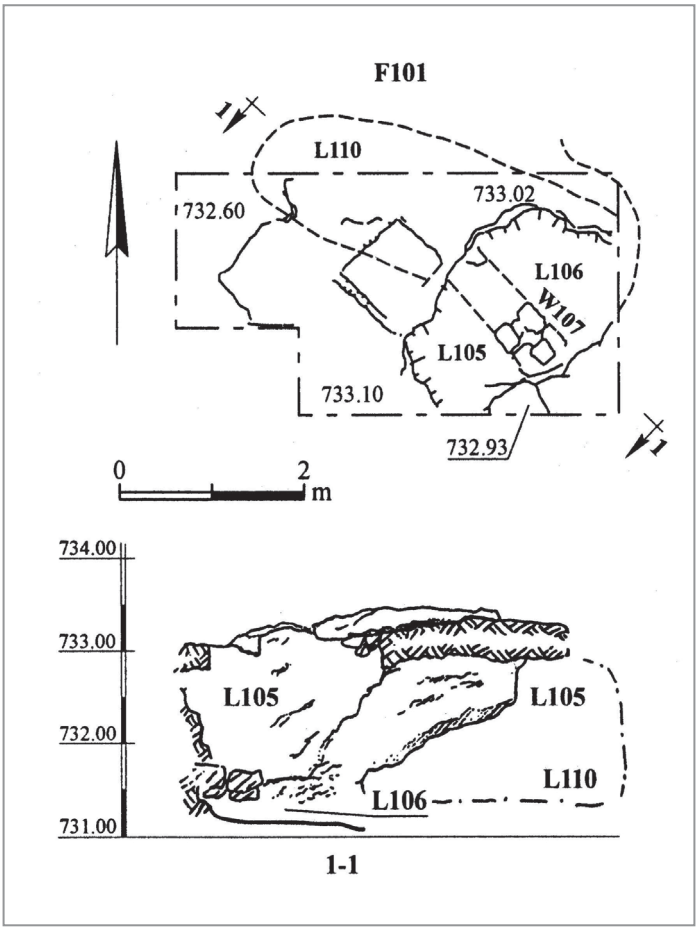

Fig. 6. Plan of quarry and cave in Area F101.

On the eastern side of excavation square F101, a hewn cave was discovered (Fig. 6).The cave was used for collective burial during the EB Ib and habitation in the late Iron Age IIc. Unfortunately, due to ultraorthodox objections, the cave was only partially excavated. According to parallels, it is estimated that approximately a third remains unexcavated.

The cave was entered through a vertical shaft (1 × 1.5 m, 1.8 m deep; Fig. 7) in its southwest corner. Northwest of the entrance, on the cave's floor, a 0.5–0.7 m thick EB Ib deposit was identified (L110; Fig. 8). It contained numerous heavily fragmented human bones (below) with whole and broken pottery vessels. This deposit was later covered by dirt that washed into the cave. The finds were in no particular order, and they seem to have been pushed aside when accommodated for the second stage of use in the Iron Age.

Fig. 7. The cave entrance shaft, looking east; note the wall section on the right.

Fig. 8. EB I pottery in situ, looking west.

Relatively late in the Iron Age IIc, the àrea by the shaft was cleared for habitation or storage. The rock floor (L106) was superimposed by a compacted dirt fill that abutted a dividing wall (W107; Figs. 6, 7). This wall was partly preserved, and its purpose seems to have been to narrow the entrance. A small hearth was found north of it, alongside a few domestic vessels. The cave's shaft was filled with washed earth, containing Iron Age and Byzantine sherds.

2. The Finds

2.1. EB Ib pottery

Given the absence of primary contexts, the EB Ib ceramic assemblage is discussed typologically. Altogether, the assemblage consists of two basic types: bowls and juglets.

