## Hadashot Arkheologiyot

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Ahihud
Final Report
Michael Cohen


1. Plan and sections.

2. Building remains, looking east.

3. Room 8, looking east.

4. Wall 1, looking east.

5. Walls 1 and 4, looking west.

During June-July 2004, a trial excavation was conducted southeast of Ahihud (Permit No. A-4196*; map ref. NIG 21720-3/756802; OIG 16720-3/25680-2), prior to paving a road between the Barlev Industrial Zone and Ahihud. The excavation, on behalf of the Antiquities Authority, was directed by M. Cohen, with the assistance of Y. Ya'aqoby and A. Lavan (administration), V. Essman and V. Pirsky (surveying), H. Smithline (photography), N. Zak (drafting) and E.J. Stern (pottery reading).

The excavation area ( 45 sq m ) was located on a spur southeast of Moshav Ahihud. The remains of a building (Figs. 1, 2) that were dated from the fifteenth-sixteenth to the twentieth centuries CE were exposed above bedrock. The Arab village Biroh had been located here in the past. Two excavations had previously been conducted at the foot of the spur (HA-ESI 119; Permit No. A-3746).
A room (L8; Fig. 3) that was built on hewn and leveled bedrock was discovered in the western part of the excavation area. Three rock-cut steps descended to the hard mortar floor of the room from the east. The walls of the room (W1, W4; Figs. 4, 5) were built of limestone fieldstones and lined with a mixture of soil over which friable buff-colored plaster was applied. Wall 1 was especially wide (width 0.8 m ) and it probably bore a two-story structure. A small storage installation (Fig. 6) was built on the floor in the corner Walls 1 and 4. Another small floor section (L11) of crushed chalk, which might have belonged to another room in the building, was discovered to the east of Room 8. Two floors of the building's courtyard (Loci 15, 17; Figs. 7, 8), which consisted of small stones, one atop the other ( 0.16 m between them), were discovered in the eastern part of the excavation area. The ceramic artifacts below the floor levels dated to the beginning of the Ottoman period (the sixteenth-seventeenth centuries CE). A collapse of ashlar stones and building materials overlaid the floor levels. Wall 16 had cut through the floor levels on the north. A rock-hewn water cistern, lying beyond the limits of the excavation area, was discerned c. 1 m north of W16 (Fig. 9). Floors 15 and 17 reached the opening of the cistern and it seems that they drained run-off into it. Remains of walls and floors (L14) that extended south beyond the excavation area (Fig. 10) were discovered south of Room 8.

A few fragments of pottery vessels from the Byzantine and Early Islamic periods were discovered on bedrock in the excavation area; it seems they were probably washed there or originated in the fill from the adjacent area. The occupation of this part of the spur commenced at the beginning of the Ottoman period.


1. Plan and sections.

2. Building remains, looking east.

3. Room 8, looking east.

4. Wall 1, looking east.

5. Walls 1 and 4, looking west.

6. A built installation in Room 8, looking southeast.


7. The opening of a hewn water cistern.

8. Building remains extending to the south.
(Volume No. HA-ESI $120(2008$
'Akko

9. 'Akko citadel, plan.

10. Stone statue of a young boy's head.

From July to November 2004 excavations were conducted in the citadel of 'Akko (The Hospitaller Center; Permit No. A-4122; map ref. NIG 20680/75870; OIG 15680/25870), in the wake of preparations to open the site for the public. The excavation, carried out on behalf of the Antiquities Authority and financed by the Old 'Akko Development Company, were directed by E. Stern and H. Abu'Uqsa, with the assistance of A. Shapiro (administration and drawing), H. Smithline (photography), E.J. Stern (pottery reading) and D. Syon (numismatics).

The Grand Manir Hall (Fig. 1:1). The Crusader-period floor was exposed. It was a thick layer of plaster mixed with small pieces of charcoal. The ceramic artifacts dated mostly to the Crusader period and the vessels were locally manufactured.
The Eastern Street (Fig. 1:2). The stone and soil fill inside the water reservoir was entirely cleaned out. Most of the ceramic finds recovered from the reservoir, including four intact jugs, dated to the Ottoman period.

East of the Water Reservoir (Fig. 1:3). An area was excavated prior to the installation of an emergency staircase. The top of a wall, oriented east-west and flanked on either side by a flagstone pavement, were discovered. A stone statue of a young boy's head, adorned with curly hair (Fig. 2) was discovered between the flagstones to the south of the wall. An artistic analysis of the statue suggests it should probably be dated to the Crusader period.

The Southern Street (Fig. 1:4). The excavation of the fill in the western part of the street has continued. The ceramic finds recovered from the fill dated to the Crusader period (thirteenth century CE).

The Templar Tunnel. The exposure of the tunnel's eastern part continued. The tunnel passed below Khan el-Shuna and continued to the northeast. The mixed ceramic finds from the tunnel mostly dated to the Crusader period, but also included potsherds from the Ottoman period.


2. Stone statue of a young boy's head.

# (Volume No. HA-ESI 120 (2008 'Akko, the Old City, the Genoese Quarter Final Report 

Eliezer Stern and Fabrizio Benente
26/3/2008
During November 2006 a limited trial excavation was conducted in the Genoese Quarter of the Old City of 'Akko (Building No. 11/125; Permit No. A-4952*; map ref. NIG 206736-67/758509-20; OIG 156736-67/258509-20). The excavation, on behalf of the Antiquities Authority and the Università degli Studi di Genova, was directed by E. Stern and F. Benente, with the assistance of G. Garbarino, A. Parise and H. Smithline (photography).

A section of a covered street in the Genoese quarter in 'Akko was discovered in 1992 ('Atiqot 26:105-111). It was oriented west-east and a segment of its western part was cleaned.
The continued study of this street brought forth the opening of a trial square ( $3 \times 3 \mathrm{~m}$ ) inside an Ottoman structure in the Old City of 'Akko. The modern concrete floor was removed and a modern fill from the last 30 years was excavated. This fill overlaid a vault, dating to the Crusader period, which seems to be the continuation of the covered street in the Genoese quarter. The excavation was suspended due to safety precautions.


1. Remains of a Crusader vault, looking west.
(Volume No. HA-ESI 120 (2008

## ‘Akko, Promenade

## Final Report



1. Plan and sections.

2. Pottery.

During June 2003, a trial excavation was conducted along the seashore in 'Akko (Permit No. A-3939*; map ref. NIG 20685$90 / 75960-65$; OIG 15685-90/25960-65), prior to the construction of a promenade. The excavation, on behalf of the Antiquities Authority, was directed by A. Thatcher, with the assistance of A. Shapiro (surveying), L. Porath (pottery restoration) and H. Tahan (pottery drawing).
Two small areas were opened next to and inside the kurkar ridge, which reached an elevation of 3 m above sea level in this region. Remains that dated to the Crusader period (thirteenth century CE) were found.

A half square $(2.5 \times 5.0 \mathrm{~m})$ was opened on the side of the cliff and a repair of fieldstones bonded with cement was exposed where bedrock had collapsed. A hewn bedrock ledge (width 0.6 m , height 1.2 m ; Fig. 1), upon which the outer face of a wall had apparently been constructed, was uncovered. Pottery vessels from the thirteenth century CE were excavated at the foot of the bedrock ledge and below the sea level, including imported bowls (Fig. 2:1, 2) and a cooking krater (Fig. 2:5). Within the kurkar ridge, a square was opened in the center ( $3.5 \times 3.5 \mathrm{~m}$ ) of a hewn cavity, revealing Crusader-period pottery from the thirteenth century CE, including imported bowls (Fig. 2:3, 4) and cooking vessels (Fig. 2:6-8).

The results of the excavation corroborated previous proposals for the location of the northern Crusader city wall ( E . Frankel 1987. The North-Western Corner of Crusader Acre. IEJ 37:256-261) and probably represented the northwestern corner of the city wall.



07.
$\because$ $\qquad$

2. Pottery.
(Volume No. HA-ESI 120 (2008
Alonēy Abba Final Report
Yardenna Alexandre


1. Plan of excavated areas.

2. Paved path, looking north

3. Section across paved path, looking north

During March 2008 a small-scale salvage excavation was carried out in a private building plot, located at the southwestern edge of Moshav Alonēy Abba (Permit No. A-5406*; map ref. NIG 215913/736812; OIG 165913/236812). The excavation, on behalf of the Antiquities Authority, was directed by Y. Alexandre, with the assistance of Y. Ya'aqoby (administration), T. Meltsen (surveying) and workers from Yafia'.
Archaeological remains were discovered in the course of earthworks carried out for the construction of a new southern neighborhood in the Moshav. Previous excavations in this area (Permit No. A-4875) revealed a Roman-period industrial oil press (Area C), a winepress (Area B), as well as a terrace wall and an unidentified row of stones (Area A). These archaeological remains indicated that an industrial agricultural processing area existed here in the Hellenistic and Roman periods (Fig. 1).

Two squares ( $4 \times 5 \mathrm{~m}$ each) were opened in the present excavation, after a row of large stones was exposed in probe trenches dug by mechanical equipment. It was surmised that the current row of stones could be the continuation of the line of stones uncovered in Area A.

Two parallel rows of large single stones, which ran the length of both squares, had a single layer of packed small stones between them (L102, L105; Figs. 2, 3). The overall width of the paved area, including the bordering stones was c. 2 m , and the exposed length of the path, including the balk, was 12 m . The large stones were of varying sizes (c. $0.4 \times 0.5 \mathrm{~m}$, height 0.3 m ) and some of them were roughly worked on their outer side to form a fairly straight line. Several of the large stones were missing, no doubt due to intensive agricultural activities in this area over the years, and several of the extant stones were pushed out off line. Likewise, the small-stone layer was uneven, with gaps in the coverage. A section (L106) was cut through the width of the paved area to establish its makeup, whereby it was clear that no makeup layers occurred below the small stones (Fig. 4). No evidence for mortar or any other bonding material between the stones was found. Packed earth (L101, L103, L107) that contained a few stones was on either side of the path. The ceramic evidence was extremely limited and included not a single diagnostic rim fragment. The few small worn potsherds found amongst the stones could be dated to the Roman period.

The uncovered remains seem to be part of a paved path from the Roman period. The width and the simplicity of construction do not allow this element to be considered a proper road. Once the path was measured and drawn it became clear that the row of stones in the south square of Area A, exposed in the former excavation, was part of this path southern extension. A couple of stones visible in the section of the building plot to the north of the present excavation could also be linked up with the path, forming part of its northern extension. The terrace wall uncovered in the former excavation (Area A, northern square) may also have been part of the path, although this is uncertain due to its bad preservation. If all these components are joined up, the overall length of the paved path would be c. 100 m . It is unclear from the evidence as to where the path led; it might have linked up with the olive press on the hill, c. 17 m to the east.


1. Plan of excavated areas.

2. Paved path, plan and section.

3. Paved path, looking north


## (Volume No. HA-ESI 120 (2008

## Aminadav <br> Final Report



1. Quarry 1, plan.

2. Quarry 2, plan and sections.

Ofer Sion
27/3/2008
During December 2004 a salvage excavation was conducted in three lots (241, 250, 251) in Moshav Aminadav (Permit No. A4311*; map ref. NIG 21320-60/62855-85; OIG 16320-60/12855-85). The excavation, carried out on behalf of the Antiquities Authority and financed by the moshav, was directed by O. Sion (photography), with the assistance of A. Hajian (surveying) and E. Belashov (drafting).
Two small quarries and a farming terrace were exposed. The bedrock substrata that consisted of soft friable limestone of the Turonian epoch prevented the quarrying beyond a depth of one meter.

Quarry 1. A small courtyard quarry ( $2.1 \times 5.2 \mathrm{~m}$, depth 0.3 m , volume c .3 cu m ; Fig. 1). A quarrying channel (width 0.1 m ) was discerned in the western part.
Quarry 2. A stepped quarry ( $3.5 \times 6.0 \mathrm{~m}$, depth 0.4 m , volume c .6 cu m ; Figs. 2, 3).
Farming Terrace. Located c. 15 m north of Quarry 1, it was part of a series of farming terraces built along the western slope of the spur (length 20-35 m, width 5-8 m; Fig. 4).

The quarries were small and the rock-cutting method used severance channels hewn around and below the stones. It was impossible to date the quarries and the farming terrace in the absence of any artifacts or a nearby site. Nevertheless, the rock-cutting method in Quarry 1 is reminiscent of quarries in the region that dated to the Roman and Byzantine periods.

3. Quarry 2, looking west.


1-1


3. Quarry 2, looking west.

4. Farming terrace, plan and section

# (Volume No. HA-ESI 120 (2008 <br> 'Aminadav <br> Final Report 

lanir Milevski
1/7/2008


1. Location map and plans (after Amiran 1958).

2. Tumulus 8, plan and section.

3. General view, looking south.

4. General view, looking west.

5. Pottery, bowls and kraters

During April-May 2006, a salvage excavation was conducted in Moshav 'Aminadav (Permit No. A-4782*; map ref. NIG 213253/628665; OIG 163253/128665). The excavation, carried out on behalf of the Antiquities Authority and sponsored by the moshav, was directed by I. Milevski, with the assistance of R. Abu Halaf (administration), A. Hajian, T. Kornfeld and V. Essman (surveying and drafting), N. Zak (preparation of plans), A. De Groot (pottery), C. Hersch (drawing of finds), G. Solimany, A. Nagorsky and H. Stark (Jerusalem Region).
Tumulus 8 was excavated on a hilltop overlooking Nahal Refa'im (Fig. 1). The tumulus ( $30 \times 22 \times 2.5 \mathrm{~m}$ ), which was identified by Albright (BASOR 10:1-3) and Amiran (IEJ 8:205-227, No. 8), was damaged on its northwestern side. Tumulus 2 was excavated by Albright; Tumuli 5 and 6 were excavated by Amiran; and Tumulus 4, in 'Ir Gannim, by G. Barkay, R. Greenberg and G. Cinamon (Tel Aviv 33:229-243); O. Sion (HA/ESI 120) exposed quarries c .50 m southwest of Tumulus 8.

In Tumulus 8, two and a half squares (I-III; $4 \times 12 \mathrm{~m}$; depth 2.5 m ; Figs. 2-4) were excavated to the chalk bedrock, which is covered with a layer of nari. Three phases were discovered in the excavation. Phase C (the earliest) was a terra rossa fill covering bedrock into which cupmarks and traces of quarrying were hewn (Loci 7, 10, 14). The pottery vessels from these loci dated to Iron II. Phase B, the main phase, is the phase associated with the fill of the tumulus, which consisted mostly of various sized quarried undressed stones and a small amount of orange-brown soil (Loci 4, 12, 13). Some of the fill eroded downslope (Loci 6, 11). The shape of the stones and absence of patina indicate that they were probably quarried in the vicinity of the tumulus. Most of the pottery vessels that were found in the fill also date to Iron II. The latest phase, Phase A, consisted of the surface level that was disturbed by a number of trees whose roots penetrated into the tumulus, and by modern debris that was discarded on the tumulus (Loci 1-3) in recent decades.

The Iron II potsherds included bowls with rounded rims treated in the red-slipped and burnished tradition. Bowl shapes included rounded bowls (Fig. 5:1, 2), carinated bowls (Fig. 5:3-5) and straight bowls (Fig. 5:6), most of which have a ring base (Fig. 5:8, 9). Also found were kraters with rims and bases that are similar to the bowls (Fig. 5:7, 10-12), some of which were treated with a light color slip. The storage jar sherds are conspicuous; some of them are bag-shaped with ridged handles (Fig. 6:1) and low thickened rims (Fig. 6:3). A handle that is reminiscent of a LMLK storage jar handle (Fig. 6:4) and a body fragment with a potter's mark (Fig. 6:2) were found. In addition, holemouth jars with barrel-shaped body (Fig. 6:5, 6) and jugs with a handle attached from the rim to the shoulder and a ring base (Fig. 6:7-10) were also identified.

Most of the vessel types have parallels from sites in Judah and the southern Shephelah. Similar bowls, kraters and jars appeared in Tumuli 5 and 6 and some of these vessels were found in excavations that were conducted around Tumulus 4. The pottery assemblage from Tumulus 8 resembles that from Lakhish Stratum III and, like it, dates to the eighth century BCE

Tumulus 8 belongs to a group of small tumuli (Nos. 7-11) that were found inside Moshav 'Aminadav and its environs, unlike the larger groups of tumuli (Nos. 2-6) that were found in the Giv'at Massu'a and 'Ir Gannim neighborhoods in which building remains were discerned. Albright, Amiran and Barkay proposed connecting the tumuli to cultic activity and even burials. Nevertheless, it should be noted that all of the tumuli that were excavated and surveyed, including Tumulus 8, were erected in an agricultural region, close to agricultural installations and there is no evidence for burial or cultic practices. Tumulus 8 was built next to a quarry, and it seems that the available quarrying debris was used in its construction. All of the tumuli look out over Nahal Refa'im and its environs and they constitute landmarks that are visible from afar. According to Greenberg and Cinamon the tumuli in general, and Tumulus 8 in particular, were probably connected to some sort of agricultural activity, or they may possibly have been a means of overseeing or marking areas of agricultural control.


