ʿAtiqot 90, 2018

The Magdala Archaeological Project (2010–2012): A Preliminary Report of the Excavations at Migdal

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Introduction

The Magdala Archaeological Project is part of the Magdala Center International Project, comprising a visitor center, the archaeological site, a church and a hotel for pilgrims.[1] The Magdala Archaeological Project is directed by the Universidad Anáhuac México Sur (UAMS), in participation with the Universidad Nacional Autónoma de México (UNAM) and with the cooperation of the Israel Antiquities Authority (IAA). The project began in 2010 with geophysical surveys, extensive excavations south of the IAA excavations (that began in 2009), as well as restoration, conservation and interpretation of all the archaeological material recovered. This article presents the preliminary results of the surveys and the first three excavation seasons (2010–2012; map ref. 248400–500/747950–8000) carried out by the UAMS with the aid of the IAA.[2]

The site of Magdala (in Aramaic; Migdal, in Hebrew; Taricheae, in Greek) is located on the northwestern shore of the Sea of Galilee (Lake Kinneret), at the foot of the Arbel Cliff (Fig. 1). Prior to the foundation of the city of Tiberias by Herod Antipas in 19–20 CE, Magdala was the only urban center on the western shores of the lake. In the Roman period, it is mentioned in the historical sources as a Jewish town and the military base of Flavius Josephus, which played an important role in the First Jewish Revolt against the Romans. Josephus records the fortification of Taricheae, the conflicts in the town as a result of the revolt, and the naval battle near the shore (Josephus, *War* 2.21 [595–641]; 3.9.7–8 [443–461], 3.10 [462–542], 15). In Christian sources, the town is identified as the birthplace of Mary Magdalene, the follower of Jesus, known as 'the apostle to the apostles' (John Paul II 1988).

Previous excavations at the site (Fig. 2) were carried out by the Franciscan Custody (Magdala Project) in 2007–2008 (De Luca 2009), and by the IAA in 2009, which uncovered a first-century CE synagogue (Abu-'Uqsa 2005; Avshalom-Gorni 2009; Avshalom-Gorni and Najar 2013). These excavations, together with the most recent work of the UAMS in 2010–2012 (Fig. 2: Areas A–D), have revealed that the town was first occupied during the Hellenistic period, while its floruit was during the Early

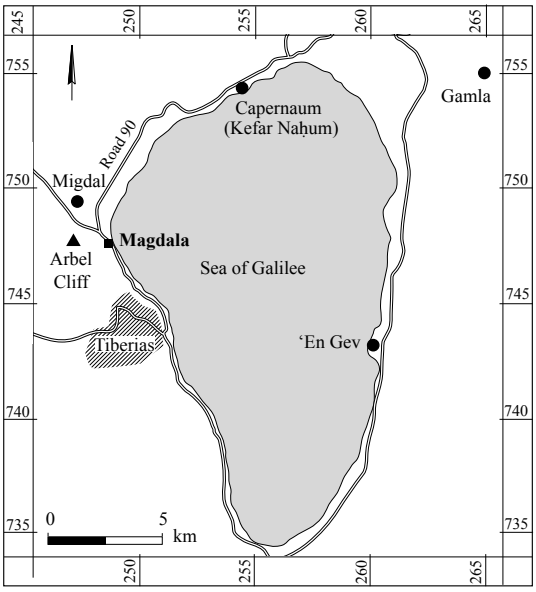


Fig. 1. Location of Magdala in the Galilee.

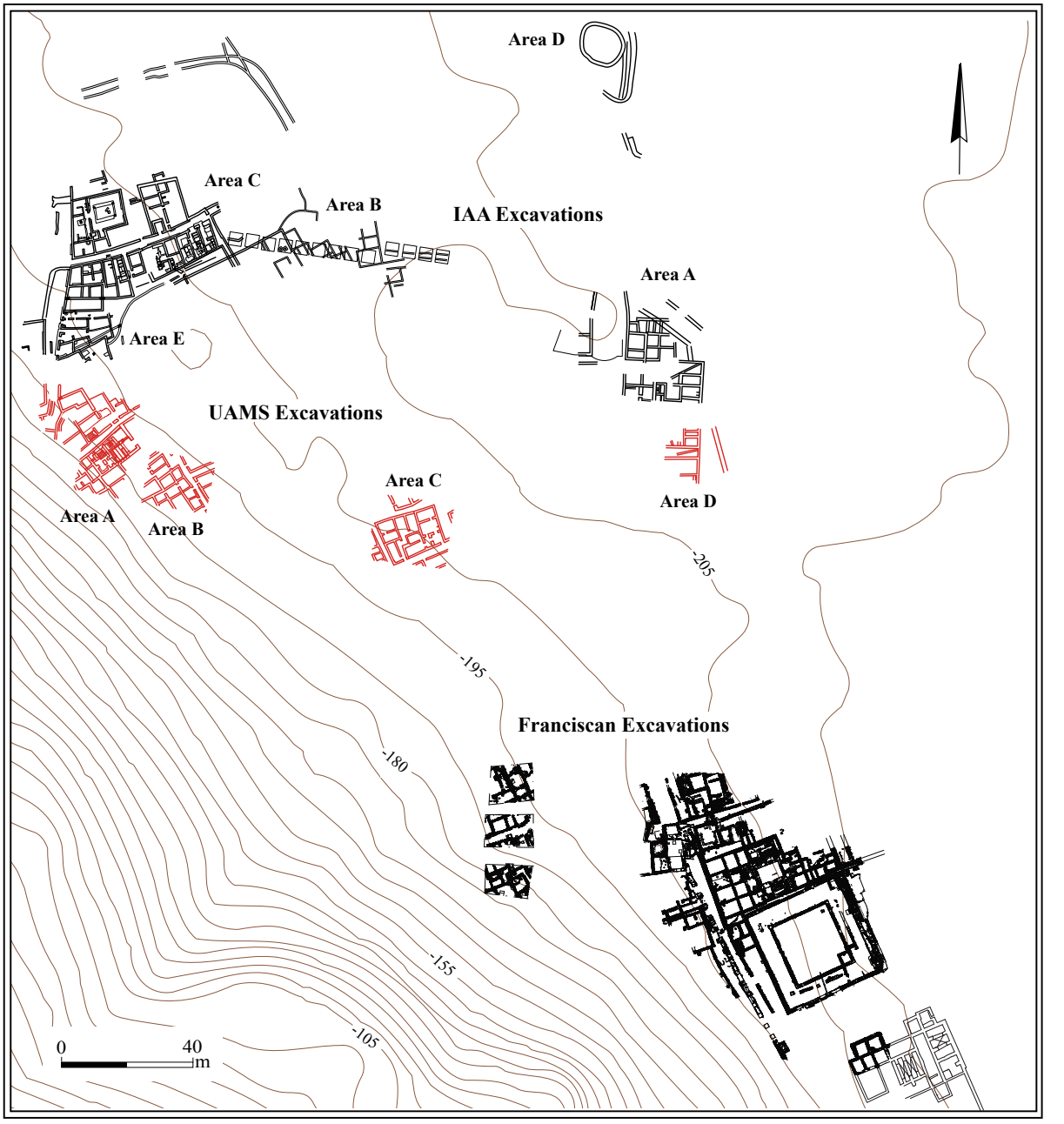


Fig. 2. Location of excavations carried out at Magdala.

Roman period (first century CE), when the settlement expanded to the northwest. It is possible that following the First Jewish Revolt in 67 CE, some of the population left Magdala, while others moved from the northwestern part of the town to the eastern side, which, based on the pottery and coins, continued until the second century CE. The settlement at Magdala continued in the southeastern part of the town until the Ottoman period.

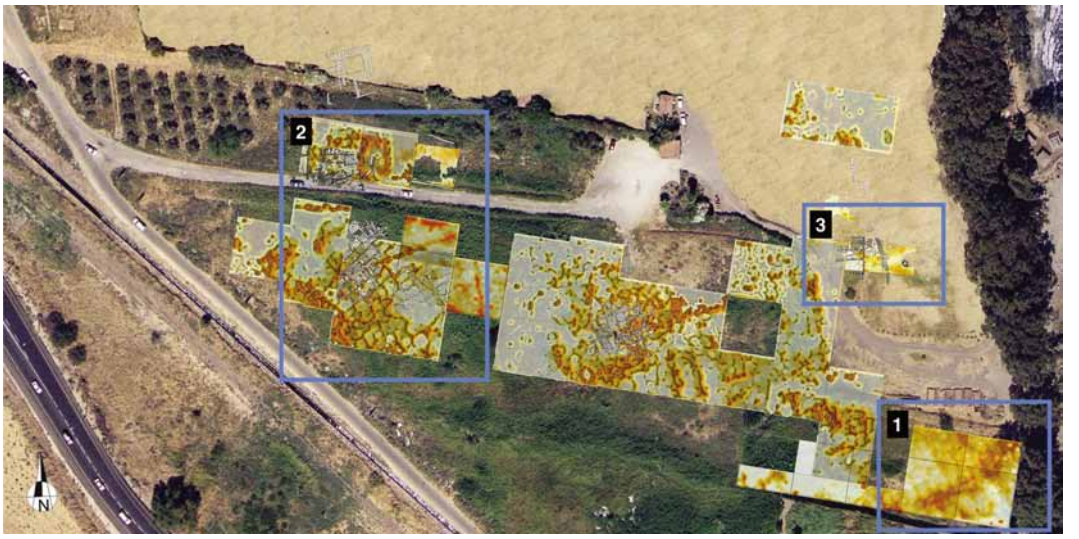


Fig. 3. Map of electrical resistivity survey with the excavated areas superimposed, looking north.

Six main goals were defined for the Magdala Archaeological Project:

1. Understanding the context of the first-century CE synagogue within the town;
2. Reconstructing the everyday life of the inhabitants during the first century CE;
3. Reconstructing the function of the various spaces, e.g., buildings, rooms and courtyards;
4. Identifying and understanding the religious activities in the town;
5. Identifying and interpreting the evidence of craft specializations;
6. Identifying trade routes and commercial relationships.

THE GEOPHYSICAL SURVEYS

Two geophysical survey seasons were conducted in the summers of 2010 and 2011 by the UNAM team, prior to the excavation seasons. In the first season, magnetometry and electrical resistivity surveys were carried out, and in the second season, a ground penetrating radar (GPR) survey was applied within areas previously excavated, with the purpose of identifying earlier occupation. These are the most efficient techniques to attain subsurface data prior to archaeological excavation, as they provide preliminary, approximate mapping of masonry and possible architectural elements. These surveys produced valuable data that aided us in making informed decisions concerning which areas to excavate in order to achieve the six goals mentioned above.

The electrical resistivity survey was carried out in three zones (Fig. 3). In Zone 1, the electrical resistivity map showed a diagonal anomaly running southwest–northeast indicating the presence of a thick wall (c. 4 m long). In general terms, the orientation of this linear feature was parallel to the features excavated by the Franciscans (De Luca 2009), suggesting the continuity of the structures, although no anomaly corresponds to a continuation of the street extending from the Franciscan area into Zone 1.

In Zone 2, a detailed GPR survey was carried out in 2011 near the synagogue excavated by the IAA in 2009 (Figs. 2, 4). A grid of 4 × 40 m was laid out over the road that bisects the area, including eight lines 0.5 m apart, with the purpose of overlapping an electrical anomaly detected in

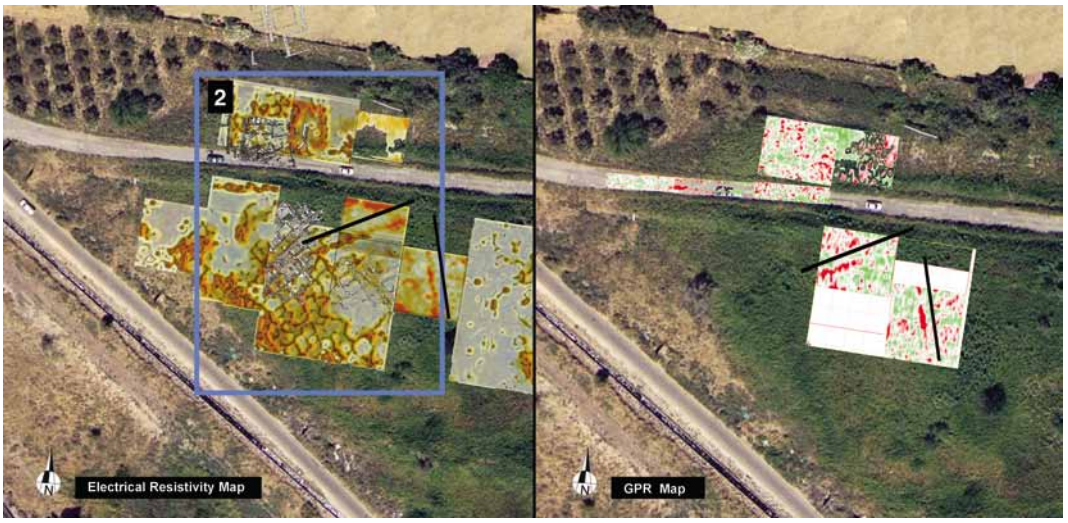


Fig. 4. Maps of electrical resistivity (left) and GPR surveys (right) showing the main linear feature in Areas A and B.

this area in 2010 by the resistivity survey (Fig. 4: left). With the GPR results (Fig. 4: right), it was possible to align the structures excavated by the IAA in 2009 with those excavated by us in 2010 in Area A. Both the electrical resistivity and GPR maps (Fig. 4) clearly show a main linear feature in the middle of Zone 2 that confirms the presence of a wall below the surface. Subsequent excavation revealed this to be the northern wall of a street (Str1; see below).

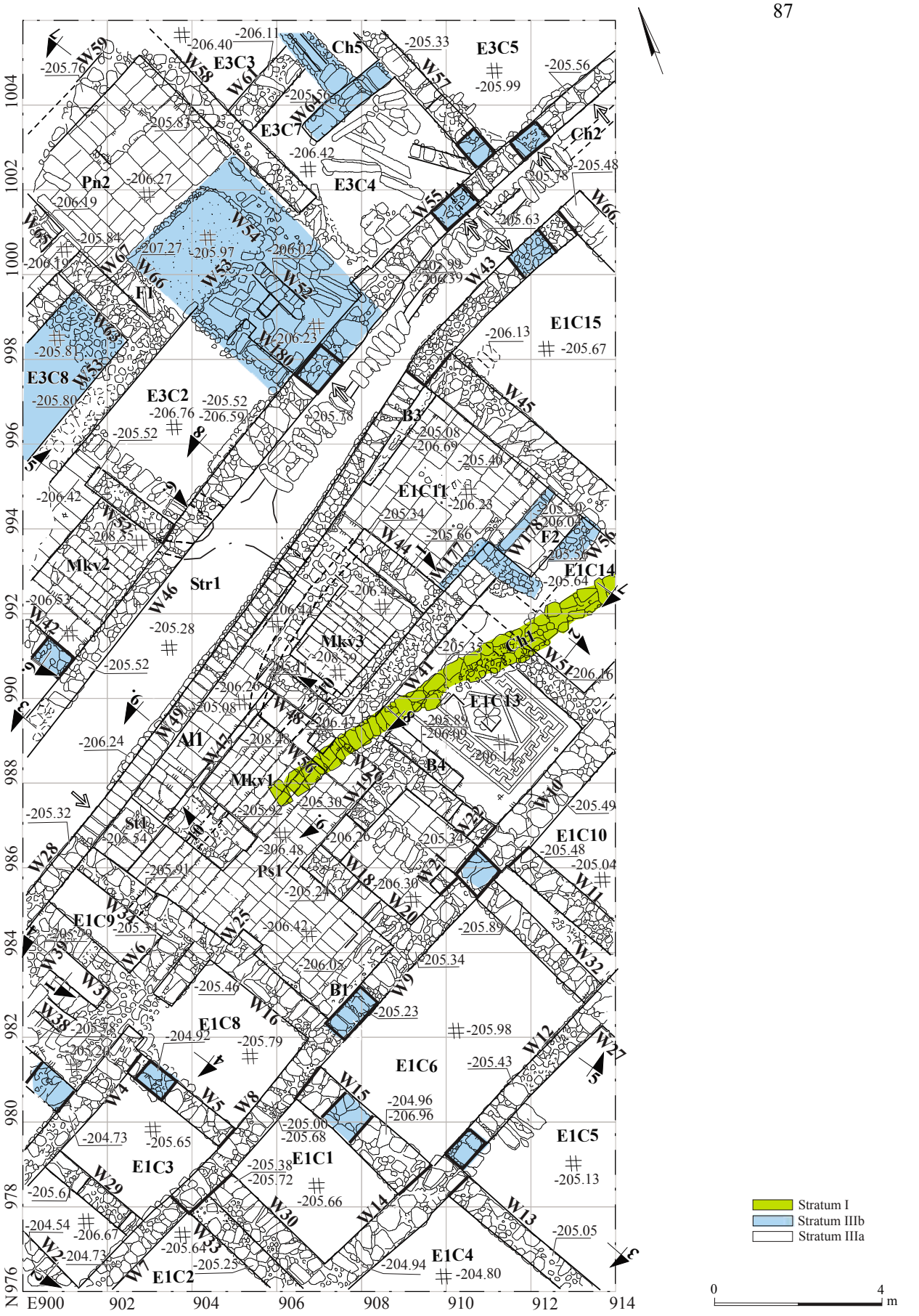
In Zone 3, near the Sea of Galilee, we were searching for indications of the limit of the town and the ancient port. Part of this zone was surveyed in July 2011 with magnetometry and electric resistivity, but only the GPR results from 2011 showed strong reflections, with a diagonal line that was subsequently revealed to correspond with a wall of the port (Area D).

