

# A BYZANTINE RURAL COMPLEX WITH AN OLIVE PRESS AND AN Umayyad FARMHOUSE ON THE BANKS OF NAḤAL ‘ANAVA, MODI‘IN

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## INTRODUCTION

In the spring of 2012, a large-scale archaeological project, including a survey and salvage excavations, was undertaken at Modi‘in prior to developing Ha-Zipporim (Kaizer South) neighborhood (map ref. 199142–200456/644585–5140; Fig. 1).<sup>1</sup> The excavations unearthed mainly remains of agricultural activity and rural industry (Torgë, Lupu and Tandler 2015), which were part of a Byzantine (sixth century CE) rural complex situated on the southern bank of Naḥal ‘Anava (Wadi ‘Anabeh; Wady el-Jaar). The finds comprise an olive press installed in a natural cave and an ashlar building from the Byzantine period, and a later farmhouse, from the Umayyad period (seventh to mid-eighth centuries CE; Plan 1).

The olive press was installed in a natural cave on the slope descending to Naḥal ‘Anava, while the remains of the ashlar building were found abutting another cave adjacent to the olive-press cave; further remains of the building were found above the cave’s ceiling. Both caves’ ceilings eventually collapsed, burying the olive press and collapsing the ashlar building. Two main building stages were identified: the original construction and the later renovations, seemingly meant to prevent the caves’ ceilings collapse.

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<sup>1</sup> The excavation (Permit No. A-6470), on behalf of the Israel Antiquities Authority, was directed by Hagit Torge; the area reported here was directed by Avraham. S. Tandler and Lior Golan. The archaeological survey that preceded the excavation was conducted by Israel Kornfeld, Ayelet Dayan and Roe Assis. Field drawing and sketching was done by Mendel Kahan and Rivka Mishayev. Photographs were taken by Asaf Peretz and the authors. The aerial photographs were taken by Sky View Ltd. and David Silverman. Heavy machinery supervision was conducted by Vered Eshed, Israel Kornfeld and Yossi Elisha. GPS measurements and GIS plans were made by Angelina Dagot and Chen Ben-Ari. Pottery consultant: Peter Gendelman. Flint identification was done by Ronit Lupu and Ofer Marder. The pottery was drawn by Marina Shuiskaya and artifacts were photographed by Clara Amit. Metal was treated by Hila Rosenstein. The plans were drafted by Elena Delerson, Dov Porotzky and Yakov Shmidov. Coins were identified by Gabriela Bijovsky, Ariel Berman and Donald T. Ariel. Thanks to Viviana Moscovich for editing this paper.

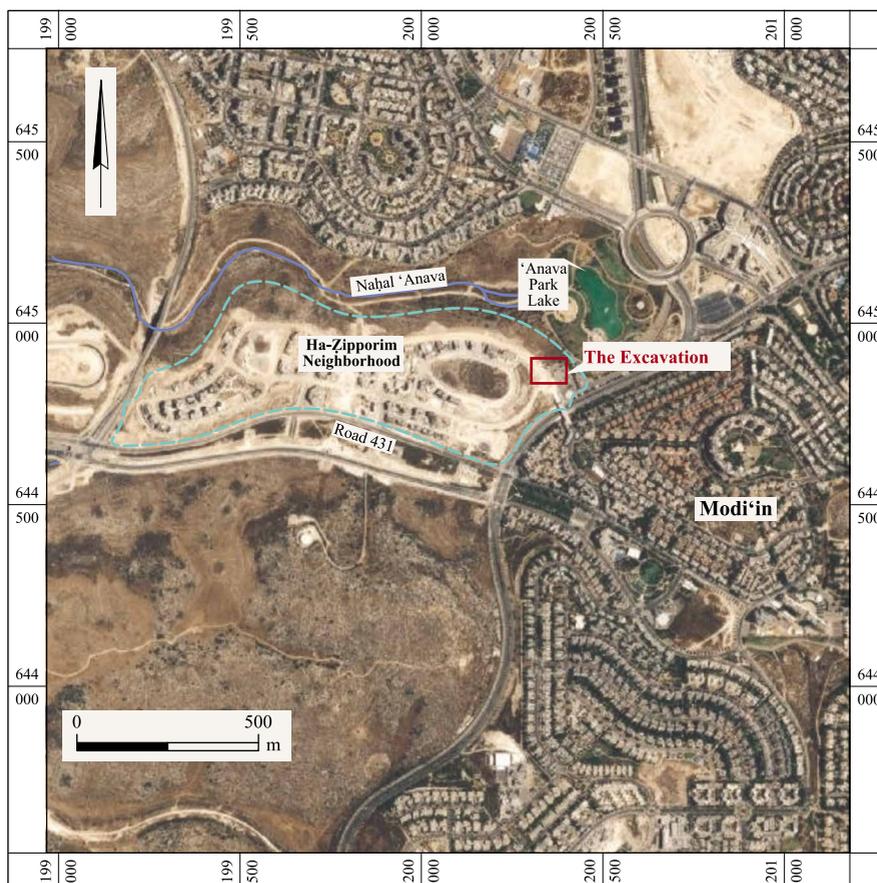


Fig. 1. Location map.

The remains of a building comprising two wings enclosing a courtyard were discovered further upslope, apparently forming part of a farmstead dating from the Umayyad period, partly uncovered during the trial excavation conducted in 2001 (Onn, Weksler-Bdolah and Kaniyas, forthcoming). These remains are discussed in light of their significance within their geographical and historical context.

## THE EXCAVATION

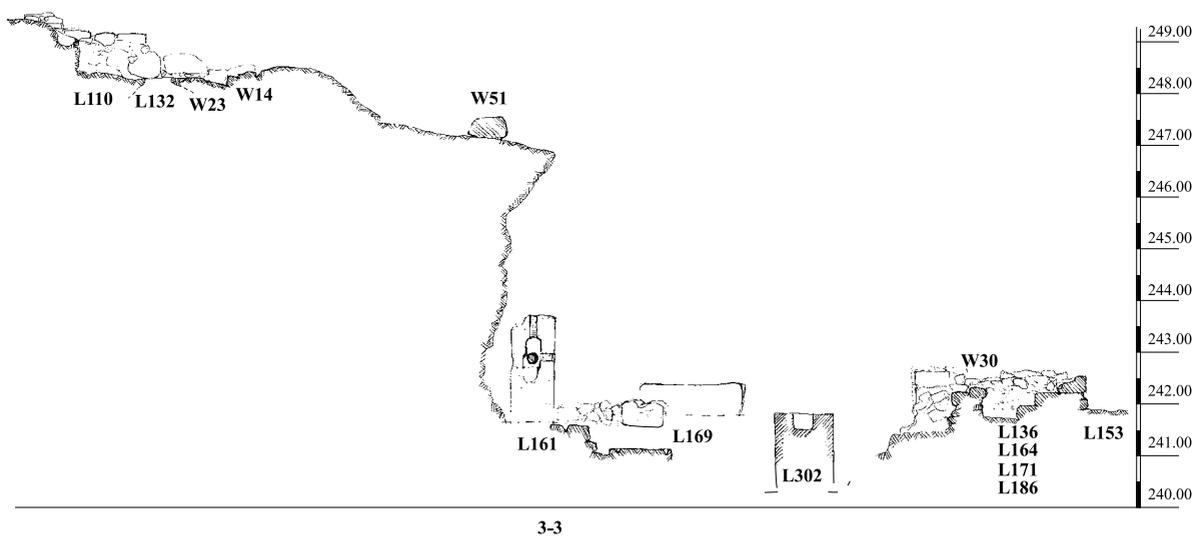
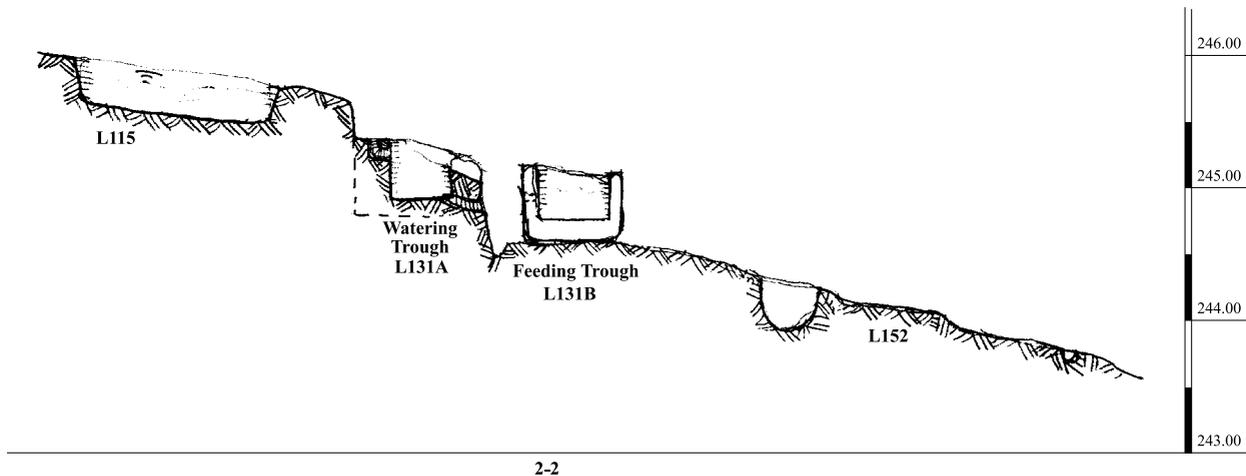
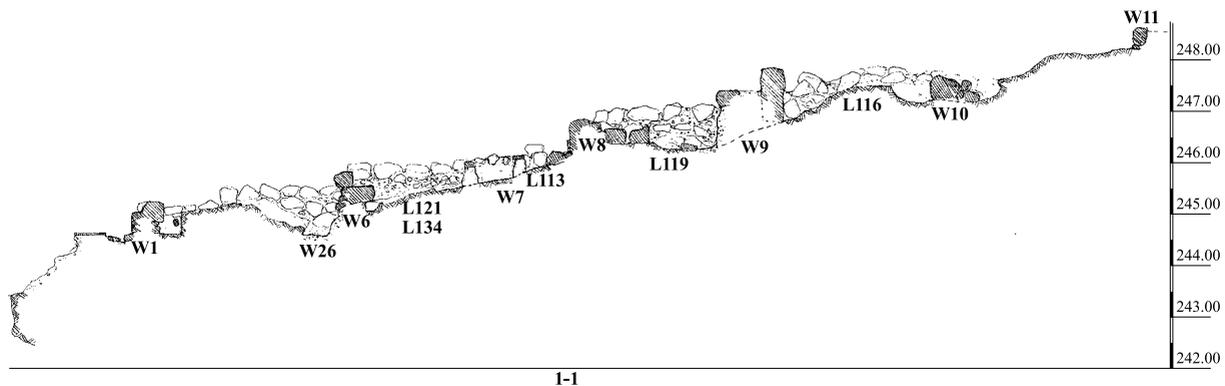
### The Byzantine Period

#### *The Olive Press*

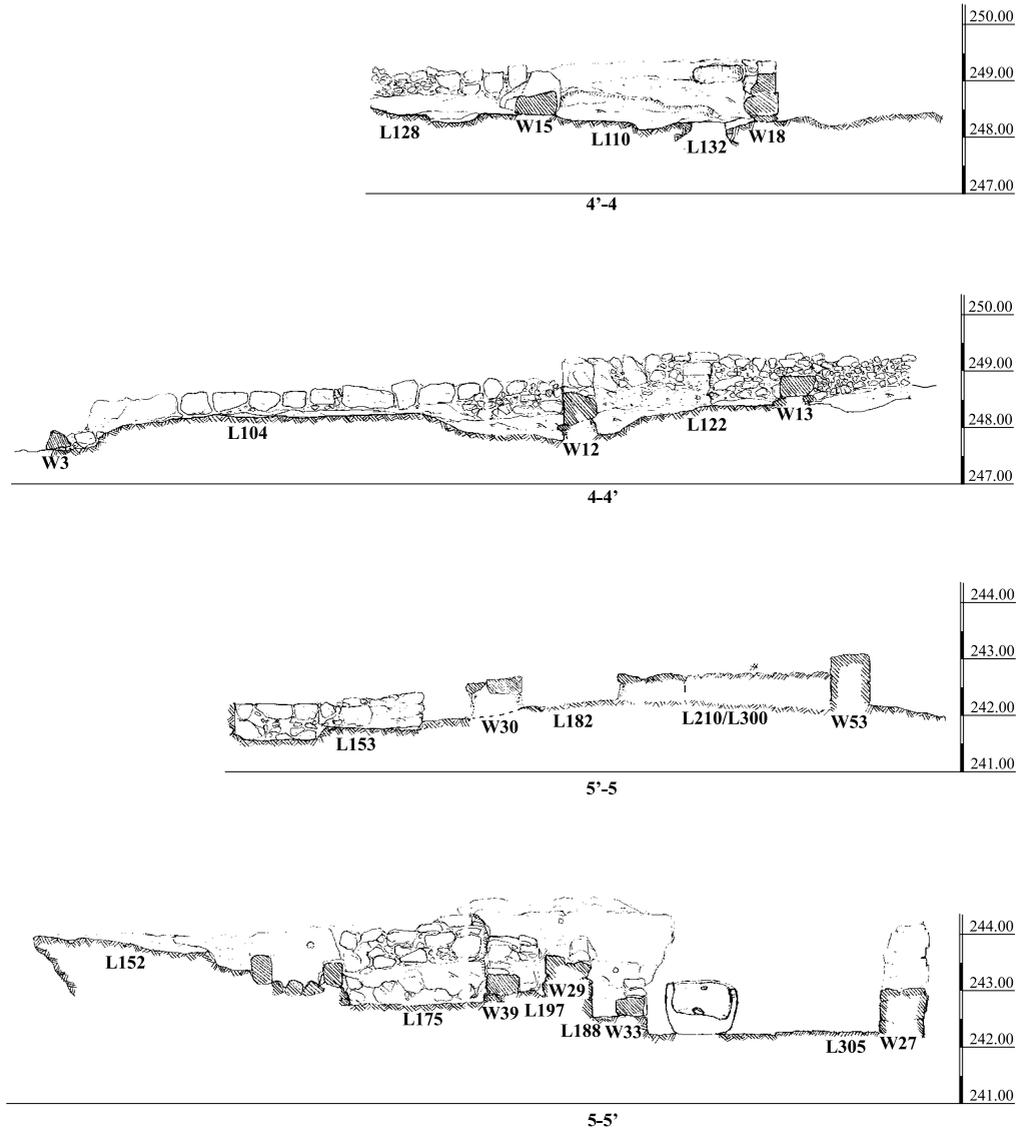
The olive press was set up in a natural cave (Plan 1: Section 3–3; circumference c. 19 m, diam. c. 6.5 m) whose original entrance collapsed and could not be reconstructed; however, it can be asserted that the entrance was from the north (L153), where three steps built from



Plan 1. The excavated area, plan and sections.