2. Tumulus 8, plan and section.

3. General view, looking south.


5. Pottery, bowls and kraters.






6 $\quad 10$
6. Pottery, storage jars and jugs.
(Volume No. HA-ESI 120 (2008 Ani'am (North)

## Final Report

Oren Zingboym
20/3/2008


1. The tomb, plan.

2. The tomb, looking northeast.

3. Stone heap, looking north.

During May 2005, a salvage excavation was conducted north of Moshav Ani‘am (Permit No. A-4491*; map ref. NIG 26995/76255; OIG 21995/26255), prior to the construction of a new neighborhood. The excavation, on behalf of the Antiquities Authority, was directed by O. Zingboym (surveying), with the assistance of Y. Ya'aqoby (administration), N. Getzov (guidance), I. Berin (drafting), H. Ben-David and M. Hartal (assistance in ceramic reading), Y. Gorin-Rosen (glass) and D. Syon (numismatics).

The excavation area was located on a basalt plain that descends gently westward, to Nahal 'Ayyit. A stone heap piled atop a built tomb from the Roman period was excavated. Not far to the south, an excavation conducted at Kh. Amudiyya revealed artifacts dating to the Byzantine, Mamluk and Ottoman periods (HA 67-68:10 [Hebrew]). The site was also surveyed within the Survey of the Central Golan (ES/ 18:5-6).
The Tomb (Figs. 1, 2). A rectangular burial cell ( $0.8 \times 2.0 \mathrm{~m}$, depth 0.65 m ), dug into the ground down to the basalt bedrock level and lined with medium-sized fieldstones, was excavated. The tomb was probably part of a large burial field located north of the excavation area and connected to Kh. Amudiyya. Most of the tombs in this field were probably pit graves that did not survive. The tomb contained pottery from the Roman period, Kefar Hananya ware and a single fragment that originated from Kh. Hawarit in the northern Golan Heights and an elongated and decorated glass bead that is dated to the late Roman period. Most of the ceramic finds were characteristic of Jewish settlements in the Galilee and Lower Golan and some potsherds typified the Christian settlements in the Northern Golan (Panias). The tomb was located along the borderline between the Jewish settlement region in the Lower Golan and the Christian occupied area in the Upper Golan.

A Stone Heap (Fig. 3). The elliptical heap of fieldstones ( $3.0 \times 4.7 \mathrm{~m}$, height 0.92 m ) was surrounded by a fieldstone circle that was a single course high and survived on the northern and western sides. The excavation of the stone heap revealed pottery from the Roman period, up to the middle of the fourth century CE and a single fragment decorated with a rope ornamentation that apparently dated to the Middle Bronze Age, as well as ammunition from the First World War (1914).


1. The tomb, plan.

2. The tomb, looking northeast.

3. Stone heap, looking north.
(Volume No. HA-ESI 120 (2008 Ashqelon (North)

4. Metal artifacts.

5. Lead pipes and a lead collecting box of a bilge pump.

6. Bronze pulley wheels.

7. A bronze figurine in the image of Aphrodite.

8. A bronze figurine of a bearded male.

Ehud Galili and Josef Ayalon
During December 1998 an underwater survey was conducted in the region of the northern beaches of Ashqelon (License No. G29/1998; map ref. NIG 15895/62270, OIG 10895/12270), in the wake of a report by J. Ayalon (a volunteer diver in the Marine Archaeology Unit) that two bronze figurines and several metal artifacts were discovered on the seabed. The survey, on behalf of the Antiquities Authority, was directed by E. Galili and J. Sharvit, with the assistance of D. Moscowitz and H. Sal'iy (diving), S. BenYehuda (drawing and drafting), T. Sagiv and C. Amit (photography), E. Altmark, L. Kupershmidt, M. Levine and R. Vinitsky (metallurgical laboratory).
The construction of the Ashqelon marina and the erosion of sand by storms exposed a rocky seabed, on which remains of a sailing vessel from the Roman period, scattered across an area of $30 \times 30 \mathrm{~m}$, at a depth of 3-4 m below sea level, were discovered.

The remains of the ship included a lead assembly piece of a wooden anchor with two arms (length $0.82 \mathrm{~m}, \mathrm{c} .20 \mathrm{~kg}$ ), bronze nails with a square cross-section that were used in the hull of the ship (Fig. 1:1), lead sheathing fragments with nail holes that were used to sheathe the under -part of the ship's hull, several sections of lead pipes (diam. c. 4 cm , length $1.0-1.5 \mathrm{~m}$ ) and a lead collecting box ( $0.5 \times 0.5 \times 0.8 \mathrm{~m}$ ) that were used to pump water from the bilges of the ship (Fig. 2). Six bronze pulley wheels (diam. 6 cm ; Fig. 3) survived from the rigging (sails and masts) of the ship. It seems they were part of the block and tackle system, which comprised two pulley blocks that did not survive, each consisting of three pulley wheels. This type of system was used on boats for raising the rigging and drawing it taut, multiplying the amount of force exerted five times.
The cargo remains included three bronze figurines: a nude female figurine (Aphrodite?; Fig. 4), a naked bearded man (a Satyr or Priapus) and a small zoomorphic figurine. The female figurine bends her left leg up above the right knee and extends her right hand in the direction of her left heel. Her left hand is waved upward and the palm of the hand, which is partly missing, is resting on some object that did not survive, probably a sword or a steering oar. Her head, facing slightly to the right, is a bit inclined. Her hair is pulled back and some of it rests on her left shoulder. The figurine (height 20 cm ) is made of a single piece of cast bronze, save the two eyes, which are inlayed with pieces of silver. Based on similar artifacts, the figurine can be attributed to the image of 'Aphrodite removing the sandal'. A similar bronze figurine of Aphrodite was discovered in the sea at Caesarea (ESI 7-8:42). The male figurine depicts a naked man wearing a tall hat (Fig. 5). The figure rests on its right leg and extends its left foot slightly forward. Its right hand is raised upward, whereas the left elbow is raised slightly and the arm is bent next to the chest (a dance movement?). It has a large and accentuated phallus, somewhat grotesque; the bearded head is tilted somewhat to the right and forward and the facial features are worn. The figurine (height 10 cm ) is cast in one piece. The zoomorphic figurine (height 1.9 cm ) is shaped as a mammal in a seated position (monkey?), covering its mouth with the two fore limbs (Fig. 6).
An especially large bronze nail (length 0.76 m ) with a round cross-section was found. The straight shank of the nail, which bears no signs of hammering on the nail head, indicates it was never used and probably belonged to the ship's cargo, rather than being part of the ship itself. Other artifacts included a bronze bell with a hole in its upper part for suspension (length 12 cm ), a bronze weight in the image of a cardium shell (Fig. 1:2), two hollow decorative bronze pieces with a long neck and a thickened body shaped as a small open bottle (Fig. 1:3), a bronze lid of a vessel that bears two busts in relief (human images; Fig. 1:4) and a lead mace head. A variety of small objects that were used for fishing, including fishhooks, bronze needles used to repair fishing nets and lead weights for fishing nets, one of which is decorated with a relief of an anchor, were also found.
Based on the bronze nails, the figurines and the scatter of artifacts along the seabed we can reasonably assume that a Roman merchant vessel (first-second centuries CE), 15-25 m in length was shipwrecked there. The ship probably encountered stormy weather and, in the absence of a natural anchorage or a harbor, it drifted toward land and was wrecked in an area where the waves break close to shore.


1. Metal artifacts.

2. Lead pipes and a lead collecting box of a bilge pump.

3. Bronze pulley wheels.



4. A mammal-shaped (monkey?) bronze figurine.

5. General view and Wall 1 , looking north.

6. Area A, plan.

7. Area A, pottery.

8. Area B, plan.

9. Coin (photograph).

# (Volume No. HA-ESI 120 (2008 <br> <br> Ashqelon, Barne‘a <br> <br> Ashqelon, Barne‘a Final Report 

Ofer Sion
27/5/2008
During November 2002, a salvage excavation was conducted in Ashqelon, Barne'a, along the route of Road 6 (Permit No. A-3768*; map ref. NIG 16000/62182; OIG 11000/12182). The excavation, on behalf of the Antiquities Authority, was directed by O. Sion, with the assistance of A. Hajian (surveying), T. Sagiv (photography), I. Berin (drafting), A. Pikovski (pottery drawing) and D.T. Ariel (numismatics).
The excavation was conducted on the southeastern side of the Ashqelon-Afridar and Barne'a site, in the middle of the route of the planned road (Fig. 1). A previous extensive excavation at the site had been conducted in 2003 (Permit No. A-3850). The current excavation revealed a wall (Area A), remains of a large building and the edge of a tomb, which was not excavated (Area B).
Area A. Six squares were opened. The foundation of a wall (W1; length 10.5 m , preserved height $5-13 \mathrm{~cm}$; Fig. 2) was exposed. It was oriented east-west and its construction indicates it had almost certainly two phases. The eastern part was built of two rows of rectangular mud bricks and a core of square mud bricks ( $0.4 \times 0.4 \mathrm{~m}$ ); its western part consisted of two rows of different-sized mud bricks $(0.20 \times 0.35-0.35 \times 0.65 \mathrm{~m})$. The pottery finds near the foundation of the wall (Loci 51, 54, 62) included bowls (Fig. 3:1-5), jugs (Fig. 3:7, 8) and a fragment of a Megarian bowl (Fig. 3:9), which dated the remains to the second century BCE.

Area B is located c. 100 m south of Area A; kurkar bedrock was exposed at a depth of 0.2 m below surface. The edge of a rock-hewn pit grave, which was not excavated, was revealed next to the eastern side of the eastern square (Fig. 4). The pottery finds along the fringes of the grave (L56) were also from the second century BCE and included bowls (Fig. $5: 1-4,6$ ), a fish plate (Fig. 5:5), cooking pots (Fig. 5:7, 8), jars (Fig. 5:9-12) and an amphoriskos (Fig. 5:13). Two coins from the time of Antiochus IV (below) were also dated to this period. The destruction and the later quarrying explain the presence of coins that dated to the fourth and sixth centuries CE.

## The Coins

Donald T. Ariel
Four bronze coins were discovered in the excavation, none in relevant contexts. Two are Byzantine in date: Theodosius I, 383-395 CE (IAA 97930) and a half follis of Maurice from Constantinople, 597/98 CE (IAA 97931). The other two coins are dated to the second century BCE, possibly to the reign of Antiochus IV (175-164 BCE). One is the most commonly found coin of that king in the region, struck in the 'Akko-Ptolemais mint (IAA 97929). The other is a very rare Ascalonian municipal issue, referring to "the people of Ascalon" (Figs. 6, 7). One known coin of this type was struck within the reign of Antiochus IV (Yashin C. 2007. From Ascalon to Raphia: City-Coins of the Southern Palestinian Coast. N.P.:19) and others are dated somewhat later (BMC Pal.:G.F. Hill, Catalogue of the Greek Coins of Palestine [Galilee, Samaria and Judea]. London 1914:liv-lv). Unfortunately, the date on this coin is not preserved.


1. General view and Wall 1 , looking north.



Reg. No. 232, L. 50, IAA 97932.
2nd century BCE, Ascalon.
Obv, Head of Tyche r.; behind, scepter (?).

※, $\uparrow, 3.49 \mathrm{gm}, 18 \mathrm{~mm}$.
Cf. BMC Pal:105, No. 7.

4. Area A, looking north.

5. Area A, structure A2. looking south.

6. Area H, plan.

9. Area H, Stratum III, a large pithos found embedded in the floor.

10. Area $H$, burnt debris within industrial compound.
(Volume No. HA-ESI 120 (2008

## Ashqelon Barnea‘ B-C

## Amir Golani

During August-December 2005, a third and final season of salvage excavations was conducted at the Early Bronze I site of Ashqelon Barnea' B-C (Permit No. A-4558; map ref. NIG 1597-9/6230-2; OIG 1097-9/1230-2), prior to large-scale housing development. The excavation, on behalf of the Antiquities Authority and funded by the Economic Corporation for the Development of Ashqelon, was directed by A. Golani, with the assistance of E. Alajam, D. Dagan, M. Ein-Gedi, N. Govchenko and I. Peretz (area supervision), S. Talis (registration, ceramic processing and computerized data entry), H. Lavi and R. Abu-Halef (administration), V. Essman and S. Pirsky (surveying), T. Sagiv and J. Kdoshim (field photography), Y. Nagar (anthropology), O. Ackerman (geomorphology), I. Berin (drafting), Y. Bukgenholtz (pottery restoration), E. Boaretto (Carbon 14 dating), D. Rosenberg (groundstone tools), L. Eisencot and O. Aflalo (organization of student volunteers), Y. Israel and D. Nahlieli (district and regional archaeologists). The excavation was carried out by workers from Ashqelon and Qiryat Gat, as well as local schoolchildren and volunteers from the pre-military college at Netiv Ha-Lamed-He.

The site is located adjacent to the coast and north of the EB I site of Ashqelon Afridar ('Atiqot 45). The excavation was preceded by large-scale earthmoving activities that destroyed a large section of the site and removed a large portion of the sand dune that covered it (Fig. 1), exposing a previously unknown settlement of the EB I period. These dunes contained remains of a settlement from the Byzantine period (fifth-sixth centuries CE) that were partly excavated.
Unlike the two previous seasons (HA-ESI 117, HA-ESI 119), the present excavation was restricted to the entirety of the northern two-thirds of the site (c. 30 dunams; Fig. 2), portions of which were sounded during the first excavation season. In light of the immense size of the area destined for destruction and budgetary limitations that did not allow a complete excavation, a viable strategy that would provide as much relevant information as possible concerning the extent of the site during the different occupational strata, along with the nature of activity in each of its parts, was formulated, consisting of five principal elements.
(1) Excavation of a large north-south section (width 15 m ; Areas H and M ) through the central portion of the site that would connect the northern part (Area A) with Area B in the center, which had previously been excavated.
(2) Excavation of another east-west oriented central section (Area L) that connected to the central section.
(3) Exposure of any significant architectural remains within these sections will require the expansion of the section to reveal any such units in their entirety (Area I).
(4) Limited excavations in peripheral areas of the site (Areas $J$ and $C$ ).
(5) Broad lateral exposures in areas where architectural remains were already apparent upon surface (Area K).

The major occupation at the site took place during the Early Bronze IB period and was spread out over a wide and mild eastern-facing slope that descended from the top of the low kurkar ridge, running parallel and east of the seashore. As in the previous excavations, the same sequence of five strata was identified.
Stratum V, dated to late EB IA or early EB IB periods, was exposed in a limited number of deep probes. It was characterized by meager ceramic remains and habitation surfaces directly upon and within the upper portion of the sand dune. As no architecture was associated with this phase, it may represent a temporary and ephemeral campsite.
Stratum IV, also dating to late EB IA or beginning of EB IB, comprised the first permanent occupation at the site that encompassed an area of c. 30 dunams. The stratum was distinguished by walled compounds and large buildings, separated by wide and open spaces. Several underground mud-brick silos were identified in the peripheral regions of the site.
Stratum III, dated to EB IB, was identified in nearly all the excavated areas and represented the largest and most intensive settlement at the site, which now encompassed 55 dunams. It consisted of walled compounds and various buildings whose construction resembled that of Stratum IV. Some of the compounds contained domestic structures, often alongside mud-brick storage silos, while others appear to have been reserved primarily for copper working. The compounds were separated from one another by narrow alleys or open spaces.
Stratum II, dating to EB IB, represented a complete break in settlement. The Stratum III site was abandoned and the resettlement during Stratum II was on a smaller scale, reaching c. 25 dunams. This stratum evinced poor architectural remains of small stones, in contrast to the predominantly mud-brick construction of Strata IV and III. A recurring feature of Stratum II was the presence of infant jar burials and mud-brick cists within abandoned areas of the site.
Stratum I consisted of sporadic remains, primarily pits, from the Byzantine period that were found throughout the area of the abandoned EB site, while limited architectural remains were identified atop the kurkar ridge facing the seashore (Area C).

## Following is a brief survey of the results from each area of the present excavation season.

Area A was to the north of the north-south section (Fig. 3). The excavation area was expanded this season (Fig. 4), revealing the circular storage structure of Stratum III, assigned to Stratum II in HA-ESI 117, which had been part of a badly eroded complex that was composed of a courtyard enclosed by a mud-brick wall (W6, W7, W302, W310, W317) and an adjacent rectangular mud-brick structure with rounded corners (Building A2; Fig. 5). The courtyard, storage structure and adjacent building may represent a habitation complex of a single family. Two entrances in W6 were identified, along with a mud-brick pavement (L3016) within the courtyard and adjacent to the eastern entrance.

Area C was located on the western-facing slope of the kurkar ridge and outside the EB occupation area. Excavations revealed several badly preserved walls and decayed plaster installations of unclear plan, all founded upon sterile soil. The finds associated with these features dated them to the Byzantine period (fifth-sixth centuries CE).

Area H was in the central portion of the north-south section (Figs. 6, 7). The earliest occupation in this area, Stratum IV, included a few surfaces and a portion of an oval mud-brick structure (Fig. 8), all founded directly upon the sands of the basal dune. These were exposed only when more prominent features of Stratum III were removed or in restricted probes beneath the Stratum III surfaces.
The main and most intensive occupation in this area was that of Stratum III. At this time, the northern part of Area H was an open area that included a large rounded storage (?) installation and a pithos embedded into the sands (Fig. 9). Two walled mud-brick compounds separated by a narrow alley were found in the southern part of the area. The western compound included an underground mud-brick silo, which may have been intended for domestic/storage purposes. The eastern compound appears to have been used for copper processing as it contained several firing installations, slag and large amounts of burned mud brick and ash (Fig. 10). To the south of these two compounds was a large open area that consisted of several infant jar burials beneath the floor (Fig. 11).
Stratum II included a limited amount of pits along with scattered and disjointed architectural features that showed a distinct break from the earlier remains.