2.1.1. Bowls

The bowls assemblage is relatively large and consists of at least six subtypes:

1. Shallow bowls (Fig. 9: 1–7). Bowls with low upright walls used as oil lamps or as funerary gifts. Bowls of this type were found in Tomb 94 at Jericho (Kenyon 1960: Pl. 9: 6–11) and Tel Bet Yeraḥ (Getzov 2006: Fig 2.12: 25–29).
2. Hemispherical bowls (Fig. 9: 8–10). Bowls with high, thin, and moderate inwardly curved walls and a simple rim. Similar bowls were found at the City of David (Vincent and Steve 1956: Pl. CXXXI: 1, 3), Tomb 94 at Jericho (Kenyon 1960), Ḥorbat Ḥani (Lass 2003: Fig. 20:8–25), Tel Dalit (Gophna 1996: Fig. 39:2–4), Nesher-Ramla (Avrutis 2012: 103–105), Hartuv (Mazar and de Miroschedji 1996: Fig. 17:7–10), and at ʻAi (Marquet-Krause 1949: Pl. 73:987; Callaway 1964: Pl. III:4).
3. S-profiled bowls (Fig. 9: 11–16). These bowls have S-shaped walls and everted rims. Most are decorated with a crudely applied red stripe on the rim's inner or outer side. One bowl had a painted circle around the inner center of the base (Fig. 9: 16). Parallels have been recorded in tombs at Azor (Ben-Tor 1975: Pl. 5:14–16), Tomb 94 at Jericho, some with a red circle (Kenyon 1960: Fig. II:11, 15), Ḥorbat Ḥani (Lass 2003: Fig. 20:4), Hartuv (Mazar and de Miroschedji 1996: Fig. 17:11–17), and ʻAi (Callaway 1964: Pl. VII).
4. Straight-walled bowls (Fig. 9: 17). Bowls with a flat base, straight or slightly curved walls, and a simple or flaring rim. Similar bowls were found in domestic contexts at Hartuv (Mazar and de Miroschedji 1996: Fig. 17:18) and Tel Bet Yeraḥ (Getzov 2006: Fig 2.12:1–3).

5. Bowls with a triangular rim (Fig. 9: 18). Bowls with a triangular, inwardly thickening rim. Similar bowls were recorded at Hartuv (Mazar and de Miroschedji 1996: Fig. 17:21), Shoham (Gophna and van den Brink 2005: Fig. 7.2:6–7), and ʻAi (Callaway and Ellinger 1972: Fig. 16:22–23).
6. Bowls with in-curving rim (Fig. 9: 20–23). Carinated bowls with an inwardly curving rim and a wide flat base. Parallels were found at Nesher-Ramla (Avrutis 2012: 105), Tel Bet Yeraḥ (Getzov 2006: Fig 2.12:12–13), and ʻAi (Callaway and Ellinger 1972: Fig. 16:22–23).

2.1.2. High loop handle juglets

These are small juglets with a bulbous body and a high loop handle that rises above the rim (Fig. 9: 24–26). The neck is high and flaring, and the base is round. One juglet has a pinched plastic decoration, possibly a degenerated pierced lug handle, and two pierced strips of appliqué along the neck and the body. These juglets are a common find in tombs: City of David (Vincent and Steve 1956: Pl. CXXXII:7, CXXXIII:9, with red slip), Azor (Ben-Tor 1975: Pl. 6:12–15), Tomb 94 at Jericho (Kenyon 1960), and ʻAi (Callaway 1964: Pl. VIII:785, 838).

2.1.3. Other

A broken base (Fig. 9: 27), probably of a jar, was reused as a lamp, as suggested by the soot marks on its wall. Similar reapplications have been recorded at Nesher-Ramla (Avrutis 2012: Fig. 4.7) and Ḥorbat Ḥani (Lass 2003: Fig. 21:23–25).

2.1.4. Conclusion

Most bowls have soot marks on their rim, indicating their use as lamps (see also Mazar and de Miroschedji 1996: 14; Avrutis 2012: 103). This pattern explains the large number of bowls in the assemblage and hints that the cave was used for a long time. While flat bowls were probably purposefully produced to serve as lamps (Getzov 2006: 14), other bowls, including deep and decorated vessels, were often also used for the task. The juglets might have been used for incense.