The Excavations

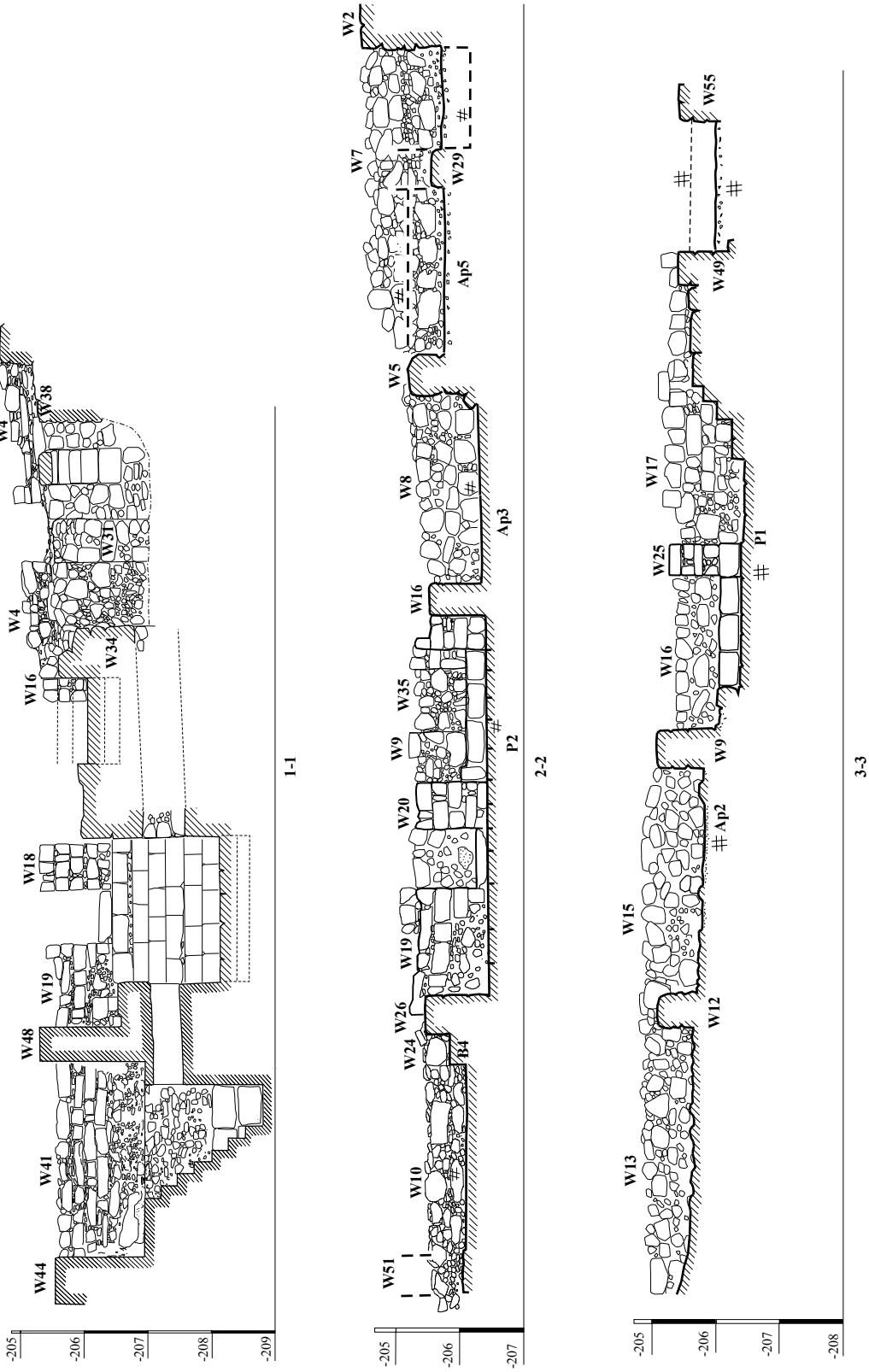
In the 2010–2012 seasons, 1650 sq m were excavated in four excavation areas (Fig. 2). The association between the architecture and the archaeological finds, particularly pottery, coins and glass, enabled us to confirm the cultural strata previously identified by the Franciscan Custody (De Luca 2009). Based on the archaeological strata from the 2010–2012 excavations, we have divided the chronology of Magdala into four main periods: Stratum IV—Hellenistic (late second–mid-first centuries BCE); Stratum III—Early Roman (mid-first century BCE–67 CE), which is further divided into Phase IIIa, Early Roman 1 (mid–late first century BCE), and Phase IIIb, Early Roman 2 (first century–67 CE); Stratum II—Middle–Late Roman (67–350 CE); and Stratum I—after c. 350 CE. Although the architecture is not oriented precisely to the cardinal points, in the following descriptions, the directions of the architectural features are adjusted to a general north–south, east–west orientation for simplicity.

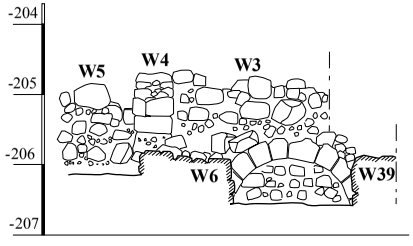
Area A (Plan 1; Fig. 5)

Area A (420 sq m) is located approximately 55 m south of the synagogue uncovered in the IAA 2009 excavation (Avshalom-Gorni and Najar 2013). The finds comprise parts of two building complexes divided by a street (Str1),

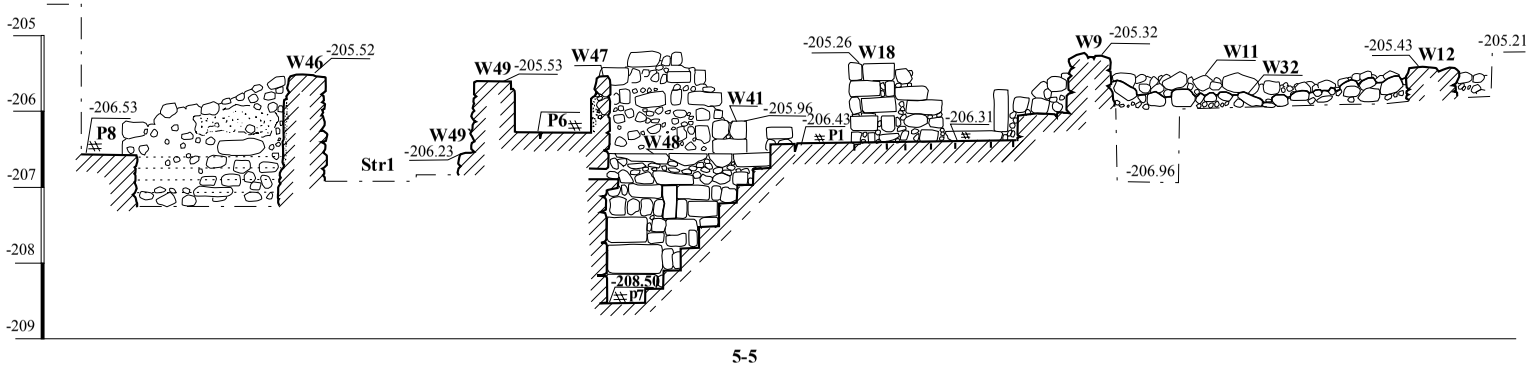


Plan 1. Area A, plan and sections (on following pages).

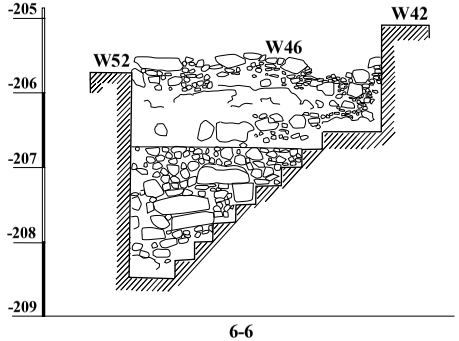

W3
W4
W38
W4
W31
W34
W16
W18
W19
W48
W41
W44
1-1
-205
-206
-207
-208
-209
W2
W7
W29
W5
Ap5
W8
Ap3
W16
W35
W9
P2
W20
W19
W26
W24
B4
W10
W51
2-2
-205
-206
-207
W55
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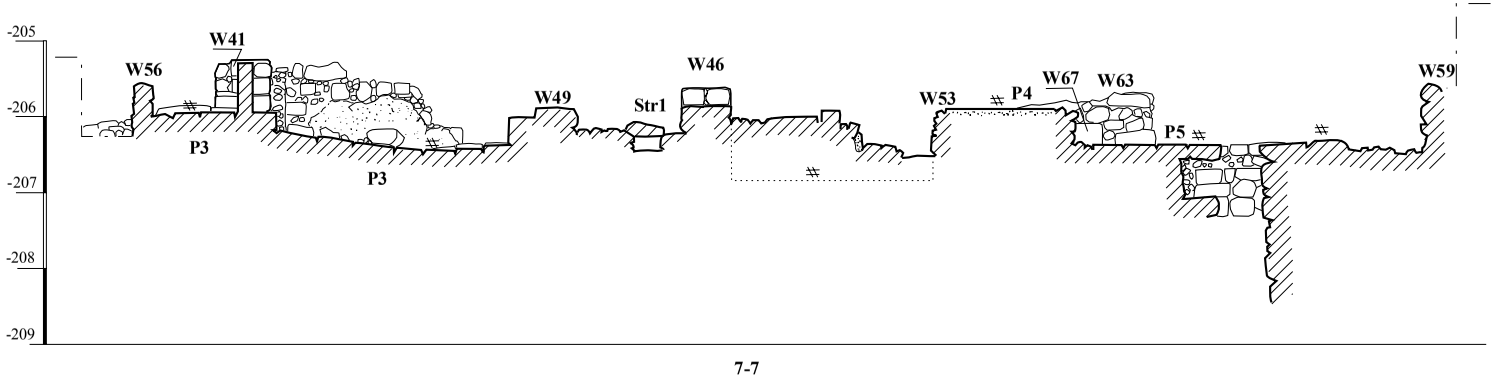
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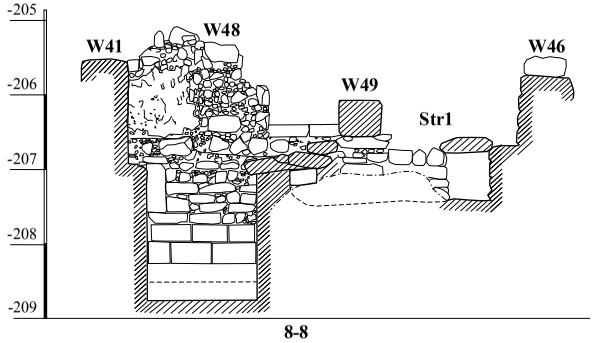
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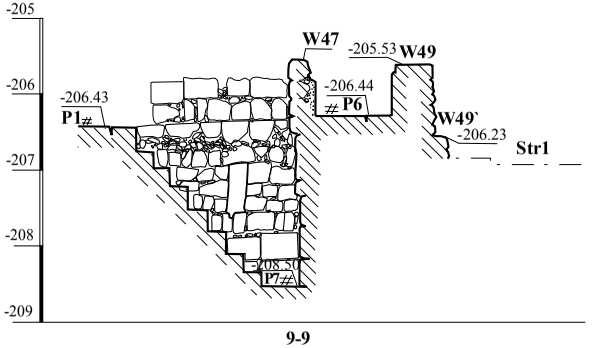
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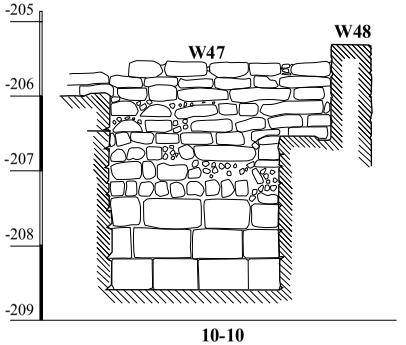
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8-8



9-9



10-10



Fig. 5. Area A, looking southeast.

dated to the Early Roman period (Stratum III), in which two phases were observed (IIIa, IIIb). Meager finds from the Hellenistic period were collected in Building E1 (Fig. 13), and remnants of an Ottoman-period occupation (Stratum I) were also discerned.

Stratum III, Phase IIIa: Early Roman 1 (Mid–Late First Century BCE)

Building E1, located to the south of Str1, comprises nine domestic rooms (C1–C6, C8, C10, C15), and a possible ritual space comprising four rooms (C9, C11, C13, C14), two *miqva'ot* (Mkv1, Mkv3), a staircase (St1), a courtyard (Ps1) and a corridor (Al1). To the north of the street, Building E3 comprises five rooms (C2–C5, C8), and a possible ritual space with a *miqveh* (Mkv2) and a courtyard with a basalt floor (Pn2). Although separated by a street, the two buildings undoubtedly existed contemporaneously in Stratum III, as evidenced by the similar construction and features, especially the *miqva'ot* and paved courtyards (Fig. 6).

In the domestic parts of the buildings, the walls were built of roughly hewn basalt and limestone blocks with small stone chips as wedges to fill the spaces, and a mixture of clay and mud as a bonding agent; the floors were usually of compacted earth. In the ritual spaces, the walls were covered with white plaster; Room E1C13 had a mosaic floor, and Room E1C11, the courtyard (Ps1) and the corridor (Al1) had basalt-paved floors. Below Room E1C9 was a cistern with a still-preserved arch (W3).

Building E1

The central part of Building E1 was accessed from the street by an entrance in W49 that led to a platform or staircase landing (St1) made of basalt blocks. From this landing, three spaces could be accessed. To the south, four steps (each 0.35 m high) descended from the platform to a courtyard of approximately 50 sq m (Ps1) surrounded by W16 and W34 on the west, W9 on the south, and W22 and W26 on the east. It is paved with tightly fitting basalt slabs. In the northeastern corner of the courtyard is a *miqveh*

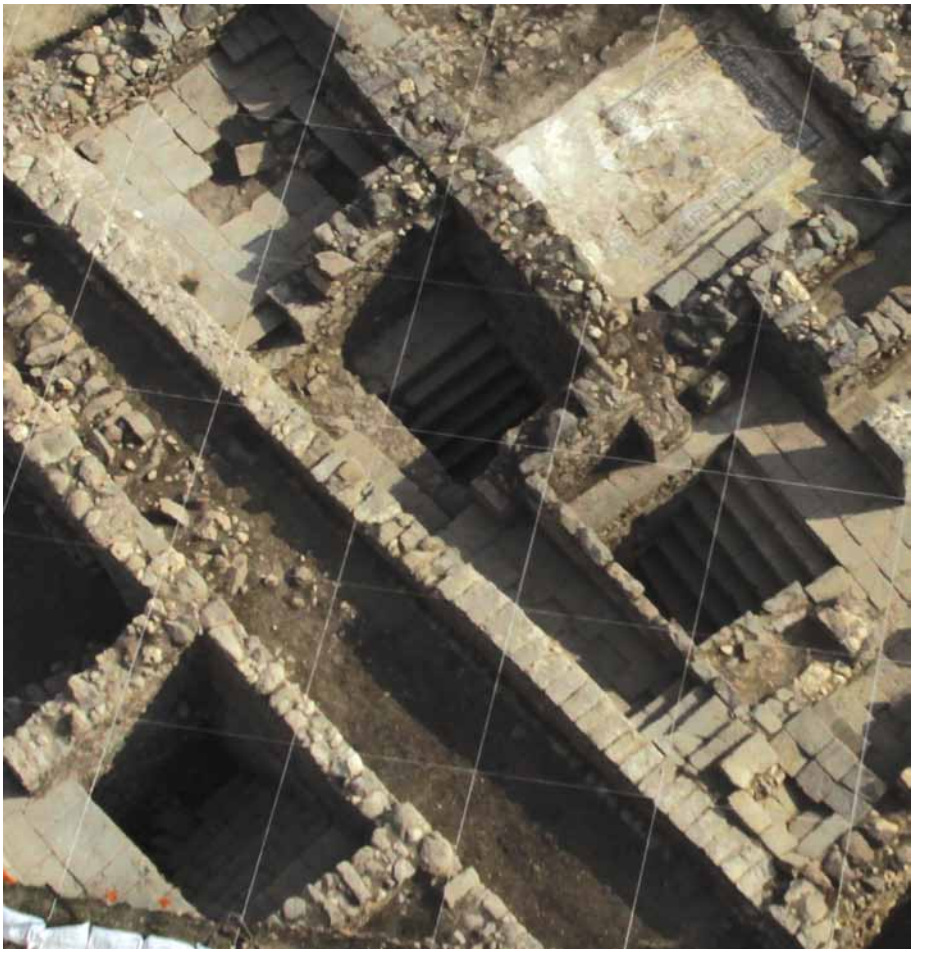


Fig. 6. Area A: *Miqva'ot* Mkv1, Mkv3 and Ps1 in Building E1 and *Miqveh* Mkv2 in Building E3, looking southeast.

with seven steps leading to its bottom (Mkv1; 2.05 × 1.90 m; Plan 1: Sections 1–1, 9–9, 10–10; Fig. 6), its upper walls covered with white plaster.