Area I was adjacent to Areas A and H , to the west of the large north-south section (Figs. 12, 13). Stratum IV was exposed in a limited area and consisted of a long and curving mud-brick wall (W215), possibly a portion of an enclosure that was not fully exposed. A large building complex that was composed of a walled courtyard ( $8 \times 14 \mathrm{~m}$ ) and a portion of an adjacent structure to its north were associated with Stratum III. The courtyard, not fully exposed, had an entrance in the north and another in the east, facing a large open area (Area H). Several partition walls, a melting installation and numerous remains of burnt and decayed mud bricks in the courtyard suggest that some form of industrial activity may have taken place there.

Area $\mathbf{J}$ was at the periphery of the site, atop the kurkar ridge. The remains were excavated in several clusters of squares, following the exposure of tops of several mud-brick walls by a bulldozer (Fig. 14). The area was not physically connected with those in the main north-south section (Area A); hence the attribution of its remains to any of the main excavated strata in other areas is uncertain. Nonetheless, on the basis of building materials and construction techniques, the earliest remains in this area should probably to be associated with Stratum III, while remains of Stratum IV in this area are lacking.
The Stratum III remains may be divided into two architectural phases. Very little survived of the earlier phase (Stratum IIIB) that included a single mud-brick wall (W209) and several associated surfaces, as well as an infant jar burial set into the sands (Fig. 15). The later phase, Stratum IIIA, remains were better preserved and included several mud-brick silos and associated walls and surfaces (Fig. 16). The remains of at least two compounds were identified; the enclosure wall in each of them incorporated at least one mud-brick silo, while in the southern compound an additional mud-brick silo was revealed (Fig. 17). These compounds may have been used exclusively for storage; however, the presence of additional, domestic structures within them, although not excavated, cannot be ruled out.
Very few stratified elements, post-dating those of the Stratum IIIA phase, were found. These were tentatively associated with Stratum II and included a few surfaces and a pit along with scattered stones that did not recognize the earlier remains.

Area K, in the central portion of the site, was adjacent to Area B on its west (Figs. 18, 19). Since the remains in Area K were apparent on surface, a large lateral exposure was conducted, producing generally shallow archaeological remains of Strata III and II. Habitation debris of Stratum IV was reached in limited exposures in the eastern portion of Area K, where the accumulation was deeper.
The Stratum III remains included a northern and southern enclosure in the western part of Area K and a dense agglomeration of building remains in the eastern side. Of the northern enclosure, approximately half of a square-shaped compound was exposed, consisting of a mud-brick wall on a partial stone foundation. An entrance with an indirect entry was identified in the western wall, while two oval-shaped domestic mud-brick structures (Fig. 20) were exposed within the enclosure. An alleyway separated this compound from another enclosure, which had previously been excavated in Area $B$ and appears to have been of industrial character (Fig. 21). Another narrow alley separated the northern enclosure from the remains of a similarly built enclosure to its south (Fig. 22). Although partially revealed, the southern enclosure appears to have included two mud-brick storage silos and possibly one oval domestic structure. The building remains in the eastern side (Fig. 23) delineated several rooms of a complex structure of unclear plan that underwent several phases of modification. Within a wall of this structure, a small juglet with a hoard of dentalium shells was revealed (Fig. 24).
The remains of Stratum II, as in nearly all other excavated areas at the site, were of a completely different nature, consisting of walls that comprised a small stone foundation (Fig. 25), which obliterated the previous architectural remains of Stratum III. The partial remains of at least two badly eroded buildings and associated surfaces were revealed, as well as several infant burials. These sometimes related directly to architectural remains of Stratum III that had gone out of use, such as an infant jar burial atop an obsolete mud-brick silo, or in small mud-brick cists (Fig. 26). Other infant burials were found in holemouth jars (Fig. 27).

Area L, located in the northeastern portion of the site, comprised the east-west section through the site and linked up to the north-south section (Figs. 28, 29). The excavation area was covered with a large overburden of sand; when removed, the exposed ancient topography was seen to have sloped moderately eastward. The eastern fringes of the area reached the very edge of the site, while the central portion revealed an agglomeration of building remains associated with Strata IV, III and II. The western part of the area was devoid of architectural remains and appears to represent a large open space between the building remains in the central part and those revealed in Areas $\mathrm{A}, \mathrm{I}$ and H .
The remains of Stratum IV consisted of a kidney-shaped compound circumscribed by a mud-brick wall upon a partial stone foundation (W611, W617 and W620). An oval mud-brick structure in the west part of the compound had two entrances, one in the west and the other in the east. The eastern area of the compound was primarily open and included at least two mud-brick silos and several associated surfaces.
During Stratum III, the Stratum IV compound was cancelled and two new mud-brick buildings of square shape with rounded corners were erected (Fig. 30). One of the silos from Stratum IV continued in use during Stratum III and was canceled in Stratum II (Fig. 31). As in most excavated areas of the site, Stratum III proved to be the largest and most intensely occupied, yielding a wealth of restorable ceramic and stone vessels upon its floors (Figs. 32, 33).
None of the Stratum III elements continued in use in Stratum II. As in other excavated areas, the remains of this stratum were composed of a few eroded and flimsily built wall segments of unclear plan, in addition to several infant jar burials, one of which was found directly beneath a wall (Fig. 34).

Area M was located at the southern end of the north-south section, south and adjacent to Area H and north of Area B, which was excavated during the first season (HA-ESI 117). As Area M was investigated at the end of the season, not all the architectural remains were fully exposed. Remains of Strata IV and III were revealed (Figs. 35, 36), but none of Stratum II.
Stratum IV probably existed throughout the area, but was clearly exposed only in the southern part. The remains consisted of a large oval-shaped mud-brick building with two constructional phases, adjacent to another structure of unclear plan to its north.
The remains of Stratum III included at least one enclosure wall that appears to have been separated from the enclosure in Area B by a wide space that consisted of several other walls of unclear plan and function, along with at least two mudbrick silos. An infant burial wrapped with several large ceramic fragments (Figs. 37, 38) was revealed directly underneath a floor.
The excavations at the EB site of Ashqelon Barnea' exposed c. 8 dunams of a previously unknown site that is now lost forever due to development activities. The scale of excavations enabled the evaluation of the site's growth, expansion and contraction throughout the three major phases (Strata IV-II) of its existence during the late EB IA and EB IB periods (34th-29th centuries BCE). The broad lateral exposures produced a wealth of building remains that provided an understanding of their function and relation to one another, an aspect not often attainable in archaeological excavations of this period. The excavations revealed a site composed of numerous compounds that were separated by narrow alleyways and by open areas, which may indicate a level of preconceived planning. These compounds were apparently used for domestic purposes, i.e., the living and working area of a family or possibly for industrial purposes, namely the processing of copper. The large number of mud-brick silos is evidence of intensive storage at the site.

2. Location of excavation areas and extent of settlement.

3. Area A, Stratum III, plan.

4. Area A, looking north.

5. Area A, structure A2, looking south.

6. Area H, plan.

7. Area H, Stratum III, two compounds separated by an alley at lower center, looking north.

8. Area H, Stratum IV, part of a mud-brick structure, looking west.

9. Area H, Stratum III, a large pithos found embedded in the floor.

10. Area H, burnt debris within industrial compound.

11. Area H, Stratum III, an infant burial in a storage jar found beneath a floor.

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13. Area I, W215 of Stratum IV at right, looking southeast.

14. Area J, plan.

15. Area J, an infant jar burial.

16. Area J, mud-brick silo in north of area.

17. Area J, two mud-brick silos and enclosure wall.

18. Area K, plan.

19. Area K, Area B in background and Area $M$ at upper right, looking west.

20. Area K, Building within surrounding wall of northern enclosure.

21. Area K, alley separating northern domestic enclosure at right from industrial enclosure of Area B at left, looking north.

22. Area K, alley separating between northern (left) and southern (right) enclosures, looking east.

23. Area K, east portion, looking west.

24. Area K, remains of juglet with hoard of dentalium shells.

25. Area K, Stratum II, architectural stone remains, looking south.

26. Area K, Stratum II, infant burials.

27. Area K, Stratum II, infant burial within holemouth jar.

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28. Area L, plan.

29. Area L, in background, Areas $A, H$ and $M$ of north-south section, looking west.

30. Area L, Stratum III, mud-brick walls in central portion of area.

31. Area L, Strata IV, III, mud-brick silo overridden by Stratum II living surface.

32. Area L, Stratum III, ceramic vessel upon floor.

33. Area L, Stratum III, ceramic and stone vessels upon floor.

34. Area L , infant jar burial below stone wall.

36. Area $M$, south portion; north end of Area $B$ at upper right, looking east.

37. Area M, Stratum III, infant burial below floor.

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## Ashqelon, Barne'a


2. Area A, plan.

3. Area A, aerial photograph.

4. Area $A$, building (kitchen in foreground, courtyard in background), looking southeast.

5. Megarian bowl.

10. Stamped amphora handle.

Yoram Haimi
23/11/2008
In November-December 2002, a salvage excavation was conducted in the Barne'a neighborhood of Ashqelon (Area A-Permit No. A-3850: map ref. NIG 15993-6017/62175-90; OIG 10993-11017/12175-190; Area B-Permit No. A-3962: map ref. NIG 1599-601/6218-22; OIG 1099-101/1218-220), as part of infrastructure work. The excavation, undertaken on behalf of the Antiquities Authority with the financial support of the Azorim Company, was directed by Y. Haimi, with the participation of H. Lavi (administration), A. Hajian (surveying), T. Sagiv (photography), I. Lidski-Reznikov (artifact drawing), D.T. Ariel (numismatics) and G. Finkielsztejn (professional guidance).
The excavation was conducted in two areas (Fig. 1): Area A, c. 7 dunams and Area B, c. 8 dunams. Streets, alleys and mud-brick-built houses were exposed, belonging to a planned Hellenistic settlement that was founded in the middle of the second century BCE and was abandoned shortly thereafter, without any traces of destruction.

Area A (Figs. 2, 3)
Hippodamian planning was evident in the settlement where a 3 m -wide street (L21) was discerned that was oriented in an east-west direction; it was connected to a 1.1 m wide alley (L11) that ran in a north-south direction. South of the street a building was exposed that constituted part of an insula (L28) with a large central courtyard surrounded by rooms (Fig. 4). A kitchen (L68) with two tabuns was uncovered off the courtyard. In its mud-brick walls were built niches where lamps were placed and wall closets equipped with shelves. The walls of the building's rooms (Loci 17, 25) were preserved to a height of 3 m . The perimeter walls were 0.45 m thick and the partition walls were 0.3 m thick. The walls were all constructed from mud bricks $(0.35 \times 0.45 \mathrm{~m}$, thickness 0.12 m$)$. Although the artifacts were very sparse, a Megarian bowl (Fig. 5) and a coin of Alexander I Balus (150-145 BCE; IAA No. 97984; Fig. 6) were found on the floor of the building's western room (L25).
In the room located north of the street (L27) a plastered floor was exposed and an opening there led to the courtyard (L41) with four tabuns (Fig. 7). Another coin of Alexander I Balus (150-145 BCE; IAA No. 97986) was discovered on the floor of the courtyard. On the western side of Area A a cistern (L16; diam. 4.5 m , depth 4.8 m ) was found below the walls of the building. It was partially excavated, yielding numerous potsherds from the Persian period.

Area B (Figs. 8, 9)
The continuation of the settlement was uncovered in this area which was located c. 60 m northwest of Area A. It included a street (L14) that was oriented along a north-south axis and a building which was part of a larger building. The building had a large courtyard (L90) flanked by rooms in which pottery from the middle of the second century BCE was found. An installation that drained water to the street (L69) was exposed on the western side of the courtyard. A stamped amphora handle (Fig. 10) that originated in Ephesus and dates to the year 152 BCE was found inside the installation. No pottery vessels were recovered from the rooms of the building; however, another coin of Alexander I Balus (150-145 BCE; IAA No. 97987) was found in one of them (L57).


2. Area A, plan.

3. Area A, aerial photograph.

4. Area A, building (kitchen in foreground, courtyard in background), looking southeast.

5. Megarian bowl.

6. Coin of Alexander I Balus.

7. Area A, courtyard in foreground, Room L27 in background, looking southwest.


9. Area B, aerial photograph.

10. Stamped amphora handle.
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Avital Junction, Survey
Final Report
Oren Zingboym


1. Survey map.

During November 2005 a development survey was conducted northeast of Avital Junction in the Golan Heights (Permit No. A4596*; map ref. NIG 27330-90/77725-95; OIG 22330-90/27725-95), prior to the allocation of land for orchards in Moshav Keshet. The survey, carried out on behalf of the Antiquities Authority and financed by Moshav Keshet, was performed by O. Zingboym and A. Shapiro.

The survey was conducted in a field of dolmens on the lower, southwestern slopes of Har Avital. Eleven sites with ancient finds, mostly dolmens, were documented (Fig. 1). More dolmens were recorded on the higher eastern part of the surveyed area than in the western part, which was moderate and possibly used for agriculture. If dolmens were built there, they were destroyed in the wake of farming activity. Following is a list of the sites.
(1) Two adjacent dolmens. The northern dolmen was very large (diam. 15 m , height 2.5 m ) and a burial cell was visible in the southern dolmen.
(2) A destroyed dolmen (diam. 4 m ) delimited by a circle of stones. It appears to have been plundered in the past.
(3) A stone heap, possibly a dolmen.
(4) A stone heap (length 4 m ), possibly the ruins of walls or a dolmen.
(5) A few fragments of pottery vessels scattered on the ground in an area used for farming.
(6) Two small piles of stones adjacent to each other, possibly stone clearance heaps in an agricultural area.
(7) A large heap of stones (diam. 15 m ), possibly a dolmen.
(8) A large ruinous dolmen (diam. 15 m ), delimited by a circle of stones.
(9) A robbed dolmen with a burial cell, surmounted by a covering stone.
(10) A ruinous dolmen, delimited by a circle of stones. It seems that one of the stones was used to cover the burial cell. (11) A large heap (diam. 12 m ) of medium-sized fieldstones, possibly a dolmen.


1. Survey map.

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1. Plan and sections.

2. The excavation area, looking northwest.

3. The excavation area, looking north.

4. Iron coffin handles.

5. Small bronze nails.

## Moshe Hartal

During June 2004, a salvage excavation was conducted in Qibbuz Senir (Permit No. A-4174*; map ref. NIG 26377/79445; OIG $21377 / 29445$ ), after three tombs were damaged when the area was prepared for construction. The excavation, on behalf of the Antiquities Authority, was directed by M. Hartal, with the assistance of Y. Ya'aqoby (administration), A. Hajian (surveying and drafting), Y. Nagar (physical anthropology), E. Altmark (metallurgical laboratory), L. Porat (pottery restoration) and H. Tahan (pottery drawing).
Qibbuz Senir is built on part of the western cemetery of the city of Panias. Burial caves from the Roman period had previously been documented in the vicinity and two were excavated (HA 48-49:24 [Hebrew]; Permit Nos. A1440, A-1650). A burial compound from the Roman period (HA-ESI 116) was excavated c. 260 m northwest the current excavation.
The excavation area ( $7.5 \times 7.5 \mathrm{~m}$ ) was located along the eastern fringes of the western cemetery of Panias. Three hewn cist tombs from the Roman period (Loci 101-103; Figs. 1-3), oriented northeast-southwest, were exposed. The western part of the excavation area, where Tombs 102 and 103 were hewn, was quarried to a depth of c. 0.8 m . A natural channel (L105; width $0.1-1.0 \mathrm{~m}$ ), aligned southeast-northwest, ran through the middle of the area and had cut Tomb 101. The channel was apparently cut due to the eastward inclination of bedrock, probably after the tombs were quarried.

Tomb $101(0.85 \times 2.08 \mathrm{~m}$, depth $1.0-1.3 \mathrm{~m})$. Along the entire upper part of the tomb's northwestern wall was a hewn bedrock ledge (width 0.22 m ), over which a course of stones had been placed; one pf the stones was preserved in situ. The western part of the tomb was cut by Channel 105. It seems that the tomb was plundered after its exposure and prior to the excavation, based on marks left by the teeth of a backhoe bucket, visible at the bottom of the tomb. Several bones of the deceased who was more than fifteen years of age were recovered from the tomb, as well as an iron ring that served as a coffin handle, several iron nails and small bronze nails. The deceased was apparently interred in a wooden coffin.

Tomb $102(0.58 \times 2.00 \mathrm{~m}$, depth 0.7 m ; Fig. 4). Shelves (width 0.22 m$)$ were hewn in the upper part of the northern and southern sides of the tomb and a single course of ashlar stones was placed on each of them. A single covering stone was preserved on the tomb, which had been looted in antiquity. The tomb contained a few human bones that belonged to an adult and an infant, two-three years of age, an intact glass bottle (Fig. 5) and a ceramic unguentarium, both dating to the first century CE, numerous fragments of pottery vessels from the first century CE, including bowls (Fig. 6:1-9), cooking pots (Fig. 6:10-13), jars (Fig. 6:14) and juglets (Fig. 6:15-17) that probably originated in the soil that had washed into the pit, as well as a few iron nails and small bronze nails. No iron coffin handles were discovered in the tomb like those in the other two and the deceased were probably interred without coffins. After the burial, the tomb was sealed with stone slabs, one of which remained in situ. Jars and an amphora, almost complete (Fig. 6:18, 19), were found on the covering slab. The bones of an infant that had died at birth were discovered inside one of the jars, which were surrounded by fieldstones and covered with stone slabs. It seems that an adult and an infant were buried in the tomb in the first phase, possibly a mother and her son. Later, two jars were placed on the covering stone of the tomb; inside one of them were the bones of an infant and it is postulated that the second jar also included infant bones, although none were found.