Plan 1. (cont.).



Plan I. (cont.).

smoothed stone slabs (L186) descended southward into the cave (Figs. 2, 3). The upper step served as the threshold; on its western edge, a socket apparently served to lock the cave's doorway. These steps and a preserved flagstone pavement patch (L192) abutted the outer face of W27 of the ashlar building. The ceramic finds from this entrance (L153, L186) included bowls (Fig. 20:14), basins (Fig. 21:10), cooking pots (Fig. 22:8) and jugs (Figs. 24:2, 3) dated to the fifth–sixth centuries CE.

Later in the sixth century CE, the steps (L186) and the pavement (L192) were covered with a large flagstone pavement (L171), abutting W27 to its east at a higher level. This renovation may have been intended to provide additional support for W27 prior to its collapse. The ceramic finds on this pavement included jars (Fig. 23:4) dated to the sixth century CE.

The oil was produced in two main stages. The olives were first crushed using a rotary olive crusher located in the western part of the cave (L142, L184, L195) and then extracted using a lever-and-screw press located in the eastern part of the cave (L161, L302). Only the circular crushing basin (diam. 2 m, height 0.83 m) remained from the rotary olive crusher, as the crushing stone was apparently removed from the cave before its collapse (Fig. 4). The square socket at the center of the circular crushing basin's flat surface was meant for the wooden axle on which the crushing stone rotated. The narrow channel on the crushing stone's flat surface enabled gathering the first oil. The circular walkway surrounding the crushing stone was meant for an animal who rotated the crushing stone. The natural cave wall was seemingly hewn to provide the circular shape for this walkway. A built section



Fig. 2. The site, general view to the southeast.



Fig. 3. The entrance to the oil press cave, looking north.



Fig. 4. The olive press, looking southeast.

(L195) adjacent to the cave's western wall also seems to have served to complete the circular walkway.

All the stone components of the lever-and-screw press were found. The press beam was anchored in the cave's southern wall, between two rectangular parallel stone piers, the eastern pier measuring 2.12 m high, 0.9 m wide and 0.3 m thick, and the western one, 2.07 m high, 0.8 m wide and 0.35 m thick. A rectangular groove was cut on the inner face of the stone piers. In the western pier, this groove began 0.8 m above its base and continued up to its top. A third of the way up this vertical groove, a round hole was cut through the pier at the center of a horizontal groove reaching the pier's front (northern) edge. In contrast, the groove on the eastern pier's inner face did not continue to the pier's top and showed a round indentation instead of a hole. On this pier's outer face, another rectangular groove continued until the top of the pier. Wooden rods were inserted in these grooves, apparently allowing to adjust the height of the beam's fixed end (Frankel 2009:7).

Facing the piers was a round stone press bed (L163; diam. 1.34 m) on which frails with olive pulp were placed. The channel surrounding the press allowed the pressed oil to flow via a spout to a square basin (L194; 1.00 × 1.15 m, 0.4 m deep) cut into the cave's floor northeast of the press bed. The basin had a 5 cm high rim for placing a cover, and four shallow channels were cut from its corners to a round depression at its center, where the unwanted byproducts could settle. Northwest of the press bed, a stone block (L166; 0.45 × 0.80 × 0.90 m) with grooves on its top and bottom possibly supported the pile of frails.

The screw weight (1.00 × 1.00 × 1.45 m) was installed in a rounded pit (L302; circumference 4.71 m, depth 0.84 m) 4 m northeast of the piers. The pit's southern wall was built from roughly hewn stones; a square stone socket between the stones was possibly in secondary use. The weight, square with rounded corners, had a round socket (0.25 m deep) at the center of its upper surface, where the wooden screw was installed; a mortice was present on each side of the weight. The mortices in the northeast and southwest were dovetail shaped. On the northeastern side, the mortice continued one meter over the top of the weight, while on the southwestern side, it continued 1.2 m. On the northwestern and southeastern sides, the mortices were rectangular and cut through the weight's full height. Screw weights with dovetail-shaped mortices are common in the country's central region and were classified by Frankel as Samaria weights (Frankel 2009:6). These mortices served to install the wooden structure that attached the screw to the weight. The screw would lower the beam that pressed on the frails piled on the press bed, extracting the oil which would flow into the square basin; once the beam could be no further lowered, the screw could raise the weight slightly above the floor, thus exerting further pressure. Following the oil extraction, the screw was turned in the opposite direction to raise the beam.

The ceramic finds from the olive-press floor (L136, L142, L161, L184, L195) included bowls (Fig. 20:8), cups (Fig. 20:20, 22), cooking pots (Fig. 22:9), jars (Fig. 23:10, 25) jugs (Fig. 24:4, 9), oil lamps (Fig. 25:1, 2, 6) and roof tiles (Fig. 26:4) dated to the fifth–sixth centuries CE. The glass vessels, found on the western edge of the cave's floor (L142), can also be dated to this period (see Winter, this volume: Figs. 1:8; 3:3). The accumulation

within the screw weight pit (L302) can be attributed to the collapse of the cave; it contained ceramic bowls (Fig. 20:4, 12), cups (Fig. 20:23) and basins (Fig. 21:2) that can be dated to the end of the sixth century CE, and a leg fragment of a white marble table (Fig. 26:1).

Alongside the cave's eastern wall, a narrow wall (W32) built of fieldstones incorporated a stone threshold in secondary use. Different from the other walls at the site, this wall seems to have been built in a later stage to support the cave's wall before it collapsed.

West of the stairs descending to the olive press was a wall segment (W30) preserved to a height of 1.4 m from the cave's floor and built of large ashlars placed upon a hewn foundation. At the southern end of this wall, the beginning of a wall running to the west was preserved; a hole in the upper stone of this wall, piercing through the southwestern corner of the stone, may have served to tether the animal that rotated the crushing stone. Immediately northwest of this wall, a large oval pit (L182, L191; depth 1.61 m), hewn into the soft limestone (Fig. 5), was found filled with ceramic and glass sherds. The ceramic finds, dating from the sixth century CE, included bowls (Fig. 20:3, 6, 7, 9, 11, 13, 15–18); basins (Fig. 21:3–6); casseroles (Fig. 22:1–3, 6); cooking pots (Fig. 22:7, 10, 12, 14–16); jars (Fig. 23:8, 16–18, 27); jugs (Fig. 24:5, 6, 8); a flask (Fig. 24:11); juglets (Fig. 24:12); and oil lamps (Fig. 25:3, 4, 7). The glass finds included bowls (see Winter, this volume: Fig. 1:1, 2); bottles (see Winter this volume: Fig. 2:8–10, 16, 17); oil lamps (see Winter, this



Fig. 5. The olive press, looking south.

volume: Fig. 3:1, 10) and windowpanes (see Winter, this volume, Fig. 3:13), all dated to the fifth–sixth centuries CE. Stone grinding tools (Fig. 26:2) and large fragments of a colored mosaic floor were also found in the pit. The oval pit and W30 may have originally formed part of a storage room adjacent to the olive press. A similar oval pit was found adjacent to the olive press in the Naḥal Haggit Roman farmstead; there, Seligman (2010:79) suggested that it may have been used to store the olives prior to their processing. Following the cave's collapse and the olive press' cessation, the pit was used as a garbage dump. In the Umayyad period, both the pit and W30 were covered with a rough fieldstone pavement (L210) that formed part of the Umayyad farmstead.

The olive-press cave area was enclosed by W50 on the north and by W53 on the west; the latter abuts the olive-press cave's western wall. These walls were built of large ashlar, similar to the adjacent ashlar-built walls, and were preserved to a maximum height of 1.9 m.

Toward the end of the sixth century CE, the cave's ceiling collapsed and its collapsed building stones (L139, L162, L163, L169) sealed the cave's finds below it (Fig. 6). The ceramic finds below the collapsed cave ceiling included basins (Fig. 21:9), casseroles (Fig. 22:4), jars (Figs. 23:2, 19, 21), and jugs (Fig. 24:10), all dated to the sixth century CE, thus dating the olive press to this time.

### *The Ashlar Building*

The remains of an ashlar building were found on two levels immediately to the east of the olive-press cave. The lower level abutted an additional cave to its south, while the upper level was built above the ceilings of both caves, which eventually collapsed (Plan 1: Section 5–5).



Fig. 6. Collapse within the cave, looking southwest.

The western wall of the lower level of the building (W27), built of large ashlars, was preserved to a maximum height of five courses (2.2 m). Some ashlars had been wholly smoothed on their outer surface, while others had drafted margins, and one stone showed two protruding bosses. Stones with drafted margins are typical of the Byzantine period and show rough protruding bosses (Tsafrir 1984:300–303).<sup>2</sup> The inner face of W27 was built of small fieldstones bound with mortar. Ashlars on the exterior, and fieldstones reinforced with mortar on the interior, reflect the Byzantine standard building technique (Hirschfeld 1995:233). The building's eastern wall (W29) was similarly built and was preserved to a maximum height of four courses (1.3 m). The western wall was found leaning slightly to the west, apparently resulting from the weight exerted by the building's upper level and the collapse of the adjacent cave's ceiling. The floor between the walls (L305) was paved with large smooth flagstones (Fig. 7).



Fig. 7. The room adjacent to the olive press from the south, looking southwest.

<sup>2</sup> Decorative drafted margins appear in ashlar construction in the country in a number of periods, but are best known from the Hellenistic and Herodian periods. It seems that the drafted margins had specific characteristics in each period. The characteristics of the Herodian drafted-margin masonry were discussed by Jacobson (2000). Drafted-margin masonry from the Byzantine period has been noted at several sites, such as Eudocia's wall—the Byzantine-period fortification that surrounded Mount Zion in Jerusalem (Bliss and Dickie 1898: Pl. III; Tsafrir 1984:300; Zelinger 2010); the fort at 'En Boqeq (Gichon 1993: Pl. 2; Magness 1999:191–195); the church at Ḥorbat Berakhot (Tsafrir and Hirschfeld 1979:296); and the monastery founded by Justinian on Mt. Gerizim (Magen 2000:138). The fortified monasteries at Deir Qal'a (Hirschfeld 2002:165; Magen and Aizik 2012:154) and Deir Sam'an (Hirschfeld 2002:85; Magen 2012:9–30) were also built with very impressive drafted-margin masonry. In all these cases, the ashlar construction has similar characteristics. The walls were built from a combination of completely smooth ashlars and ashlars with drafted margins. The ashlars with drafted margins have a rough protruding boss, and, in some cases, one stone has two protruding bosses.

A stone basin was installed in the southwestern corner of the room (L196). Two Umayyad-period coins were found in this locus (see below, Coin Nos. 2, 3), probably originating in the upper farmhouse. The entrance to the cave, abutted by W27 and W29 of the lower building, was via a wide arched opening in the cliff's face (W34). East of the entrance (L172) were a shelf cut into the cliff face and various cut depressions that seem to have held a wooden device. A large stone basin was found upside down against the arched entrance's eastern wall, seemingly placed there to support the entrance prior to its collapse. The connection between W29 and the cliff's face (L188) had been clearly strengthened, and an additional wall (W33), abutting the cliff's face 0.5 m west of W29, was built in a later stage. These renovations seem to have been carried out to prevent the building's collapse. The ceramic finds in this area (L172, L188) included basins (Fig. 21:12) and jars (Fig. 23:15) dating from the sixth century CE to the end of the Byzantine period.

East of W29 is a built staircase (L174) that ascended to the building's upper level. An additional entrance to the cave (L193) from the east, with a vaulted ceiling, was cut into the stone below the staircase (Fig. 8). This entrance threshold had a large rectangular stone with three sockets, which seemingly served to install a wooden door (Fig. 9). Several flagstones were found west of this entrance (L303) and the cave floor was probably paved. A segment of an ashlar wall (W41) was uncovered in the southern part of the cave (Fig. 10); this may have been the outer surface of a water cistern's northern wall (L147) that descends from the upper level. The inner (southern) part of the cave (L190, L198, L304) was covered with



Fig. 8. The staircase to the second floor, looking south.