Some vessels have a gray core, occasionally visible on the surface, indicating the uneven firing and the vessels' generally low quality. Notably, this assemblage seems poor compared with the rich burial excavated nearby, on the City of David spur (Vincent and Steve 1956: Pl. CXXXI–CXXXIII). Notwithstanding the assemblage's meagerness, it is typical of EB Ib burial contexts.

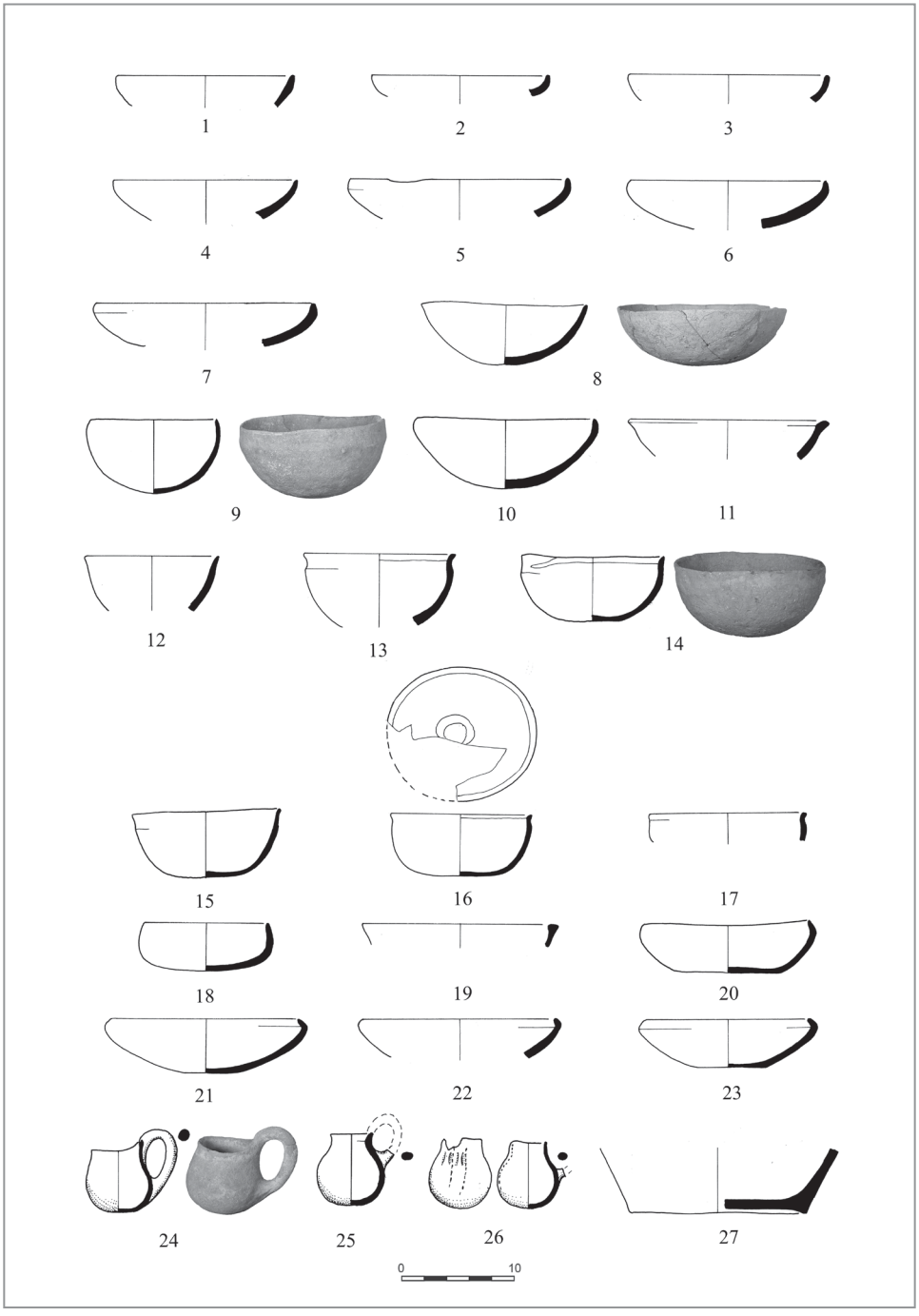

Fig. 9. EB I pottery

No.	Reg.	Type	Description
1	105/10	Bowl	Light pink, white grits
2	105/9	Bowl	Light pink, white grits
3	105/6	Bowl	Coarse pink, large white grits
5	106/10	Bowl	Pink, large and small white grits, soot on rim
6	105/29	Bowl	Pink, large white grits
7	105/30	Bowl	Coarse pink, large white and black grits
8	105/26	Bowl	Coarse pink, large and small white grits, soot on rim
9	106/7	Bowl	Light pink, white grits
10	105/37	Bowl	Coarse pink, gray core, large white grits
11	105/38	Bowl	Pink, small white grits, red slip on rim
12	105/31	Bowl	Pink, small white grits
13	106/09	Bowl	Coarse pink, large white grits
14	105/39	Bowl	Pink, large white grits red slip on rim
15	105/41	Bowl	Pink, small white grits, red slip beneath interior rim, soot on rim
16	106/16	Bowl	Coarse pink, gray core, large white grits, red slip on rim and base
17	106/5	Bowl	Orange, large orange grits
18	105/32	Bowl	Pink, small white grits, red slip inside and out
19	105/2	Bowl	Pink, white grits
20	105/40	Bowl	Fine pink, large white grits, soot on rim
21	105/17	Bowl	Coarse pink, large and small white grits, soot on rim
22	106/2	Bowl	Coarse pink, large white grits, soot on rim
23	106/1	Bowl	Coarse pink, small white and black grits, soot on rim
24	106/10	High loop handle juglet	Coarse pink, gray core, large white grits
25	105/1	High loop handle juglet	Fine pink, large white and black grits