Tomb $103(0.85 \times 1.95 \mathrm{~m}$, depth 0.8 m$)$. A narrow shelf (width $8-11 \mathrm{~cm}$ ) was hewn in the bottom part of the southeastern side of the tomb, which was disturbed, probably due to looting in antiquity. The lower limb bones of the deceased were discovered in the southern part of the tomb, as well as several other bones that belonged to an adult, older than fifteen years of age. Other finds included two iron rings (diam. 0.12 m ; Fig. 7) that were used as handles for a wooden coffin, iron nails and iron tacks, both having round heads (Fig. 8). The nails were probably used in the construction of the coffin from wooden planks, 4 cm thick; the iron tacks have probably survived from sandals. A few potsherds that probably originated in the soil that had washed into the tomb and dated to the first century CE, were found.

The excavated tombs were part of the cemetery of Panias from the Roman period (Caesarea Phillippi). They dated to the first century CE, right after the founding of the city in the years 2-1 BCE by Phillip, the son of Herod. It was built as a pagan city, with temples dedicated to Pan, Augustus, Zeus and other gods. The city was the capital of Phillip's tetrarchy in northern Transjordan and people from the Bashan and Huran had moved there, living alongside the Iturean residents and a Jewish community. Surveys performed in Banias ascertained that the city was surrounded by cemeteries. Jar burials were rare in the Roman period and apparently not practiced by Jews. It therefore appears that the deceased were members of the city's pagan population.
The artifacts recovered from the excavation are important for dating the local pottery industry of Banias that flourished in the second-fifth centuries CE. The lack of 'Banias bowls' from the ceramic finds corroborates the assumption that mass production of pottery in Banias did not begin prior to the second century CE, when the city was annexed to the Syrian province.

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1. Plan and sections

2. The excavation area, looking northwest.

3. The excavation area, looking north.




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Moshe Hartal
During November 2004, a salvage excavation was conducted next to Nabi Khader in Banias (Permit No. A-4299*; map ref. NIG 26909/79492; OIG 21909/29492), in the wake of damage to antiquities caused when a road to Nabi Khader was paved. The excavation, undertaken on behalf of the Israel Antiquities Authority and funded by the Druze religious council, was directed by M. Hartal. The excavation was suspended after the route of the road was altered to avoid further damage to the antiquities.
Nabi Khader is a sacred tomb to the west of the spring. It is built on a bedrock cliff, along the edge of a steep slope of bedrock outcrops, in which remains of quarries and deep rock-hewn tombs, dating to the Roman period, are located. These are characteristic of Banias and originate in the Horan. They were observed among the large rocks where the road was cut. No such tomb was revealed in the narrow excavated strip; yet remains of quarries and two tombs that were probably built next to the sacred tomb were exposed.

Tomb 101. The tomb, oriented east-west, was devoid of finds, except for fragments of a skull in the northwestern corner, which indicate the head was placed in the west. This was probably a Muslim tomb that was dug near the prophet's tomb. It was constructed inside a rock-cutting that was the remains of a quarry. A ceramic pipe of the kind used in the Banias aqueduct was installed between the tomb and bedrock. A section of a pipe, oriented north-south, emerged from a small regulating pool in the northwestern corner of the tomb. The diameter of the pipe was smaller than usual and it was positioned at an acute angle. It seems that the pipes were meant to drain the rain water and prevent it from penetrating into the tomb.

Tomb 105. Another tomb, situated at a lower level, was found south of Tomb 101. Its northern wall, built of stones and mud bricks, was next to the southern wall of Tomb 101. Only the eastern part of the southern wall, which stood just a single course height, was preserved. Bedrock was exposed in the east and human bones were visible in the west, bringing about the suspension of the excavation.
The steep slope to the west of the Banias spring, where the excavated area was located, remained uninhabited throughout all the periods. The small section revealed Muslim tombs that were not excavated and it was therefore impossible to date them. It seems that they were part of a cemetery located around the sacred tomb.
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1. Location map.

2. Quarry, Plan.

3. Quarry, looking east.

Yossi Elisha
During February 2006, a salvage excavation was conducted east of Tel Bareqet (Permit No. A-4701*; map ref. NIG 195799-881/658710-93; OIG 145799-881/158710-93), prior to widening Highway 444. The excavation, carried out on behalf of the Antiquities Authority and financed by the A. Bouton Road Construction and Development Company, Ltd., was directed by Y. Elisha, with the assistance of E. Bechar (administration), A. Hajian (surveying) and T. Sagiv (field photography).
The site is located on a ridge west of Highway 444 and east of the Bareqet Junction (Fig. 1).
A quarry ( $1.5 \times 2.5 \mathrm{~m}$; Fig. 2) that was damaged by mechanical equipment was cleaned. The negatives of four quarried masonry stones could be discerned (Fig. 3).
The northern side of a limekiln (diam. 3.5 m , depth c. 3.5 m ; Figs. 4, 5), located next to the quarry, was excavated. The kiln was hewn into a layer of soft bedrock and its southern side was raised with two courses of fieldstones $(0.4 \times 0.5 \mathrm{~m})$. A ventilation opening for fanning the flames was discerned in the northern side, through which the stones for burning were inserted and the lime was removed. The kiln, filled with burnt stones and layers of ash, seems to have been used more than once.


1. Location map.

2. Quarry, Plan.


3. Limekiln, looking southwest.

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1. Map of Beisamoun.

2. Sector E, general view, looking west.

3. Sector E, plan.

4. Typical flint tools.

During the end of August and beginning of September 2007, the first season of excavation was conducted at the Neolithic site of Beisamoun (License No. G-80/2007; map ref. NIG 254035-88/776828-7155; OIG 204035-88/276828-7155). The excavation, on behalf of the Antiquities Authority and the Centre National de la Recherche Scientifique (CNRS), was directed by H. Khalaily and F. Bocquentin, with the assistance of N. Samuelian (field supervision; Paris I) and G. Le Dosseur (bone tools; CNRS), Y. Ya'aqobi (logistic administration), O. Barzilai (flint) and L.K. Horwitz (fauna).

The site of Beisamoun is located in the western margins of the Hula Basin, c. 10 km south of Qiryat Shemona. A moderate Mediterranean climate and water resources in the immediate vicinity of the site, such as the 'Enan and Agamon springs, were one of the major factors for establishing prehistoric settlements in this region, one of which was 'Ein Mallaha, a major Natufian site in the Levant.
The rich ecosystem of this region has played an important role in the prehistoric occupation of the central Levant and offered people the possibility of long-term occupation in a single area. As part of the central Jordan Valley, it served as a conduit for east-west and north-south migration/exchange of populations and/or materials. Consequently, the Hula Basin is particularly suitable for exploring environmental exploitation systems, as well as cultural and biological transmission between groups inhabiting the same region.
The Neolithic site of Beisamoun was extensively investigated since the early 1950s, when fish-breeding ponds were dug into the underlying Neolithic settlement and partly destroyed the archaeological layers. The subsequent drainage of these ponds enabled A. Assaf (Curator of the Mayan Baruch Museum of Prehistory of the Hula Basin) to collect a large PPNB assemblage and demarcate the extent of the site (c. 100 dunams). In 1969, a French team, supervised by M. Lechevallier (CNRS), began mapping the structures discernible at the bottom of the different fish ponds, which was followed by a 70 sq m salvage excavation in 1972 (Lechevallier M. 1978, Abu Gosh et Beisamoun, deux gisements du VIlème millenaire avant l'ere Chretiénne en Israël. Mémoirs et Travaux du Centre de Recherches Préhistoriques Français du Jérusalem 2. Association Paléorient, Paris). The excavation exposed a rectangular structure with a well-preserved plaster floor, associated with several graves, numerous artifacts and, among other distinct findings, two plastered skulls for which no radiometric dating was undertaken.
The major occupation phase at Beisamoun is dated to the Pre-Pottery Neolithic B but Pottery Neolithic and Bronze Age deposits are also present, as attested by archaeological finds and recent rescue excavations (Permit No. A-5107).
The new project at the site was initiated to test a large area at the northwestern part of the site, where the modern fish pond No. 11 is located (Fig. 1). A surface of 3000 sq m was mechanically cleaned. Within this area, one sector of 76 sq m was excavated (Sector E; Fig.2) and three long trenches (1,2 and 3) were opened beyond the excavation area proper.

The excavation in Sector E revealed four levels:
Level 0 (thickness $10-30 \mathrm{~cm}$ ) comprised dark brown loose sediment very rich in archaeological finds. This level was shallow in the southwestern part of the sector and deepened toward the northeastern side.
Level I (thickness 5-20 cm) consisted of brown grayish sediment, rich in finds, which contained the upper-most stone structures.
Level la (thickness $10-30 \mathrm{~cm}$ ) contained fine-grained brown grayish sediment, relatively poor in finds, which yielded several architectural elements, such as segments of walls and a patch of compact earth floor.
Level lb was uncovered in some areas toward the end of the excavation season. This fine-grained sediment, similar to the one in Layer la, was very compact and rich in charcoal and ochre specks. It seems that this level was spread out over all of the excavation area.

Several architectural features were recovered in sector E (Fig. 3); three were attributed to Level I. The first is a stone wall (W200; exposed length 5.3 m ), oriented northwest-southeast. It was constructed from two parallel rows of stones and preserved 20 cm high. This wall seems to be part of a large structure that was partially exposed this season. The second feature, adjacent to W200, is an oval structure (L201), built of two-three rows of stones. The third (L206) is an oval pit that had cut through level la, destroying part of Floor 208.
Five elements were, so far, exposed from the earlier occupation level (la), three were segments of walls. Wall 202 (preserved length 2.4 m ), was constructed from stones and mud bricks. Wall 207 was perpendicular to W202. The surface between these walls was a hard calcified white material platform (thickness 20 cm ) that could be the remains of a poorly preserved plaster floor (L205). Another feature was a well-defined stony area (L208) that contained numerous flint and bone items. It could have been a living floor associated with one of the structures that was partially exposed.
The remarkable material culture included a rich flint assemblage, dominated by sickle blades, arrowheads and other Naviform products (Fig. 4). The majority of the faunal remains consisted of what has tentatively been identified as wild species, namely Bos cf. primigenius, Sus scrofa fer and Gazella gazella. The caprine (Ovis/Capra) remains, in contrast, comprised a minority of the identified finds.

The results of the first season of the renewed excavations at Beisamoun demonstrate that this part of the site is undisturbed and the archaeological remains are well preserved. The finds recovered from two trenches, which were dug in several localities, indicate that the archaeological remains in this area of the site are preserved at least 1.2 m deep. Hence, it is reasonable to assume that the current excavation area is the best and most promising part of the site, providing an excellent opportunity to explore the major PPNB occupation in Beisamoun


1. Map of Beisamoun.

2. Sector E, general view, looking west.


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## Bene Yehuda

Final Report


1. Area C 2 , cistern, plan.

2. Area C2, cistern, looking west.

3. Area C2, cistern and steps, looking east.

4. Area C3, quarry, looking east.

Oren Zingboym

## 18/8/2008

During March 2007 a trial excavation was conducted in Moshav Bene Yehuda in the southern Golan Heights (Permit No. A-5043*; map ref. NIG 26479/74510; OIG 21479/24510), prior to the construction of a building. The excavation, carried out on behalf of the Antiquities Authority and financed by the Golan Regional Council, was directed by O. Zingboym, with the assistance of Y. Ya'aqoby (administration), A. Hajian (surveying) and M. Hartal (scientific guidance).
The site, which is located in the center of the moshav, was surveyed in the past (Judea, Samaria and the Golan, the Archaeological Survey of 1968, Site 180). A burial cave was excavated there (HA-ESI 109:13*-14*) and a trial excavation was recently conducted (A-4141).

Three areas (C1, C2, C3) were excavated, the first next to the remains of a wall that was discerned in a probe dug by a backhoe, the second around a cistern that was documented in the survey, and the third in an area where a number of building stones were found.

## Area C1

A square was excavated next to the wall of a modern building of which two walls have survived. One of the walls was constructed while the other was rock-cut. The floor consisted of cement; remains of the roof, made of wattle and daub, were found in the collapse. The remains of another modern building were found next to the building and above it. The buildings were apparently destroyed during the 1970s and earth was piled on top of them to a height of c. 2 m .

## Area C2

A plastered cistern (L105; diam. 1.6 m , depth 2.0 m ; Figs. 1-3) with steps (width 0.4 m ) was excavated in this area. Based on its shape, it is dated to the Byzantine period.

## Area C3

A quarry was exposed in this area (Fig. 4). Building stones were removed utilizing a detachment method known from regions where limestone is indigenous; however, this quarry is located in an area where the rock is a conglomerate consisting of basalt and scoria. The potsherds collected from the area range in date from the Byzantine period until the modern era. The quarry, which is similar to the one discovered near Afiq, is dated by its quarrying technique to the Byzantine period.
The quarry and cistern should probably be associated with a nearby Byzantine-period site that has yet to be discovered.


2. Area C2, cistern, looking west.

3. Area C2, cistern and steps, looking east.

4. Area C3, quarry, looking east.

# (Volume No. HA-ESI 120 (2008 <br> Bet Dagan <br> Final Report 

Lior Rauchberger


1. Squares A, F, G, plan.

2. Pottery.

During January 2006, a trial excavation was conducted at the corner of Ramban Street and Menachem Begin Boulevard in Bet Dagan, south of the tell (Permit No. A-4664*; map ref. NIG 184036/655663; OIG 134036/155663), prior to the installation of drainage and sewage infrastructures. The excavation, carried out on behalf of the Antiquities Authority and financed by the Landco Company, was directed by L. Rauchberger, with the assistance of S. Ya'aqov-Jam (administration), A. Hajian (surveying), M. Molokandov (archaeological inspection), R. Vinitzky (metallurgical laboratory), P. Gendelman and M. Avissar (pottery consultation), M. Shuiskaya (drawing), D.T. Ariel (numismatics), D. Barkan, F. Volynsky, E. Yannai, M. Peilstöcker, R. Kletter and Y. Sharvit.

The excavation was conducted following the discovery of archaeological remains in the course of infrastructure work at the site. The remains included a kurkar stone wall (W111); layers of alluvium and an occupation level that contained pottery vessels, tesserae, animal bones, coins of the Byzantine-Early Islamic periods (fourthtenth centuries CE), as well as walls from the Late Ottoman period (nineteenth century CE), which are the remains of the Arab village of Beit Dajan that was located on and around the tell until 1948.
Tel Bet Dagan has not been excavated yet. An excavation that was conducted west of the tell revealed settlement strata that dated to the Iron Age and the Persian period (sixth-fourth centuries BCE) and an industrial area that included a large public winepress from the Late Byzantine to the Early Islamic periods(fifth-tenth centuries CE; ESI 20:59*-60*). The remains of buildings that probably constituted the residential area of the Byzantine-period settlement were exposed near the winepress (Permit No. A-3421). To the west of the winepress an industrial installation-a winepress or tanning facility-from the end of the Roman or the beginning of the Byzantine periods was discovered (Permit No. A-4039). Finally, potsherds of Iron I and the Persian period were collected in a survey to the north of the site (HA 17:10 [Hebrew]).
Six and a half squares (A-G; Fig. 1) on a north-south axis were opened; four and a half squares ( $A, D, E, F, G$ ) were excavated and two ( $B, C$ ) were probed by mechanical equipment and yielded no finds.

A probe conducted in the southeastern quarter of Square A exposed layers of alluvium that contained a krater from the Persian period (Fig. 2:2), a buff-ware jug (Fig. 2:5) and a Northern-type Islamic jar (Fig. 2:6). Beneath these layers was a compact alluvial stratum that contained small kurkar stones (L116; thickness 0.23 m ) and ceramic finds, including a mortarium from the Persian period (Fig. 2:1), a bag-shaped storage jar of the Byzantine period (Fig. 2:3) and a buff-ware type jug (Fig. 2:4), as well as twelve coins.
The surface layer contained modern refuse mixed with Marseilles rooftiles, fragments of Gaza Ware, pipe fragments, the top of a nargila and a coin. Two walls were revealed below it. Wall 105 (Square A), oriented southeast-northwest ( $0.55 \times$ 1.75 m ) was survived by three courses of its fieldstone-built foundation. Wall 111 (Square G), aligned in a similar direction $(0.70 \times 2.90 \mathrm{~m})$, was survived by six of its courses. The foundation courses were built of roughly-hewn kurkar slabs $(0.15 \times 0.32 \times 0.40 \mathrm{~m})$ while its upper courses were of kurkar stones $(0.10 \times 0.20 \times 0.25 \mathrm{~m})$. The pottery finds included bowls (Fig. 2:7, 8) and a cooking pot (Fig. 2:9).
During the excavation thirteen coins were discovered, ten of which were identified: two were from the second century BCE and the rest from the Byzantine and Early Islamic periods (mid fourth century-mid eighth century CE).

| No. | Ruler | Mint | Date | Locus | IAA No. |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | Antiochus IV | 'Akko | $175-164 \mathrm{BCE}$ | 116 | 102294 |
| 2 | John Hyrcanus? | Jerusalem | $129-105 \mathrm{BCE}$ | 116 | 102289 |
| 3 | Constans I |  | $341-346 \mathrm{CE}$ | 116 | 102293 |
| 4 | Marcian | Justinian I | Carthage | mid-6th century CE | 116 |
| 5 | Justin II | Constantinople | $569 / 70 \mathrm{CE}$ | 102287 |  |
| 6 | Maurice | Antioch | $591 / 2 \mathrm{CE}$ | 116 | 102295 |
| 7 | Maurice | Constantinople | $601 / 2 \mathrm{CE}$ | 116 | 102291 |
| 8 | Heraclius I | Thessalonica | $614 / 5 \mathrm{CE}$ | 116 | 102292 |
| 9 | Umayyad (post reform) |  | $697-750 \mathrm{CE}$ | 99 (surface level) | 102286 |
| 10 |  |  | 116 | 102288 |  |

The meager remains exposed south of Tel Bet Dagan are consistent with what we know of the settlement and its periods, as determined from the excavations that were carried out west of the tell.