Fig. 9. Entrance to small cave, looking southeast.



Fig. 10. The small cave, looking southwest.

the collapsed ceiling and was thus not fully excavated. An oil lamp from the Early Islamic period (Fig. 25:8) was found amongst the upper layers of collapse in the cave (L198). Many animal bones were found (see Shtainberg Finali and Bouchnick, this volume: Appendix 2).

The staircase east of W29 led to the building's upper level. The staircase's lower steps were built of large, roughly hewn stones, while its upper steps were cut into bedrock. None of the ashlar building's upper-level walls survived; this level's reconstruction is based on the hewn components and the many collapsed ashlars found above the collapsed cave ceiling. Two hewn foundation lines found immediately northeast of the staircase indicate the presence of two walls that were not preserved and seem to have formed the southwestern corner of the building. The bedrock floor within that corner (L135) was smoothly cut, and a few small tesserae were found *in situ* (Fig. 11). Many similar tesserae were found amongst the stone collapse (L189) between W27 and W29, right below the hewn corner. Many collapsed ashlars were found above the collapsed ceiling of both the olive-press cave and the cave between W27 and W29 (L140, L141, 158). Among the ashlars were architectural elements, such as part of an L-shaped stone doorjamb with three sockets to hold a bolt (Fig. 12). Colored tesserae and chunks of white plaster were also found within the collapse. The ceramic finds amongst the collapsed ashlars of the building's upper level (L140, L141, L158) included basins (Fig. 21:11) and jars (Fig. 23:6, 7, 14, 23) dated to the sixth century CE. The weight exerted by the building and/or natural elements may have caused the cave's ceilings to collapse, also collapsing the upper level of the building and burying the caves.

Northeast of the hewn corner (L135) is a water cistern (L147) with a square opening (L167) and walls smoothly plastered with a thick layer of red-colored plaster. Three hewn steps led toward the cistern's opening. A few glass vessels were found above these steps (see Winter, this volume: Fig. 3:9).



Fig. 11. Remains of mosaic floor, looking south.



Fig. 12. A doorjamb found in the collaps.

East of the water cistern, some installations seem to have formed part of a stable (Fig. 13; Plan 1: Section 2–2). Facing the water cistern are three rock-cut rectangular basins that seem to have served as troughs for drinking water (L131A). North of them is a free-standing rectangular stone basin, which may have served for feeding animals (L131B). Cup marks and other rock-cut basins were found in this area (L131, L152, L175); they may have also served the latter. This area yielded jars (Fig. 23:24) and jugs (Fig. 24:1) dated to the sixth century CE.

The Byzantine-period residence layout is unclear. Only a few poorly preserved wall fragments were uncovered under the floors of the Umayyad-period farmstead (see below).

South of the area where the ashlar building's upper level stood was a large oval entrance to a large round cave (L145) that was not fully excavated. The surrounding rock was carefully hewn (L125), and a few glass vessels were found on it (see Winter, this volume: Figs. 1:4, 6, 7; 3:11). Four hewn steps led into the cave; animal bones were found on the lowest step (see Shtainberg Finali and Bouchnick, this volume: Appendix 2). A square opening in the cave's ceiling provided light and ventilation. The cave was filled with collapsed building stones, including large ashlars. Although it was not possible to determine this cave's function without fully excavating it, it seems to have formed part of the Byzantine complex.

The Byzantine complex collapsed toward the end of the sixth century CE. The collapse, located on a slope, was covered with earth that slid from the hilltop, and the area subsequently



Fig. 13. The stable, looking northeast.

served for agricultural purposes. At a later point in time, a field wall (W51), running south and east of the oil-press area, and a field tower (L176), were built approximately 4 m above the floor level of the Byzantine complex (Plan 1: Section 3–3).

## The Umayyad Period

### *The Farmstead*

The remains of a two-winged L-shaped building were found further up slope, seemingly forming part of a farmstead dating from the Umayyad period (seventh–eighth centuries CE; Fig. 14).<sup>3</sup> The building was built on the high bedrock sloping northward toward Naḥal ‘Anava (Wadi ‘Anabeh). Its walls were built of a combination of medium and large ashlars, and fieldstones of varying sizes. The ashlars may have been reused from the ruins of the earlier Byzantine building. The eastern wing extended from northeast to southwest, and the western wing, from southeast to northwest.



Fig. 14. The farmstead, looking east.

<sup>3</sup> The building was first examined in 2001 by Onn, Weksler-Bdolah and Kanias (forthcoming) after its northeastern corner was damaged during the excavation of an adjacent parking lot.

The eastern wing was composed of five rooms (I–V; Plan 1: Section 1–1). On the southeast, the rooms were enclosed by W3, and on the northwest, by W2. Since no entrances were revealed in W3, it seems that the entrances to the rooms were located in the poorly preserved W2.

Room I was largely destroyed during the construction of the parking-lot (see n. 3). A mosaic floor, made of large white tesserae ( $3.5 \times 3.5$  cm), apparently serving some industrial function, was partially preserved in the room. The entrance to this room was via a threshold in W35. The room was narrower than the others in the wing. Due to its damaged state, the relationship between this room and the rest of the building remains unclear.

Northern W1 of Room II overrid the Byzantine-period trough (L131A; Fig. 15). The room's southeastern corner was built above an earlier diagonally oriented wall (W26), which was tentatively dated to the Byzantine period. Wall 1 continued further northwest, indicating perhaps another row of rooms in this direction that was not preserved.



Fig. 15. Umayyad W1 overriding one of the stable's watering troughs (L131A), looking west.

Room III seems to have served as a kitchen. A circular stone base of a *ṭabun* (L310) was exposed in the southeastern corner of the room (Fig. 16). Close to this corner, a circular indentation in the bedrock, with a round depression at the center, seems to be where the lower stone of a rotary hand mill was installed, the round depression serving to hold the axis. Many ceramic and glass sherds dating from the Umayyad period, as well as animal bones (see Shtainberg, Finali and Bouchnick, this volume: Appendix 2) and charcoal, were found on the crushed chalk floor in this room (L121). The finds included ceramic bowls (Fig. 20:10), cooking pots (Fig. 22:11) and jars (Fig. 23:5, 20), and glass bottles and lamps (see Winter, this volume. Figs. 2:5, 7, 11; 3:4, 6, 7) dated to the Umayyad period. Between this floor and the bedrock (L134) were ceramic bowls (Figs. 20:2, 5), cooking pots (Fig. 22:5, 13) and jars (Fig. 23:9), and glass vessels, all dating from the Byzantine period (fifth–sixth centuries CE).

Southwest of Room III, between W7 and W8, a narrow passageway or channel (L133) was exposed; patches of plaster were preserved on the external face of W8.

Room IV was paved with a fieldstone floor (L102); the fieldstones were of various sizes and their upper surface had been flattened. The finds below the floor (L114), e.g., an oil lamp (Fig. 25:5), dated the floor to the Umayyad period (seventh century CE). Beneath this floor, two earlier phases were encountered: a segment of a diagonally oriented wall



Fig. 16. Room III with *Ṭabun* 310 in its corner, looking northeast.

(W19), built of large ashlars and comprising a threshold with a door socket (Fig. 17), and a segment of another wall (W21) below the threshold. Wall 19 seems to have formed part of the Byzantine period complex; the ceramic material found below the level of the threshold (L117, L119) included bowls (Fig. 20:1), basins (Fig. 21:7) and jars (Fig. 23:1, 12), all dated to the Byzantine period. Wall 21 probably formed part of a building or installation preceding the latter.

A partition wall (W9) between Rooms IV and V was built above a soil layer, not on bedrock. Approximately 0.8 m southwest of W9, a segment of a wall (W58) was found, built directly on bedrock. A crushed-chalk floor (L116; 0.25 m thick) was exposed in Room V; the glass finds underneath this floor were dated to the fifth–seventh centuries CE (see Winter, this volume: Figs. 1:5; 2:13).

The western wing comprised Rooms VI–IX (Fig. 18; Plan 1: Section 4–4). It was enclosed on the north by W10, and on the south, by W11. The entrances to the rooms (e.g., L157) seem to have been in W10.

Room VI, connecting both wings, was elongated and larger than all the others. The bedrock floor (L104) of the building was almost fully exposed. A threshold stone in partition W12, between Rooms VI and VII, seems to indicate a passage between the two rooms. The fragmentary remains of a fieldstone floor (L107) were discovered in the southwestern part of Room VII.



Fig. 17. Room IV, looking northeast.



Fig. 18. The western wing, looking northeast.

The fill (L109) in Room VIII yielded rectangular clay tiles; although these tiles were not found *in situ*, they seem to be remnants of the original floor. Underneath this fill, a layer of tightly packed brown soil above bedrock (L128) seemingly served as the floor's bedding.

The northwestern wall of Room IX (W18) was built of large ashlars; a stone threshold with a door socket was found in the room's northeastern corner (L110). The ceramic finds from the room included cups and jars dating from the sixth–eighth centuries CE (Figs. 20:21; 23:31). The room's southern wall (the continuation of W11) was partly hewn in the high bedrock, and a shelf was cut alongside it. The southeastern wall (W15) of the room was half hewn and half built. In the room's southwestern corner, an oval basin (L311) was hewn into the bedrock shelf. In the northwestern half of the room is a round opening of a bell-shaped water cistern (L132). Northwest of this wing, the bedrock had been carefully hewn (L123), perhaps implying the existence of an additional room that was not preserved; a few glass vessels and animal bones were found above this bedrock (see Winter, this volume: Figs. 2:1, 2, 12, 14, 15; 3:8, 12; see Shtainberg, Finali and Bouchnick, this volume: Appendix 2).

### *The Building's Surroundings*

A retaining wall (W20) to the south of the southeast–northwest oriented wing seems to have served to prevent the sliding of earth onto the farmstead walls. Jars (Fig. 23:13, 22, 28, 29) dated to the Byzantine period were found on the bedrock nearby (L118).

Immediately to the east of Room II of the eastern wing are the remains of a room diagonally oriented to the Umayyad period building and paved with large, square, terracotta floor tiles (L178; Fig. 19). Beneath the terracotta tiles (L179), a foundation of flint chunks and earth covered an oval installation built from small fieldstones. Although this room seems to have preceded the Umayyad building, the foundation layer beneath the tiles yielded inconclusive finds.

Several walls were found further east of the Umayyad building's eastern wing: W4, W5, and W16 may have served as an enclosure for animals, while W22 and W28 seem to have served as agricultural terraces.

To the north of the building, above the corner of the Byzantine complex and next to enclosure W50, was a fieldstone-paved floor (L210); the layer below this floor (L300, L136) yielded ceramic basins (Fig. 21:8), jars (Fig. 23:3, 11, 30) and jugs (Fig. 24:4, 7) dated to the sixth–seventh centuries CE. This floor seems to have formed part of the Umayyad-period farmstead.



Fig. 19. Clay-tile floor (L178), looking northeast.

## THE FINDS

## POTTERY

The finds presented below were selected from sealed and stratigraphically important loci. The selected loci from the olive press include the cave's entrance (L153, L186), the later pavement (L171) and the floor below it (L161, L184, L195), the space underneath the cave's roof collapse (L302, L139, L162, L163) and the oval pit, west of the staircase (L182, L191). The chosen loci from the ashlar building are from its renovation (L172, L188), the staircase (L174), the cave underneath the collapsed ceiling (L198, L141, L158) and the stable (L175). In the Umayyad farmhouse, the chosen loci are from Rooms III (L121, L134), IV (L114, L117, L119) and IX (L110); from the bedrock south of W20 (L118); and from below the pavement north of the building (L300, L136).

The pottery finds reflect the three architectural phases described above: The Byzantine-period construction of the ashlar building and the oil press; the collapse of the caves' ceilings and the destruction of the installations; and the Umayyad farmhouse. Although some pottery vessels were used only for a limited time, thus providing a specific date, most vessels enjoyed a long period of use. The finds are presented typologically.

*Late Roman Red-Slipped Bowls* (Fig. 20:1–15)

The vessels of this type are highly levigated and belong to several groups and types.

*Cypriot Red Slip Ware* (Fig. 20:1).— A bowl with an angled rim everted sharply upward and inward, and very thick walls. It dates from the sixth–seventh centuries CE.

*African Red Slip Ware* (Fig. 20:2).— A bowl with a straight, thick rim tilting outward, dating from the sixth–seventh centuries CE.

*Phocaean Red Slipped Ware* (Fig. 20:3–15).— Bowls Nos. 3, 4, with particularly thin walls, are of notably high quality: Bowl No. 3 has a flat ring base and bears a stamped row-deer impression on its floor, and Bowl No. 4, with a shallow ring base, has a gazelle impression stamped at the center of the floor. These bowls date to the fourth–fifth centuries CE.

Bowl Nos. 5–12 are dated to the sixth and seventh centuries CE. They have very thin walls (Hayes 1972:331–332, Forms 3 and 4, Figs. 67, 68) and a split rim: the upper part curves outward, while the prominent, lower part curves downward. On the wide rim, two or three long grooves are visible, some with rouletted decoration.

Bowl No. 13, of very high quality, has an angled rim tilting outward and very thin walls. This bowl is generally dated to the Byzantine period (fifth–seventh centuries CE). Bowl No. 14, dated to the sixth century CE, has a squared rim tilting up and inward with a depression underneath.