An entrance in W22 (0.55 m wide) led eastward from the courtyard to Room C13 (3.75 × 3.50 m). This room, noteworthy for its mosaic floor (Figs. 7, 8) on which were found two bone dice (Fig. 25), probably functioned as the reception room of the ritual area. The edges of the mosaic were formed of white tesserae set in horizontal lines. The broad frame that surrounds the central design is composed of a narrow black strip and a wide black meander pattern. The central design is outlined by a narrow red strip that creates a rectangular panel enclosing a rhombus whose apexes extend to the four sides of the rectangle. At the center of the rhombus is a medallion encompassing a schematic rosette with eight alternating black and white leaves. The craftsmen made use of tesserae of one main size, about 100 per sq dm, and a limited palette of only three colors: white, black and red. The absence of subtle changes in shading created a flat impression.



Fig. 7. Area A: mosaic in Room E1C13, looking west; Bench B4 is seen at top.



Fig. 8. Area A: Courtyard Ps1, looking south.

The adornment of rooms with mosaic pavements was popular among the rich Jewish aristocracy at the end of the Second Temple period, as demonstrated by the mosaics discovered in the Upper City of Jerusalem (Avigad 1983:95–120, 144–146). While the sizes of the houses in Magdala are modest in comparison to those of the affluent families in Jerusalem, at both sites mosaic floors were reserved for the wealthy.

In Jerusalem, the compositions of the mosaic floors resemble a type that appears in the Herodian palaces (Ovadiah 1994; Foerster 1995:140–158; Hachlili 2009:1–14), composed of concentric frames enclosing a central panel surrounding a rosette within a medallion. These Herodian floors were in turn inspired by the designs of earlier Hellenistic floors. The mosaic from Magdala has a central rosette within a medallion, but differs in other aspects from the mosaics in Herodian palaces and the Upper City of Jerusalem, and the wide black meander border around the rectangular central pattern containing a rhombus seems to be an amalgam of both Hellenistic and Roman influences, and suggests a date in the mid-first century CE. The total absence of figures further corroborates the dating and the Jewish attribution of the mosaic. The closest parallel to this mosaic is the one discovered in the Magdala synagogue by the IAA expedition (Avshalom-Gorni and Najar 2013), and it may be that these two mosaics were products of the same workshop.[3] Another mosaic with a black meander frame was recently revealed in a Roman mansion near Amaẓya, in the region of Bet Guvrin, dated to the first century CE (Daniel Varga, IAA, pers. comm.).

From the platform near the entrance in W49, a staircase descended eastward to a corridor (Al1; 0.9 m wide) that led to a second *miqveh* (Mkv3; 2.5 × 2.0 m). It has seven steps leading to its bottom, and the upper parts of its walls still retain traces of white plaster. The corridor continued eastward and climbed two small steps to Room C11. This room has a basalt floor, of which some of the slabs in the center are missing. Wall 41 retains some white plaster decorated with painted colors, which was covered by W177 of Phase IIIb. Between W41 and W45 was an opening that led into Room C14, which in turn was separated from Room C13 by W51, of which only the foundations remain, where an entrance must have connected it with Room C13.

To the west of Staircase St1, one gained access to Room C9, below which was Pit C9 with a perfectly preserved arch that originally supported a roof (Plan 1: Section 4–4). Pit C9 was excavated to a depth of c. 3 m, without reaching a floor. The absence of a floor, and the plaster on the walls, suggest that the pit was fed by ground water (as were the *miqva'ot*, see below). At the level at which our excavation ceased, a small passage in W34 led to a channel below Staircase St1 leading to *Miqveh* Mkv1. Room C9 was connected to Room C8 in the south through a doorway in W4.

To the south of Courtyard Ps1, an opening in W9 (0.65 m) led to a group of eight rooms (C1–6, C8, C10). The floors of these rooms consist of compacted earth, upon which a layer of ground lime was found, probably originating from the plaster on the ceilings, walls or the floors themselves. On the earthen floors were domestic finds, such as cooking-vessel fragments, some with traces of soot indicating exposure to fire, animal bones, carbonized seeds and glass objects. In Room C6, two first-century CE miniature glass jars were recovered. Room C8 contained numerous fragments of domestic pottery, glass and other objects, such as coins, metal fragments and animal bones. The earthen floor in this room was systematically sampled for chemical residues in an attempt to understand the activities that took place here.[4] As the floor in Room C8 was higher than the basalt floor of the courtyard (Ps1), a test trench was excavated along W5 on the eastern side of the room to search for an earlier occupation. This trench only revealed the foundations of W5 and W8.

Building E3

Building E3, on the northern side of Street Str1, is similar in plan to Building E1. The entrance through W46 led into a central courtyard (Pn2), which was paved with basalt slabs. To the west of the entrance, through Room C2, is a *miqveh* (Mkv2) with seven steps. To the east of the courtyard, Rooms C3 and C4 have compacted-earth floors. Two other entrances from the street, through W55, led into Rooms C4 and C5 respectively. Room C4 is also connected to Room C5 through an opening in W57. On the western side of the courtyard, next to W63, is a small pool covered with white plaster (F1; 1.0 × 0.5 m).

The finds from Phase IIIa in Building E3 include pottery, glass fragments, coins, stone vessel fragments, fishnet weights and pieces of plaster. Subsequent reuse of the spaces is not as evident in this building, as the rooms in the north and east have not been completely excavated.

The Miqva'ot

Among the outstanding features of Stratum III in Area A are the three *miqva'ot* (Mkv1, Mkv2, Mkv3; Plan 1: Sections 1–1, 6–6, 9–9, 10–10; Fig. 6) from which many finds were recovered, mostly pottery (Figs. 14, 15), but also many glass fragments, some used for cosmetics.

These three water installations differ from *miqva'ot* discovered to date in that they made use of ground water, as the water level is extremely high in this area due to the proximity of the Sea of Galilee. Other *miqva'ot* are known to have used rainwater, particularly in Jerusalem, spring water (e.g., in Jericho), or floodwater diverted to the site by an aqueduct (e.g., in Qumran). Thus, the *miqva'ot* at Magdala were not plastered in the lower part in order to allow the ground water to infiltrate easily between the stones. In the relatively wet winter of 2012, the *miqva'ot* were full almost to the surrounding floor level. An attempt to pump out the water from one installation resulted in the drainage of water from the other two installations, indicating that all three installations are interconnected underground, below the water table. A similar construction is mentioned in the rabbinic literature of a cavity next to a *miqveh* that can be used for ritual immersion if it cannot hold water independently from the *miqveh* (Mishna, Miqva'ot 6.1), thus implying an underground connection.

It should be stressed that to date, no *miqva'ot* dating to the late Second Temple period have been reported within the excavated areas of Jewish towns or villages in proximity to the Sea of Galilee, such as Tiberias, Ḥamat Tiberias and Capernaum. The apparent explanation is that the Sea of Galilee provided a place for ritual purification, as its water, like spring water, is considered 'living water', the highest of the six grades of waters defined in the rabbinic literature (Mishna, Miqva'ot 1.8); rainwater, on the other hand, is defined as grade three (Mishna, Miqva'ot 1.7). These three recently discovered *miqva'ot* at Magdala provide new insights into this Jewish installation of the Second Temple period.

Stratum III, Phase IIIb: Early Roman 2 (First Century–67 CE)

A number of modifications and some re-structuring were observed in Buildings E1 and E3, which were assigned to a slightly later phase.

Building E1

It appears that in Phase IIIb, the ritual area was afforded greater importance than in Phase IIIa. This is inferred by the blockage of the main entrance from Courtyard Ps1 to Room C6, along with other openings that enabled access from the domestic rooms. The connection between Room C14 and Room C11 was also blocked, and W56 was built to close off a small space that was probably used as a pool, as traces of plaster were observed (F2).

The only access into the ritual area that remained in this phase, apart from the entrance from Str1, was from Room C8 into Room/Pit C9 through W4. Therefore, it would appear

that Rooms C8 and C9, along with the spaces directly related to Courtyard Ps1 (Mkv1, Mkv3, Al1, C11, C13, C14), now formed the ritual area.

Building E3

In Building E3, changes in Phase IIIb are less evident, as this building was excavated to a lesser extent. In the space between Rooms C2 and C4 (part of Courtyard Pn2), a plaster floor was added alongside W46 (2.85 × 1.89 m). Several stones were found in the upper layers, possibly belonging to a fallen roof. During excavation, the earlier walls of Phase IIIa were removed, leaving only W52 in order to better understand Rooms C2 and C4. Between Room C2 and the pavement of Courtyard Pn2, a compacted-earth floor with small stones was noted.

Stratum I

Part of a channel (Ch1; Plan 1) was uncovered close to the surface, crossing Building E1 in a general northwest–southeast direction. It ran over a length of approximately 8 m, damaging the stairs to *Miqveh* Mkv1 and Room C13 with the mosaic floor, and cutting W26. On the surface of the channel wall, and in the channel itself, unidentified glass fragments and Ottoman pipes were recovered, suggesting a date in the Ottoman period.

AREA B (Plan 2; Fig. 9)

Area B (320 sq m) is located 6 m southeast of Area A. Only the two phases of Stratum III were discerned in this area. The alignment and architectural layout are similar to those of Building E1 in Area A. As in Area A, the main occupation corresponds with Phase IIIa, with modifications during Phase IIIb. Three buildings (E6, E14, E15) and two streets (Str2, Str3) were identified. The buildings were constructed of roughly hewn basalt and limestone blocks, with small stone chips used as wedges in the joints; the floors were of compacted earth. In general, the finds recovered in this area are of a domestic nature.

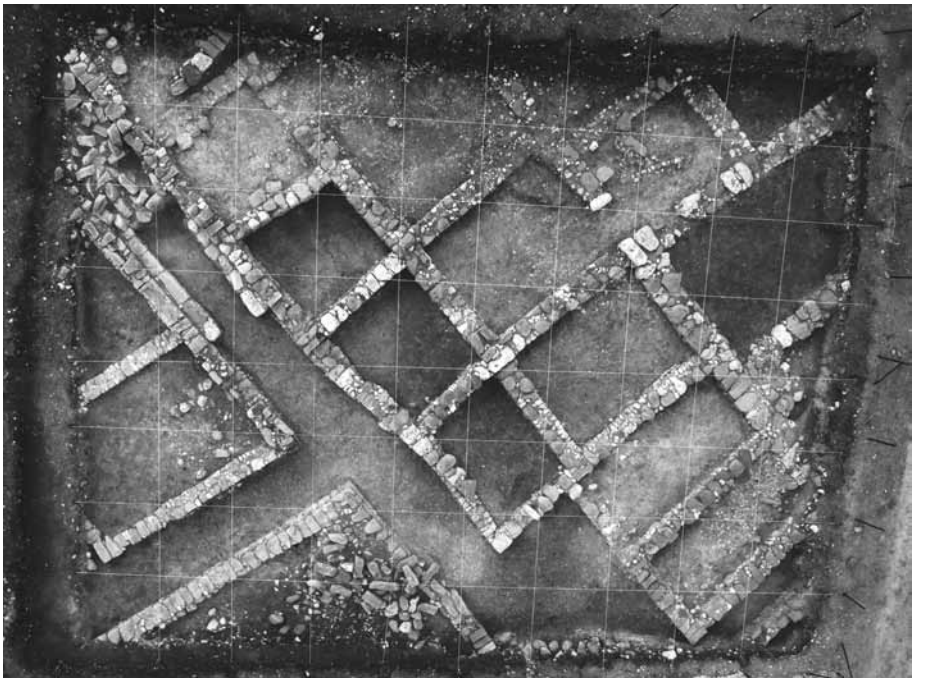
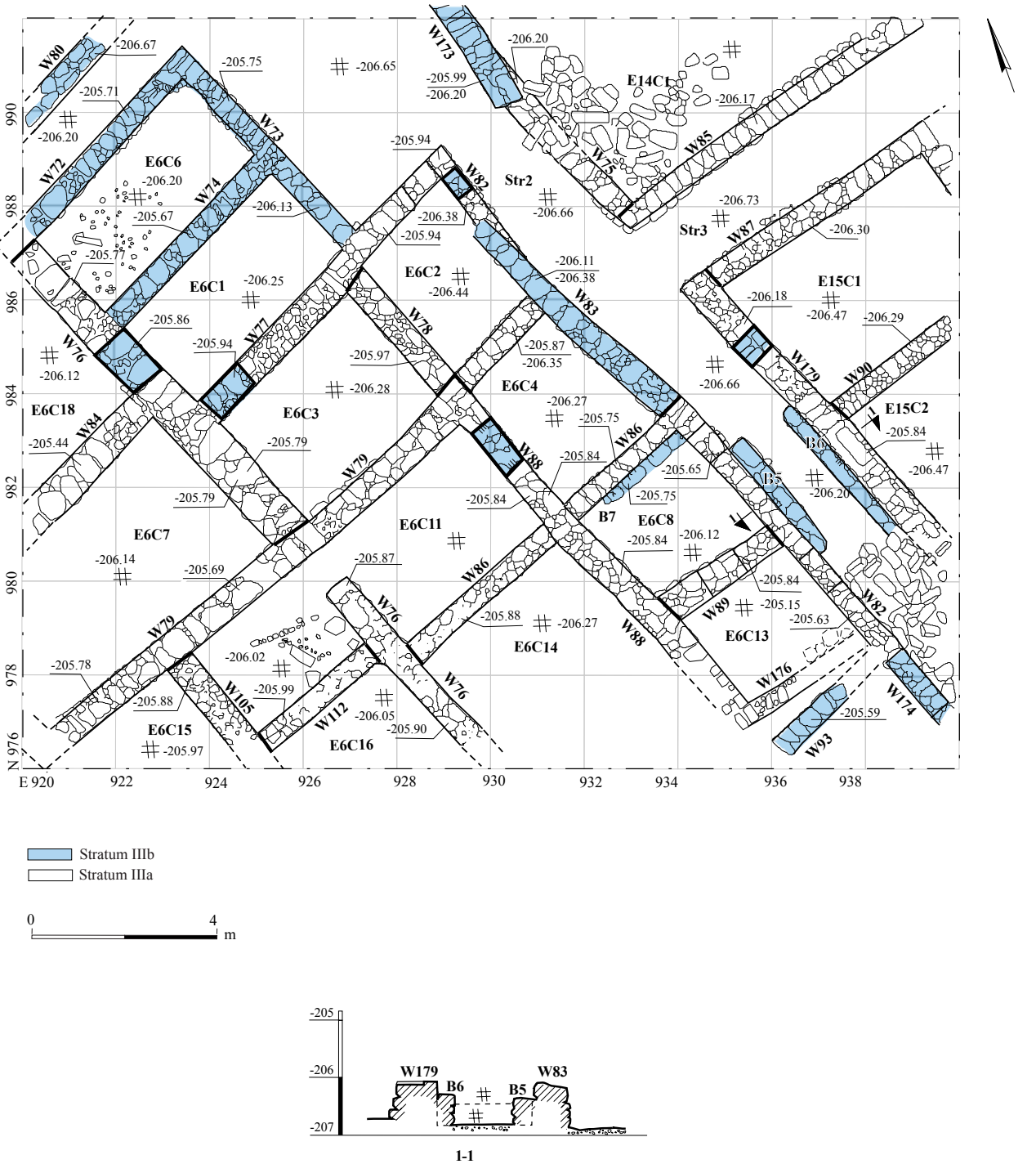


Fig. 9. Area B, looking south.



Plan 2. Area B, plan and section.

Stratum III, Phase IIIa: Early Roman 1 (Mid–Late First Century BCE)

Street Str2 (2 m wide), running in a north–south direction and exposed for 18 m, possibly connects with Str1 in Area A. West of the street is Building E6, which comprises 14 rooms (C1–C4, C6–C8, C11, C13–C18). On the eastern side of the street are Buildings E14 and E15, separated by another street (Str3; 1.8 m wide), which was exposed for 7.6 m, running eastward from Str2. Only the southwestern corner of Building E14, Room C1, was excavated, while in Building E15, two rooms, C1 and C2, have been discovered so far.

The main entrance to Building E6 has not yet been found, although the doorways between the interior rooms can be observed. Rooms C2, C8 and C13 had direct entrances from Str2. Room C4 may also have had an entrance from the street, which was blocked by W83 in Phase IIIb.

The finds from Phase IIIa in Building E6 were many and varied, indicative of a domestic context, including everyday pottery, some complete, and fragmentary glass vessels, an outstanding amount of coins and fishnet weights, and some chalk vessels.

Stratum III, Phase IIIb: Early Roman 2 (First Century–67 CE)

Simple modifications were observed in this stratum; for example, in Building E6, some of the entrances were blocked and benches made of basalt blocks were erected along W86 in Room C8 (B7), and in the eastern part of Str2, opposite benches along W83 and W179 (B5, B6; Plan 2: Section 1–1). It is noteworthy that the construction of W83 above W82, and W173 above W75, modified their orientation. Concentrations of hewn stones, probably from a roof, were found at the southeastern end of Str2 and inside Room C1 of Building E14.