F1


2. Pottery.

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1. Area A, tomb, looking east.

2. Area C. tomb, looking east.

During August and November 2004 and January and April 2005, two seasons of salvage excavations were conducted south of the Bet Dagan site, c. 1 km northeast of the Bet Dagan intersection (Permit No. A-4243; map ref. NIG 1838-40/65605-20; OIG 1338-40/15605-20), in the wake of damage to antiquities while preparing infrastructures. The excavation, carried out on behalf of the Antiquities Authority and financed by the Hanan Mor and the Almog C.A.D.I. Construction Companies, was directed by E. Yannai (surveying, photography), with the assistance of M. Ajami, M. Mulokandov and D. Golan, Y. Nagar (physical anthropology), N. Zak (drafting), C. Amit (studio photography), L. Kupershmidt (metallurgical laboratory) and Y. Ben-Michael.

The site, on a hamra hill mixed with kurkar, 35-40 m above sea level, had been excavated by M. Peilstöcker in the past, revealing two tombs from the Intermediate Bronze Age and one tomb from the Roman period ('Atiqot 51:23-30).

Three areas were opened: Area A in the north, Area B in the west and Area C in the south. Tombs from the Mamluk period were exposed in Area B and shaft tombs, dating to Early Bronze IV, were uncovered in Areas A and C. No artifacts were found in the Mamluk tombs and the skeletons were poorly preserved. The shaft tombs in Areas A and C contained artifacts and skeletons that were not well preserved, yet pottery vessels, bronze artifacts and beads were found.

Area B - A Cemetery from the Mamluk Period
One hundred and twelve tombs that were dug in the hard hamra soil were exposed. The crowded tombs, $1.5-2.0 \mathrm{~m}$ apart, were found in several levels at a general depth of 0.6 m below surface. Half of the tombs were pit graves without a cover or tombstone. Two of the tombs were rectangular, lined with bricks $(1 \times 2 \mathrm{~m})$ and covered with $5-6$ brick capstones placed on top of the tomb. The other half of the tombs were not lined and covered with 4-5 gray clay bricks, mixed with potsherds. All the deceased were placed on their right side, their heads to the west and faces to the south, in the direction of Mecca. The dating of the cemetery is based on the potsherds found inside the clay bricks that lined and covered the tombs. Most of these fragments were ribbed potsherds that dated to the Byzantine period. Three potsherds from the Mamluk period, decorated with a dark green and yellow glaze, dated the cemetery to this era.

Areas A and C - Early Bronze IV Cemetery
One hundred thirty-four tombs, dug into hamra soil that was as hard as bedrock, were exposed. Some of the tombs were damaged by the development activities, but most of them were found intact. Each tomb consisted of three components: a cylindrical entrance shaft (diam. 1.2 m , depth 3 m ), a short narrow passage and a burial chamber accessed via the passage. The burial chambers had various shapes and sizes (length $1-2 \mathrm{~m}$ ); most were oval and a few were round (Figs. 1, 2). Most of the tombs had a single burial chamber for each shaft; in three of the tombs a common shaft served two burial chambers. Complete skeletons were found, although the state of the bones was very poor.
The heads of most deceased faced the opening and their backs were set against the side of the chamber. Alongside the deceased pottery vessels and often bronze artifacts and beads were found. The assemblage of pottery vessels at Bet Dagan is similar to the vessels found in the excavations at Horshim ('Atiqot 21:1-8 [Hebrew]), at the Azor cemetery ('Atiqot 55:1-28 [Hebrew]), at Benaya (Permit No. \&-16/1962) and at Holon (Permit No. A-566). All the pottery vessels had a flat base and a combed decoration; they resembed the pottery vessels that prevailed in the southern region of the Land of Israel. None of the pottery vessels had a globular body and a round base, which were typical of the northern coastal plain. The decoration of the vessels was done by incising, stamping, combing and application. Most of the vessels were decorated with horizontal incising or combing, done by hand. A few vessels had a combed or incised decoration and applied lugs. The incised decoration on several of the lamps, known so far only in the Ayyalon basin, was not found in other regions of the Land of Israel.

The two cemeteries exposed at Bet Dagan are from two periods and represent completely different funerary practices. The shaft tombs in the early cemetery from Early Bronze IV are similar to those found in other regions of the Land of Israel. The tombs in the later cemetery are Muslim graves that date to the Mamluk period. No comparisons for this cemetery were found and it is reasonable to assume that graves from this period were removed from other sites without documentation. The Mamluk-period cemetery did not damage the area of the Early Bronze IV cemetery.


1. Area A, tomb, looking east

2. Area C, tomb, looking east.
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Kareem Sa'id
18/8/2008

3. Plan.

4. Quarry step (L101) and hewn pit (L104), looking northeast.

5. Hewn pit (L102), looking west.

During September-October 2006, a trial excavation was conducted on Ha-Bonim Street in Qiryat Tiv'on (Permit No. A-4918*; map ref. NIG 212713-34/734766-76; OIG 162713-34/234766-76), after antiquities were discovered in trial soundings. The excavation, carried out on behalf of the Antiquities Authority and financed by the Benyamini family, was directed by K. Sa'id, with the participation of S. Ya'aqov-Jam (administration) and V. Essman (surveying).
The excavation was conducted along the southeastern slope of Qiryat Tiv'on, c. 1 km northeast of the ancient necropolis and within the precincts of the Bet She'arim antiquities site (north). The region abounds with rockhewn burial caves, stone quarries and cisterns. In the past, a small quarry was exposed (HA-ESI 112:119*). Two excavation areas were opened (10, 11; Fig. 1).
Area $10(4.0 \times 6.5 \mathrm{~m})$. This area was located on the northeastern side of the plot. Remains of a quarry (L101; $2.00 \times 2.50$ m , depth 0.15 m ) and three round pits (Loci 102-104; diam. 1.1-1.2 m, depth 0.6-0.7 m; Figs. 2, 3) hewn in bedrock were exposed.
Area $11(2.5 \times 4.0 \mathrm{~m})$. This area was located on the southwestern side of the plot. Another quarry (L117; $2.85 \times 3.50 \mathrm{~m}$, depth 0.3 m ) was exposed in which the detachment channels and the negatives of the stones that were removed from it were visible.
A round pit (L16; diam. 1.10, depth 0.7 m; Figs. 4,5) was cut in the chalk bedrock in the quarry. The hewing of the pit had apparently been halted when the quarrymen encountered a layer of soft bedrock.

Ancient quarries and pits (silos?) that were hewn in the chalk bedrock were exposed in the excavation. The quarrying of these installations ceased when the soft and friable bedrock was reached. The meager pottery finds that were recovered include a few body sherds that dated to the Late Roman and Byzantine periods.


1. Plan.

2. Quarry step (L101) and hewn pit (L104), looking northeast.

3. Hewn pit (L102), looking west.

4. Quarry (L116) and hewn pit (L117), looking northeast.

5. Hewn pit (L117), looking northeast.

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1. General plan.

2. Square I, plan and section.

3. Squares I, III, VI, plans and sections.

4. Squares VII, XIII, plans and section.

5. Pottery from the first and second phases.

## Elena Kogan-Zehavi

24/8/2008
During February-March 2004, a trial excavation was conducted at Khirbat es-Suyyagh (Permit No. A-4121*; map ref. NIG 2001/6282; OIG 1501/1282). The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Housing and Construction, was directed by E. Kogan-Zehavi, with the assistance of A. Eirikh-Rose (area supervision), A. Hajian and T. Kornfeld (surveying), T. Sagiv (field photography), H. Stark (GPS), Z. Greenhut (scientific consultation and metal detection), L. Kupershmidt (metallurgical laboratory), I. Lidski-Reznikov (pottery drawings), R. Kool (numismatics) and A. Nagorski and H. Moyal.

The site, east of the Water Tower neighborhood in Bet Shemesh and west of Moshav Mahseya, is close to the sites of Deiraban to the northeast, Khirbat 'Illin to the west and the tomb of Sheikh Abu Hassan to the north. It had been surveyed by the British Department of Antiquities in 1939 and 1947; remains of a structure built of large ashlar stones and potsherds from the Byzantine period were discerned. The region was once more surveyed by the Antiquities Authority in 1998 and remains of buildings and an olive-press weight were found (HA-ESI 111:105*). An agricultural wall was excavated north of the site (HA-ESI 113:124*).

The excavation was located on a gentle hill, above which were the remains of a ruin, in whose center were scattered stones across surface. The western end of the site had been damaged in the past, when the area was leveled for the construction of hothouses in Moshav Mahseya.

Seven squares and six half squares were excavated in the middle of the site and along its fringes (Fig. 1). Probe trenches were dug with the aid of a backhoe along the four sides of the site. In those trenches where the tops of stones were exposed, half squares were opened or the sides of the trench were cleaned.

Three construction phases that denoted repairs made to the building during the course of the Byzantine period were revealed in the excavation. Based on the pottery vessels recovered from the building, the site is dated from the sixth to the middle of the eighth centuries CE. The squares were scattered throughout the area and therefore it is unclear if the architecture was that of one large structure or several buildings. The phases are described below from the earliest to the latest.

## First Phase

The early phase was discovered in Squares I (Fig. 2), III, VI (Fig. 3) and VII (North; Fig. 4). A small section of a wall (W16), which was built of rectangular ashlar stones set on leveled bedrock in a north-south direction, was exposed in Square I. A floor of neatly arranged fieldstones (L145) abutted the wall. A small section of a wall (W24), similar to W16, which was set on bedrock and oriented north-south, was uncovered in Square VI.
A north-south aligned wall (W31) was unearthed in Square VII. It was built of large dressed stones, mostly destroyed and preserved a single course high in the north. In the south, only the bedrock-hewn foundation trench could be discerned. Three rock-cut steps to the west of the wall were destroyed when a pit of the second phase (below) was hewn. Two subphases were discerned in Square III; below the early phase was a chalk floor in the southeastern corner of the square that predated the construction of the walls (L131). No potsherds or any other datable finds were discovered in this subphase. Two paralle walls (W11, W14), built of dressed stones and aligned north-south, were exposed in the second sub phase. In the northwestern corner of the square, stones arranged in an arch, in whose interior was a burnt layer, possibly an oven (L155), were also ascribed to the second sub-phase.
The finds from the first phase were meager and consisted of a few glass fragments and potsherds that were recovered from the fill (L139) and on the stone floor (L145) in Square I, including two LRC-type bowls (Fig. 5:1, 2), dated to the beginning of the sixth century CE and two jugs (Fig. 5:3, 4).
Based on the ceramic finds, the first phase at the site is dated from the beginning to the second quarter of the sixth century CE.

## Second Phase

The second phase, apparent in all the squares, was dated to the end of the Byzantine period. The remains of rooms were exposed in Square I. The southern (W17) and eastern (W18) walls of the northern room were built of partly dressed stones and the floor was paved with rectangular stones (Loci 134, 144). To the south, another room or flagstone-paved courtyard (L122), which was also used in the third phase, was discovered. The rims of a pot (Fig. 5:13) and a pithos (Fig. $5: 16)$ that were dated to the sixth-eighth centuries CE were found on Floor 134.
The eastern part of a room whose floor consisted of tamped chalk (Loci 114, 118) was uncovered in Square III. It was delineated by Wall 2 in the north, Wall 1, in the east and Wall 9 in the south. Walls 11 and 14 of the previous phase were covered by a stone surface (L137) and Walls 1, 2 and 9 were built (below).
The pottery vessels on Floor 114 included three bowls (Fig. 5:6, 8, 9), a cooking pot (Fig. 5:14) and a jar (Fig. 5:15). Based on the LRC-type bowl (Fig. 5:8), the assemblage was dated to the period between the second quarter of the sixth century CE until its end.
The northeastern corner of an olive press, paved with tamped chalk (Loci 126, 140), was exposed in Square VI. A stonescrew weight stood on the floor. The walls enclosing the olive press (W4, W12) were built of roughly dressed stones with small fieldstones in between (thickness 0.8 m ). On the floor was a LRC-type bowl (Fig. 5:7) dated to the second quarter of the sixth century CE, a krater (Fig. 5:10) and a lamp (Fig. 5:12).
The northern part of a room was exposed in Square XIII (Fig. 4), although the excavation was not completed. Pillars were set in its eastern and western walls and no floor was found. However, the fill (L161) contained fragments of pottery vessels, including a krater (Fig. 5:11), dating to the latter part of the Byzantine period.
At least two building phases were discerned in Square VII, in an area that was damaged by modern activity. Part of a square or rectangular pit, bedrock-hewn and coated with gray plaster (L149), was exposed. At the bottom of the pit was a LRC-type bowl (Fig. 5:5) that dated from the first quarter to the middle of the sixth century CE. South of the pit was an east-west oriented wall (W13), set on smoothed bedrock. The quarrying of the pit had cut part of the rock-hewn steps that led to W31 of the first phase; therefore, the pit was ascribed to the second phase. Nevertheless, the pit and the steps were probably hewn in the first phase.
Two walls that delimited sections of three rooms were exposed in the southeastern half Square X (Fig. 6). A wall (W6; max. length 3 m , width 0.8 m ), aligned north-south and built of coarsely dressed stones with small stones in between was perpendicular to a similar wall (W8; length 6 m , width 0.8 m ) oriented east-west. Wall 8 was abutted on the north by a floor of smoothed flagstones (L160), which was also used in the third phase and may have been a courtyard.
The continuation of W8 (W13) was exposed in half Square XI (Fig. 6), east of Square X.
At the southern end of the area a half square (XIV) was excavated. It consisted of two sections of rooms (Loci 153, 155) that were delimited by walls (W19, W20, W21, thickness $0.5-0.6 \mathrm{~m}$; Fig. 7), which survived by the foundations that were built of large coarsely dressed stones with small stones in between. The walls were built inside brown soil, devoid of any finds, but based on their construction they were attributed to the second phase.
Fragments of pottery vessels and roof tiles that dated from the first quarter of the sixth century to the beginning of the seventh century CE, including bowls (Fig. 5:5-8), a cup (Fig. 5:9), kraters (Fig. 5:10, 11), a cooking pot (Fig. 5:14), jars (Fig. 5:13, 15, 16) and a lamp fragment (Fig. $5: 12$ ), were found. Two bronze coins of Justinian the Great (IAA 108162, 108163), dated to the beginning of his reign (527-537 CE) and in the value of 40 nummi, were exposed on the chalk floor in Square III (L118). Other finds included glass fragments, animal bones and numerous tesserae in Squares I, VII, X, XI,

XIII, which attest to mosaic pavements in the building.
Third Phase
The latest phase, discovered in close proximity to surface, was damaged by modern activity. It reflected changes made to the building of the second phase and was dated to the period between the seventh to the middle of the eighth century CE.
Wall 10 in Square I was built of fieldstones atop W17 of the second phase, for which it was apparently a repair. A krater rim (Fig. 8:14) of a type that was common to the sixth-eighth centuries CE was found between the stones of the wall. A stone floor from the second phase (L122) continued to be used in the south and a new stone pavement (L110), overlaid with ceramic finds that included two bowls, was laid down in the north. The first was a small fragment of an African Red Slip bowl, roughly dated to the fifth-seventh centuries CE (Fig. 8:9); the second was dated from the middle of the seventh century CE to the middle of the eighth century CE (Fig. 8:10). A lamp wick, characterized by a long channel that surrounded the opening and the filling hole (Fig. 8:19), is dated to the eighth-tenth centuries CE. Two LRC-type bowls were discovered in L121, above the stone floor of the second phase (L122), dating to the end of the sixth-beginning of the seventh centuries CE (Fig. 8:6, 8), as well as a bowl (Fig. 8:11) and a jar (Fig. 8:17), which were dominant in the sixth-eighth centuries CE.
A wall (W5) in Square III was built of fieldstones next to W2 of the second phase. Close to W9 of the second phase were three rectangular stones that could be a bench or part of a wall, which was built above Floor 114 of the second phase. A fieldstone surface (Loci 101, 113) was installed in the center of the room, overlaid with a cup (Fig. 8:1) and a bowl (Fig. $8: 4)$.
A wall (W3) built in the north of Square VI supported the screw weight of the olive press and a fragmented surface of well-arrayed fieldstones throughout the room (L103) was exposed. Repairs were apparent in the corner formed by Walls 4 and 12. It was unclear if the olive press operated during this phase. Twelve fragments of pottery vessels were found in the fill above the floor (L136) south of the repair, including a LRC-type bowl (Fig. 8:5) dating to the end of the sixthbeginning of the seventh century CE, an almost intact krater (Fig. 8:13) and a jar (Fig. 8:18) that were common to the seventh-eighth centuries CE. In the fill that covered W4 to the east was a LRC-type bowl dating from the beginning to the middle of the seventh century CE (Fig. 8:3).
The rock-hewn pit in Square VII was made smaller by the construction of a curved wall to the north (W33), built of rectangular ashlar stones. Surfaces of small fieldstones in half Square X were meant to level the area in the southeastern part of the square (Loci 120, 124), delineated by Walls 6 and 8, and in the southwestern part (L107) of the square. These were overlain with numerous tesserae and the surfaces probably served as bedding for a mosaic floor on either side of Wall 6. At the northern end of the square a section of a stone pavement (L109) that consisted of various sized dressed stones $(0.15-0.30 \mathrm{~m}$ ) was exposed. The ceramics found on the stone bedding (Loci 107, 124) included two LRC-type bowls (Fig. 8:2, 7) that dated to the beginning-middle of the seventh century CE, a deep bowl (Fig. 8:12) that dated to the third-seventh centuries CE and a juglet (Fig. 8:16), which was common to the seventh-eighth centuries CE.
Square XIII of the second phase was also used in the third phase. The floor of the room was not preserved, but scattered fieldstones found in it probably served as bedding for a floor (Loci 156, 157), where a krater (Fig. 8:15) that dated to the eighth-tenth centuries CE was found.
A collapse of ashlar stones in half Square XV, at the northwestern end of the excavation, covered the entire examined area and was indicative of architectural remains. The excavation in the square was not completed and therefore the nature and date of these remains are unclear.
The finds from the third phase included fragments of numerous pottery vessels from the end of the sixth to the beginning of the eighth centuries CE, as well as glass fragments, animal bones, roof tiles, many tesserae and a variety of stone pounding tools (Fig. 8:20).