26	106/10	High loop handle juglet	Coarse pink, gray core, large white grits
27	105/23	Jar?	Coarse pink, gray core, white grits, soot on rim

2.2. The EB Ib skeletal remains (by Y. Nagar)

The human remains included a skull vault, teeth, and postcranial bone fragments in a poor state of preservation. Most of the bones were non-diagnostic, but teeth were better preserved. These were counted and sorted by type; age-at-death was estimated using tooth development and attrition stages (Hillson 1986: 176–201). The teeth represent at least ten individuals, including two infants (<1, 1–2 years), four children (5–6, 7–8, 9–10, 11–13 years), and four adults (15–20, 20–30, 40–50, >60) of indeterminate sex.

The cave was not fully excavated. Nevertheless, this sample of bones, representing individuals of a wide age range, is typical of a regular, historical cemetery population.

2.3. Iron Age IIc pottery

2.3.1. Bowls

Three types of bowls were found in the cave:

1. Small bowls with outwardly folded rims and curved walls (Fig. 10: 1–8). Some bowls of this type are intensively wheel burnished. They were common in Judea at the end of the Iron Age II, reported from the City of David, Layer 10 (De Groot and Bernick-Greenberg 2012: Fig. 4.2:7–8) and ʻEn Gedi V (Yezerski 2007: Pl. 1:19–29).
2. Flat-rimmed bowls (Fig. 10: 9–11). These bowls are similar to the former type, but their folded rim forms a reclining, almost peg-shaped shelf. No parallels were found.
3. Bowls with a folded rim and curved walls (Fig. 10: 12). This bowl is similar to the first type but comparatively moderate in size and with a triangular rim. Bowls of this sort are common in Iron Age II Judean contexts: the City of David, Layers 10–12, (De Groot and Bernick-Greenberg 2012: Fig. 4.2:3–5) and ʻEn Gedi V (Yezerski 2007: Pl. 7:2).