AREA C (Plan 3; Fig. 10)

In Area C (480 sq m), located c. 50 m east of Area B, is Building E7, surrounded by parts of three additional buildings (E8–E10) separated by streets (Str4–Str6). Room E7C7 to the east may be part of another building. Three architectural strata were identified in Building E7: Stratum IV (Hellenistic), Stratum III (Phases IIIa, IIIb; Early Roman 1, 2), and Stratum I (late periods). Finds from this area provide evidence that it was also in use during Stratum II (Middle–Late Roman period).

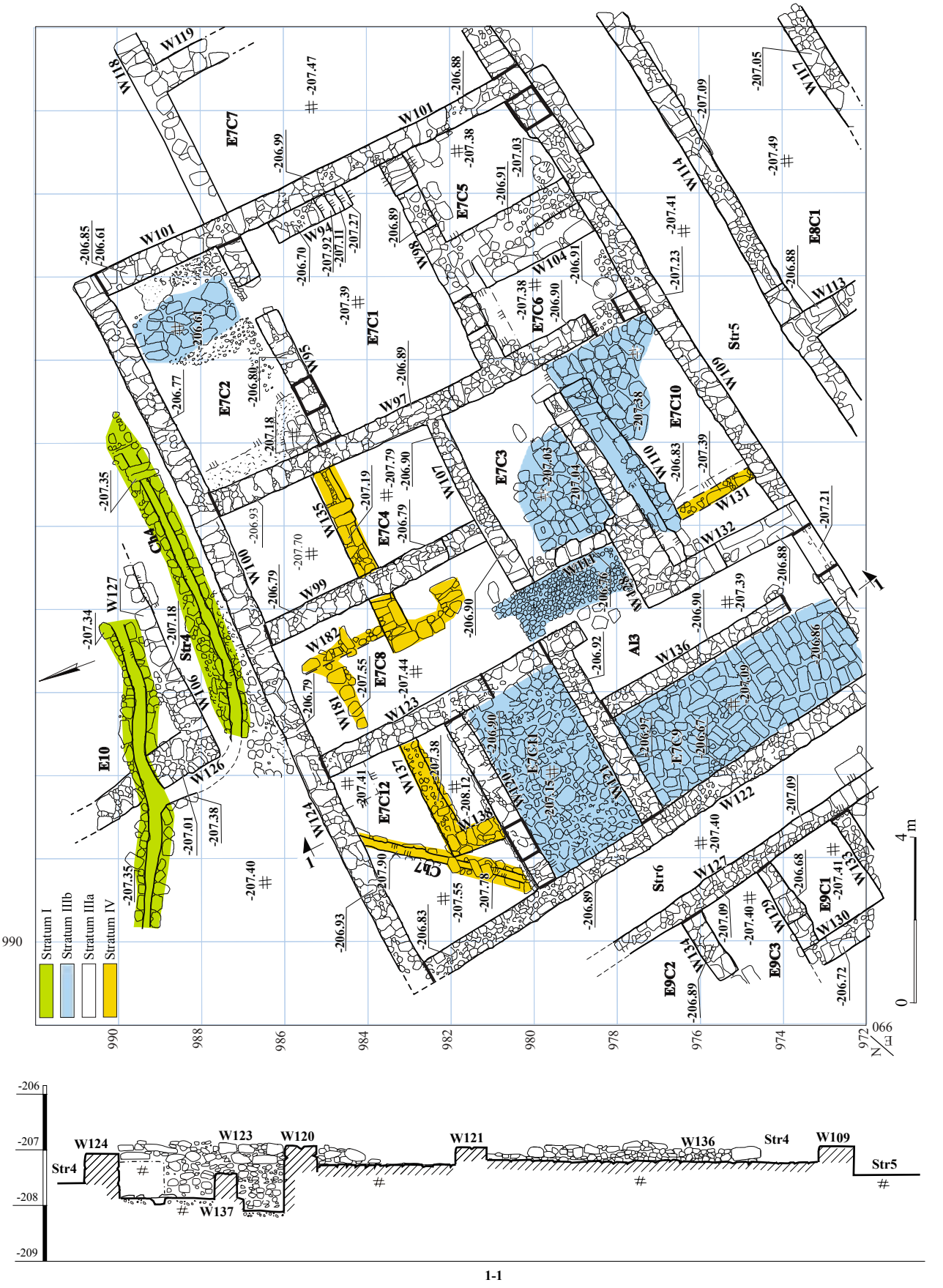
Stratum IV: Hellenistic (Late Second–Mid-First Centuries BCE)

The remains of several walls were attributed to this stratum. Below Room C12, a corner was formed by W137 and W138, with a channel (Ch7) running northeast–southwest just outside of it. Further east, W135 and fragments of W181 and W182 were revealed below Rooms C4 and C8. To the south, below Room C10, was W131. The tops of the Hellenistic walls were discerned at approximately 20 cm below the Phase IIIa floors. Fragments of pottery dating to this stratum were registered.

Stratum III, Phase IIIa: Early Roman 1 (Mid–Late First Century BCE)

The architectural layout of Building E7 is symmetrical, and most of the rooms have a rectangular plan. It comprises 12 Rooms (C1–C12), and the main entrance (1.15 m wide) was from the street to the south (Str5) through W109, granting access to a corridor (Al3). A second entrance in W109 (0.7 m wide), further to the east, led into Room C5 over a small step.

The western entrance into Corridor Al3 gave access to a number of rooms. The entrance to Room C9 was located in the southern end of W136. An opening in W132 led into Room C10, from which one entered Room C3. In this phase, both Rooms C10 and C3 had a compacted-earth floor. Room C11, paved with basalt stones, was accessed through W123 from the continuation of Corridor Al3. From this room one entered Room C12 to the north, where remains of a compacted-earth floor were discerned above Hellenistic W137. Rooms C4,



Plan 3. Area C, plan and section.



Fig. 10. Area C, looking southwest.

C8, C9, C11 and C12 could only be accessed from Corridor Al3.

The eastern part of Building E7 (C1, C2, C5, C6) was accessed through two entrances. The entrance in W109 from Str5, 0.7 m wide with a step, led into Room C5, while another entrance in W97 led from Room C10 in the western part of the building to Room C6, and from there to Room C1 through an entrance in W98. The eastern rooms provided archaeological evidence that food production and consumption activities took place here, perhaps to be attributed to an extended family. Against the eastern wall of Room C1 (W101), a staircase (W94) may have led to an upper floor. Seven grinding vessels were left upon the compacted-earth floors in some rooms (Fig. 24:3–7). In Room C2, in the northeastern corner of the building, complete cooking and storage vessels were found, some of which showed evidence of exposure to fire. Seeds, grains and boiled and burned animal bones were noted in separate activity areas, data that will contribute to a spatial analysis of this building. In Room C5 were two *ṭabuns* made of pottery sherds and surrounded by stones (Fig. 11). Soil samples were taken from inside the *ṭabuns* to assess their specific use (to be published in the final report). Jar fragments recovered from Room C6 suggest that this space may have been a store room (Fig. 14:16).



Fig. 11. Area C: *ṭabun* in Room C5 of Building E7, looking south.

Stratum III, Phase IIIb: Early Roman 2 (First Century–67 CE)

The layout of this area remained the same in the later phase, and unlike the buildings in Areas A and B, Building E7 in Area C continued in use without any architectural modifications. The changes in this phase were only functional; for example, Rooms C2, C3, C9, C10 and C11 were paved with roughly hewn basalt slabs, resembling cobbling, over the compacted-earth floor. As large amounts of lead fishnet weights and fish hooks were found on these pavements (Fig. 24:1, 2), it is possible that they were open spaces where certain daily activities took place.

Stratum I: Late Periods (after c. 350 CE)

On the northern side of the area, a channel (Ch4) ran east–west above Street Str4, turning northward at its western end and cutting through W126 of Building E10, where it connected with another channel.

Area D (Plan 4; Fig. 12)

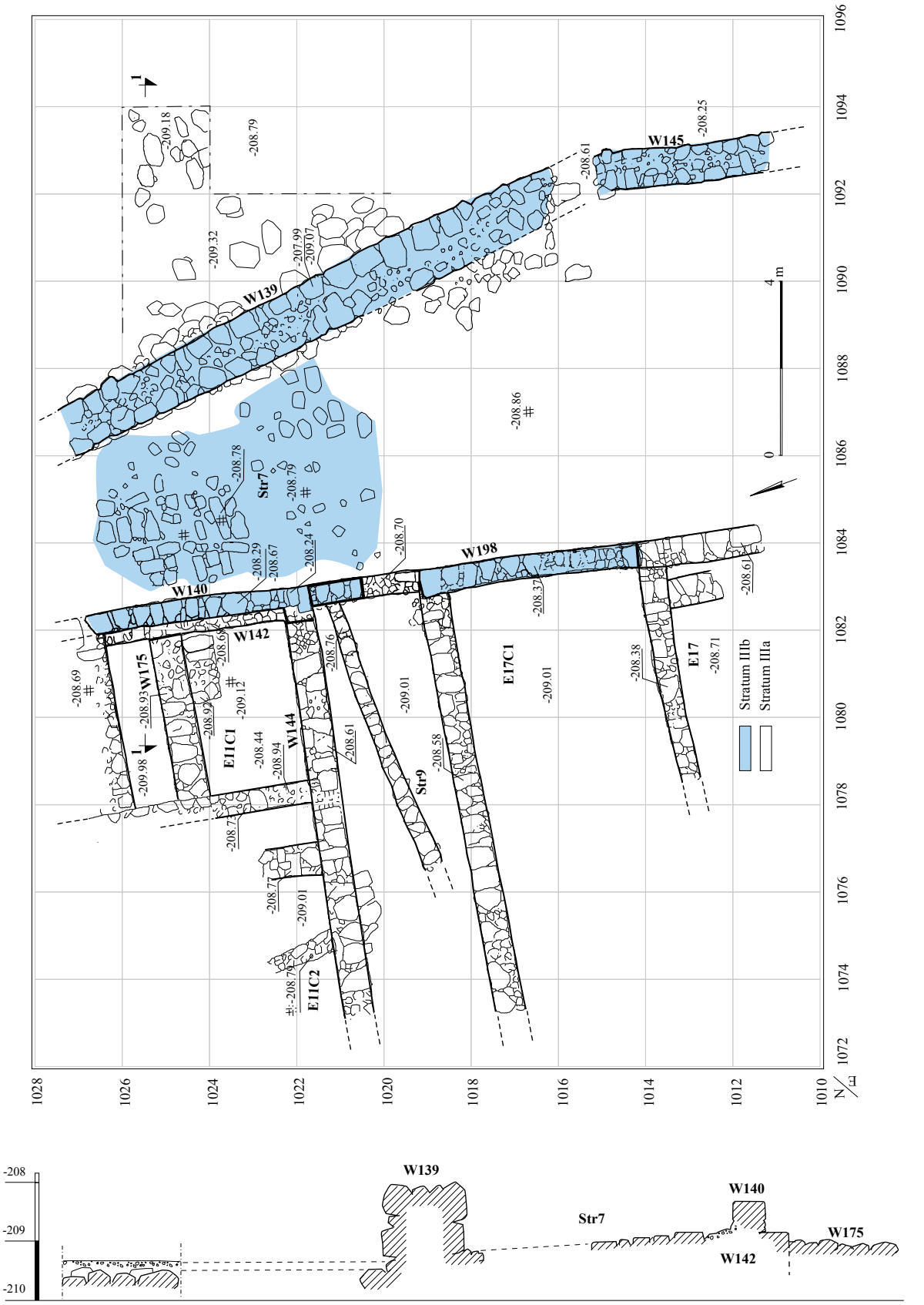
Area D (c. 288 sq m) is located 70 m east of Area C, on the eastern edge of the site. Evidence of Stratum III (Phases IIIa and IIIb) were discerned. Some 20 m north of Area D, the IAA team identified the first-century CE harbor of Magdala, and a second-century CE street and market (Fig. 2; see Avshalom and Najar 2013). The geophysical prospection carried out by UNAM in Area D (Fig. 3) revealed that the harbor wall excavated by the IAA continued southward with a slight deviation to the southeast, and was revealed in our Area D (W140; Phase IIIb). On the eastern side of the excavated area may be remains of commercial structures attributed to Phase IIIa, perhaps related to the stone plaza reported by the IAA team (Avshalom and Najar 2013).

Stratum III, Phase IIIa: Early Roman 1 (Mid–Late First Century BCE)

Two buildings, E11 and E17, separated by Street Str9 that ran in an east–west direction, are attributed to this stratum. Despite the meager data, Buildings E11 and E17 can perhaps be related to a structure discovered in the north of the site by the IAA, dated similarly, and W140, to the harbor wall excavated by the IAA.



Fig. 12. Area D, looking south.



Plan 4. Area D, plan and section.

Stratum III, Phase IIIb: Early Roman 2 (First Century–67 CE)

Wall 139, constructed of large basalt blocks, was uncovered on the eastern side of the area, running in a general north–south direction, probably a breakwater marking the boundary of the Sea of Galilee in those times. To the west of it, Street Str7 was delimited on the west by W140 and W198. This street is the continuation of one uncovered in the IAA excavation to the north and dated to the Middle–Late Roman period (Avshalom-Gorni and Najar 2013). In Area D, there is still no evidence of this period (Stratum II). There was access from Str7 to Str9 through W140.

At the northern end of Str7, an accumulation of large basalt and limestone blocks appears to be the remains of a floor. In the upper level of the northern end of the street, we noted a lacustrine stratum comprised of lime, earth and pebbles mixed with many pottery fragments, as if the lake had covered the street at some point. The so-far meager finds in the street do not enable us to date the end of its use.

The Finds

Pottery

Dina Avshalom-Gorni

During the excavations in Areas A–D, all the soil from the surface level down was sieved, and all the sherds were collected. The vessel rims were sorted typologically and counted. In this preliminary study, a chronological-typological cross section of selected, representative ceramic assemblages from the 2010–2012 seasons is presented, as well as a quantitative analysis of the finds (Table 1).

The assemblage, comprising 1663 diagnostic rim sherds, can be attributed to three periods: Hellenistic, Early Roman and Middle Roman, and is characterized by locally produced vessels, among them bowls, cooking bowls, kraters, cooking pots, jugs, jars and lamps. The results of the petrographic analyses carried out

Table 1. Typological Breakdown of Roman-Period Vessels

Vessel Type / Room	Early Roman										Middle–Late Roman								
	Bo 1	CB 1	Kr 1	CP 1	CP 2	Jug 1	Jug 2	Jug 3	SJ 1	SJ 2 +SJ 4	SJ 3	Bo 2	Bo 3	Bo 4	CB 2	CP 3	Jug 4	Jug 5	Misc.	*Total*
E1C6	2	1							1	14		1			1			1	2	*23*
E1C13	31	2	1	2	4			1	1	76	2	54			6	3		3	48	*234*
Mkv2	35	7	2	9	33	4	4	11	8	376	5	29			7	11			115	*656*
E6C6	4	20		47	2	1	1		26	59	4	18		6	6	1			40	*235*
E7C1	1			7	1	1				5		4		2	1	1			5	*28*
E7C2	22	4	3	7	5			1	1	49		27		3	2	6	2	2	7	*141*
E7C3	2									5		3				3				*13*
E7C5	5			3	1				1	2		6		1					3	*22*
E7C12	18	23	5	14	4	1	1	1	18	101		14	1	4	7	13	1		35	*261*
Str7	1	1								25	3	4	2	7	4		1	1	1	*50*
Total	*121*	*58*	*11*	*89*	*50*	*7*	*6*	*14*	*56*	*712*	*14*	*160*	*3*	*23*	*34*	*38*	*4*	*7*	*256*	*1663*
%	*7.3*	*3.5*	*0.7*	*5.4*	*3.0*	*0.4*	*0.4*	*0.8*	*3.4*	*42.8*	*0.8*	*9.6*	*0.2*	*1.4*	*2.0*	*2.3*	*0.2*	*0.4*	*15.4*	*100.0*

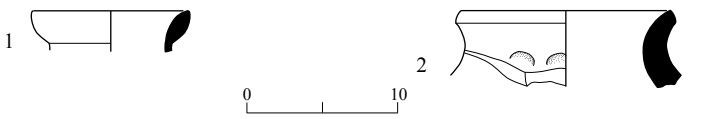


Fig. 13. Hellenistic pottery.

No.	Type	Area	Location	Reg. No.	Description
1	SJ	A	E1C6	2641/2	Red ware, numerous small white and brown inclusions
2	SJ	A	E1C6	3543	Brown, coarse handmade ware, many large inclusions

on many of the drawn vessels indicate that they were produced at either the Kefar Ḥananya (KH) or Shiḥin (Sh) workshop, and these are noted in the figure tables.[5]

This assemblage will be compared to four important assemblages: Kefar Naḥum (Loffreda 2008a; 2008b), Gamla (Berlin 2006), Yodefat[6] and Kefar Ḥananya (Adan-Bayewitz 1993).