Hemispherical bowl No. 15 has an inverted rim. It dates from the Byzantine period.

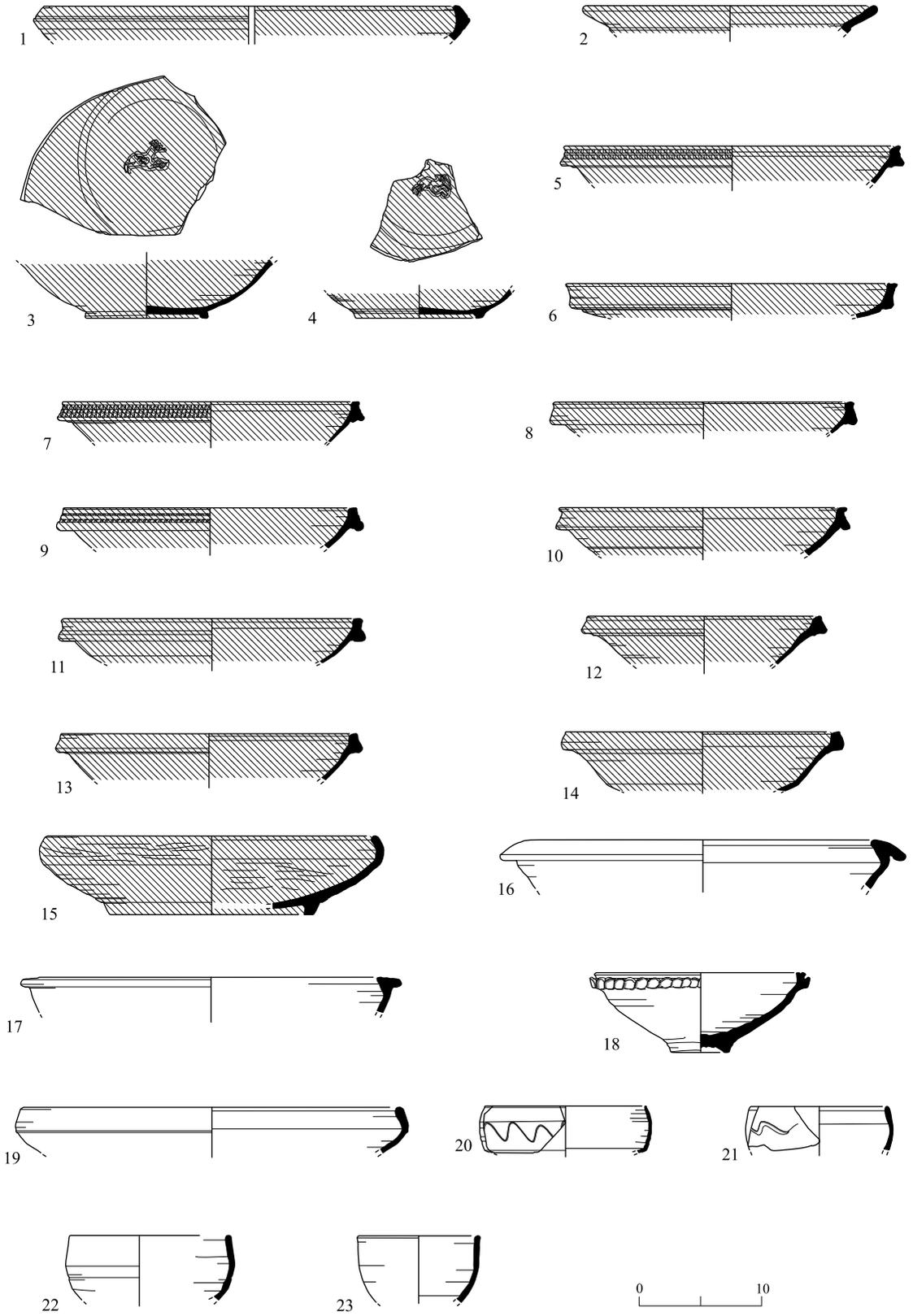


Fig. 20. Bowls and cups.

◀ Fig. 20

No.	Type	Locus	Basket	Description	Reference
1	Bowl	119	1056	Brown-orange clay with a few small grits	Hayes 1972:382, Form 10 Yannai 2006: Fig. 8: 1
2	Bowl	134	1091	Brown-pinkish clay with a few small grits	Hayes 1972:64, Fig. 11: Form 48II
3	Bowl	182	1387	Brown-orange clay with a few small grits	Hayes 1972:358, Fig. 76, Pattern 41a
4	Bowl	302	1488	Brown-orange clay with a few small grits	Hayes 1972:358, Fig. 76, Pattern 41b
5	Bowl	134	1143	Brown-pinkish clay with a few small grits	Hayes 1972:378, Fig. 81 Calderon 2010: Fig. 4: 54
6	Bowl	182	1450	Brown-orange clay with a few small grits	Vincenz 2010: Pl. 8.12:7
7	Bowl	191	1383	Brown clay with a few small grits	Vincenz 2010: Pl. 8.12:7
8	Bowl	161	1437	Brown clay with a few small grits	Calderon 2000: Pl. X:67
9	Bowl	182	1485	Brown-pinkish clay with a few small grits	As No. 5
10	Bowl	121	1076	Brown clay with a few small grits	As No. 5
11	Bowl	182	1455	Brown clay with a few small grits	As No. 5
12	Bowl	302	1488	Brown clay with a few small grits	As No. 5
13	Bowl	182	1384	Brown clay with a few small grits	Vincenz 2010: Pl. 8.33:3
14	Bowl	186	1377	Brown-orange clay with a few small grits	Vincenz 2010: Pl. 8.35:8
15	Bowl	182	1493/2	Brown clay with a few small grits	Hayes 1972:325, Fig. 65, Form 1
16	Bowl	182	1501	Brown clay with a few small grits	Torgë and 'Ad 2012: Fig. 23:6
17	Bowl	182	1465	Brown-grayish clay with many large grits	Torgë and 'Ad 2012: Fig. 21:4
18	Bowl	182	1465	Brown clay with many small grits	Vincenz 2010: Pl. 8.7:3
19	Bowl	174	1337/1	Brown-reddish clay with many small grits	Weksler-Bdolah 2012: Fig. 40:3
20	Cup	184	1386	Brown-pinkish clay with a few small grits	Calderon 2010: Fig. 12:119
21	Cup	110	1050	Brown-orange clay with many small grits	As No. 20
22	Cup	161	1485	Brown clay with many small grits.	Vincenz 2010: Pl. 8.29:5
23	Cup	302	1788	Brown-pinkish clay with a few small grits	As No. 22

*Fine Byzantine Ware* (Fig. 20:16–23)

*Bowls* (Fig. 20:16–19).— Bowl Nos. 16, 17 date to the fifth–seventh centuries CE. Bowl No. 16 has a thick rounded rim, while Bowl No. 17 shows a straight ledge rim and a body rounding inward.

Bowl No. 18 has a straight rim with a sharp depression in the middle, and a rope-shaped plastic decoration on its exterior. The clay is well-levigated, and the vessel is of high quality. This bowl dates from the end of the Byzantine to the beginning of the Umayyad periods. Bowl No. 19 is slightly carinated and dates from the end of the Umayyad–beginning of the Abbasid periods.

*Cups* (Fig. 20:20–23).— Four cups were uncovered, all belonging to the Fine Byzantine Ware group. Cup Nos. 20, 21, dated to the sixth and seventh centuries CE, have a very thin wall and a wave incision on the vessel's upper part. The same thin wall can be seen in cup Nos. 22, 23, which lack decoration. These vessels are very common and have a very long duration, from the fifth to the eighth century CE.

*Basins* (Fig. 21)

Many basins were uncovered. High-quality basin Nos. 1–3 have thickened everted rims. Vessels of this type date from the fourth to the sixth centuries CE.

Basin No. 4, with a thick rim extending outward and downward, is decorated with combing of stripes and waves on its body. Basin No. 5, also with combing on its body, has a thick ledge rim. Basin No. 6 shows a similar thick rim with a slight ridge to receive a lid and wavy combing on its body. These three vessels are dated to the Byzantine period (fifth–seventh century CE).

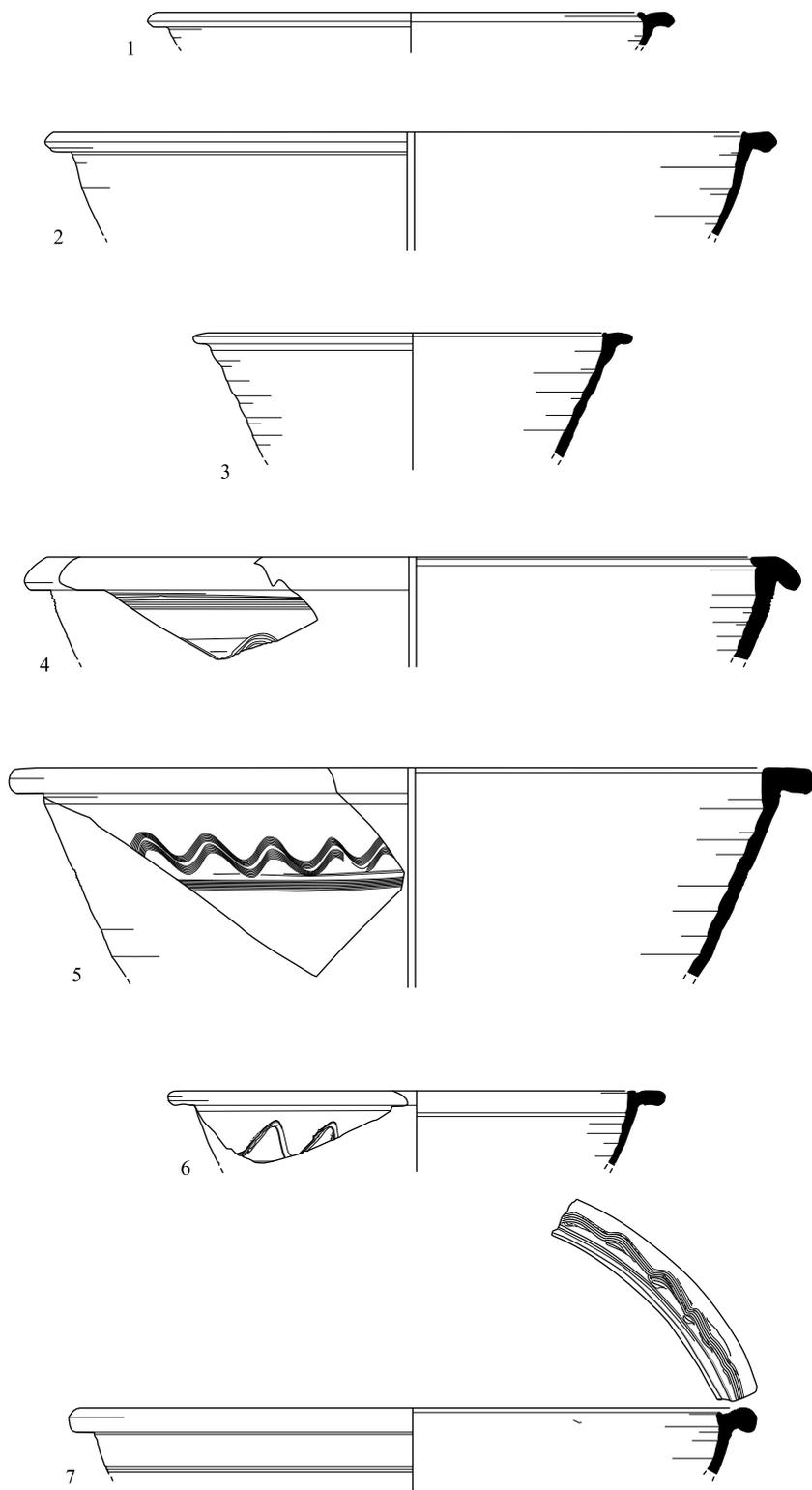
Basin No. 7, dated to the fifth–seventh centuries CE, has a thick arched rim with a small depression for the lid. The vessel exhibits combing on the rim and is decorated with stripes on the body. Basin No. 8, with a thick ledge rim, dates from the sixth to the second half of the eighth century CE. Basin No. 9 has a thick inverted rim and a combed decoration under it. This vessel has a long span of use, from the sixth to the mid-eighth century CE.

Basin Nos. 10, 11, with a rim that is thick in the lower part and thinner in the upper part, also date from the sixth to the eighth century CE.

Basin No. 12 has a thick rim rounding outward and handles close to the rim; stripes and wavy combed decorations appear under the rim. This basin dates to the end of the Byzantine–Early Islamic period (sixth–eleventh centuries CE).

*Cooking Vessels* (Fig. 22)

*Casseroles with Beveled-Cut Lip* (Fig. 22:1–5).— Prominent potter's wheel ribs are visible on all the vessels. Vessel No. 1 has no handles, Vessel No. 2–4 have wide ribbon handles attached near the rim. These vessels are dated to the Byzantine period, from the fifth to the seventh or even the beginning of the eighth century CE.



0 10

Fig. 21. Basins.