2.3.2. Dipping juglets

This vessel type is a small juglet with a round base, thin walls, and a folded pinched rim (Fig. 10: 13). At the City of David, similar dipping juglets were found only in Layer 10, but they had a comparatively wide neck and prominent shoulders (De Groot and Bernick-Greenberg 2012: Fig. 4.4: 2).

2.3.3. Jugs

Three jug types were identified in the assemblage:

1. Large Jug (Fig. 10: 14). This is a decanter with a folded rim. At Lachish II, jugs of this type were associated with a wide double-ridged handle, a carinated body, and a ring base (Zimhoni 2004: Pl. 62.51:1).
2. Rounded jug (Fig. 10: 15). This is a small rounded body jug; its high neck has a projecting ridge, the handle descends from the pinched rim to the shoulder, and it rests on a ring base. At ʻEn Gedi V (Yezerski 2007: Pl. 6:25–29) and Lachish II (Aharoni 1975: Pl. 50:13), these jugs were slipped and vertically burnished.
3. Wide-necked jug (Fig. 10: 16). This jug has a broad neck and a pinched rim. At the City of David, it was observed to have a wide body, thin walls, a low ring base, and a handle attached to the neck (De Groot and Bernick-Greenberg 2012: Fig. 4.4:13). At Tell el-Ful II (Lapp 1981: Pls. 53–54) and Tel Bet Shemesh (Bunimovitz and Lederman 2003: Fig. 8), these jugs were used to draw water.

2.3.4. Holemouth jars

The holemouth jars were of three types:

1. Holemouth jars with a thin flaring rim (Fig. 10: 17–18). Vessels of this type were found at the City of David, Layers 10–11 (De Groot and Bernick-Greenberg 2012: Fig 4.6:4) and ʻEn Gedi V (Yezerski 2007 Pl. 21:1–2).
2. Holemouth jar with a smooth peg rim (Fig. 10: 19). This type of holemouth jar is notable for its inwardly and outwardly thickening rim. Vessels of this sort were found mainly in the City of David, Layer 12 (De Groot and Bernick-Greenberg 2012: Fig. 4.6:1).
3. Holemouth jar with a smooth folded rim (Fig. 10: 20, 21, Fig. 11: 1, 2). Vessels of this category were reported from the City of David, Layer 12 (De Groot and Bernick-Greenberg 2012: Fig. 4.6:2) and ʻEn Gedi (Yezerski 2007: Pl. 8:9). One jar in our assemblage has a double groove incised on its wall before firing. Various marks on vessels are widespread during the Iron Age II (e.g., Nadelman 1990).

2.3.5. Oil lamps

Oil lamps with a high base (Fig. 11: 3, 4). These lamps are made of coarse clay and have a thick, stepped base. Similar lamps were found at the City of David, Layers 10–12 (De Groot and Bernick-Greenberg 2012: Fig. 4.9:4) and ʻEn Gedi V (Yezerski 2007: Pl. 11:10).