The Hellenistic Period (Fig. 13)

Only a small number of scattered fragments of pottery vessels were recovered from Area A (Building E1, Room C6). A jar was identified that has a thickened, rounded rim and a short, everted neck (Fig. 13:1). Similar jars are known from Gamla (Berlin 2006:48, Fig. 2.22:1–6), where they date from the end of the second to the end of the first centuries BCE. A second type of jar, made of coarse Galilean ware (Fig. 13:2), has a thickened, molded rim and a short, thick neck with finger indentations on it (Frankel, Getzov and Degani 2001:61–62).

Early Roman Period (50 BCE to c. 70 CE) (Fig. 14)

Bowls, Cooking Bowls and Kraters

Bo 1. This bowl type is an open bowl with a single channel on a plain rim (Fig. 14:1). It is similar to the Type 1A vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 1A), where they continue until the end of the first century CE. At Gamla (Berlin 2006:45, Fig. 2.19:8–15), these vessels date from the beginning of the first century BCE to 67 CE. At Kefar Naḥum (Loffreda 2008a; 2008b: Tipo TEG 14), they are assigned to the Early Roman period.

CB 1. This type of cooking bowl has a flat, everted rim and a curved shoulder (Fig. 14:2). It is similar to the Type 3A vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 3A), where they date to the beginning of the Roman period. At Gamla (Berlin 2006:41, Fig. 2.17:7–11), these vessels date from 50 BCE to 67 CE. At Kefar Naḥum (Loffreda 2008b: Tipo TEG 12), they are assigned to the Early Roman period.

Kr 1. The krater has a rounded, everted neck and a beveled rim (Fig. 14:3, 4). These vessels are known from Gamla (Berlin 2006:29, Fig. 2.8:7–11), where they date from the first century BCE to 67 CE. A similar krater found at Migdal Ha-ʿEmeq (Getzov, Avshalom-Gorni and Muqari 1998: Fig. 1:8) was incorrectly dated to the Middle Roman period although the assemblage belongs to the Early Roman period. It has three legs that serve as a base. At Kefar Naḥum (Loffreda 2008a; 2008b: Tipo PALT 22 DG 215), these vessels date from the Middle Roman to the Byzantine periods.

Cooking Pots

CP 1. This cooking pot has a plain rim with a channel on the inside, a high neck and a round body (Fig. 14:5, 6). It is similar to the Type 4A vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 4A), where they date from the mid-first century BCE to the mid-second century CE. At Gamla (Berlin 2006:32, Fig. 2.14:1–15), these vessels are similarly dated

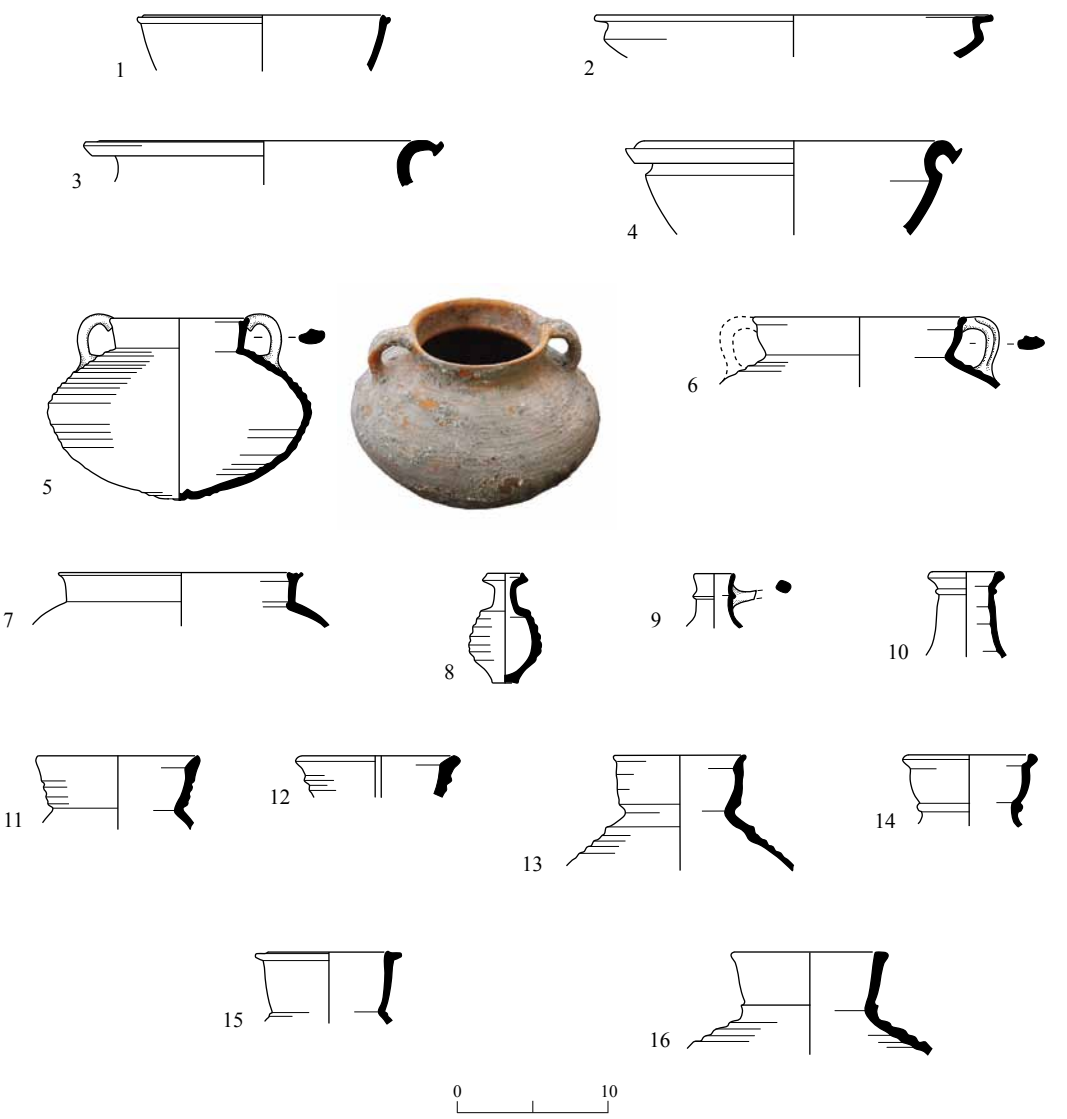


Fig. 14. Early Roman pottery.

and may even be slightly earlier. At Kefar Naḥum (Loffreda 2008a; 2008b: Tipo PENT 10), they are assigned to the Early Roman period.

CP 2. This cooking pot has a flat, everted rim with two grooves (Fig.14:7). Another groove is located at the base of the neck and, usually, two handles extend from the rim to the shoulder of the vessel. It is similar to the Type 4B vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 4B), where they date from the mid-first to the mid-second centuries CE. At Gamla (Berlin 2006:40), the dating is more precise, and they first appear between 40 and 50 CE and continue until 67 CE. At Kefar Naḥum (Loffreda 2008a; 2008b: Tipo PENT 12), they date from the mid-first to the mid-second centuries CE.

◂ **Fig. 14**

No.	Type	Area	Location	Reg. No.	Description	Petrographic Group
1	Bo 1	C	E7C2	5366	Red ware, numerous small black and brown inclusions	KH
2	CB 1	C	E7C1	4603	Red ware, numerous small white and brown inclusions	KH
3	Kr 1		Mkv2	2042/1	Brown ware, black core, numerous small white, black and brown inclusions	Sh
4	Kr 1	C	E7C1	4571	Same as No. 3	Sh
5	CP 1	A	E3C1	2243	Red ware, numerous small white and brown inclusions	
6	CP 1	C	E7C3	5085	Same as No. 5	
7	CP 2	C	E7C2	4630	Same as No. 5	KH
8	Jug 1	A	Str1	6369	Red ware (pure clay)	
9	Jug 2	A	Mkv2	2243	Red ware, numerous small white and brown inclusions	KH
10	Jug 3	A	Ps1	2037	Brown ware, black core, numerous small white, black and brown inclusions	Sh
11	SJ 1	B	E6C6	2305	Red ware, black core, numerous small white and black inclusions	Sh
12	SJ 1	A	Mkv2	2030	Brown ware, black core, numerous small white, black and brown inclusions	Sh
13	SJ 1	C	Ch4	6057	Red ware, black core, small and medium white inclusions	Sh
14	SJ 2	A	E3C8	2042/2	Brown ware, black core, small and medium white inclusions	
15	SJ 3	C	E7C1	5262	Red ware, numerous small white and brown inclusions	
16	SJ 3	C	E7C6	4634	Red ware, numerous small and large white, black and brown inclusions	

Jugs and Juglets

Jug 1. This juglet has a rim with a triangular cross section, a curved neck, a spherical body and ribbed walls (Fig. 14:8). Díez-Fernández (1983: Tipo T7.1) dates similar Galilean vessels from the mid-first century BCE to 30 CE. They are also known from Gamla (Berlin 2006:57, Fig. 2.30:22, 23), where they appear in the first century, up to 67 CE.

Jug 2. This jug has a plain rim, a ridge on the neck, a spherical body, and a handle that extends from the ridge to the shoulder (Fig. 14:9). Similar vessels at Gamla date from the early first century until 67 CE (Berlin 2006:59, Fig. 2.30:11, 16).

Jug 3. This jug has a round, everted rim with a ridge slightly below it (Fig. 14:10). Díez-Fernández (1983: Tipo T9.2) dates similar Galilean vessels to the period between 50 BCE and 75 CE.

Storage Jars

SJ 1. This storage jar has a plain rim that is sometimes everted, and a ribbed neck (Fig. 14:11–13). A step occasionally appears at the base of the neck. Díez-Fernández (1983: Tipo T1.3) dates these vessels in the Galilee from 63 BCE until the beginning of the first century CE. At Yodefat, this type (referred to as a Yodefat jar) is one of the most common jar types and is dated to the beginning of the

Roman period (Avshalom-Gorni and Getzov 2002: Fig. 5.1.9).

SJ 2. This storage jar has a stepped rim on the inside and a ridge at the base of the neck (Fig. 14:14). At Yodefat, where this type dates to the beginning of the Roman period (Avshalom-Gorni and Getzov 2002: Fig. 5.1:9), the vessels are made of pale red clay and are small in size. At Kefar Naḥum they also date to the Early Roman period and are made of pale red clay (Loffreda 2008a; 2008b: Tipo ANF 10), while a similar but larger type made of clay that is more gray-brown, continues to appear in the Middle Roman period (Loffreda 2008a; 2008b: Tipo ANF 11). As it was difficult during fieldwork to typologically differentiate between these two types, they were labelled SJ 4 (see below) but counted together with Type SJ 2, and that is why this type of jar constitutes 42.8% of the finds, far more than any other type.

SJ 3. This storage jar has a flat rim, an upright neck, a ridge at the base of the neck and a curved, ribbed shoulder (Fig. 14:15, 16); it is made of light-colored red ware. Such vessels are the most common type of jar at Gamla (Berlin 2006:48, Fig. 2.26:1–4), where they date from the end of the first century BCE to 67 CE. On the other hand, at Magdala this type of jar, until now, represents only 0.8% of the finds. Similar vessels are also known in Judea.

Oil Lamps

Two types of ceramic oil lamps were identified in the Early Roman assemblage (Fig. 15).

Type 1. Two knife-pared (Herodian), wheel-made lamps with a pared nozzle (Fig. 15:1, 2) are illustrated. Lamps of this type date from the end of the first century BCE or the early first century CE until the mid-second century CE, and are known from many sites of this period in the region (Barag and Hershkovitz 1994:24–25; Adan-Bayewitz et al. 2008:39; Geva 2010:128–129). Petrographic examination of the lamp in Fig. 15:2 indicates that it was produced in the Shiḥin workshop.

Type 2. Two 'boat' lamps (Fig. 15:3, 4), so-called as examples were recovered in the boat that was found at Ginnosar Beach on the shores of the Sea of Galilee, are illustrated. This type dates to the beginning of the Roman period (Sussman 1990: Fig. 12.1). Petrographic examination of the lamp in Fig. 15:3 indicates that it was produced in the Shiḥin workshop.

Middle–Late Roman Period (c. 70–350 CE) (Fig. 16)

Bowls

Bo 2. This type is an in-curved bowl with two grooves on the plain rim (Fig. 16:1, 2). It is similar to the Type 1B vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 1B), where they date from the end of the first–beginning of the second centuries until the mid-fourth century CE.

Bo 3. This is an open bowl type with a thickened inner rim and a single groove on the outer rim (Fig. 16:3, 4). It is similar to Type 1C vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 1C), where they date from the mid-third to the mid-fourth centuries CE.

Bo 4. This open bowl with a simple, squared rim, a slight carination under the rim and a single groove on the outer rim (Fig. 16:5, 6), is similar to Type 1E vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 1E), dated from the mid-third to the early fifth centuries CE. However, the KH Type 1E bowls do not have an external groove.

CB 2. These cooking bowls have a flat, everted rim, a carinated body, a round base, and two molded handles extending from the rim to the shoulder of the vessel (Fig. 16:7, 8). They are similar to Type 3B vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 3B), where

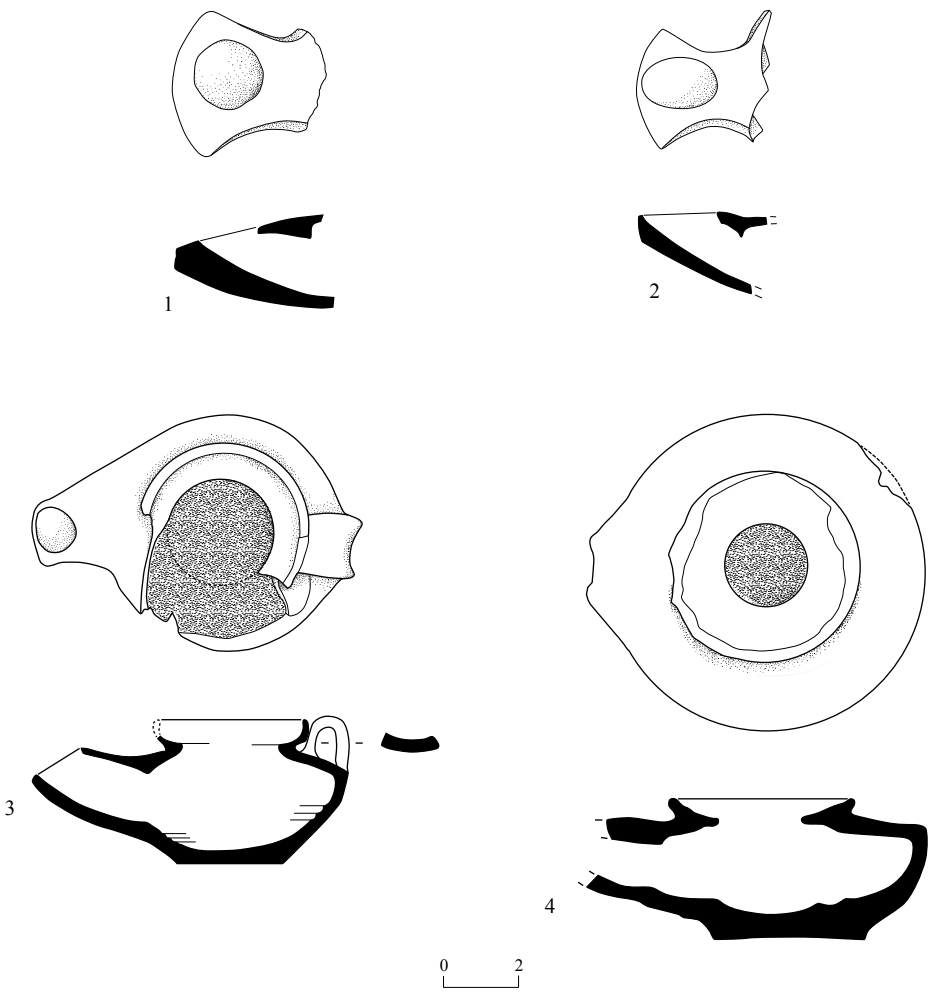


Fig. 15. Early Roman oil lamps.

No.	Type	Area	Location	Reg. No.	Description	Petrographic Group
1	Knife-pared	A	Mkv2	6615	Brown ware, small white inclusions	
2	Knife-pared	A	Str1	3674	Black ware, numerous black and white inclusions	Sh
3	'Boat' lamp	C	E7C4	5958	Light reddish ware, small white inclusions	Sh
4	'Boat' lamp	A	Str1	1134	Same as No. 3	

they date from the beginning of the second to the end of the fourth centuries CE.

Cooking Pots with a High Neck

CP 3. This type of cooking pot has a flat, everted rim with two grooves on it, and two handles extending from the rim to the shoulder of the vessel (Fig. 16:9). It is similar to Type 4C vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 4C), where they date to the beginning of the second–middle of the fourth centuries CE.