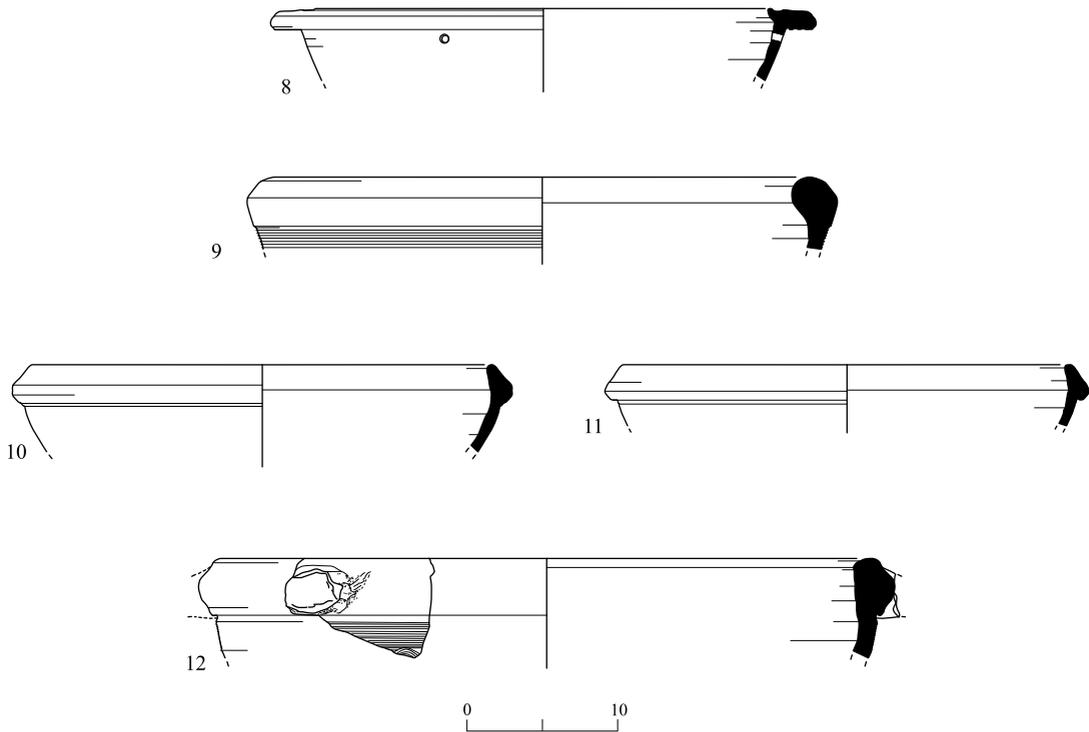


Fig. 21. (cont.).

No.	Locus	Basket	Description	References
1	161	1437	Brown-orange clay with many grits	Weksler-Bdolah 2012: Fig. 32:8
2	302	1488	Brown-orange clay with many small grits	As No. 1
3	182	1524	Brown-grayish clay with many small grits	Magness 1993:20
4	182	1493/5	Brown-orange clay with many grits	Israel, Seriy and Feder 2013: Fig. 13:6
5	182	1493/8	Brown clay with many grits	Israel, Seriy and Feder 2013: Fig. 13:5
6	182	1493	Brown clay with many small grits	As No. 5
7	117	1045	Brown clay with many grits	Vincenz and Sion 2007:22, Fig.1:4
8	300	1515	Grayish clay with many small grits	Calderon 2010: Fig. 4:47
9	139	1226	Brown-orange clay with many small grits	Tzioni 2008: Fig. 10:5
10	153	1241	Brown clay with many small grits	Vincenz 2010: Pl. 8.40:3
11	141	1224	Brown clay with many small grits	As No. 10
12	172	1359	Brown clay with many grits	Vincenz 2010: Pl. 8.31:2

*Cooking Pots with Rounded Rim* (Fig. 22:6, 7).— Vessel No. 6 has a thick rounded rim and a short neck. The body is oval with wheel ridging. Such vessels are very common and date to the fifth and sixth centuries CE. Cooking pot No. 7 has a short rounded rim with vertical handles attached to it. These vessels appear in Jerusalem from the end of the fifth century to the end of the seventh century, and maybe even in the beginning of the eighth century CE.

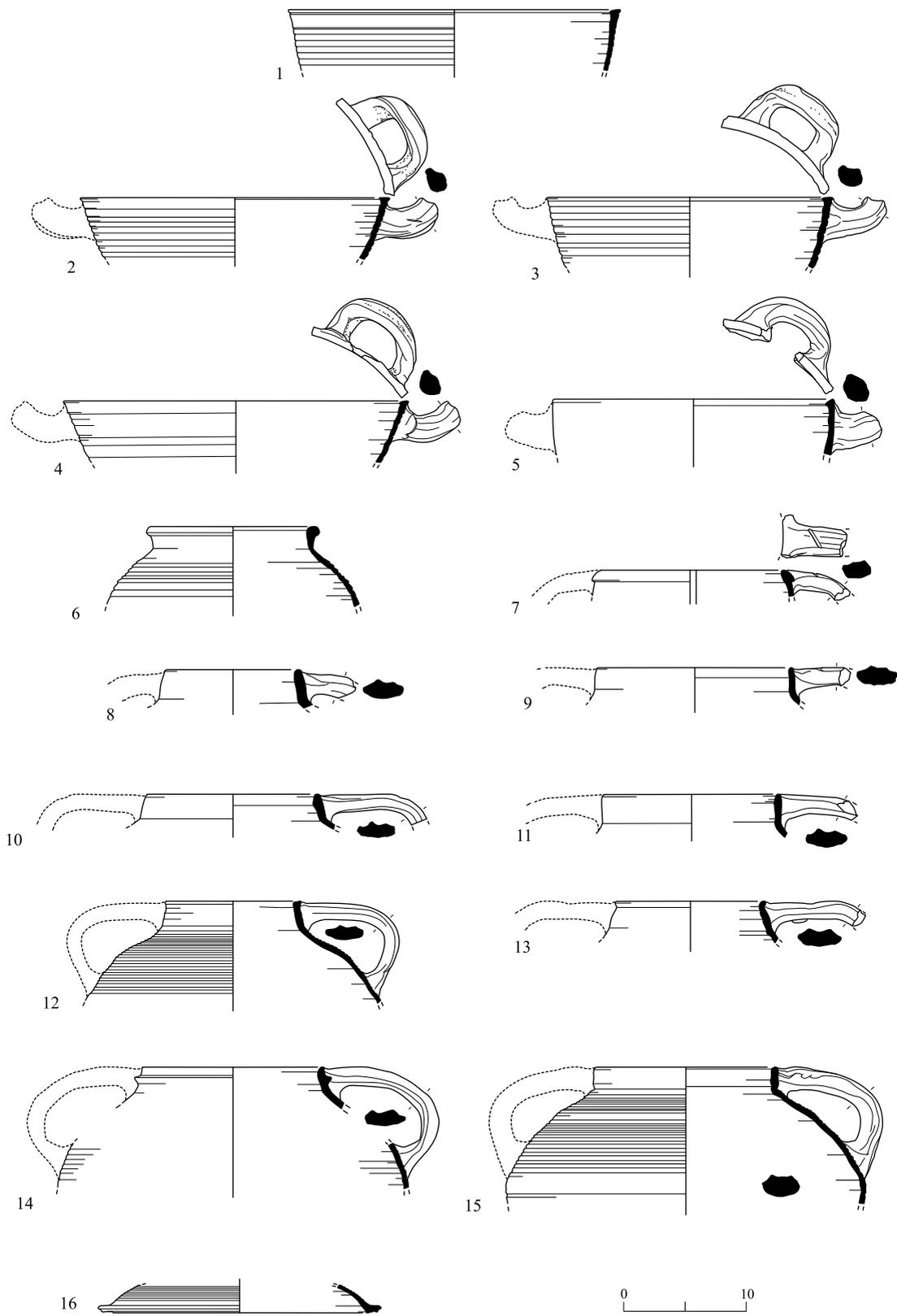


Fig. 22. Cooking ware.

◀ Fig. 22

No.	Type	Locus	Basket	Description	Reference
1	Casserole	191	1383	Brown clay with many grits in various sizes	Vincenz and Sion 2007:23–24, Fig. 2:1–3 Tzioni 2008: Fig. 11:11
2	Casserole	182	1295	Brown clay with many small grits	As No. 1
3	Casserole	182	1501	Brown clay with many small grits	As No. 1
4	Casserole	162	1279	Brown clay with many small grits	As No. 1
5	Casserole	134	1091	Dark brown clay with many grits in various sizes	Magness 1993:219–220
6	Cooking pot	182	1403	Brown-reddish clay with many grits in various sizes	Vincenz and Sion 2007: Fig. 2:15
7	Cooking pot	182	1370	Brown clay with many small grits	Tushingham 1985: Fig. 30:3, 23 Magness 1993:219–220
8	Cooking pot	186	1377	Brown-orange clay with many small grits	Tzioni 2008: Fig. 11: 8
9	Cooking pot	184	1469	Brown clay with grits in various sizes	As No. 8
10	Cooking pot	191	1383	Brown-reddish clay with many small grits	As No. 8
11	Cooking pot	121	1059	Brown-reddish clay with many small grits	Vincenz and Sion 2007:24–25, Fig. 2:12–14
12	Cooking pot	182	1410	Gray clay with many small grits	Magness 1993:219–220 Vincenz and Sion 2007:24, Fig. 2:12 Tzioni 2008: Fig. 11:7
13	Cooking pot	134	1143	Brown-orange clay with many small grits	Yannai 2010: Fig. 19:1
14	Cooking pot	182	1493-1	Brown-reddish clay with many small grits	Vincenz and Sion 2007:24, Fig. 2:5–8 Tzioni 2008: Fig. 11:9
15	Cooking pot	182	1402	Brown clay with a few small grits	Vincenz and Sion 2007:24, Fig. 2:11
16	Lid	182	1406	Brown clay with many large grits	Nahshoni and Seriy 2014: Fig. 16:3

*Cooking Pots with Straight Rims* (Fig. 22:8–15).— These vessels, with straight rims and short necks slightly leaning inward and vertical handles attached to the rim, date to the end of the fourth century CE. However, considering their finding context, their usage can be extended to the fifth and maybe even the sixth centuries CE.

Vessel Nos. 11, 12 are dated to the Byzantine–beginning of the Umayyad periods. Cooking pot No. 11 has a straight rim with vertical handles, while the No. 12 has a relatively short neck, slightly leaning inward, vertical handles attached to the rim, and very thin walls with prominent wheel marks on the exterior.

Cooking pot No. 13 has a rim slightly leaning outward and upward and an infolded neck. Vessels of this type date from the second half of the fifth to the sixth century CE.

Cooking pot No. 14 shows a ridged rim slightly out-turned and up, and vertical handles attached to it. Cooking pot No. 15 has a straight rim, a short neck leaning inward, and vertical handles attached to the rim. Dense wheel ridging appears on the exterior of its very thin walls. Both these vessels are dated to the Byzantine period.

*Lid* (Fig. 22:16).— A lid was also found in the assemblage, made of the same material as the cooking pots. It has a ridged rim sticking outward and up, and ridges and combing marks on the body.

### *Jars* (Fig. 23)

*Gaza Jars* (Fig. 23:1–6).— These jars have a slightly outward and upward rim and a very short neck, with remains of clay on their upper body. The vessels date from the end of the fourth to the beginning of the seventh century CE.

*Bag-Shaped Jars* (Fig. 23:7–31).— Jars with a thick upright rim, inward leaning neck, and a prominent ridge under the neck. Some have depressions at the bottom of the rim, inside the vessel, and wheel ridging is very distinct on the neck. These jars date to the fifth–sixth centuries CE. The jar in Fig. 23:12 has a fold-like depression under the rim's inner side and combing on the body; this vessel dates to the Byzantine–beginning of the Umayyad periods (fifth–seventh centuries CE).

Jar No. 30, with a straight rim and a neck rounding inward, is dated to the sixth–seventh centuries CE. Jar No. 31 has a straight rim leaning upward and outward, a neck slightly leaning outward, and prominent potter's wheel marks on the neck. This vessel is dated to the fifth–sixth centuries CE.

### *Jugs* (Fig. 24:1–10)

Jug No. 1 is a very poorly made jug with very thick walls and a split rim whose upper part rounds up outward, and its lower part sticks down. It is dated to the sixth century CE.

Jug Nos. 2, 3 have a thick rim tilting upward and out. The short neck is sharply everted, and two handles are attached to the rim. These vessels date from the second half of the fifth to the seventh century CE.

Jug No. 4 (or table amphora) has a rim with a triangular section and rather tall handles are attached to it. This vessel dates from the fifth to the seventh century CE. Jug (or table amphora) No. 5 also has a rim with a triangular section folding outward. The neck slightly narrows toward the body. This vessel is dated to the Byzantine period (fifth–seventh centuries CE).

Jug No. 6 bears an engraved decoration of branches and leaves on the body next to the handle, and Jug No. 8 has an outturned small ledge rim and two attached handles. Jug No. 9 has a rim that rounds outward and prominent ridges on the neck. Jug Nos. 7, 10, with very thin walls, belong to the Fine Byzantine Ware group. Jug No. 7 is decorated with vertical incisions. These five vessels date from the fifth to the seventh century CE.