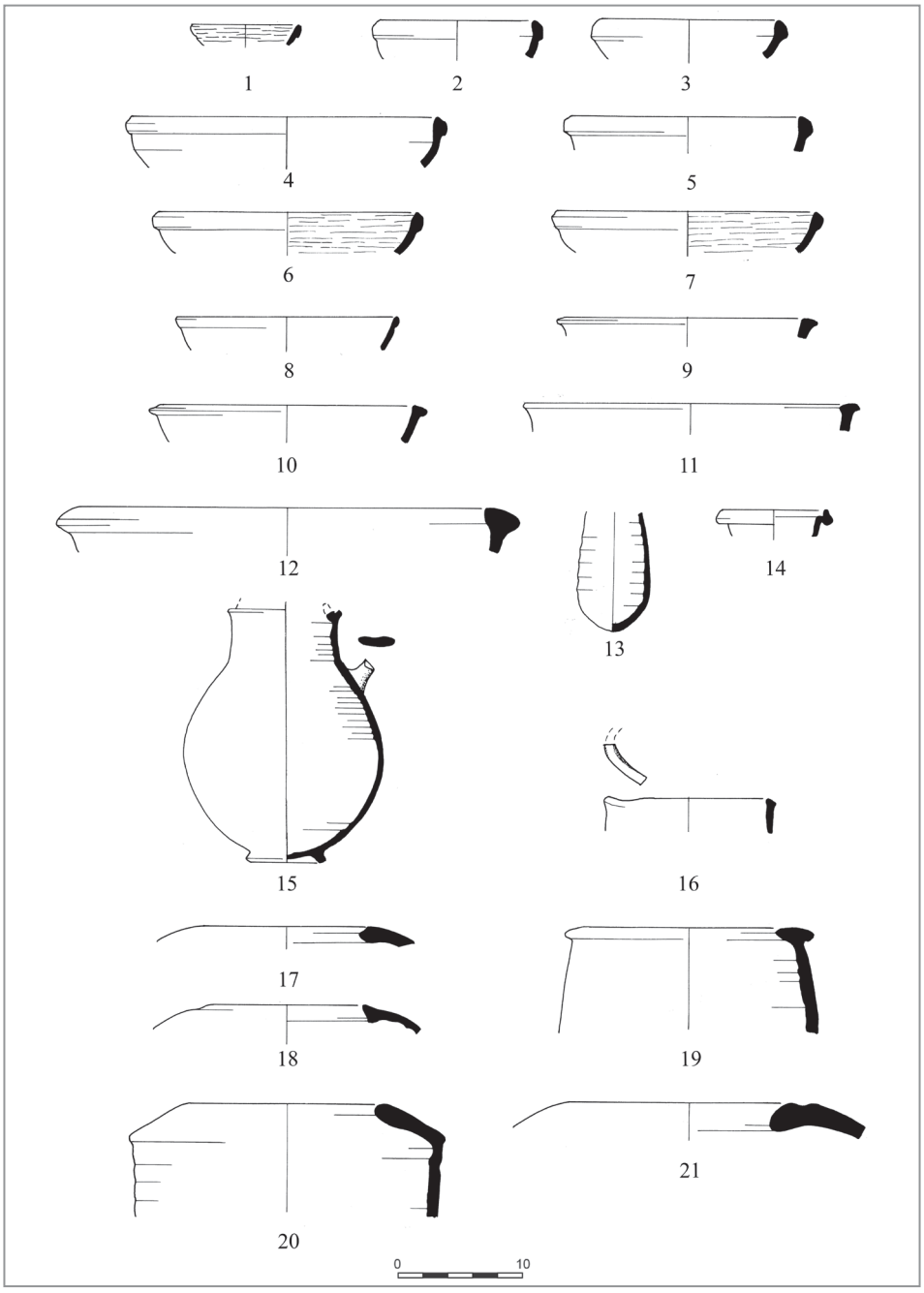

Fig. 10. Iron Age IIc pottery.

No.	Reg.	Type	Description
1	105/1	Bowl	Fine pink, white grits, wheel burnish
2	105/35	Bowl	Pink, gray core, white grits, white slip
3	105/37	Bowl	Pink, gray core, white grits, white slip
4	105/34	Bowl	Red, small white grits
5	105/42	Bowl	Pink, gray core, white grits, white slip
6	105/27	Bowl	Fine pink, white grits, wheel burnish
7	105/23	Bowl	Fine pink, white grits. wheel burnish
8	105/7	Bowl	Fine pink, white grits, wheel burnish
9	105/6	Bowl	Fine pink, gray core, small white grits
10	105/3	Bowl	Fine pink, white grits, wheel burnish
11	105/11	Bowl	Red, gray core, large white grits
12	105/1	Bowl	Pink, gray core, white grits, white slip on and over the rim
13	106/8	Juglet	Pink, large white and black grits
14	105/4	Jug	Fine pink, white grits
15	105/14	Jug	Fine pink, large white grits
16	105/35	Jug	Orange, white grits
17	105/19	Holemouth jar	Fine pink, small white grits
18	105/5	Holemouth jar	Reddish, white grits
19	105/21	Holemouth jar	Red, gray core, large white grits
20	105/24	Holemouth jar	Coarse orange, gray core, large white grits
21	105/22	Holemouth jar	Fine orange, gray core, small white grits