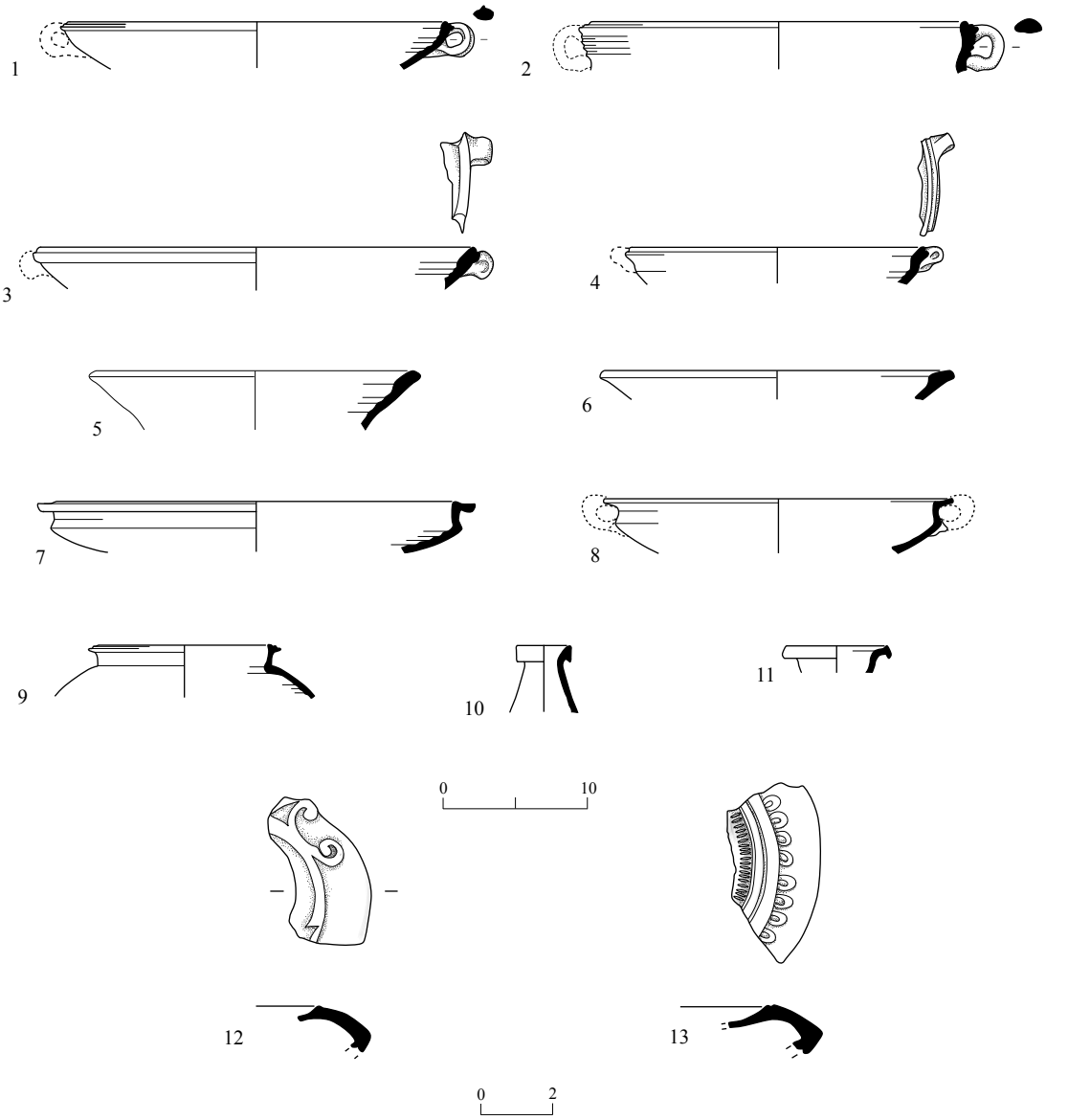


Fig. 16. Middle Roman pottery.

Jugs

Jug 4. This jug has a rim with a triangular cross section, and a high, curved neck (Fig. 16:10). It is similar to Type 6A vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 6A), where they date to the beginning of the second–beginning of the fourth centuries CE.

Jug 5. This jug has a wide, everted rim with a channel on the end of the bevel, and a high neck (Fig. 16:11). It is similar to Type 6B vessels produced at Kefar Ḥananya (Adan-Bayewitz 1993: Pl. 6B), where they date to the beginning of the second–beginning of the fourth centuries CE.

Oil Lamps

Type 3. These discus lamps (Fig. 16:12, 13) are of the type dated from the late first century CE (post-70 CE) until the second century CE (Hadad 2002:16–20, Type 7, Variant 1).

◂ **Fig. 16**

No.	Type	Area	Location	Reg. No.	Description	Petrographic Group
1	Bo 2	C	Str5	5152/2	Red ware, numerous small white and brown inclusions	KH
2	Bo 2	A	Mkv2	2685	Same as No. 1	KH
3	Bo 3	C	E7C10	4747/2	Red ware, numerous small white, black and brown inclusions	
4	Bo 3	C	E7C12	5898	Red ware, numerous small white and brown inclusions	
5	Bo 4	B	E6C4	3256/2	Red ware, numerous small white, black and brown inclusions	
6	Bo 4	B	E6C4	3256/1	Same as No. 5	
7	CB 2	C	St6	5615	Red ware, numerous small white and brown inclusions	KH
8	CB 2	C	E7C2	4662/1	Same as No. 7	KH
9	CP 3	C	E7C2	4478	Same as No. 7	KH
10	Jug 4	C	E7C12	5430	Red ware, numerous small white, black and brown inclusions	KH
11	Jug 5	C	E7C2	4662/2	Red ware, black core, small white inclusions	KH
12	Lamp	A	Str1	1134	Light ware, small black inclusions, black burnish	Sh
13	Lamp	A	E1C9	1675	Light ware, few small black inclusions	

Summary

Analysis of the pottery finds reveals that Magdala was inhabited as early as the Hellenistic period, although the finds from this period are scant, and may not be representative of the entire site. The main habitation in the excavated areas can be dated to the Early Roman period, beginning c. 50 BCE and continuing into the beginning of the second century CE. The anomalous appearance of Types Bo 3 and Bo 4, which date no earlier than the third century CE, possibly represents the final phase of settlement (or are perhaps intrusive). Based on petrographic analysis, the pottery used by the residents of Magdala was apparently all locally produced in Kefar Ḥananya and Shiḥin, with the exception of nine fragments of imported vessels (not presented in this preliminary report). The bowls, cooking pots and jugs resemble vessel types produced at the Kefar Ḥananya workshop. Two types of jars (Types SJ 1, SJ 2) are known from Jewish settlements in the Galilee, and according to the petrographic analysis, Types SJ 1 and SJ 2 were manufactured in the workshop at Shiḥin. As noted above, Type SJ 3 resembles jars manufactured in workshops in Judea (Berlin 2006:152–153). It is the most common jar type at Gamla, where petrographic analysis of some of the jars indicates that they were made of local clay and produced in the Gamla workshop. However, not all the vessels at Gamla were petrographically analyzed, and therefore, some may have originated in other Galilean centers that manufactured similar types.

It appears that Magdala was inhabited by a Jewish population who paid strict attention to the origin of the vessels they used due to halakhic considerations, as all the types are associated with Jewish production centers. This phenomenon is known from other Early Roman sites in the Galilee, such as Yodefat (Avshalom-Gorni and Getzov 2002:81) and Gamla (Berlin 2006:153–155). Based on the ceramic finds,

the buildings in Areas A–D of Magdala were mostly abandoned toward the end of the second century CE, with a minor presence continuing into the third century CE.

GLASS

Ruth E. Jackson-Tal and Yael Gorin-Rosen

A large number of glass finds (c. 3500 fragments) was retrieved from all areas of excavation during the 2010–2012 seasons at Magdala. In this preliminary report, 41 items representing the most common types that shed light on glass use at the site are discussed. These consist of bowls, beakers, jars, bottles, jugs, wineglasses, windowpanes, spindle whorls, inlays, beads and stirring rods. The glass finds were produced in several techniques: core-forming, casting/sagging, free- and mold-blowing. They are made of colorless glass, or various shades of green, blue, purple, bluish-green, yellow-brown and yellow-green glass, and covered with black, silver or white weathering and shiny iridescence.

The majority of the glass finds are dated to the Early Roman period, the main phase of the Magdala settlement (mid-first century BCE to 67 CE), with some remains from the earlier occupation during the late Hellenistic period (mid-second–first centuries BCE), and a few dated to the Late Roman and Byzantine periods (fourth–fifth centuries CE). The importance of this glass assemblage lies in the origin of most of the finds in well-dated domestic contexts of the Early Roman period, attributed to a rural Jewish community in the Galilee.

The glass assemblage is presented in a typological and chronological order, with general parallels to similar assemblages in the Galilee whenever possible.

Core-Formed Vessels

Several small fragments of unidentified core-formed vessels were found at the site. They are made of deep blue, translucent glass adorned with applied and marvered, horizontal and feather-shaped white trails (Fig. 17:1, 2). Their shape and style suggest that they belonged to amphoriskoi of the Mediterranean Core-Formed Group III, dated between the third or mid–late second centuries BCE and the early first century CE (Grose 1989:122–125).

Cast/Sagged Bowls

Late Hellenistic cast bowls were found in small numbers. They consist of hemispherical, ovoid and conical bowls with internal horizontal grooves (Fig. 17:3–6). The predominant colors are deep yellow-brown and green. Such bowls are well-known throughout Israel, especially in contexts related to the Hasmonean conquests, dated from the mid-second to first centuries BCE (Jackson-Tal 2004:17–19, 22, 24).

The Early Roman cast bowls were found in relatively large quantities and are the dominant glass vessels at the site. They consist of hemispherical, conical, deep and shallow bowls with internal, horizontal grooves (Fig. 18:1, 2) and exterior vertical ribs (Fig. 18:3, 4). These bowls, known as linear-cut and ribbed bowls, are the most characteristic vessels of the beginning of the Early Roman period, appearing in the late first century BCE but most common in the first half of the first century CE (Grose 1989:244–247). The color variation and fabric quality is quite unusual in comparison to similar assemblages of this period, ranging from colorless and naturally colored greenish and bluish hues, to light and deep blue, light purple, deep green, and yellow-brown or yellow-green glass. These bowls are well-known in Israel,

Fig. 17 ▸

No.	Object	Location	Reg. No.
1	Core-formed vessel	Top layers	578
2	Core-formed vessel	Top layers	3353
3	Cast bowl	E1C2	1679
4	Cast bowl	Top layers	1027
5	Cast bowl	Top layers	1615
6	Cast bowl	E1C5	2238

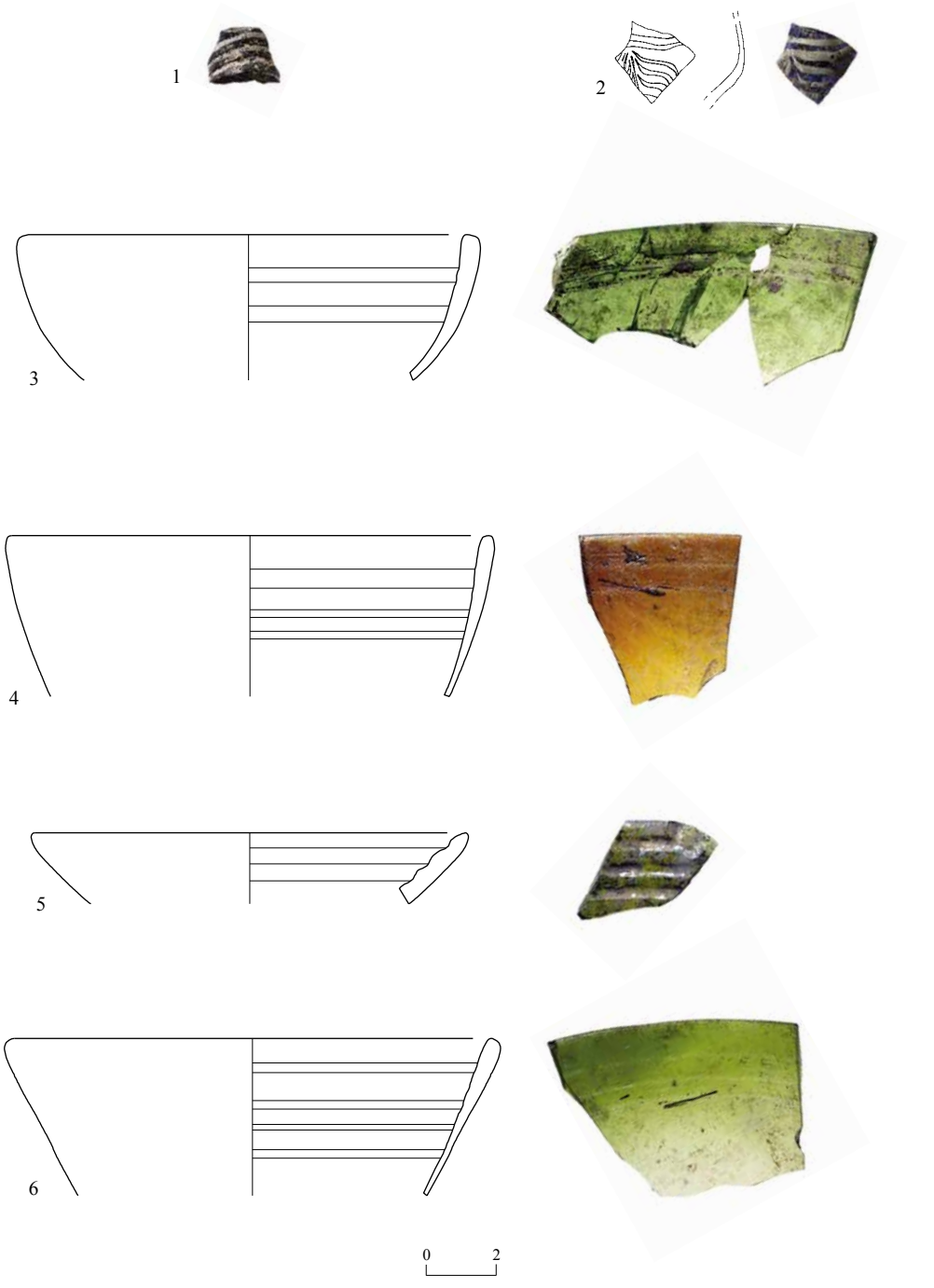


Fig. 17. Late Hellenistic core-formed vessels and cast grooved bowls.

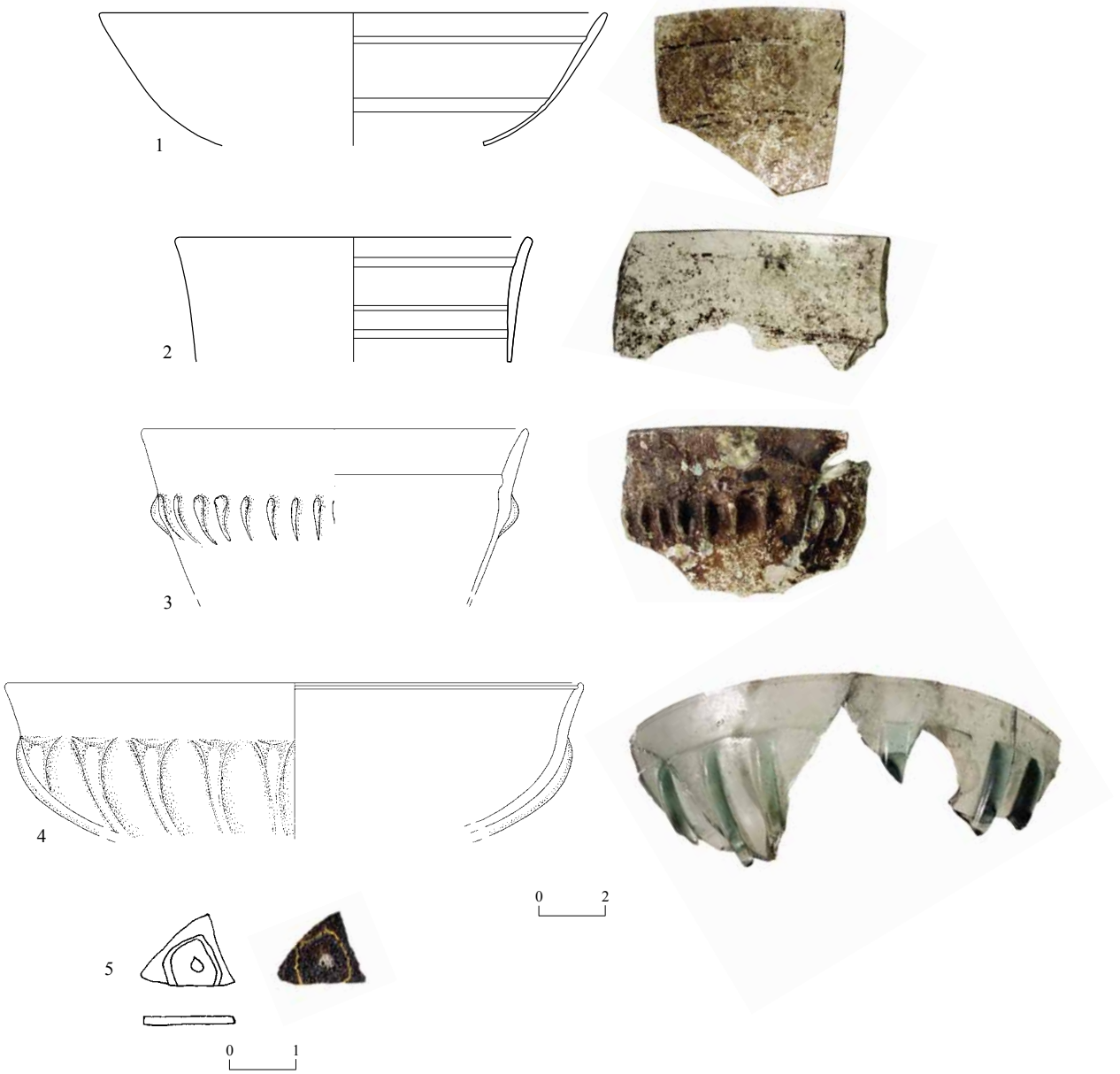


Fig. 18. Early Roman cast linear-cut and ribbed bowls, and a mosaic vessel.