Based on the findings from all the squares, it is clear that this was a large stone building that extended across an area of C. $40 \times 80 \mathrm{~m}$. Its floors were composed of chalk, stone and mosaic and an olive press was built to its west. The pottery vessels and coins dated the building to the sixth-eighth centuries CE. The size and the nature of its construction indicate it was probably a monastery.


1. General plan


Phase II
שלב Phase II
Phase III שלב


1-1
2. Square I, plan and section.


1-I

3. Squares I, III, VI, plans and sections

4. Squares VII, XIII, plans and section.


5. Pottery from the first and second phases.

7. Square XIV, plan.

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## Bet She'an

Final Report


1. Plan and section.

2. The building, looking southwest.

3. Pottery.

During December 2001 a salvage excavation was conducted in the eastern neighborhood of Bet She'an (Permit No. A-3550*; map ref. NIG 2475/7107; OIG 1975/2107), in the wake of construction. The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Ministry of Construction and Housing, was directed by Y. Billig, with the assistance of Y. Ya'aqoby (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (photography), N. Zak (drafting), E. Altmark (metallurgical laboratory), A. Pikovski (pottery drawing), N. Katsnelson (glass) and D. Syon (numismatics).
Prior to the excavation, infrastructure trenches had been dug at the site and inspected by B. Hana, who discerned building remains and potsherd concentrations. Part of a building (Figs. 1, 2), whose walls were constructed from pebbles and small and medium fieldstones (max. size-length 0.55 m , width 0.35 m , height 0.15 m ), set atop a layer of light colored and fine-grained sediment, was exposed. The walls were preserved one-two courses (height $0.25-0.35 \mathrm{~m}$ ). The floors of the building were not discovered. It seems the building was dismantled down to its foundations and its stones were robbed. Mud bricks were apparently used in the structure, based on the numerous brick fragments discovered in the area.
The southwestern corner of the building was formed by the stump of the southern wall (W104; thickness 0.9 m ) and the western wall (W103; thickness 0.9 m ), which continued north for a distance of 6 m until an entryway. Wall 105, to the north of the entryway, was poorly preserved and its orientation was slightly different than that of W103. It formed a corner with Wall 106, which paralleled Wall 102 (below) that was probably a partition wall.
The eastern wall (W101) was perhaps the exterior wall of the building. Its northern and southern edges, as well as the eastern face were badly damaged by the installation of a large modern refuse pit and therefore its dimensions could not be ascertained.
The building was divided into a southern room (L11) and a northern room or courtyard (L4) by a narrow partition wall (W102; width 0.60-0.65 m).
The walls of the building were covered with a layer of small pebbles, shells, melanopsis mollusks and travertine balls (diam. c. 10 cm ), which indicate a flood had occurred after the structure was abandoned.

A large concentration of pottery fragments c. 5 m east of Wall 101, which apparently originated in an ancient refuse pit, was found.

Dating the building to the end of the Byzantine period is based on the potsherds recovered from the fill in the foundations of the walls (L11), including a bowl (Fig. 3:1), a krater (Fig. 3:2), a cooking pot (Fig. 3:3) and a jar (Fig. 3:4). A few fragments of glass vessels dating to the Byzantine period were found, among them a lump of raw glass that may point to a glass industry in the vicinity. Other finds consisted of several tesserae, a few fragments of marble slabs, a large iron nail and two folli, one of Maurice (585/6 CE, mint of Cyzicus; IAA No. 102969) and the other from the sixth century CE (IAA No. 102970). The soil that covered the building remains and the refuse pit adjacent to W101 contained fragments of several pottery vessels, dating to the Roman and Umayyad periods.

The excavation finds confirm what is already known about the neglect of the water-supply resource system and drainage to and from Bet She'an toward the end of the Byzantine period, prior to the Muslim conquest.
The antiquities inspection of development works ascertained that the exposed building was isolated in the area-a leveled region, c. 600 m south of the city. Its location in the center of a large cultivated expanse may imply it was used as a farmhouse.
Three coins were retrieved from surface: one from the Umayyad period (IAA No. 102971) and two from the Mamluk period (IAA Nos. 102972, 102973); it seems the coins reached surface a long time after the building was deserted.



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## Bet She'an, the City Wall

## Final Report

Ya'akov Billig


1. Location map.

2. Plan and section.

3. The wall, looking north.

During January 2002 a salvage excavation was conducted at the corner of Herzl and King Saul Streets in Bet She'an, in the wake of installing an underground electric cable (Permit No. A-3560*; map ref. NIG 24718/71162; OIG 19718/21162; Fig. 1). The excavation, carried out on behalf of the Antiquities Authority and financed by the Electric Company, was directed by Y. Billig, with the assistance of A. Hajian (surveying), N. Zak (drafting), E. Altmark (metallurgical laboratory), N. Katsnelson (glass) and D. Syon (numismatics).
A square ( $4 \times 5 \mathrm{~m}$ ) was opened, revealing a section of the city wall from the Late Roman and Byzantine periods that crossed it from northeast to southwest (Figs. 2, 3). The northern part of the wall was preserved better than the southern part. The exterior face of the wall (thickness 2.9 m ) was built of large ashlar stones (max. dimensions-width 0.87 m , depth 0.8 m , height 0.4 m ) and the interior consisted of medium-sized fieldstones (width 0.65 m , depth 0.43 m , height 0.3 m ); between the two faces was a core of small stones. Numerous stones chips mixed with blackish soil were found on top of the wall remains after its masonry stones had been robbed. One course of the wall's foundation was exposed on the west side. It consisted of fieldstones and pebbles ( 0.25 $\times 0.25 \mathrm{~m}$ ) and protruded 0.3 m from the line of the wall's exterior face.

On the exterior western side of the wall were numerous layers of travertine deposits, sloping down from the wall. A protruding ridge of travertine (thickness 0.1 m ) that was stuck to the side of the stones survived where the ashlar stones of the exterior face had been robbed. Apparently, the neglect of Bet She'an's water supply system to the city and the drainage out of it caused a flood in the area toward the end of the Byzantine period and prior to the Muslim conquest, when the wall formed a kind of dam in the southwest of the city. In the wake of the floods, travertine deposits became stratified at the base of the wall. The deposits and layers of alluvium that accumulated near the western side of the wall's foundation (L3) contained a large quantity of potsherds from the Byzantine period and a few fragments from the Umayyad period, as well as fragments of glass vessels, shells and melanopsis mollusks.

A hoard of seven coins of the Emperor Justin II from the years 565-578 CE (below) was found on the stones near the northwestern corner of the square.
The fill above the foundations (L2) contained potsherds from the Byzantine and Umayyad periods, which probably belonged to the last occupation level that abutted the wall, prior to the destruction of the city by an earthquake in the year 749 CE.

On the eastern side of the wall, facing the city's interior (L5) was a collapse of medium-sized fieldstones mixed with blackish soil that appears to have originated from the wall.
The course of the wall in the area was probably exposed in the nineteenth century and marked on the plan of the city prepared by the British survey (SWP II: map opp. P. 105). The exposure of the wall from this period made it possible to continue the discovery of the Byzantine wall course in the southern part of the city, which was practically unknown, unlike the northern part, which is well known (ESI 19:31*).

## A Hoard of Byzantine Coins

## Danny Syon

A hoard of seven coins was discovered at the foot of the city wall. An eighth coin that is illegible was found slightly to the south. All of the coins are in a poor state of preservation and badly corroded. The coins from the hoard date to the time of the emperor Justin II (565-578 CE). Only five of them are preserved well enough to be described (table below).
Coins in the denomination of a follis (40 nummi) of this emperor are very common throughout the Land of Israel and remained in use dozens of years after his death. Yet, based on the homogeneity of the hoard it can be assumed that it was buried during the emperor's lifetime or a short time thereafter. The value of the hoard is not very great and therefore it is difficult to know if it was intentionally concealed or simply lost by its owner.

| Date | Mint | Reference | Quantity | IAA No. |
| ---: | ---: | ---: | ---: | ---: |
| $568-9$ | Antioch | MIB 2, No. 46a | 1 | 102978 |
| $573 / 4$ | $?$ | MIB 2, No. 43a | 1 | 102975 |
| $576 / 7$ | Constantinople | MIB 2, No. 43a | 1 | 102974 |
| $565-578$ | Antioch | MIB 2, No. 46a | 1 | 102977 |
| $565-578$ | $?$ | $?$ | 3 | 102976 |



2. Plan and section.

3. The wall, looking north.

## (Volume No. HA-ESI 120 (2008 <br> Bet She'an South (East)



1. Location map.

2. Plan and section.


## Yotam Tepper

During June-July 2003, a salvage excavation was conducted in southeast Bet She'an (Permit No. A-3928; map ref. NIG 24765/71085; OIG 19765/21085), in the wake of exposing antiquities while preparing for construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by Y. Tepper, with the assistance of A. Dadush (administration), V. Essman and V. Pirsky (surveying), R. Getzov and B. Hana (GPS), H. Smithline (studio photography), L. Kupershmidt (metallurgical laboratory), D. Avshalom-Gorni (ceramics), H. Tahan (drawing), Y. Gorin-Rosen (glass) and D. Syon (numismatics).

The Nof Gil'ad neighborhood is located east of the Nysa-Scythopolis city wall, in a region where several burial structures and caves were excavated ('Atiqot 39:59, Fig. 12), along the Roman road in the south of the city (Fig. 1), as well as remains of a farm, residential buildings and agricultural installations from the Roman period and buildings from the Byzantine and Umayyad periods (HA-ESI 115:31*-33*).

A square was opened, revealing part of a mausoleum, a wall adjacent to its north (W111; Fig 2) and a refuse pit (L120). The general outline of the building was exposed without excavating the floors and the tombs. Thus, it was only possible to date the later phases of the mausoleum's use, based on the construction phases, to the Late Roman and the Byzantine periods (third-sixth centuries CE).

One of the mausoleum's walls (W103) built of roughly hewn, medium and large ashlar stones, divided the structure into eastern and western parts. A large ashlar stone $(0.20 \times 0.65 \times 0.65 \mathrm{~m})$ apparently served as a door threshold that linked the two sections of the structure.
The eastern part of the mausoleum ( $1.8 \times 2.2 \mathrm{~m}$ ) was damaged by construction activity in antiquity and modern development work. In the northwestern corner of the eastern part was a plastered tomb (L107) whose southern wall (width 0.45 m , length 0.95 m , height 0.2 m ) was built of small stones and plastered on both sides. The tomb contained human bones and a skull, in situ, and the remains of its upper covering, which was composed of white-plastered layers. The floor of the tomb (thickness c. 10 cm ) was coated with two layers of plaster.
Leaning up against the interior walls of the mausoleum in the east and south were the remains of other tombs whose walls were built of small stones. In the southern side, where the entrance was located, a light color plaster floor was exposed c. 0.3 m below the threshold level and three lead strips $(2 \times 5 \mathrm{~cm})$ were found above it. In the balk of a probe that was excavated in the northern part of the mausoleum, an intact lamp (Fig. 4:18) whose provenance was most probably in the burial structure itself, was found; similar lamps at the site were dated to the fourth-fifth centuries CE.
In the western part of the structure, west of W103, the tops of walls of another chamber $(1.2 \times 2.2 \mathrm{~m})$, which had traces of white plaster, were exposed. A tomb was found in the southern part of the chamber; based on traces of plaster on its walls, it contained at least two tombs. The excavation and the removal of the skeletons were not completed.
A wall built of small and medium-sized basalt stones (W111) was exposed north of the mausoleum and adjacent to its northern wall (W105). This wall seems to have been damaged during development work. Based on the foundation trench and the destroyed stones in the exterior face of the burial structure, W111 apparently postdated the mausoleum. At the level of the top of W111 was a layer of potsherds and gray soil mixed with fresh-water mollusk shells, evidence of a nearby source of water. This was probably the bedding of a floor that belonged to an upper structure, which did not survive. Below the bedding north of W111 was a concentration of numerous potsherds, including jars, bowls, cooking pots, lamps and tabun fragments (L120). It seems that this was a refuse pit from the Byzantine period. In a probe excavated at the bottom of the refuse pit to a depth of 1.95 m below surface (elevation -126.9 m ), a layer of natural soil that was rich in travertine sediment (L123), was exposed.

The finds from the surface included three coins, the earliest is dated to the years 383-395 CE, the second to 425-435 CE and the latest, from the mint in Rome, to the time of Constans II ( $641-663 \mathrm{CE}$ ). A bronze weight ( $1.1 \times 1.4 \mathrm{~mm}, 4.47$ grams) was also found.
One hundred and five vessel rims were counted; approximately one quarter dated to the third century CE and the restto the fifth-beginning of the sixth centuries CE. The finds from the Roman period consisted of vessels that are similar to those from the pottery workshop at Kefar Hananya, including bowls (Type 1B; Fig. 3:1), cooking pots (Type 4C; Fig. 3:2) and jars that resemble those manufactured at the Shikhin workshop (Fig. 3:3, 4). The finds from the Byzantine period included bowls (Fig. 3:5, 6), handmade kraters (Fig. 3:7), lids and fry pans (Fig. 3:8, 9), cooking pots without a neck (Fig. 3:10), barrel-shaped jars (Fig. 3:11, 12), an imported amphora (Fig.3:13) and a juglet (Fig. 3:14), as well as four Byzantine lamps (Fig. 3:15-18). The glass assemblage included fragments of bowls, bottles, wine goblets and fragments of lamps that dated to the latter part of the Roman and the Byzantine periods, and at least two fragments that dated to the beginning of the Umayyad period.
It should be noted that the pottery assemblage from the Roman period is characterized by vessels from Galilean pottery workshops, such as Kefar Hananya and Shikhin, and the absence of imported vessels. The pottery assemblage from the Byzantine period is also Galilean in nature and, with the exception of a fragment of an imported amphora, it lacked the red-slipped imported bowls, which were very common to the period's assemblages. A similar assemblage to the one from the current excavation was found in a burial cave that was excavated at the site ('Atiqot 39:49-60 [Hebrew]).
The artifacts indicate that the beginning of construction and possibly of the mausoleum is dated to the Roman period, whereas the refuse pit is dated to the Byzantine period.


1. Location map.



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3. Pottery.
(Volume No. HA-ESI 120 (2008
Be'er Sheva', Southern Entrance Final Report


1. Area A, plan.

2. Area B, plan.

3. Winepress, general view, looking east.

4. Pottery.

During August 2004, a salvage excavation was conducted in the vicinity of the southern entrance to Be'er Sheva' (Permit No. A4230*; map ref. NIG 18077-80/57115-8; OIG 13077-80/07115-8), prior to infrastructure and development work. The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Israel Lands Administration, was directed by Y. Haimi, with the assistance of A. Hajian (surveying) and C. Hersch (pottery drawing).
Two areas (A, B) were opened, revealing a farmstead that dated to the latter part of the Byzantine period and the beginning of the Early Islamic period.

In Area A (Fig. 1), a pool used to distribute irrigation water by means of several channels was exposed. The pool was erected in the corner formed by W101 and W103 and was enclosed by W102. Walls 101 and 103 delimited the border of a farm or estate from the end of the Byzantine period.

In Area B (Fig. 2), a winepress was exposed that consisted of a treading floor, in the middle of which was a pressing installation, a settling pit and a collecting vat that was surrounded by a work surface (Fig. 3). The treading floor ( $6.80 \times$ 6.90 m ) was paved with stone tiles $(0.30 \times 0.45 \mathrm{~m})$, most of which were removed; their negatives remained imprinted in a bedding of lime-based bonding material and fieldstones. The floor was delineated by ashlar walls, of which only isolated stones survived in the southeastern corner. In the center of the floor were remains of the pressing installation. The anchor used to secure the beam was an ex situ octagonal stone; a collecting vat (Fig. $3 ; 0.50 \times 0.50 \mathrm{~m}$ ) was exposed below it. A conduit that was covered and paved with stone slabs and sloped at a gradient of $1 \%$ linked the vat to a rectangular settling pit (L10; $1.00 \times 1.25 \mathrm{~m}$ ). The pit's ashlar-built walls were treated with hydraulic plaster and its floor was paved with stone tiles. Two openings of ceramic pipes were exposed on either side of the settling pool; one led to a second collecting vat that was blocked, while the other was intended for another collecting vat that was probably never built.