2.3.6. Conclusion

Ceramic assemblages of the end of the Iron Age IIc Judea are fairly well known in sites like ʻEn Gedi V, Lachish II, and specifically City of David, Layer 10. The cave's assemblage represents a common variety of domestic vessels, albeit cooking pots are noticeably absent. Although some vessels have longer life histories than others, beginning as early as the 8th century BCE, most vessels in our assemblage are characteristic of the late 7th and early 6th centuries BCE. Therefore, the assemblage from the cave should be dated to shortly before the city's destruction in 586 BCE.

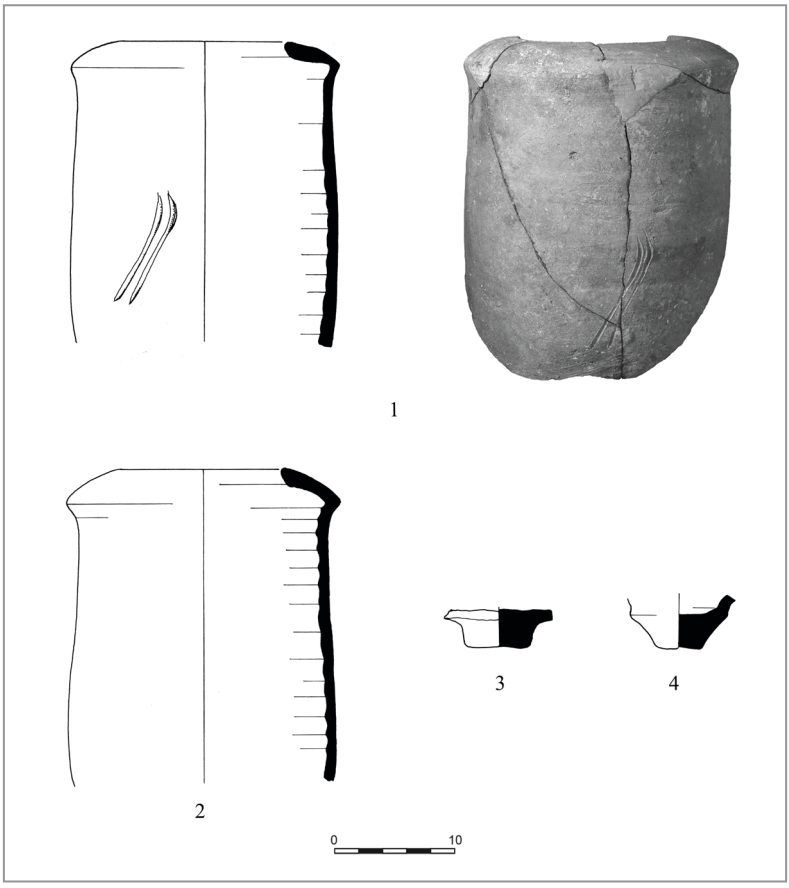

Fig. 11. Iron Age Pottery (cont.)

1	105/18	Holemouth jar	Orange, gray core, large white grits
2	105/25	Holemouth jar	Coarse gray, red outside, very large grits
3	105/13	Oil lamp	Corse pink, gray core, large white and black grits
4	105/12	Oil lamp	Corse pink, gray core, large white and black grits

2.4. Later pottery

Few pottery sherds of the Roman-Byzantine periods and the Modern era were found in the excavation. They were highly fragmented, severely eroded, and with no definitive contextual provenience. Apart from the pottery and skeletal remains, no other finds (e.g., flint, stone) were found.