No.	Object	Area	Location	Reg. No.
1	Bowl	A	E1C2	1748
2	Bowl	B	E6C11	5748
3	Bowl	C	E7C4	5691
4	Bowl	A	Top layers	1093
5	Mosaic fragment	E	Top layers	9370

especially in Judean contexts dated to the reign of King Herod and his successors until the First Jewish Revolt (Gorin-Rosen 2003; 2006; Israeli 2010). A small fragment of a cast bowl or inlay made of assembled and fused mosaic canes has a dark blue background with an opaque white circle around a central white rod (Fig. 18:5), suggesting a date in the Early Roman period. Such vessels were probably produced in Italy, and are widespread throughout the Mediterranean Basin (Grose 1989:242–244, 331, No. 561). However, mosaic bowls are very rare in Israel in contexts of the Early Roman period, including a few from Gamla (Jackson-Tal 2009:158) and from several excavations in Jerusalem (Ariel 1990:155–156, Fig. 29:23; Gorin-Rosen 2006:252, Pl. 10.5:G57–G60; Israeli 2010: Pl. 6.3:G48; Katsnelson 2011: Fig. 14:1).

Blown Vessels

A large number of blown vessels were found at the site, the majority dated to the Early Roman period, some to the Late Roman and Byzantine periods. Colorless and various hues of natural bluish and greenish glass are dominant; light yellow, yellow-brown and light purple glass also occur, but in small numbers.

The Early Roman blown vessels consist of well-known types dating to the first–early second centuries CE. The varied bowl types comprise examples with a flaring rim (Fig. 19:1), a tubular fold below the rim (Fig. 19:2), a folded-out rim (Fig. 19:3), a crimped trail (Fig. 19:4, 5), a wavy, pinched trail (Fig. 19:6), as well as a skyphos (Fig. 19:7). A few beakers with a cut-off rim and horizontal, wheel-cut incisions were found, as were small jars with a folded-in rim (Fig. 19:8), aryballoi (Fig. 19:9) and several miniature jars (Fig. 19:10, 11). Other vessels include bottles with folded-in rims and elongated necks (Fig. 20:1–3) that may belong to pear-shaped or, more likely, candlestick types, such as the miniature examples discovered at the site (Fig. 20:4, 5). Jugs with thick strap handles were also recovered (Fig. 20:6, 7). Jug No. 7 is an especially large specimen with the typical collar-shaped, folded rim. A single tiny fragment of a mold-blown vessel decorated with a delicate scroll pattern (Fig. 20:8) is an interesting find due to the high quality of such vessels and their rarity in this region. Such scroll patterns are common on vessels attributed to the workshop of the master glass artist Ennion, or those inspired by his work (Israeli 2011:41, 46–53).

Similar Early Roman glass assemblages were attested at Kh. Wadi Ḥamam (Jackson-Tal, forthcoming), Capernaum (Loffreda 1984), Bethsaida (Rottloff 2000), Gamla (Jackson-Tal 2009:158), Ḥorbat Shema‘ (Meyers, Kraabel and Strange 1976), Meron (Meyers, Strange and Meyers 1981) and Nabraṭein (Fischer 2009).

The Late Roman blown vessels consist of a few well-known types dated to the third–fourth centuries CE. The vessels consist of bowls with a horizontal ridge (Fig. 21:1), bowls with a solid base-ring (Fig. 21:2), a beaker with a solid base (Fig. 21:3) and jars with applied trails to the rim and wall (Fig. 21:4, 5). Similar Late Roman glass assemblages were documented at Kh. Wadi Ḥamam (Jackson-Tal, forthcoming), Bethsaida (Rottloff 2000), Ḥorbat Shema‘ (Meyers, Kraabel and Strange 1976), Meron (Meyers, Strange and Meyers 1981) and Nabraṭein (Fischer 2009).

The few Byzantine vessels consist of wineglasses with a tubular base (Fig. 21:6), and probably, rounded window fragments (Fig. 22:1), dated to the fifth–sixth centuries CE. Similar vessels were found at Kh. al-Karak (Delougaz and Haines 1960:49, Pls. 50:16; 60:14–18, 21–23) and Bet She‘arim (Barag 1976:205, Fig. 98:4).

Miscellaneous Glass Finds

Small glass objects that can be attributed to the Early Roman phase include typical finds of this period, such as dome-shaped spindle whorls (Fig. 22:2), beads, small glass inlays (Fig. 22:3), rounded beads and several dark and light blue, twisted stirring rods with rounded ends (Fig. 22:4; for such small glass finds with

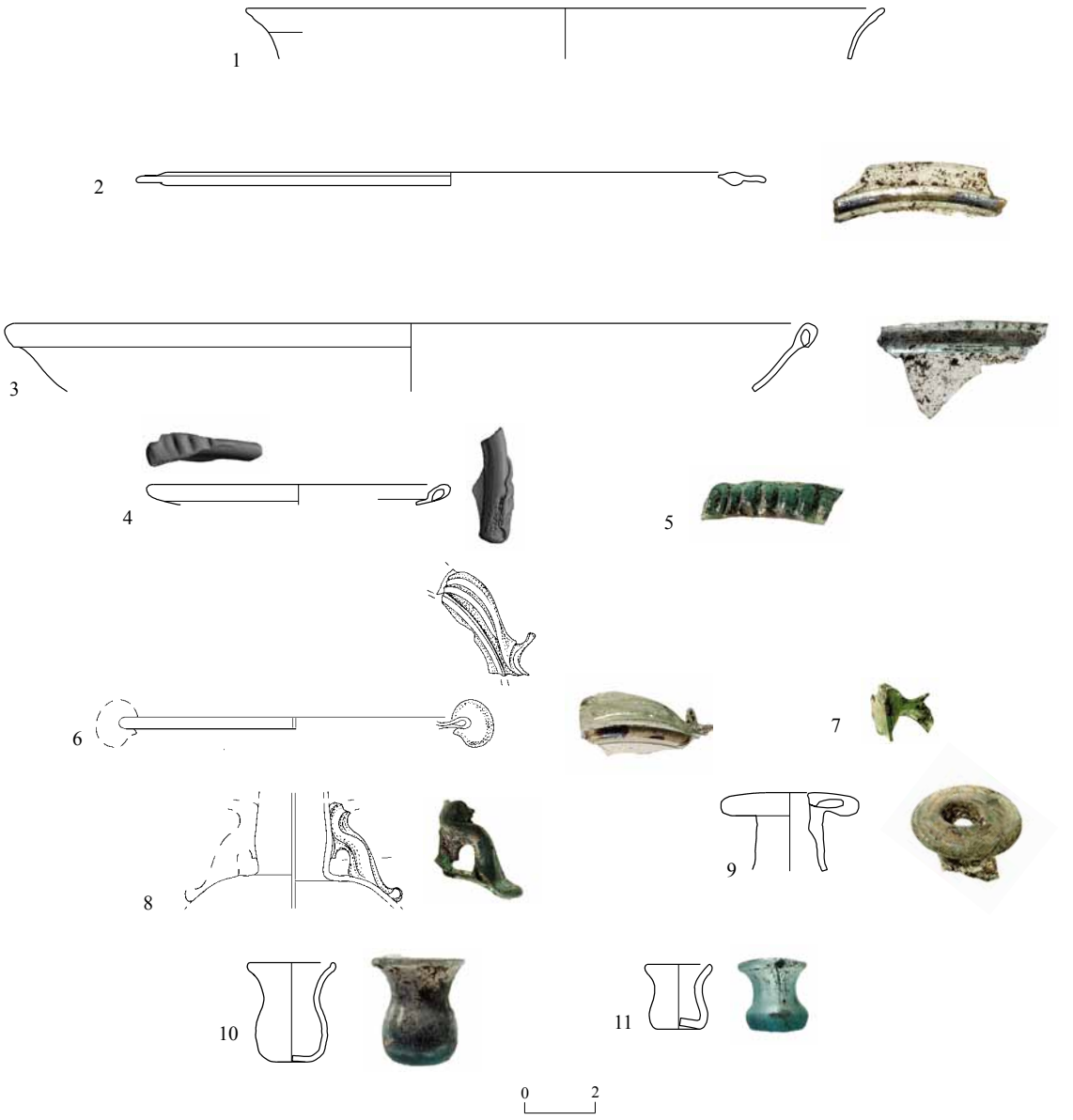


Fig. 19. Early Roman free-blown bowls and jars.

No.	Object	Area	Location	Reg. No.
1	Bowl	A	Top layers	2043
2	Bowl	A	Top layers	912
3	Bowl	A	Top layers	1096
4	Bowl	D	Top layers	6269
5	Bowl	A	E1C2	1783
6	Bowl	A	E1C1	1454
7	Skyphos	E	Top layers	8204
8	Jar	A	Top layers	1093
9	Aryballos	A	E1C9	6480
10	Jar	E	Top layers	7347
11	Jar	C	E7C4	5670

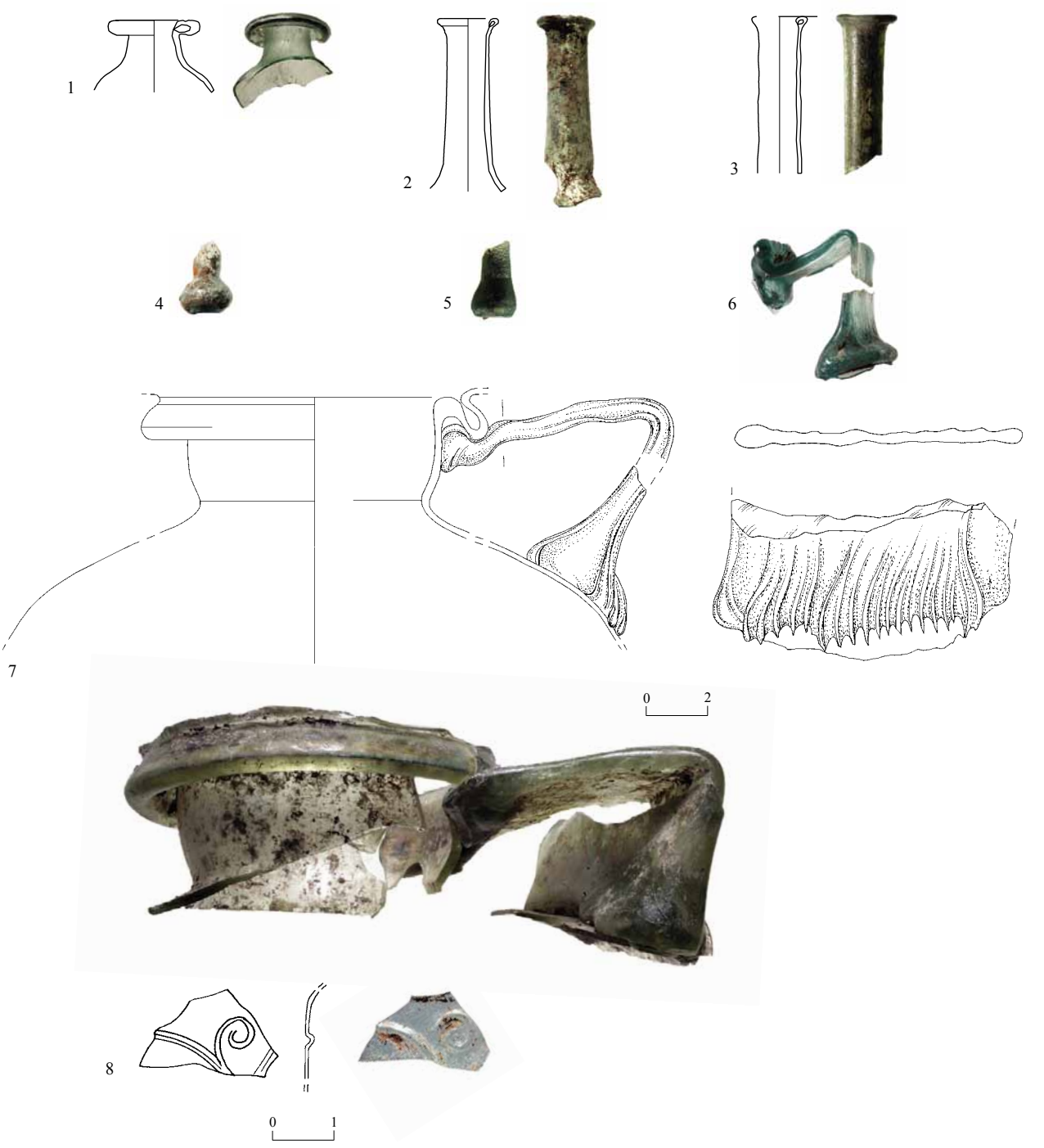


Fig. 20. Early Roman free-blown bottles and jugs, and a mold-blown fragment.

No.	Object	Area	Location	Reg. No.
1	Bottle	E	Top layers	10016
2	Bottle	A	E3C1	6403
3	Bottle	A	E1C9	6480b
4	Bottle	A	Mkv2	3264

No.	Object	Area	Location	Reg. No.
5	Bottle	B	E6C19	6792
6	Jug	A	E1C9	6480a
7	Jug	D	E11C2	6276
8	Mold-blown fragment	A	E3C2	2388

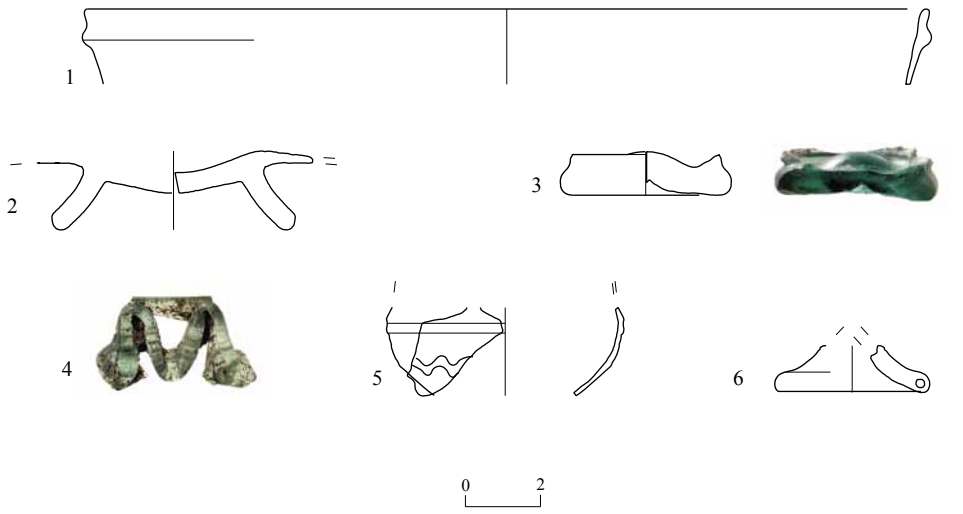


Fig. 21. Late Roman and Byzantine free-blown vessels.

No.	Object	Area	Location	Reg. No.
1	Bowl	A	Top layers	1198
2	Bowl	B	E15C1	3561
3	Beaker	A	Top layers	1505
4	Jar	A	E3C1	943
5	Jar	C	Top layers	5482
6	Wineglass	A	Top layers	721

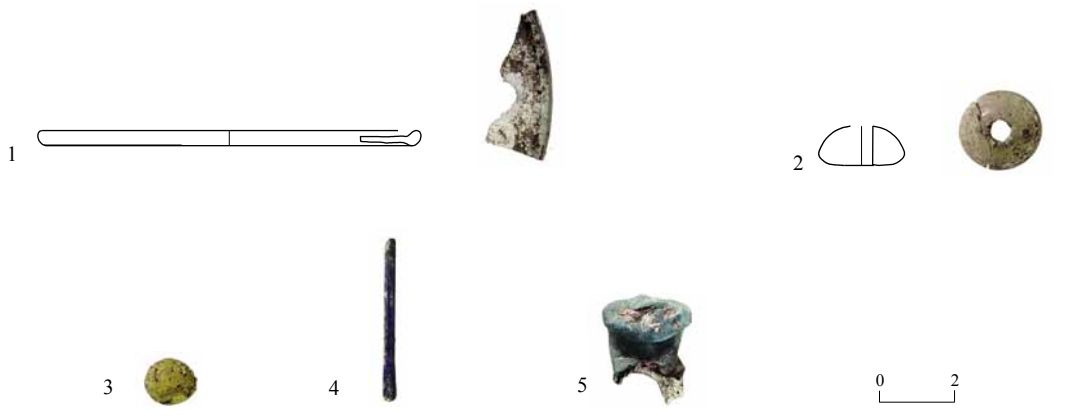


Fig. 22. Miscellaneous glass finds and production waste.