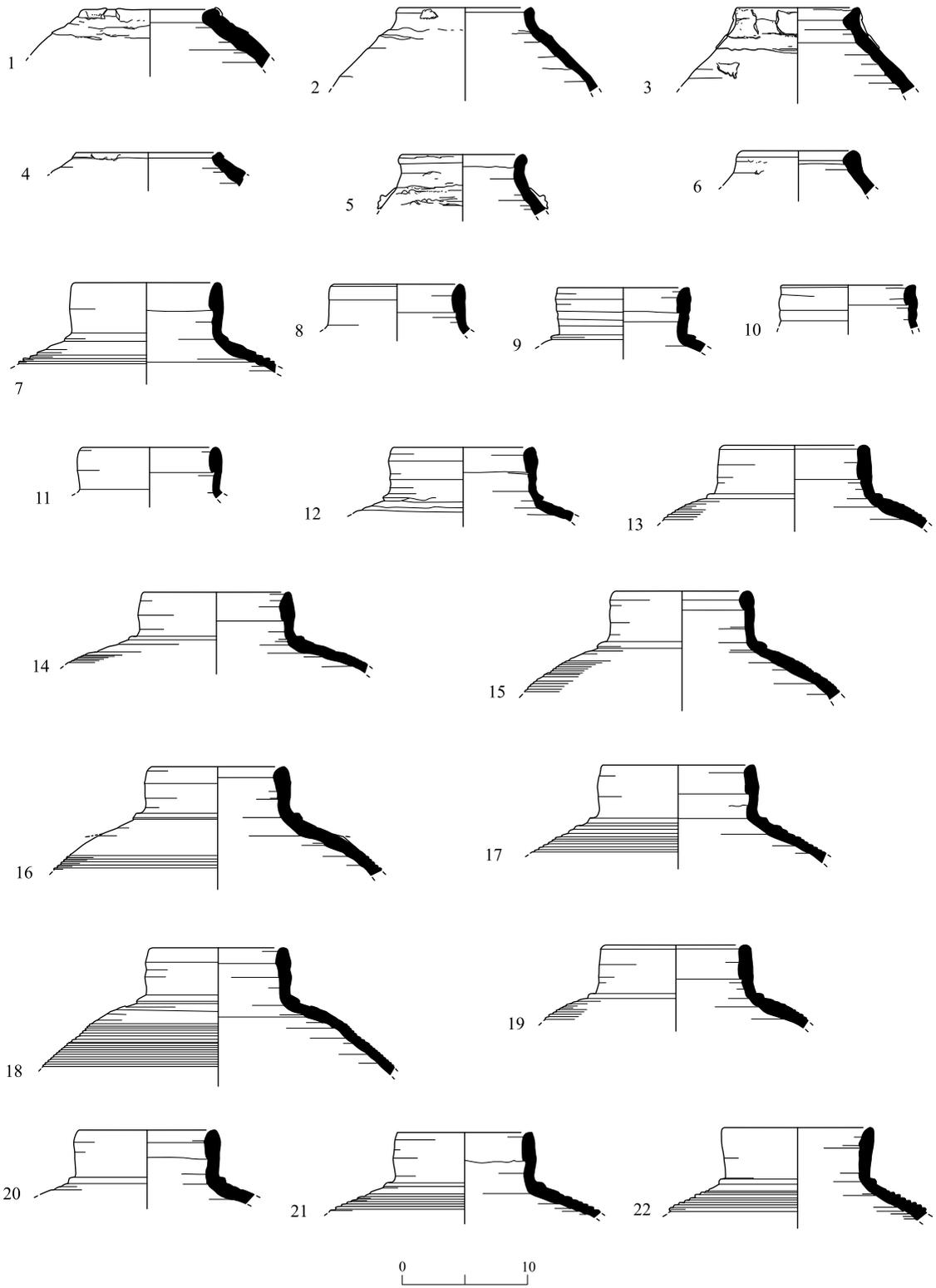


Fig. 23. Jars.

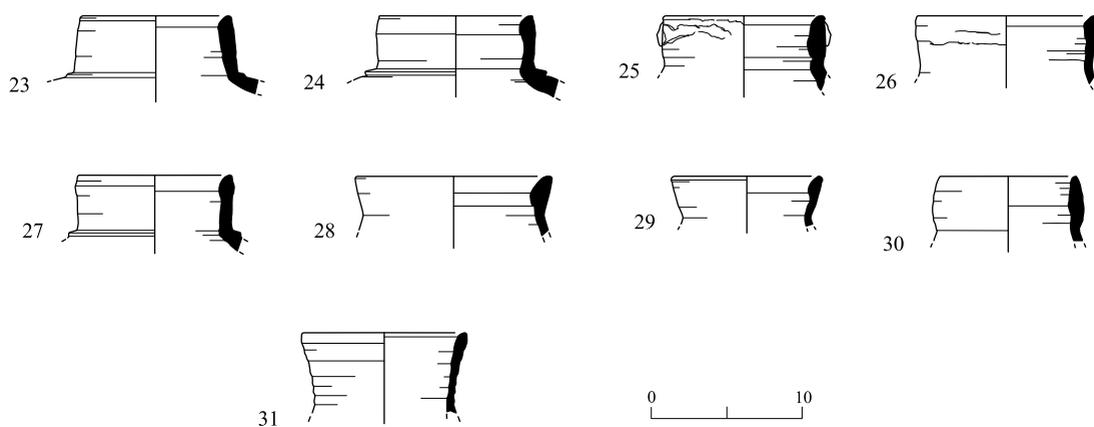


Fig. 23 (cont.).

No.	Locus	Basket	Description	References
1	117	1045	Brown clay with many grits in various sizes	Calderon 2000:131–132, Pls. XIII:1, 2; XIV:3, 5; XV:5, 6; XVI:10
2	162	1279	Brown-orange clay with many grits in various sizes	As No. 1
3	300	1470	Brown-orange clay with many grits in various sizes	As No. 1
4	171	1331	Brown-orange clay with many grits in various sizes	As No. 1
5	121	1076	Brown clay with many grits in various sizes	As No. 1
6	141	1186	Brown-orange clay with many grits in various sizes	As No. 1
7	141	1201	Brown clay with gray core and many grits in various sizes	Magness 1993:223–225, Form 4B, Variant D Ustinova and Nahshoni 1994:161, Fig. 4:6–8
8	191	1383	Brown clay with many grits in various sizes	As No. 7
9	134	1091	Grayish clay with many small grits	As No. 7
10	195	1419	Brown clay with many small grits	As No. 7
11	300	1470	Grayish clay with many small grits	As No. 7
12	117	1045	Brown clay with many small grits	Vincenz 2003: Fig. 4:21
13	118	1028	Brown clay with many small grits	Yannai 2010: Fig 20:8
14	158	1274	Brown clay with gray core many grits in various sizes	As No. 13
15	188	1498	Brown clay with many small grits	Vincenz 2010: Pl. 8.17:3
16	182	1495	Gray clay with many grits in various sizes	As No. 15
17	182	1493	Brown clay with many small grits	As No. 15
18	182	1384	Gray clay with many grits in various sizes	As No. 15
19	163	1280/1	Brown clay with many small grits	Calderon 2010: Fig. 12:118

Fig. 23. (cont.).

No.	Locus	Basket	Description	References
20	121	1071	Brown-grayish clay with many large grits	As No. 19
21	163	1280/3	Brown clay with many small grits	As No. 19
22	118	1029	Brown clay with gray core and many grits in various sizes	Vincenz 2010: Pl. 8.3:4
23	141	1211	Brown clay with gray core and many grits in various sizes	Calderon 2000: Pl. VI 20
24	175	1340	Brown clay with gray core and many grits in various sizes	As No. 23
25	184	1436	Brown-grayish clay with many small grits	As No. 23
26	174	1358	Brown clay with gray core and many grits in various sizes	As No. 23
27	191	1383	Brown clay with many grits in various sizes.	Yannai 2010: Fig. 21:4
28	118	1055	Brown clay with many small grits.	Magness 1993:223–226
29	118	1081	Brown clay with many small grits.	As No. 28
30	136	1171	Brown-reddish clay with many large grits.	Calderon 2010: Fig. 3:35
31	110	1050	Brown-orange clay with many grits in various sizes.	Tushingham 1985: Fig. 28:25 Ustinova and Nahshoni 1994:161, Fig. 4:4, 5 Variant C

*Flask* (Fig. 24:11)

Only one flask was uncovered in this excavation, with a straight rim leaning upward and outward and vertical handles attached to the neck's center, next to a prominent ridge. It dates from the mid-sixth to the beginning of the eighth century CE.

*Juglet* (Fig. 24:12)

Only one juglet was found in the assemblage, with a rounded rim and a ridge in the upper part of the neck. This vessel is dated to the fifth–seventh centuries CE.

*Oil Lamps* (Fig. 25)

Oil lamp No. 1 bears a Greek inscription: “The Mother of God” (Magness 1996:40, Fig. 3:2). This vessel is very common and appears in many excavations in contexts dating from the Byzantine period, continuing into the Umayyad period.

Oil lamp Nos. 2–5 are of a similar type but lack an inscription. Around the filling hole, they are decorated either with stripes or branches. These lamps are also very common and date from the fifth–sixth centuries CE.

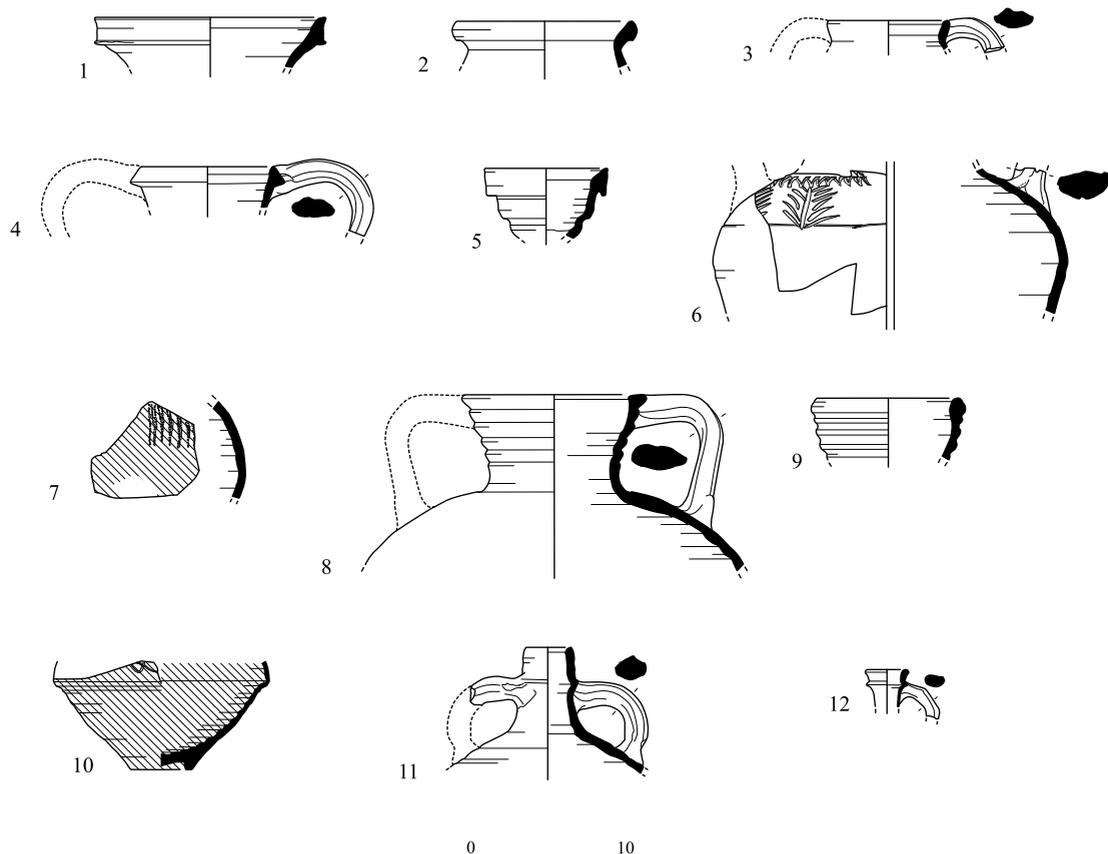


Fig. 24. Jugs, flask and juglet.