The must was conveyed from the settling tank to the round collecting vat (L8; diam. 2.40 m , depth 1.20 m ) by means of a ceramic pipe. The walls of the vat were treated with hydraulic plaster and its floor was paved with flagstones. Embedded in the center of the floor was a stone mortar (depth 0.4 m ), which was used to collect the sediment. The vat was surrounded by a square work surface, which was paved with flagstones that were partly preserved.

The pottery vessels from the installation dated to the latter part of the Byzantine period and the beginning of the Early Islamic period; they included bowls (Fig. 4:1-4), jars (Fig. 4:5-9) and a fragment of a saqiye vessel (Fig. 4:10).

The winepress revealed in our excavation, along with one previously exposed in the city (HA-ESI 113:115*-116*), bear witness to a developed wine-making industry in the Be'er Sheva' Valley during the sixth and seventh centuries CE.



3. Winepress, general view, looking east.

(Volume No. HA-ESI 120 (2008
Biq'at Yaval
Final Report
Vlada Nikolsky


1. Animal pen, plan and sections.

2. Animal pen, looking north.

3. Water cistern, plan and section.

During April 2006, a trial excavation was conducted at the site of Biq'at Yaval (Permit No. A-4773*; map ref. NIG 18941-8/59121-7; OIG 13941-8/09121-7), prior to the construction of the separation fence. The excavation, carried out on behalf of the Israel Antiquties Authority and funded by the Ministry of Defense, was directed by V. Nikolsky-Carmel, with the assistance of H. Lavi (administration), A. Hajian (surveying and drafting), N. Paran (photography) and F. Sonntag.
Remains of an animal pen and a water cistern that dated to the Byzantine period were exposed in the excavation. Five probe trenches were dug along the animal pen (length c. 35 m ; Figs. 1, 2), preserved a single course high and built of limestone, which yielded potsherds from the Byzantine period. Similar animal pens were used for agricultural activities from the Byzantine period until the modern era. A bell-shaped water cistern (depth c. 4 m ; Figs. 3, 4) was located west of the animal pen. It seems that the animal pen and the water cistern were part of a Byzantine-period settlement, located on a hill west of the water cistern, which was never excavated. The water cistern apparently continued to be used by local shepherds for many years.


1. Animal pen, plan and sections.

2. Animal pen, looking north.

3. Water cistern, plan and section.

(Volume No. HA-ESI 120 (2008

## Budrus West

Final Report
Amit Re'em


1. Plan.

2. Area A, looking south.

3. Area $B$, plan and section.

During May 2004 a salvage excavation was conducted next to the western approaches of Budrus (Permit No. A-4172*; map ref. NIG 19880-900/65250-73; OIG 14880-900/15250-73), in the wake of the separation fence construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by A. Re'em, with the assistance of T. Kanias (area supervision), E. Bachar (administration), V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (photography) and J. Sharvit (coordinator of the separation fence),
Meager remains were exposed in three areas (Fig. 1).
Area A (Fig. 2). A trial square was opened around an elliptically shaped concentration of small fieldstones that were probably stone clearance, placed on a fill of alluvium, c. 0.3 m above bedrock and lacking datable finds.

Area B (Fig. 3). A trial square was opened next to the southern side of a road, running east-west. A curbstone wall (L6) built of a single course of medium fieldstones founded on bedrock was discovered. A layer of alluvium (L7), devoid of any datable finds, abutted the wall.

Area C (Figs. 4, 5). Three squares were opened following the line of a wall (W1; $0.5 \times 1.5 \times 15.0 \mathrm{~m}$ ) oriented northeastsouthwest. The wall, founded on bedrock, was built of two rows of medium fieldstones with a core of small stones. Stones to the west of the wall (Loci 2,10) were part of the wall's collapse. A level of packed stones (L13), which may be the remains of a floor, was exposed in the northern part of the wall. Worn potsherds dating to the Early Hellenistic period were recovered from the fill. It was impossible to determine whether these were the remains of a building or a wall/terrace.


2. Area A, looking south.


## 1-1

3. Area B, plan and section.

4. Area C, plan and section.

5. Area C, looking south.
(Volume No. HA-ESI 120 (2008 Budrus (South) Final Report

6. Limekiln, plan and section.

7. Limekiln, looking north.

During January 2005 a salvage excavation was conducted at Budrus (South; Permit No. A-4332*; map ref. NIG 1992-4/6519-21; OIG 1492-4/1519-21), following a preliminary inspection at the site prior to the construction of the separation fence. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Korenfeld, with the assistance of V. Essman and V. Pirsky (surveying) and T. Sagiv (photography).
A limekiln was excavated on the rocky slope that descends gently north toward Budrus (Fig. 1). Settlement strata of the Iron Age, Hellenistic and Byzantine periods were exposed in an earlier excavation to the north (HA-ESI 120).

A bedrock terrace was utilized in the construction of the kiln (diam. 3.40 m , depth 2.00 m ), whereby the lower part of the installation was hewn and the upper part was constructed from fieldstones (Fig. 2). A cave opening that functioned as a flue was exposed in the lower part of the kiln. The southern side of the kiln was lined with small stones and its upper northern side consisted of medium-sized fieldstone construction that was set on bedrock, probably for the purpose of supporting the ceiling. The installation was filled with gray kiln debris, white lime and burnt limestone. No datable finds were recovered from the excavation.

Surveys and excavations that were conducted in the region revealed agricultural systems and installations that dated mostly to the Byzantine period. It can therefore be assumed that the limekiln was also part of this array, although it could not be dated.


1-1

1. Limekiln, plan and section.

2. Limekiln, looking north.

# (Volume No. HA-ESI 120 (2008 Dhahr el-Khirba (A-4557) Final Report 

Elie Haddad


1. Location map.

2. Refuse pit, Mamluk period, looking south.

3. Pavement, Mamluk period looking north.

4. Wall 120, looking northeast.

5. Pottery and pendent from end of the Byzantinebeginning of the Early Islamic period.

During August-September 2005 a trial excavation was conducted at Dhahr el-Khirba, on the eastern bank of Nahal Ayyalon, within the precincts of Ben Gurion Airport (Permit No. A-4557*; map ref. NIG 189531-40/655600-20; OIG 139531-40/155600-20; Fig. 1), in the wake of damage to antiquities caused during the installation of a communications infrastructure. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Airports Authority, was directed by E. Haddad, with the assistance of E. Bachar (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), C Amit (studio photography), M. Avissar (ceramic consulation), M. Shuiskaya (drawing of finds), N. Katsnelson (glass) and D.T. Ariel, G. Bijovsky and A. Berman (numismatics).

Prior to the excavation, part of a damaged ancient wall built of medium and large-sized fieldstones was visible on the surface, and potsherds dating to the Early Islamic period were collected. A trial probe was conducted along the planned route of the underground infrastructure where ancient remains were discovered. Remains of a large winepress dating to the Late Byzantine and Early Islamic periods had been exposed nearby (HA/ESI 116:38*).

Two squares (R1, R2; Fig. 2), 5 m apart, were opened along a north-south axis; two strata were identified in them. The first stratum was Mamluk in date (thirteenth-fifteenth centuries CE), exposing a refuse pit (Fig. 3) and remains of a stone pavement (Fig. 4); the second, dating to the end of the Byzantine and the Early Islamic periods, yielded building remains.

In the northwestern quarter of Square R1 a section of pavement made of medium-sized fieldstones ( $1.3 \times 1.9 \mathrm{~m}$; L103) that is attributed to the Mamluk period on the basis of ceramic finds was exposed. These included a bowl treated with a yellow glaze on the inside and a pale green glaze on the rim (Fig. 5:1) and sherds of hand-made vessels decorated with geometric patterns (Fig. 5:2, 3). It seems that the northeastern continuation of the pavement, which was discovered c. 0.3 m below the surface, was damaged during the excavation of the communications infrastructure.

Southeast of the pavement, at a depth of 0.5 m , a section of a wall (W120) that was preserved two courses high for a distance of 2 m was discovered. The wall, aligned north-south, was built of large fieldstones, some of which were roughly hewn. A corner was exposed (Fig. 6) in the southern part of the wall; its northern part was also destroyed during the excavation of the communications infrastructure. In the northern part of the square, above the wall, flat fieldstones that were probably used as a pavement were exposed. The soil fill that abutted the wall from the west and south contained pottery, including bowls (Fig. 5:4, 5), juglets (Fig. 5:6, 7) and a storage jar (Fig. 5:8) that dated to the end of the Byzantine period and the Early Islamic period.

In the western part of Square R2 part of a refuse pit (L108; Fig. 3; width 4.5 m , depth 1.5 m ) that also dated to the Mamluk period (thirteenth-fifteenth centuries CE) was exposed. The pit contained friable gray soil fill mixed with ash and sherds. Small and medium-sized fieldstones were exposed in the middle of it. The latest pottery found in the pit dated to the Mamluk period and included hand-made bowls (Fig. 7:1, 2) and cooking pots (Fig. 7:3-7 decorated with painted geometric designs, storage jars (Fig. 7:8,9) and fragments of imported vessels: bowls from the Crusader period (Fig. 7:10, 11), a fragment of a Port St. Symeon bowl (Fig. 7:12), a Cypriot bowl sherd (Fig. 7:13), as well as a cooking pot (Fig. 7:14). The earliest potsherds exposed in the refuse pit were a bowl (Fig. 7:15) and a cooking pot (Fig. 7:16) from the Early Islamic period.
In a probe that was excavated to the north, below the pit, soil fill (L127 and L136) contained bowls (Fig. 8:1, 2), a jug (Fig. 8:3) and a Gaza storage jar (Fig. 8:4) that dated to the seventh century CE (the end of the Byzantine period-beginning of the Early Islamic period) together with a bronze Byzanto-Arab coin (641-697 CE; L127; IAA No. 113493) that is an imitation of a coin from the time of Constans II. A round lead pendant was also found depicting an enclosed cross with concentric circles at the end of its branches and in its center (Fig. 8:5; L136). A similar object was discovered in the excavations of the nearby Shoham by-pass road (Cradle of Christianity, pp. 143, 222e). On the pendant from Shoham, which is dated to the sixth century CE, part of a loop for connecting it to a chain is clearly visible. The loop on the object from the current excavations may have broken off or, perhaps less likely, it was an inlay and not a pendant.

Below this layer, a section of an east-west oriented wall (W140; length 2.75 m ; Fig. 9), which was built of large fieldstones, were exposed. It seems that one of the wall's stones was in secondary use; its semicircular contour indicates that it was most likely part of a column or base. The wall was abutted on the north by a floor of plaster, ash and light-gray charcoal (L142). South of the wall the bedding of a floor (L141) that consisted of fieldstones and wadi cobbles was preserved; between and above them were a Late Roman C bowl (Fig. 10:1) that dated to the beginning-middle of the seventh century CE and many body fragments of ribbed baggy storage jars (Fig. 10:2-4). The fragments of the bagshaped storage jars were mostly set in place with their convex side facing down; this is probably a technique that was meant to trap moisture so that it would not penetrate into the partially preserved floor. A bronze half-follis (IAA No. 99754) that dates to the reign of the emperor Maurice Tiberias (596/597 CE) was found between the stones of the floor bedding. A probe was excavated (L144) north of the wall (W140), below the floor bedding. The potsherds found there were mostly reddish, ribbed body fragments belonging to baggy storage jars that are not sufficiently diagnostic to date the floor; however, based on two of the rims they seem to belong to the Byzantine period (Fig. 10:5, 6).

Part of a bronze buckle (Fig. 11) was also found in the soundings that were conducted prior to the excavation.
The glass artifacts (Loci 101, 124, 142) were in a very poor state of preservation, making restoration impossible. Based on the quality of the material it seems that the fragments are representative of the Byzantine, Early and Late Islamic periods. The Byzantine types included plain vessels, cups, bottles, wine goblets and an oil lamp with handles. Some types also continued into the Umayyad period. Fragments of small bracelets that probably dated to the Late Islamic period were also found. In addition to the glass vessels and bracelets, remains of glass industrial debris were found.

The ceramic artifacts, together with a fals of Sha'ban II (1363-1377 CE; IAA No. 99755) that was minted at Tarabulus (found on the surface level), indicate there was also a settlement at the site during the Mamluk period. The presence of imported bowls that date to the Crusader period is surprising in their quantity relative to the rest of the pottery vessels; this is indicative of a well-to-do population. Settlement remains from the Mamluk period in the vicinity of Ben Gurion Airport are known from the excavation at Giv'at Dani (ES/ 19:44*), as well as at Jisr Jindas located at the northern entrance to Lod, which dates to the time of the Mamluk Sultan Baybars. It seems that the site was inhabited from the Late Byzantine-Early Islamic period until the Mamluk period and that a Crusader presence should be sought nearby. Nevertheless, it should be emphasized that the trial excavation was of a limited scope and therefore insufficient to accurately characterize the nature and duration of the settlement that existed there.


3. Refuse pit, Mamluk period, looking south.

4. Pavement, Mamluk period, looking north.

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8. Pottery and pendent from end of the Byzantine-beginning of the Early Islamic period.

9. Wall 140, looking north.

10. Pottery from the end of the Byzantine period.

11. Bronze buckle fragment

## (Volume No. HA-ESI 120 (2008 El-Fureidis Region, Survey Final Report

Polina Spivak


1. Location and survey map.

During July 2006 a survey prior to development was conducted in the region of el-Fureidis (Permit No. A-4825*; map ref. NIG 19527-714/72093-200/OIG 14527-714/22093-200), prior to widening Highways 4, 70 and 652. The survey, carried out on behalf of the Antiquities Authority and funded by the Department of Public Works, was performed by R. Wisen and P. Spivak, with the assistance of L. Yihye (GPS) and I. Berin (final plans).

The survey was undertaken in two areas (1, 2; Fig. 1). Area 1 extended across the northern and northwestern slopes of Giv'at Eden and in the fields south of the Fureidis Junction and Area 2, southeast of Area 1, was in a region of cultivation plots, west of Nahal Daliya and along the eastern slope of Giv'at Eden. Caves, sections of a rock-hewn aqueduct, rock-cuttings, hewn installations, a quarry and building remains were documented. The region had been surveyed in the past (Olami, Sander and Oren. 2005. Map of Dor [30]).

Caves. Sixteen caves were located along the northwestern slope of Giv'at Eden (4, 5, 11, 12, 14, 21, 22, 24-27, 29-32, 36), mostly on the bedrock terrace that surrounds Giv'at Eden, their openings facing west or north. Part of the bedrock terrace collapsed, taking with it some of the caves. At least three of the documented caves were hewn $(12,14,21)$ and, based on their plans, seems to have been burial caves. Caves 14 and 21 were cut during the modern quarrying of Highway 70. The rest of the caves were mostly natural and served, most likely, for burial as well. The burial caves were apparently part of the Khirbat el-Khaneizira cemetery, located at the top of Giv'at Eden.

Aqueduct. Sections of a rock-hewn aqueduct channel ( $1-3,7,15,16,19$ ) that ran along Highway 70 and the northern slope of Giv'at Eden were documented. These were parts of the aqueduct that conveyed water from the Tata springs to Tel Dor during the Roman and Byzantine periods. Parts of this aqueduct had been excavated in the past (HA-ESI 115:72*). Its full length was not discovered and in all likelihood, parts of it were destroyed during the paving of Highway 70.

Rock-Cuttings and Hewn Installations. Cupmarks hewn in bedrock outcrops (6, 9, 10, 17, 23; diam. and depth $0.2-0.3 \mathrm{~m}$ ) were noted in the vicinity of the caves. Rock-cuttings ( $8,33-35$ ), including a rectangular cutting (20; $0.5 \times 1.0 \mathrm{~m}$, depth 0.5 m ) and a circular rock-cutting (18) that were severed during the construction of Highway 70 were recorded. It seems that Rock-Cuttings 18 and 20 were part of more intricate installations. A masonry stone quarry ( $12 ; \mathrm{c} .20 \times 40 \mathrm{~m}$ ) was noted, as well as two hewn caves near the quarry, which were probably used for burial.

Building Remains. The fragmentary remains of two fieldstone-built structures (38, 39; each 3-5 sq m) were documented. A stone heap (37) was next to the remains of Building 38. A hill to the east of the building remains seems to be an artificial mound, covered with dense vegetation.

A few potsherds, dating to the Roman and Byzantine periods and several flint implements that can not be dated, were collected in Area 2 and in the channel of Nahal Daliya.


# (Volume No. HA-ESI 120 (2008 El-Jisr Final Report 



1. Area A, Square A1, plan.

2. Area B, Squares B1, B2. plan.


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3. Pottery from the area of the tombs.