No.	Object	Area	Location	Reg. No.
1	Windowpane	C	Top layers	5457
2	Spindle whorl	E	E13C2	7521
3	Inlay	A	Top layers	647a
4	Stirring rod	E	E13C2	7618
5	Deformed bottle	C	E7C8	5902

further references, see Spaer 2001:259–260, Nos. 617–621 [whorls]; 233, No. 548 [inlays]; 262, Nos .632–636 [rods]).

Glass Production Waste(?)

A few remains of glass production waste retrieved from the site include raw glass chunks and some deformed vessels (Fig. 22:5). While these finds do not prove conclusively that glass production took place at the site, they are indicative of some sort of glass activity in the vicinity. The amount and variety of the vessels from both the current excavation and that of the synagogue (Avshalom-Gorni and Najar 2013) also lend support to this assumption. As the production remains were found together with Early Roman glass vessels in the same contexts, and the deformed vessels are dated to this period, we may suggest that any local workshop in this area was associated with the Early Roman settlement.

Summary and Conclusions

Glass finds have been discovered in several excavations at the site of Magdala in recent years, attesting to glass use in diverse periods (Gorin-Rosen 2001; Abu-'Uqsa 2005: Fig. 5; De Luca 2009:392, Fig. 75; Avshalom-Gorni and Najar 2013).[8] They belong to types well-known throughout Israel, and were discovered within village houses and a commercial area. The majority of the finds from the present excavation originate in well-dated contexts of a rural Jewish community in the Galilee during the Early Roman period, and resemble other assemblages from sites in the Galilee and the Golan Heights.

This was a crucial period in the history of glass making, with the invention of glass blowing and the overlapping of several production techniques. While the majority of the glass vessels were still being produced by casting (Jackson-Tal 2009:159–161), new and more varied types of glass vessels manufactured by blowing were beginning to appear. Thus, the well-dated and secure contexts of the varied glass finds from Magdala, revealing a significant use of glass during the Early Roman period with a predominance of cast vessels alongside blown vessels, are a significant contribution to our understanding of glass production and commerce during the Early Roman period. This is especially relevant in the region of Galilee, which is less documented than the extensively studied region of Judea. The varied colors and vessel types seen in this assemblage, and the evidence of glass production, suggest a local workshop at the site or in its vicinity.

COINS

Danny Syon

This preliminary report presents 137 cleaned coins out of a total of 500 coins found in the 2010–2012 seasons. Thirty coins could not be identified due to wear, corrosion, or both; however, based on size and shape, the majority of these are Judean coins datable to c. 104 BCE–70 CE (Hasmonean, Herodian, coins of the Roman governors, Agrippa I, the Jewish War). A further 20 coins could be only partially identified to period or region (Table 2). All are bronze except for a medieval silver coin.

In general, the composition of the coin assemblage and the dates of the coins conform to patterns observed at the site in past excavations (Syon 2001; unpublished material). Only three of the coins are of interest. One is a 'year 3' coin of Herod (*TJC*: No. 44), traditionally attributed to 38/7 BCE and Samaria,[9] with an unusually well-preserved obverse. Another is a relatively rare and well-preserved 'year 35' coin of Agrippa II (*TJC*: No. 182). Unfortunately, this coin does not help in clarifying the eras and mints of this king. The last is a well-preserved coin of the Roman administration minted in Tiberias in 53 CE (*TJC*: No. 349).

The Coins in Context

The 137 coins in this report were selected to be cleaned because they originated in the lowest stratum in each area and should clarify some stratigraphic issues. In Areas A, C and D, the coin distribution and dates agree with the dates

Table 2. Coin Conspectus

Minting Authority	Date	Quantity	Mint	Remarks
Ptolemaic	3rd c. BCE	1		
Seleucid or autonomous issues	2nd c. BCE	5	Probably all from Tyre	Probably all of the 'small palm tree' type
Hasmonean	c. 125–76 BCE	6 (of which 4 uncertain)	Jerusalem	
Alexander Jannaeus	80–76 BCE 80/79 BCE 104/3–76 BCE	40 1 1	Jerusalem	*TJC* Types K, L only
Hasmonean or Herod	c. 125–4 BCE	4	Jerusalem	Only crossed cornucopia visible
Herod	38/7 BCE? 37–4 BCE	1 1	Samaria(?) Jerusalem	
Archelaus	4 BCE–6 CE	1	Jerusalem	
Antipas	4 BCE–39 CE	2	Tiberias	
Governor under Tiberius	15 CE 29–30 CE	1 3	Jerusalem	Traditionally attributed to Valerius Gratus and Pontius Pilate
Agrippa I	41/2 CE	5	Jerusalem	
The Roman administration under Agrippa II	53 CE	1	Tiberias	
Governor under Nero	54 CE	2	Jerusalem	Traditionally attributed to Antonius Felix
First Jewish Revolt	67/8 CE	1	Jerusalem	
Agrippa II	95/6 CE?	1	Paneas?	'Year 35'
Autonomous issues of Phoenicia	1st c. BCE 1st c. BCE–1st c. CE 1st c. CE	2 5 1	Tyre (most) and Sidon	
Augustus	c. 5 BCE–14 CE	1	Antioch	
Trajan	98–117 CE	2	Rome	
Hadrian	120 CE 117–138 CE	3 1	Tiberias Caesarea	
Marcus Aurelius	c. 160 CE	1	Gadara	
Roman provincial issues	1st–3rd c. CE	5		'City coins'
Roman imperial issues	Late 3rd–late 4th c. CE	8	Mostly from western European mints	
Mamluk or Early Ottoman	14th–16th c. CE	1		Silver

of the pottery that was retrieved from the same strata. It should be noted that coins of Alexander Jannaeus continued in use up to the First Jewish Revolt, so finding them together with coins of the first century CE is not an anomaly (Syon 2015:44–47).

The picture in Area B, however, is not as clear. While the pottery from the lowest levels dates to the mid-first century BCE until the late first century CE, all the coins are second- or first-century BCE issues, mostly Hasmonean and a few Phoenician. In this case, it is difficult to claim that they continued in circulation into the first century CE, as there is not a single first-century CE coin to join them.

So far, among all the hundreds of Hasmonean coins found at Magdala by several expeditions, there are no coins of Hyrcanus I (135–105/4 BCE). The coins from the present excavation are no exception, though the majority has not yet been cleaned. In addition, there are no Seleucid coins in any of the databases accessible to me and only two Ptolemaic coins. It is thus possible to speculate that the earliest settlement—in this area of Magdala at least—was no earlier than the reign of Alexander Jannaeus.

MISCELLANEOUS FINDS

Chalk Vessels

Fragments of vessels made of chalk were recovered mainly in accumulations inside the *miqva'ot* in Area A, with some in Area B. These vessels have one or two handles and were hand carved or produced on a lathe. The two illustrated vessels (Fig. 23:1, 2) were hand carved and polished on the inside only. Production sites of chalk vessels have been identified in Galilee. Such vessels are typical of Jewish sites from the late Second Temple period, and their popularity declined after 70 CE. While chalk vessels were more expensive than pottery, they probably served a ritual function in the Jewish household, as according to *halakha* they can be ritually purified (for function and provenance of chalk vessels, see Magen 2002; Gibson 2003).

Grinding Bowls and Grinding Stones

Most of the complete grinding utensils were found in Building E7, in the eastern part of Area C (Fig. 23:3–7), which seems to confirm that parts of this building were used for food production.

Metal Finds

Lead fishnet weights (Fig. 24:1, 2) and miscellaneous bronze items, including a spoon, nails, bells, chains and unidentified items (Fig. 24:3–12), found in all areas, particularly in Area C, are remnants of daily life at Magdala.

Bone Dice

Two bone dice were found on the mosaic floor of Room C13 in Area A (Fig. 25), which was apparently a reception room.

Fig. 23 ▸

No.	Object	Area	Location	Reg. No.	Material
1	Cup	B	Str2	2236	Chalk
2	Cup	B	Top layers	2632	Chalk
3	Tripod bowl	C	E7C1	5130	Basalt
4	Tripod bowl	C	E7C2	5688	Basalt
5	Bowl?	C	E7C2	5286	Basalt
6	Mortar	C	E9C3	5872	Basalt
7	Olynthus grinding stone	C	E7C8	5973	Basalt

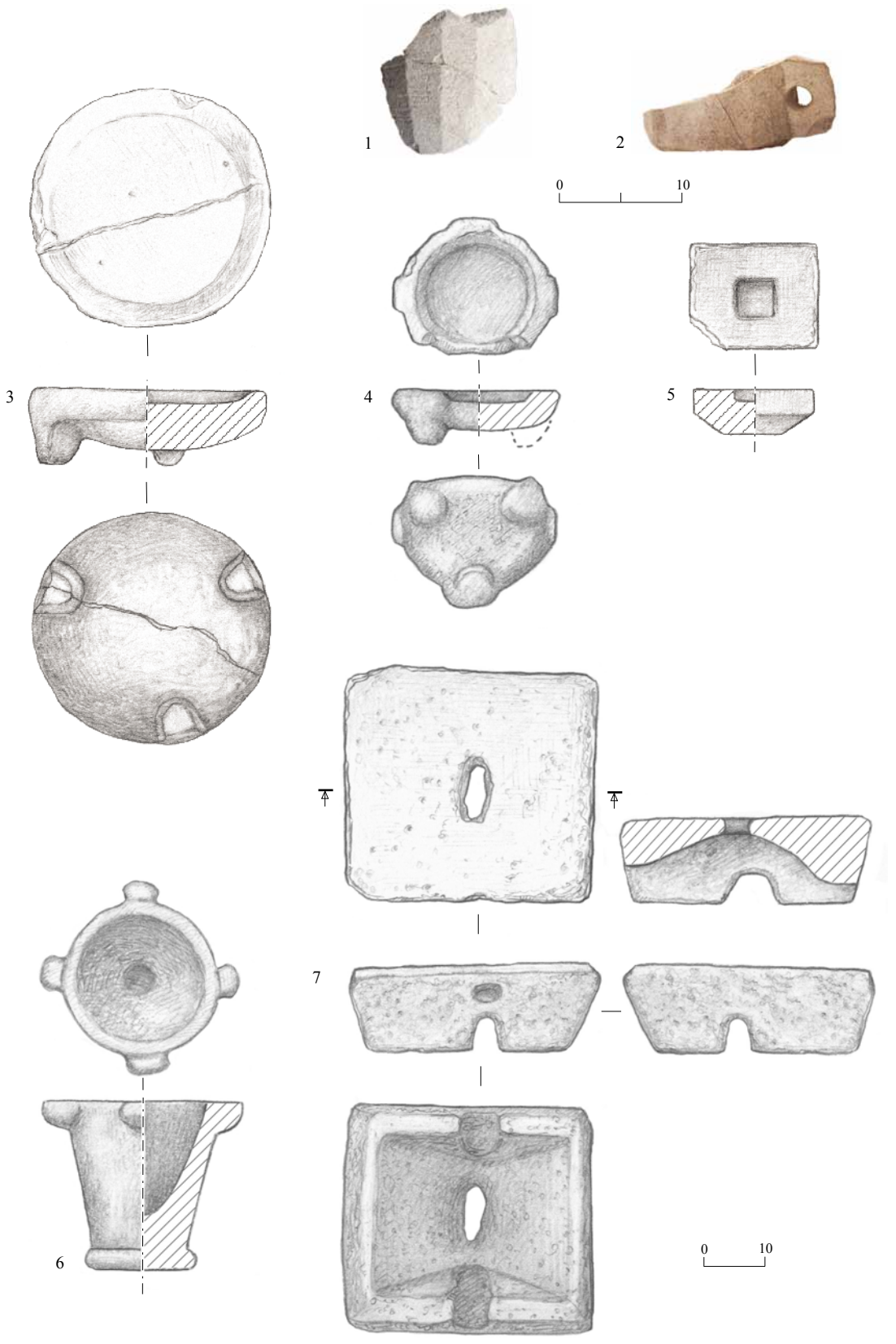


Fig. 23. Selected stone vessels and grinding stones.



Fig. 24. Selected metal objects.

No.	Object	Area	Location	Reg. No.	Material
1	Fishnet weights	C	E7	4810, 5853, 4860, 5757, 5847, 5875, 5746	Lead
2	Fishnet weights	C	E7	Same as No. 1	Lead
3	Spoon	A	E1C6	1709	Bronze
4	Nails	C	E7	4648, 5430	Bronze
5	Nail	B	E6C7	4236	Bronze
6	Bell	A	E1C5	1189	Bronze
7	Hook	A		601	Bronze
8	Earring(?)	B	E6C7	4176	Bronze
9	Chain	A		486	Bronze
10	Bell	A	E1C6	1326	Bronze
11	Netting	C	E7C5	5073	Bronze
12	Ring	C	E8C1	5196	Bronze



Fig. 25. Bone die from Room C13.

Discussion

The preliminary results of the 2010–2012 excavation seasons of the Magdala Archaeological Project yielded architecture and artifacts that confirm the dating of the main settlement in this part of the site to the Early Roman period. The earliest occupation can be dated to the late Hellenistic period (Stratum IV), based on the discovery of a few fragmentary walls below the first-century BCE occupation in Area C. A similar situation was observed in the southeastern part of the city excavated by the Franciscans (De Luca 2009).

The town of Magdala flourished during the Early Roman period, beginning in the mid-first century BCE (Stratum III), with architectural modifications made during the first century CE that blocked some spaces and lent more importance to religious contexts in Area A, and food production and storage spaces in Area C.

The archaeological evidence further suggests that after the First Jewish Revolt, during the Middle to Late Roman periods (70–350 CE; Stratum II), there was a reduction in the settlement, which was now concentrated in the east—Area D and the area excavated by the Franciscans (De Luca 2009). Areas A, B and C appear to have been slowly abandoned, and the *miqva'ot* were now used as waste dumps. Sporadic architecture and artifacts from later, post-Roman periods are evidence of ephemeral, probably agricultural activities in this part of the site.

The Early Roman buildings at Magdala were constructed of locally available materials, mainly basalt and limestone, and some walls bear traces of plaster. The courtyards, rooms, staircases and walls in contexts related to the *miqva'ot* display masonry of a particularly high quality. A number of water channels designed to carry rainwater were found under the streets and the floors of some of the rooms, while other drainage channels were probably used to prevent flooding inside the structures.

This preliminary report of our excavations, together with the results of the IAA and Franciscan excavations, have revealed Magdala to be one of the most important sites dating to the first century CE in the north of Israel.

Afterword

This report renders the results of the 2010–2012 excavations. Subsequent excavations and in-depth studies of the areas and finds have been published since. Some of the results presented in this report may vary slightly from those in the final publication.

Notes

[1] The Magdala Center is run and owned by the Ark New Gate Company.

[2] These excavations (License Nos. G-64/2010, G-2/2011, G-28/2012) were directed by Marcela Zapata-Meza of UAMS, with the assistance of Meztli Hernández Grajalas and Arfan Najjar, and over 300 volunteers of different nationalities. Thanks are due to Linda R. Manzanilla Naim (archaeological consultant), Luis Barba Pingarrón, Jorge Blances, Agustín Ortiz (archaeological geophysical prospection, including magnetometry, electrical resistivity and GPR surveys), Danny Syon (coins), Dina Avshalom-Gorni (pottery),

Ruth E. Jackson-Tal and Yael Gorin-Rosen (glass), Rina Talgam (mosaics), Ronny Reich (*miqva'ot*), Tatiana Meltsen and Gabriela Román Tinajero (plans and drawings), and the IAA laboratories headed by Lena Kuperschmidt (coin cleaning). Special thanks are due to Rosaura Sanz-Rincón, Estíbaliz Aguayo, Erika Ibarra, Andrea Garza, Rodrigo Ortíz, Gabriela Irastorza, Fernanda León, Juan Luis Zamacona, Elías Mata, Fernanda Oriol, Paulina Díaz, Roberto Fernández, Carlos Ramírez, Martin Srâmko, Isabel Borrego and Lizie Rodríguez for making this project possible.

[3] We would like to thank Rina Talgam for her time and her kindness in sharing with us her theories concerning the mosaic floor.

[4] The compacted-earth floors show absorption of liquids. The analyses are currently being carried out at the UNAM Instituto de Investigaciones Antropológicas.

[5] The petrographic analyses were carried out by Anastasia Shapiro.

[6] The author (M. Zapata-Meza) processed the pottery for the final excavation report of Yodefat, and I wish to thank Mordechai Aviam for allowing me to mention that report in preparation.

[7] A final report will be published by Ruth E. Jackson-Tal. The glass finds were drawn by Yulia Rudman and the computerized archaeology laboratory of the Hebrew University of Jerusalem, and photographed by Pavel Shrago. The finds were registered by Brigitte Ouahnouna and the authors.

[8] The finds from previous IAA excavations at the site include an Early Roman linear-cut bowl, a Late Roman stamped pendant (Abu-'Uqsa 2005: Fig. 5), Early Roman glass from the synagogue to be published by Yael Gorin-Rosen, and an Early Islamic glass assemblage (Gorin-Rosen 2001). The excavations conducted by the Franciscan Institute also yielded Early Roman glass finds (De Luca 2009:392, Fig. 75).

[9] Ariel and Fontanille (2012:97) suggest that the mint was in Jerusalem.

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