3. Discussion

Approximately a century ago, Vincent excavated two EB Ib burial caves on the spur of the City of David (Vincent 1912; Vincent and Steve 1956). The cave reported here was the first of this type to be excavated since. The use of caves, natural or adapted, for burial purposes is widespread in the south Levantine EB Ib. Most caves are isolated, but sometimes they occur in clusters outside settlements (Ilan 2002). Their plan was often irregular or oval, and access was achieved through a vertical shaft or a staircase. Such caves were probably used by a family over generations, in the course of which early primary burials would be pushed aside to make room for later ones. In some cases, the bones were arranged in piles. The associated funerary assemblage is usually simple, comprising pottery vessels like jugs, Juglets, and bowls. Thus, the cave on the Mount of Olives is typical.

The EB I burial hints at the existence of a settlement nearby. A few pottery sherds from Shilo's excavations (Greenberg 2012: 308) and Reich and Shukron's excavations (Reich 2011: 152–153) support this assumption. Interestingly, unlike the caves excavated by Vincent, the burial cave on the Mount of Olives is notable for the absence of vessels decorated with red stripes and slip. Moreover, insofar as it is representative of the entire cave, the assemblage's plainness and simplicity suggest that it belonged to a relativity poor family, perhaps indicating a socio-economic hierarchy, which, in turn, may be considered an indication of a large-scale settlement in the area.

Millennia later, in the late Iron Age IIc, after the cave filled with sediment, its front part was cleared, the floor was leveled, and a partition was erected. This episode was brief, and the cave was abandoned around the time of the Babylonian siege, leaving it to fill again.

A more elaborate and spacious dwelling cave of the 8th–7th century BCE was excavated by Feig at ash-Sheikh, on the eastern side of Mount of Olives (Feig 2011). According to Feig, surveys indicate a growing occupation of the areas east of Jerusalem in the late Iron Age II (see also Kloner, Dinur, and Feig 2013), consisting of small sites, one or several houses large. Usage of caves was also documented by Kenyon in the city itself (maybe in a cultic context; Franken and Steiner 1990: 49–50).

Eighth–seventh-century BCE agricultural terraces were excavated by I. Zilberbod and R. Be'eri (Be'eri and Zilberbod 2011), complementing the nearby settlement remains exposed by Nagorsky and Greenhut (2015). In some of these sites, caves were used for habitation or storage, a feature facilitated by the region's geology. Unlike Jerusalem proper, which is built on the hard limestone rock of the Judea group, the region east of the city is characterized by soft

chalk of the Mount Scopus group, often capped by a hard *nari* crust (Sneh and Avni 2016). Thus, it is relatively easy to carve underground chambers out of chalk, while the *nari* crust retains a solid rood overhead. This phenomenon is also known in the Shefela region (Sneh 2009).

Nevertheless, habitation caves are relatively uncommon, as the dwelling conditions they offer are suboptimal. In this sense, the cave excavated by Feig (2011) is an exception, consisting of a relatively elaborate construction that must have facilitated permanent habitation. The simpler construction of the cave reported here is more common (Feig 2011), suggesting that its dwellers were of meager means. Although later dismantling cannot be ruled out, the absence of aboveground structures reinforces the suggestion that the cave's use was for temporary habitation. This cave was part of a diverse habitational mosaic of the city's hinterland (see also Bilig, Freud, and Bocher 2021).

Most quarrying in Jerusalem and its vicinity dates from the Roman and Byzantine periods (Sasson et al. 2012). By extension, and according to the small finds recovered from fills, the site's latest phase should also be dated to this time.

To conclude, the cave at the Mount of Olives expands our knowledge of the EB Ib in the area of Jerusalem and attests to a rather large and hierarchical settlement. Intensive construction in later periods may be taken to imply that the burial cave might be the only EB I remnant in this location. The late Iron Age II occupation of the cave contributes to our understanding of the expansion around the city, which is manifested in the intensification of agricultural activity (Be'eri and Zilberbod 2011; Gadot 2015: 16–18). The cave might have been abandoned before the Babylonian siege, along with other parts of the city's suburbs, fleeing to the relative security of the walls. If correct, this case offers a glimpse into the sequence of events before the destruction of Jerusalem.

Acknowledgments

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