No.	Type	Locus	Basket	Description	Reference
1	Jug	175	1380	Brown-orange clay with many small grits	Weksler-Bdolah 2012: Fig. 30:1
2	Jug	153	1241	Brown-orange clay with many large grits	Avner 2007: Fig. 4:3
3	Jug	153	1275	Brown-orange clay with many small grits	As No. 2
4	Jug	136	1229	Brown-orange clay with many large grits	Yannai 2010: Fig. 21:14
5	Jug	182	1504	Brown-pinkish clay with many grits in various sizes	Torgë and 'Ad 2012: Fig. 21:16
6	Jug	182	1491	Brown-orange clay with many small grits	Israel and Erickson-Gini 2013: Fig. 31:4
7	Jug	136	1242	Brown clay with many small grits	As No. 6
8	Jug	182	1475	Brown-pinkish clay with many large grits	
9	Jug	161	1486	Brown clay with many small grits	Weksler-Bdolah 2012: Fig. 33:26
10	Jug	163	1280-2	Brown clay with a few small grits	Torgë and 'Ad 2012: Fig. 22:11
11	Flask	182	1445	Brown clay with a few small grits	Calderon 2000:110, Pl. IX:56
12	Juglet	182	1466	Grayish clay with many small grits	Israel and Erickson-Gini 2013: Fig. 36:4

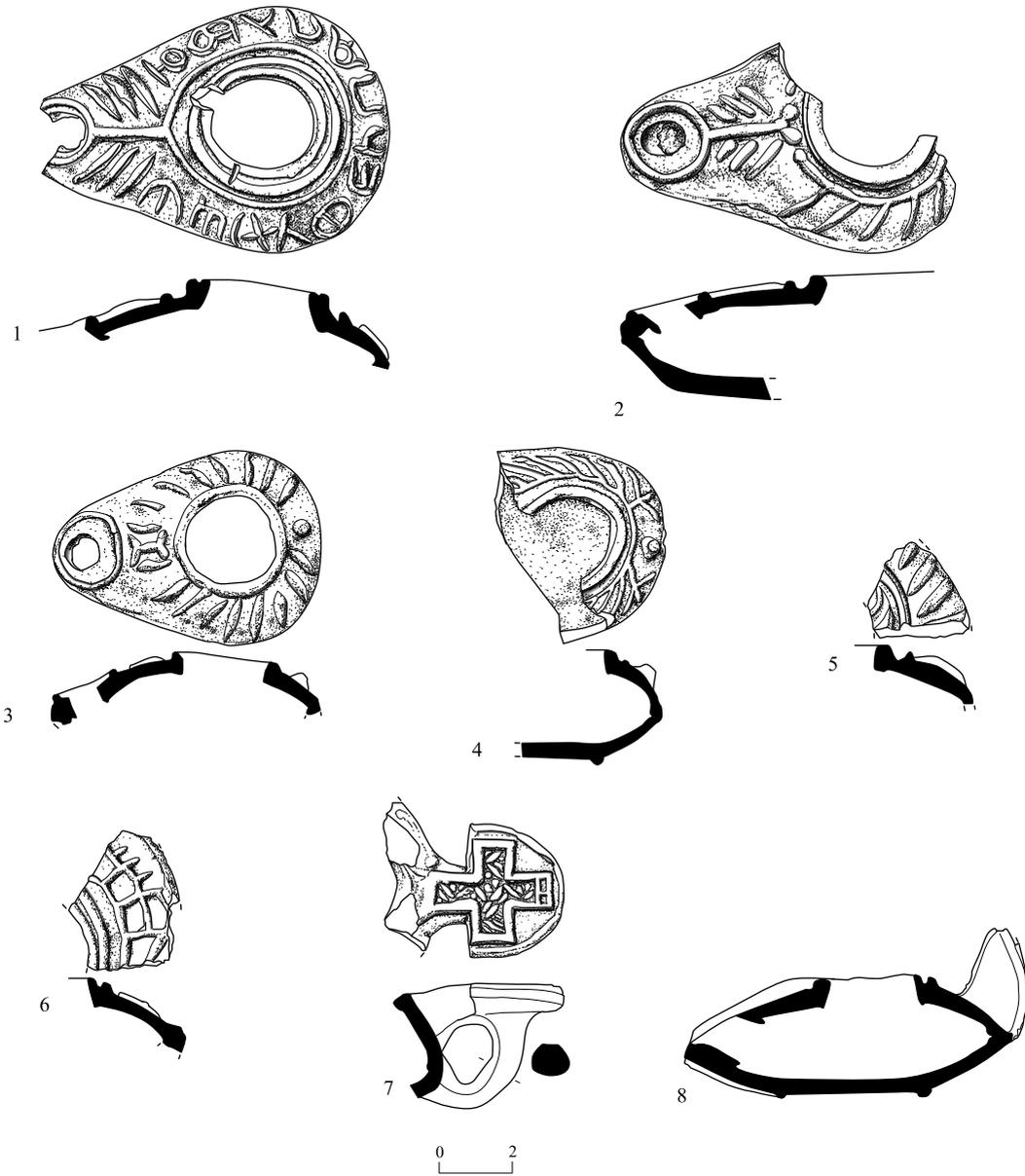


Fig. 25. Oil lamps.

No.	Locus	Basket	Description	References
1	161	1487	Buff clay with a few large grits	Rosenthal and Sivan 1978:118, Type 489 Vincenz 2010: Pl. 8.27:4
2	195	1451	Brown-orange clay with a few small grits	Rosenthal and Sivan 1978: Type 484 Hadad 2002:67-68 Sussman 2007: Fig. 5:34
3	182	1534	Brown-orange clay with many large grits	Rosenthal and Sivan 1978:114, Type 460 Sussman 2007: Fig. 5:34
4	182	1496	Brown-grayish clay with a few small grits	Sussman 2007:64-67, Fig. 7:43, 44
5	114	1020	Brown-orange clay with a few small grits	Sussman 2007: Fig. 5:34
6	161	1499	Buff clay with a few small grits	Nahshoni and Seriy 2014: Fig. 22:5
7	182	1505	Brown-pinkish clay with many small grits	Magness 1993:254, Form 3D
8	198	1540	Buff clay with many small grits	Masarwa 2011: Fig. 12:14

Lamp Nos. 6 and 7 date mainly to the fifth–sixth centuries CE. Lamps of this type are known from several excavations throughout the country, although their handles' shape varies. Oil lamp No. 6 has a net-like pattern surrounding the body, while oil lamp No. 7 has a cross on the handle.

Oil lamp No. 8 was found on the surface. It is almond-shaped, typical of the Early Islamic period, mainly until the Abbasid period. The body is decorated with flowers and dots.

### *Varia* (Fig. 26)

A capital made of white marble (Fig. 26:1) that may have been part of a furniture leg, possibly a table, was found in the assemblage. The abacus is engraved with vertical stripes, and the body, with a pattern of small squares and leaves. Also found were two grinding basalt pestles (Fig. 26:2, 3),

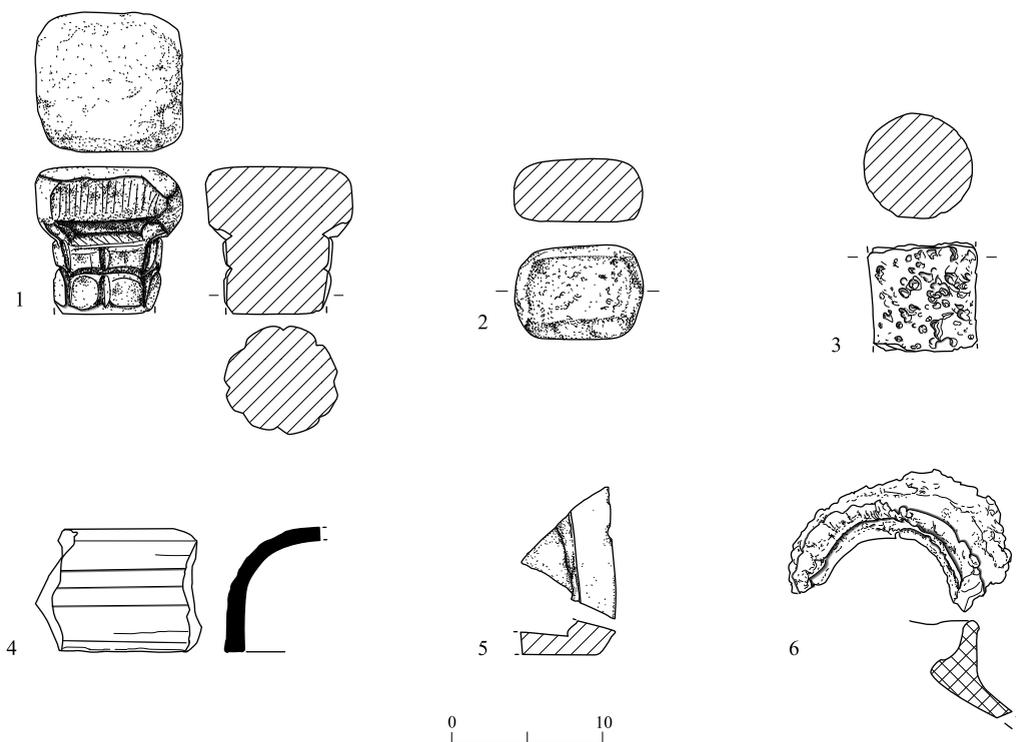


Fig. 26. *Varia*.

No.	Object	Locus	Basket	Description
1	Capital, leg of furniture	302	1476	Marble, possibly a table leg
2	Grinding pestle	182	1411	Basalt, L 8.5 cm, W 6 cm, H 3 cm
3	Grinding pestle	303	1467	Basalt, H 6.5 cm, D 6.5 cm
4	Roof tile	161	1486	Imbrex, brown-pinkish clay with grits and mica
5	Stone bowl	161	1448	Ledge, vertical rim
6	Lead object	198	1544	Crucible or waste, vertical incisions

an imbrex roof tile (Fig. 26:4), a shallow stone bowl (Fig. 26:5) and a lead object with vertical incisions next to the folded area, perhaps a crucible or waste (Fig. 26:6).

### Coins

Only three coins were found in the excavations, all originating in surface loci. One coin is dated to the fourth century CE and the other two, to the Umayyad period.<sup>4</sup>

1. Reg. No. 1010, L101, IAA 142694.

Second half of fourth century CE.

*Obv.*: [- -] Bust r.

*Rev.*: Illegible

Æ, 1.39 g, 15 mm.

2. Reg. No. 1452, L196, IAA 142695.

Umayyad, post-reform, Ramla.

*Obv.*: In center: لا اله الا الله وحده

*Rev.*: Within circle: محمد رسول الله Palm branch; marginal inscription: [- -]

Æ fals, 4.694 g, 29 mm. Double strike of obverse die on reverse.

Cf. Walker 1956:255, No. 848.



3. Reg. No. 1480, L196, IAA 142696.

Umayyad, post-reform, Ramla.

*Obv.*: In center: لا اله الا الله وحده ; radial border.

*Rev.*: Within circle: محمد رسول الله On r., palm branch; marginal inscription: بسم الله ضرب هذا  
الفس بالرملة

Æ fals, 2.99 g, 24 mm.

SNAT 1993:12, No. 54.

<sup>4</sup> Coin No. 1 was identified by Gabriela Bijovsky, and Coin Nos. 2, 3, by Ariel Berman. The coins were cleaned by Hila Rosenstein at the IAA laboratory. Coin No. 2 was photographed by Clara Amit in the IAA photography studio.

## DISCUSSION AND CONCLUSIONS

*Historic and Geographical Context*

The olive press, ashlar building and stable were clearly part of an isolated complex dated to the Byzantine period (the sixth century CE), which existed on the hillside and did not form part of a village. It was located between the cities Emmaus-Nicopolis and Lydda-Diospolis/Georgiopolis, in a region that was heavily populated by Christians, close to an ancient road that led from Lydda to Jerusalem via Berfilya, Beit Likia and Biddu (Schwartz 1991:129). It lay close to the villages excavated at Kh. Umm el-‘Umdan (Onn et al. 2002:67\*–68\*) and Ḥorbat Ḥermeshit (Greenhut 1998) and to the large village excavated in the Neshet-Ramla Quarry (el-Khirbe; Zelinger and Di Segni 2006:468; Kol-Ya‘akov 2010:7–8). Nearby farmsteads were located at Ḥorbat Titora (Lass 2000) and east of Barfilya (Gibson and Lass 2000), and monasteries—at Mevo Modi‘im (Eisenberg and Ovadiah 1998), Kh. Fa‘ush (Har-Even and Shapira 2012:334–344) and Kh. Huriya (Har-Even and Greenfeld 2012:325).

The outstanding question is: What sort of settlement was this complex? Different types of Byzantine-period rural settlements were extensively discussed by Hirschfeld (1997). Based on his discussion (Hirschfeld 1997:67–70), our site could be classified as an agricultural estate inhabited by an established landowner.

Olive-oil production was seemingly one of the estate’s main agricultural activities; the stable served for housing the animals that turned the rotary olive crusher and helped transport the oil.

Many rural monasteries had components similar to agricultural estates (Hirschfeld 1997:68). However, rural monasteries also had characteristics that differentiate them from agricultural estates (Taxel 2009:194–198). For example, some form of church or chapel was an essential component of every rural monastery. At the site presented here, no architectural remains of a chapel or church were found. Even so, Dayan (2015:183) argued that this site was a rural monastery. It is our opinion, however, that its classification as an agricultural estate is well-founded based on the evidence uncovered.

*Dating the Olive Press*

The olive press operated through lever-and-screw technology. There has been some discussion concerning the date of the introduction of this technology to the Land of Israel. The sealed context of the olive press cave offers significant evidence for settling this debate.

Primary knowledge of ancient technologies stems from the ancient written sources. Pliny the Elder (23–79 CE) described three types of presses, his second type being the lever-and-screw press, which he notes was invented in Greece about a century before his time (Pliny *NH* 18:317; Frankel 1999:86–87; Curtis 2001:391). Lever-and-screw presses were also described by Hero of Alexandria in the mid-first century CE (Hero, *Mechanica* 3:15, quoted in Frankel 1999:87–88; Curtis 2001:391). Although this technology was clearly in use in the Roman period, few lever-and-screw presses dating from this period have been found

in Israel. Frankel suggested that this press type came into general use in Israel during the Byzantine period (Frankel 2009:6), while Magen argued for an Early Islamic-period date, stating that all the olive presses of this type found in Byzantine monasteries were installed after the monastery had been abandoned (Magen 2008:258). Taxel, however, published a comprehensive critique of Magen's claims (Taxel 2013a).

The olive press excavated here definitely challenges Magen's claim that "not a single press of this type yielded pottery solely from the fifth or sixth century CE that would allow a definite Byzantine dating of the oil press" (Magen 2008:258). The pottery from the olive press presented here, sealed under the collapsed cave's ceiling, dates from the sixth century and comes from loci below the floor (L186), above the floor (below the collapsed ceiling, L161, L184, L195, L302) and above the collapsed cave's ceiling, below the ashlar collapse (L166, L169).

#### *The Transition from the Byzantine to the Umayyad Period*

Following Taxel's (2013b) observations concerning the Early Islamic rural settlements in the neighboring Ramla–Yavne region, it seems that, in most cases, the various types of Byzantine agricultural settlements continued into the Early Islamic period, up to at least the mid–late eighth century CE. However, at our site, the Umayyad-period building was built after the Byzantine complex had collapsed. This exception from the Byzantine–Umayyad continuity in settlement pattern can be explained by the site's particular circumstances, i.e., the collapse of the Byzantine-period structures.

It would seem that the builders of the Umayyad-period farmhouse realized the mistakes of their Byzantine predecessors and decided to build on the more steady ground further upslope. There are clear differences between the buildings' construction methods in both periods: the Byzantine-period building was uniformly ashlar-built, while the Umayyad farmhouse was built from a mixture of reused ashlar and fieldstones of various sizes. Building the farmhouse in proximity to the Byzantine complex provided the Umayyad builders with readily available building materials and allowed them to utilize some Byzantine infrastructure elements, such as the water cisterns. We can also assume that the Umayyad farmers reused the Byzantine-period estate's agricultural systems, constructions, and installations, such as the terraces, walls and hewn winepresses dotting the landscape.

#### REFERENCES

- Avner R. 2007. Building Remains and an Installation from the Byzantine and Early Islamic Periods at Naḥal Daliya (Umm Tut). *'Atiqot* 57:51\*–70\* (Hebrew; English summary, pp. 168–170).
- Bliss F.J. and Dickie A.C. 1898. *Excavations at Jerusalem 1894–1897*. London.
- Calderon R. 2000. Roman and Byzantine Pottery. In Y. Hirschfeld. *Ramat Hanadiv Excavations: Final Report of the 1984–1998 Seasons*. Jerusalem. Pp. 91–165.

- Calderon R. 2010. Pottery from the Late Byzantine Remains near Shiqmona. *'Atiqot* 63:183–208.
- Curtis R.I. 2001. *Ancient Food Technology* (Technology and Change in History 5). Leiden.
- Dayan A. 2015. *Monasteries in the Northern Judean Shephelah and the Samaria Western Slopes during the Byzantine and the Early Islamic Periods*. Ph.D. diss. Bar Ilan University. Ramat Gan (Hebrew; English summary).
- Eisenberg E. and Ovadiah R. 1998. A Byzantine Monastery at Mevo Modi'im. *'Atiqot* 36:1\*–19\* (Hebrew; English summary, pp. 123–124).
- Frankel R. 1999. *Wine and Oil Production in Antiquity in Israel and Other Mediterranean Countries* (JSOT/ASOR Monograph Series 10). Sheffield.
- Frankel R. 2009. Introduction. In E. Ayalon, R. Frankel and A. Kloner eds. *Oil and Wine Presses in Israel from the Hellenistic, Roman and Byzantine Periods* (BAR Int. S. 1972). Oxford. Pp. 1–18.
- Gibson S. and Lass E. 2000. El-Burj-Barfiliya—The Hinterland: The Shimshoni Compound. *ESI* 20:84\*–85\*.
- Gichon M. 1993. *En Boqeq: Ausgrabungen in einer Oase am Toten Meer I: Geographie und Geschichte der Oase; Das spätromisch–byzantinische Kastell*. Mainz am Rhein.
- Greenhut Z. 1998. Ḥorvath Ḥermeshit (1988–1990). *'Atiqot* 34:121–172 (Hebrew; English summary, pp. 9\*–10\*).
- Hadad S. 2002. *The Oil Lamps from the Hebrew University Excavations at Bet Shean* (Qedem Reports 4). Jerusalem.
- Har-Even B. and Greenfeld U. 2012. A Byzantine Church and Monastery at Khirbet Huriya. In N. Carmin ed. *Christians and Christianity III: Churches and Monasteries in Samaria and Northern Judea* (JSP 15). Jerusalem. Pp. 309–326.
- Har-Even B. and Shapira L. 2012. A Late Roman Tower and a Byzantine Church at Khirbet Fa'ush, Maccabim. In N. Carmin ed. *Christians and Christianity III: Churches and Monasteries in Samaria and Northern Judea* (JSP 15). Jerusalem. Pp. 327–344.
- Hayes J.W. 1972. *Late Roman Pottery*. London.
- Hirschfeld Y. 1995. *The Palestinian Dwelling in the Roman–Byzantine Period* (SBF Collectio Minor 34). Jerusalem.
- Hirschfeld Y. 1997. Farms and Villages in Byzantine Palestine. *DOP* 51:33–71.
- Hirschfeld Y. 2002. Deir Qal'a and the Monasteries of Western Samaria. In J.H. Humphrey ed. *The Roman and Byzantine Near East 3: Late-Antique Petra, Nile Festival Building at Sepphoris, Deir Qal'a Monastery, Khirbet Qana Village and Pilgrim Site, 'Ain 'Arrub Hiding Complex, and Other Studies* (JRA Suppl. S. 49). Portsmouth R.I. Pp. 155–189.
- Israel Y. and Erickson-Gini T. 2013. Remains from the Hellenistic through the Byzantine Periods at the 'Third Mile Estate', Ashqelon. *'Atiqot* 74:167–222.
- Israel Y., Seriy G. and Feder O. 2013. Remains of a Byzantine and Early Islamic Rural Settlement at the Be'er Sheva' North Train Station. *'Atiqot* 73:51\*–76\* (Hebrew; English summary, pp. 138–140).
- Jacobson D.M. 2000. Decorative Drafted-Margin Masonry in Jerusalem and Hebron and Its Relations. *Levant* 32:135–154.

- Kol-Ya'akov S. 2010. *Salvage Excavations at Nesher-Ramla Quarry*. Haifa.
- Lass E. 2000. Horbat Titora, the Western Hilltop and Slope. *ESI* 20:70\*–72\*.
- Magen Y. 2000. Mt. Gerizim during the Roman and Byzantine Periods. *Qadmoniot* 120:133–143 (Hebrew).
- Magen Y. 2008. Oil Production in the Land of Israel in the Early Islamic Period. In Y. Magen. *Judea and Samaria Researches and Discoveries* (JSP 6). Jerusalem. Pp. 257–343.
- Magen Y. 2012. A Roman Fortress and Byzantine Monastery at Khirbet Deir Sam'an. In N. Carmin ed. *Christians and Christianity III: Churches and Monasteries in Samaria and Northern Judea* (JSP 15). Jerusalem. Pp. 9–106.
- Magen Y. and Aizik N. 2012. A Late Roman Fortress and a Byzantine Monastery at Deir Qal'a. In N. Carmin ed. *Christians and Christianity III: Churches and Monasteries in Samaria and Northern Judea* (JSP 15). Jerusalem. Pp. 107–156.
- Magness J. 1993. *Jerusalem Ceramic Chronology: Circa 200–800 CE* (JSOT/ASOR Monograph Series 9). Sheffield.
- Magness J. 1996. Blessings from Jerusalem: Evidence for Early Christian Pilgrimage. *Eretz-Israel* 25:37\*–45\*.
- Magness J. 1999. Redating the Forts at Ein Boqeq, Upper Zohar, and Other Sites in SE Judaea, and the Implications for the Nature of the *Limes Palaestinae*. In J.H. Humphrey ed. *The Roman and Byzantine Near East 2: Some Recent Archaeological Research* (JRA Suppl. S. 31). Portsmouth, R.I. Pp. 189–206.
- Masarwa D. 2011. Ramla South. *HA–ESI* 123 (April 28). [http://www.hadashot-esi.org.il/Report\\_Detail\\_Eng.aspx?id=1653&mag\\_id=118](http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=1653&mag_id=118) (accessed August 2014).
- Nahshoni P. and Seriy G. 2014. A Byzantine Monastery and Islamic-Period Settlement Remains at Horbat Ma'on. *'Atiqot* 78:13\*–62\* (Hebrew; English summary, pp. 162–163).
- Onn A., Wexler-Bdolah S., Rapuano Y. and Kaniyas T. 2002. Khirbet Umm el-'Umdan. *HA–ESI* 114:64\*–68\*.
- Onn A., Wexler-Bdolah S. and Kaniyas T. Forthcoming. Building Remains from the Byzantine–Umayyad Periods in Naḥal 'Anava. *'Atiqot*.
- Pliny *NH: Natural History* 5 (H. Rackham trans., Loeb Classical Library). London–Cambridge, Mass. 1952.
- Rosenthal R. and Sivan R. 1978. *Ancient Lamps in the Schloessinger Collections* (Qedem 8). Jerusalem.
- Schwartz J.J. 1991. *Lod (Lydda), Israel: From Its Origins through the Byzantine Period, 5600 B.C.E.–640 B.C.E.* (BAR Int. S. 571). Oxford.
- Seligman J. 2010. *Naḥal Haggit: A Roman and Mamluk Farmstead in the Southern Carmel* (IAA Reports 43). Jerusalem.
- Shtainberg Finali D. and Bouchnick R. This volume. The Fauna Remains from Naḥal 'Anava, Modi'in.
- SNAT* 1993: L. Ilisch. *Sylloge Numorum Arabicorum Tübingen: Palästina IVa Bilād aš-Šam I*. Tübingen 1993.

- Sussman V. 2007. The Clay Oil Lamps from Khirbat el-Ni'ana. *'Atiqot* 57:53–72.
- Taxel I. 2009. *Khirbet es-Suyyagh: A Byzantine Monastery in the Judaeian Shephelah (Salvage Excavation Reports 6)*. Tel Aviv.
- Taxel I. 2013a. The Olive Oil Economy of Byzantine and Early Islamic Palestine: Some Critical Notes. *LA* 63:361–394.
- Taxel I. 2013b. Rural Settlement Processes in Central Palestine, ca. 640–800 C.E.: The Ramla–Yavneh Region as a Case Study. *BASOR* 369:157–199.
- Torgë H. and 'Ad U. 2012. Late Byzantine Buildings on the Eastern Fringes of Tel Shiqmona. *'Atiqot* 72:99–129 (Hebrew; English summary, pp. 93\*–94\*).
- Torgë H., Lupu R. and Tandler A.S. 2015. Modi'in, Kaizer Neighborhood (South). *HA–ESI* 127 (November 10). [http://www.hadashot-esi.org.il/report\\_detail\\_eng.aspx?id=24831&mag\\_id=122](http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=24831&mag_id=122) (accessed August 23, 2018).
- Tsafir Y. 1984. *Eretz Israel from the Destruction of the Second Temple to the Muslim Conquest 2: Archaeology and Art*. Jerusalem (Hebrew).
- Tsafir Y. and Hirschfeld Y. 1979. The Church and Mosaics at Ḥorvat Berachot, Israel. *DOP* 33:292–326.
- Tsioni G. 2008. A Salvage Excavation at Khirbet Ni'ana. *Contract Archaeology Reports* 3:33–66 (Hebrew; English summary, p. 63\*).
- Tushingham A.D. 1985. *Excavations in Jerusalem 1961–1967 I*. Toronto.
- Ustinova Y. and Nahshoni P. 1994. Salvage Excavations in Ramot Nof, Be'er Sheva. *'Atiqot* 25:157–177.
- Vincenz A. de. 2004. The Pottery Assemblage from Horvat Raqit. In S. Dar. *Raqit: Marinus' Estate on the Carmel, Israel* (BAR Int. S. 1300). Jerusalem. Pp. 213–241.
- Vincenz A. de. 2010. The Pottery. In S. Kol-Ya'akov. *Salvage Excavations at Neshet-Ramla Quarry I*. Haifa. Pp. 121–168.
- Vincenz A. de and Sion O. 2007. Two Pottery Assemblages from Khirbat el-Ni'ana. *'Atiqot* 57:21–52.
- Walker J. 1956. *A Catalogue of the Arab-Byzantine and Post-reform Umayyad Coins (A Catalogue of the Muḥammadan Coins in the British Museum II)*. London.
- Weksler-Bdolah S. 2012. Ḥorbat 'Illin (Upper): Rock-Cut Installations from the Late Hellenistic and Early Roman Periods, and Remains of a Settlement from the Byzantine and Early Islamic Periods. *'Atiqot* 71:14–75 (Hebrew; English summary, pp. 112\*–116\*).
- Winter T. This volume. The Glass Finds from Naḥal 'Anava, Modi'in.
- Yannai E. 2006. A Settlement from the Middle Ages and the Byzantine Period at Khirbat Ibreika. *'Atiqot* 53:37\*–47\* (Hebrew; English summary, pp. 199–200).
- Yannai E. 2010. A Salvage Excavation at Ḥorbat Rozeẓ. *'Atiqot* 62:107–137.
- Zelinger Y. 2010. Jerusalem, the Slopes of Mount Zion. *HA–ESI* 122 (November 3). [http://www.hadashot-esi.org.il/report\\_detail\\_eng.aspx?id=1530&mag\\_id=117](http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=1530&mag_id=117) (accessed October 21, 2014).
- Zelinger Y. and Di Segni L. 2006. Fourth-Century Church near Lod (Diospolis). *LA* 56:459–468.