5. Pottery from the refuse pit.

6. Figurine.

Moshe Ajami and Lior Rauchberger
In November-December 2005 a trial excavation was conducted at el-Jisr (Permit No. A-4614*; map ref. NIG 17615-30/64800-10 OIG 12615-30/14800-10), after kurkar slabs and an ancient refuse pit containing numerous pottery vessels were discovered during preliminary soundings undertaken prior to the installation of a water pipe. The excavation, on behalf of the Antiquities Authority and with the financial support of the Meqorot Company, was directed by M . Ajami, with the participation of L . Rauchberger (area supervision), E. Bachar (administration), A. Hajian and T. Kornfeld (surveying and drafting), T. Sagiv (field photography), C. Amit (studio photography), P. Gendelman (pottery), D.T. Ariel (numismatics), and A. Erlich (figurine).
The site is situated on the northern bank of Nahal Soreq, c. 200 m north of Tel Mahoz. In the past, four burial caves of the Intermediate Bronze Age and MB II were exposed in the vicinity (PMJB 2:2-7; QDAP 12:34-42; 13:75-89). Building remains, a large cave, coins and pottery were documented in a survey (HA-ESI 118). These are indicative of an established settlement that dates to the Hellenistic and Early Roman periods that looked out over a pass in Nahal Soreq, on the road leading to Yavne-Yam.

Three areas (A-C) comprising six squares were opened along an east-west axis, revealing cist tombs and a refuse pit.

## Tombs

Four tombs were discovered but not excavated. One tomb was found in Area A and three were in Area B to the west, oriented along an east-west axis and spaced 1 m apart.
T118. The tomb was covered with kurkar slabs (Area A, Square A1; $0.50-0.60 \times 1.95 \mathrm{~m}$; Fig. 1). Fragments of other slabs and smaller kurkar stones were positioned between and around them.
T116. The tomb was covered with kurkar slabs (Area B, Square B1; $0.5 \times 1.1 \mathrm{~m}$; Fig. 2). Smaller kurkar stones were placed between the slabs and next to them. A notch was hewn widthwise across the eastern covering slab. A kurkar slab $(0.13 \times 0.70 \mathrm{~m})$ that was ex situ, but which seemed to belong to the tomb, was found 1.35 m to the east (L114).
T124. The tomb was covered with kurkar slabs (Area B, the balk between Squares B1, B2; 0.35-0.50 $\times 1.20 \mathrm{~m}$; Fig. 3). The western covering stone was perpendicular to the eastern one; small stones were exposed along the edges of the tomb that probably served to support and level the kurkar slabs that were set in place above the cist.
T108. The tomb was covered with kurkar slabs (Area B, Square B2; $0.7 \times 1.2 \mathrm{~m}$; Fig. 3); protruding from between and below them were different size stones that were probably used to support and level the covering slabs.

Since these cist tombs were not excavated it is not possible to date them with certainty. The jars from the Early Roman period found at their sides (see below) allude to their date. Cist tombs of the same period were exposed at Yavne-Yam, west of el-Jisr, where they were dated to the first century CE (HA-ESI 118).

In Area B fragments of six bag-shaped storage jars dated to the first century CE were found. An example from Square B2 was buried upside down, lacking its base (Fig. 3:1). A jar in a similar condition was found 1.25 m north of Square B1 (Fig. 3:2). Fragments of two other jars (Fig. 3:3, 4) were found while excavating the surface level in Square B2. A jar exposed in Square B3 was found in a shattered condition. Another jar was exposed in Square B4; again, it was buried upside down, lacking its base (Fig. 3:5).

The distribution of the jars and the way they were positioned raise questions regarding funerary practices at the site and their connection and function in relation to the tombs. Were they used for delimiting or marking the tombs or to mark the boundaries of the cemeteries? The jars were not found above the tombs but rather nearby. No skeletal remains were found inside them.

## Refuse Pit

West of Square B a refuse pit (Area C, Square C1, L111; diam. 3 m; Fig. 4) was exposed that contained various size kurkar stones, some of which were dressed, and numerous potsherds (to a depth of 2.7 m ), including jugs that dated to the first century BCE-first century CE (Fig. 5:1-3). The pit was excavated manually and by mechanical equipment, to a depth of 3.3 m . The eastern side of the pit was probably lined with stones. The source of the vessels that were thrown into the pit and the pit's connection to the tombs to the east remain unclear.
The head of a figurine (see discussion below) and two coins of Antiochus III (223-187 BCE) were found, one on the surface in the northern part of Square B4 (IAA No. 102359), minted at Tyre, and the other in the alluvium above the refuse pit (L110; IAA No. 102360) that was minted at Antioch

Several trenches were excavated by mechanical means in the area to the south of the excavation. Four meters south of the southeastern corner of Square B1, at a depth of 0.5 m below the surface, two kurkar stones were exposed that were aligned along an east-west axis $(0.17 \times 0.38,0.20 \times 0.25 \mathrm{~m})$. Buried horizontally beneath them was a jar.
Remains of a shattered jar were exposed 25 m southwest of the southwestern corner of Square B4, at a depth of 1 m below the surface.
Seven meters south of the southwestern corner of Square B4, a cist tomb built of kurkar stones was discovered. It was aligned along an east-west axis without covering slabs ( $0.65 \times 1.45 \mathrm{~m}$; depth 1.70 below the surface). A few small potsherds were discovered in the vicinity of the tomb.

## Figurine Head

In Square B4 the head of a figurine was discovered alongside a jar that was buried upside down next to a tomb.
The figurine (height 3.8 cm , width 4.2 cm ; Fig. 6) is made of light brown, almost orange color clay that is very soft, porous and crumbly. The front of the figurine is mold-made and the back is smoothed flat.

The head, probably that of a woman, is round and protrudes from a frame consisting of a schematic hairdo that ends at the level of the neck. The head is convex; the two eyes are obscured, almond shaped and the right one is positioned slightly higher than the left. The nose and lips are worn, being almost imperceptible. The figurine has a wide neck that is broken.

The design of the head is unusual. The technique of its production, its character, the condition of the clay and the style of the face are consistent with the dating of the jars in the excavation; however, the hair style and the frame of the head are atypical. The schematic facial features are similar to those of the Tel Ashdod figurines of the seventh century BCE, but the similarity ends there. The roundish shape of the face, and especially the frame of the head, distinguishes it from Iron Age figurines of the southern coast. The figurine was made in an extremely worn mold. The use of such a mold, the shade of the clay and its soft and crumbly nature are characteristics of Early Roman figurines, such as those found at Bet She'an; the outline of the face is also similar to these. The worn mold and the soft clay caused the facial features to be vague and the shape of the face to be schematic. A similar outline of a face that has large almond-shaped eyes and worn, indistinct facial features is found on figurines from the first century CE, both in the eastern part of the Roman Empire, such as Cyprus, and in the western provinces. A stylized and schematic depiction also occurs on the Nabatean figurines of the Roman period but they are designed differently than this figurine and without a head frame. The
schematic hair that encircles the head in an arch is arranged in a hairstyle that is uncharacteristic of figurines of this period. The women's hairstyle that reaches the neck is characteristic of later female figurines, which are designed in detail and in a different style, like the figurines from the pits at the Bet Natif pottery workshop, which date to the thirdfourth centuries CE. The worn mold in which the figurine was made and its partial preservation therefore make it difficult to identify and date precisely.

The archaeological context of the figurine is unclear; however, if it is in keeping with the pottery assemblage and cist tombs that are scattered around the site, and if it belonged to one of these burials, it should be dated to the first century CE. Figurines of the Hellenistic and Roman periods are mostly found in contexts involving residential dwellings and temple favissae and not from tombs, but we do know that in the coastal region it was customary to place figurines in tombs. Figurines were found in a cist tomb from 'Akko that dates to the Hellenistic period and in burial caves of the Roman and Byzantine periods at H. Castra.

If the figurine under discussion is indeed associated with the burial field, that should be enough to explain its schematic design. In a discussion about terracotta figurines from Hellenistic tombs at Samothrace, it was claimed that the worn, schematic and stylized characteristic of the figurines, a result of poor workmanship, is not necessarily indicative of the dating or style, but rather of their use (E.B. Dusenbery 1998. Samothrace 11: The Nekropokleis. Princeton).

The figurines that were used as transition offerings in funerary ceremonies had a greater symbolic value than aesthetic value and therefore there was no need to soften the features or for great detail in their design. If this is the case then this single figurine was used in the burial ceremony or was someway related to someone who died and was therefore found in this context.

The source of the Hellenistic and Early Roman period finds that were discovered in the excavation is probably a nearby contemporary settlement that was surveyed in the past but remains unexcavated, or the adjacent settlement of Tel Mahoz.

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3. Pottery from the area of the tombs.



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4. Area C, Square C1, plan and section.

5. Pottery from the refuse pit.


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## El-Kabri

Final Report


1. Plan and sections.

2. General view of the excavation, looking northwest.

3. The corner of Walls 1 and 5, looking east.

During December 2003, a trial excavation was conducted south of el-Kabri (Permit No. A-4056*; map ref. NIG 21438/76850; OIG 16438/26850; HA-ESI 113:6*-7*; HA-ESI 116:4*-6*), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ma'ale Yosef Regional Council, was directed by O. Zingboym, with the assistance of A. Dadush (administration), V. Essman and V. Pirsky (surveying and drafting) and N. Getzov (guidance).
The excavation was on a chalk hill south of el-Kabri, west of the Western Galilee Regional Comprehensive School. Prior to the excavation, probe trenches that were dug at the site and supervised by L. Porat revealed the remains of ancient construction. Consequently, an excavation area ( $4 \times 6 \mathrm{~m}$; Figs. 1, 2) was opened adjacent to the probe trenches.
Remains of three strata were exposed. Rock cuttings (Stratum 3), which may have been part of an agricultural installation that was used by the el-Kabri settlement in the Byzantine period, were discovered on bedrock. The remains of a large structure (Stratum 2) were discovered above the rock-cuttings (width c. 1 m ). The walls, oriented east-west, were built of dressed stones and the entrance was set in the southern wall ( W 1 ; min. length 16.8 m ). The building had two rooms divided by a partition wall (W5). Two piers (W5a, W5b) that apparently bore the building's vaulted ceiling were incorporated in W5. A few potsherds within the floor bedding of the building were dated to the eighteenth century CE. The building collapsed after it was abandoned. On surface, overlying the building remains, part of a small fieldstone-built structure (Stratum 1; W2, W4) that seems to be of a twentieth century CE date, was discovered.


2. General view of the excavation, looking northwest.

3. The corner of Walls 1 and 5 , looking east.

# (Volume No. HA-ESI 120 (2008 <br> El-Rom, Development Survey Southwest of the Qibbuz Final Report 

Oren Zingboym


1. The survey map.

2. Group of buildings (Site 30), looking west.

3. Dolmen (Site 34).

During March-April 2008, a survey preceding development was conducted southwest of Qibbuz El-Rom in the Golan Heights (Permit No. A-5041*; map ref. NIG 2705-25/7841-70; OIG 2205-25/2841-70), prior to the construction of a water reservoir. The survey, on behalf of the Israel Antiquities Authority, was carried out by O. Zingboym (photography). The survey map was prepared with the aid of a GIS system of the Golan Regional Council.
The survey area ( 3,300 dunams) extended west of the Mount Bar'on orchards, south of the El-Rom-Sekhakh road, east of Horbat Poran and north of the Poran camp hills. Forty-two sites were surveyed, including walls, animal pens and remains of buildings and dolmens (Fig. 1). Minimal ceramic finds were recovered from the survey.
The region of the survey area consists of rocky hills, separated by small valleys and small parcels of land. The area is characterized by natural oak groves that become denser to the north and west. The watershed passes approximately through the eastern third of the area. Most of the surveyed area is currently located within an active firing range and in its northern part are orchards and cattle pens. Several antiquities sites, such as El-Rom Junction, 'Ein Hajlah and Horbat Poran, are known nearby.

Walls, animal pens and fences (Sites 1-13) were documented in the northern part of the survey, along the fringes of small valleys between the rocky hills. The walls of animal pens were built of fieldstones to a height c .1 m . Based on their construction and the amount of lichens on the stones it seems that they were ancient. Some of the terraces and the walls are modern.

On a high ridge in the middle of the survey area, animal pens, walls, dolmens and remains of buildings (Sites 27-42) were recorded. Some of the animal pens and the building remains are modern. The buildings $(3 \times 4 \mathrm{~m})$ consisted of two rows of fieldstones and were preserved c. 1 m high (Fig. 2). The location in the northern Golan Heights of the dolmens on the eastern part of the ridge (Sites 33-36; Fig. 3) is remarkable, being far away from the dolmen fields in the center of the Golan.

The walls and animal pens (Sites 14-26; Fig. 4), which were documented on the edge of a large valley surrounded by two ridges in the southern part of the survey area, were similar to those recorded in the northern part of the survey area. The remains of a modern village, probably Syrian (Site 20), in the southeastern part of the area, were not fully examined due to overgrown vegetation. Based on the scant amount of potsherds collected in the village and the tops of a few walls, it is possible that this village is located atop the remains of an ancient settlement.


2. Group of buildings (Site 30), looking west.

3. Dolmen (Site 34).

4. Walls and animal pens, looking north.
(Volume No. HA-ESI 120 (2008
'En Gedi
Gideon Hadas
11/8/2008

2. The southern house, looking east.

3. The western room, looking east.

4. The alley, looking south.

During January 2008, the sixth season of excavations was conducted at the 'En Gedi oasis (License No. G-1/2008; map ref. NIG 23708/59690; OIG 18708/09690; HA-ESI 118). The excavation, carried out under the auspices of the Hebrew University of Jerusalem and financed by private contributions and foundations from Israel and abroad, was directed by G. Hadas, with the assistance of R. Merhav (administration), D. Porotzky (surveying and drafting), O. Mazar (pottery restoration) and A. de Vincenz (pottery reading). Volunteers from the country and abroad, most of whom took part in previous seasons, participated in the excavation.

The Southern House. A large courtyard (L6001; Figs. 1, 2) that accessed two rooms located to its north was exposed. Near the opening to the rooms was a stove and two ovens were discovered in the northwestern corner of the courtyard. Below the courtyard floor, at a depth of c. 0.5 m , the tops of walls that belonged to an earlier building, whose plan was slightly different than that of the southern house, were exposed. It seems that the stones used for the walls of the southern house were taken from the earlier building below it.

The excavation of the western room (L6011; Fig. 3) was completed. Some twelve cooking vessels were found, including pots, jugs and a large jar buried in the floor, the likes of which had been discovered in the previous season in the adjacent eastern room. Several floors were excavated in the eastern room and below them were walls that probably belonged to the earlier building (Loci 6031, 6044). The finds from below the floors included many pieces of charred wood, ash and animal bones.

The Key House. The exposure of the courtyard floor (Locus 6026) of the Key House, north of the southern house, continued. A large flat basalt block that probably served as a work table was found on the floor of the courtyard. Several shattered jars were discovered next to the oven in the southwestern corner of the courtyard. A large concentration of charred wood was exposed in the southeastern corner of the courtyard; next to it, several cooking pots, a section of a ceramic pipe and two fragments of soft limestone large jars were found near the basalt block. Many iron nails were located near the opening to the front courtyard (Locus 5024).

The Zuqim House (L6029). The exposure of the floor was completed and that of the alley, running north-south between the Zuqim House block and the western row of houses, continued. The exposure of the buildings in the area of the slope, east of the alley (Fig. 4), had begun.

Among the artifacts recovered from the excavation were c. 60 coins, a fragment of a tiny lead anchor, similar to the one discovered during the previous season, an alabaster cosmetic bowl fragment and fragments of soft limestone vessels that are characteristic of the period. The two large jar fragments from the Key House joined the small fragments of large limestone jars that were retrieved from this house during the previous season. All the finds date the settlement to the end of the Second Temple period. Conservation measures were implemented during the course of the excavation.


2. The southern house, looking east.

3. The western room, looking east.

4. The alley, looking south.

## (Volume No. HA-ESI 120 (2008

## En Lavan



1. Plan and section.

Gideon Solimany
18/1/2008
During March 1998, a salvage excavation was conducted in a burial cave, hewn in a cliff below the ruin of 'En Lavan in Nahal Refa'im (Permit No. A-2830; map ref. NIG 21528/62850; OIG 16528/12850), in the wake of damage caused by the installation of a sewage line. The excavation, carried out on behalf of the Antiquities Authority and financed by the Jerusalem Development Authority, was directed by G. Solimany (photography), assisted by H. Abu-Ta'a and R. Graff (surveying).

The cave ( $3 \times 4 \mathrm{~m}$; Fig. 1) had its entrance, which was damaged by a backhoe, in the southwest. It led to an antechamber ( $1.6 \times 1.6 \mathrm{~m}$, height 1.7 m ). Arcosolia were hewn in three of its walls and each arcosolium contained two breadthwise hewn burial troughs $(0.4 \times 1.6 \mathrm{~m}$, depth 0.4 m$)$, separated by a partition $(0.1 \mathrm{~m})$.
The artifacts recovered from the troughs consisted of poorly preserved bones of the deceased and funerary offerings, including lamps, bracelets, beads and glass vessels. The plan of the cave is typical of the Byzantine period and the artifacts are also dated to the Byzantine and the Early Islamic periods. It should be noted that the cave was part of the 'En Lavan site-a large ruin from the Byzantine period that encompasses the area of the spring.



1. The water system, plan and sections.

2. The subterranean collecting hall in the water system, looking south.

3. Views of the elbow column bases.

4. An elbow column in the northern wall of the church. looking north.

5. A wall painting showing a figure's leg (on the right side) and an animal's leg.
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## En Qobi

Final Report
Boaz Zissu and Danny Weiss
11/2/2008
During September 2001 the third season of excavations was conducted at 'En Qobi (Permit No. A- 3489*; map ref. NIG 21121/62600; OIG 16121/12600; HA-ESI 117, HA-ESI 118). The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Jewish National Fund, was directed by B. Zissu and D. Weiss, with the assistance of A. Ben-Nun (area supervision), V. Essman and V. Pirsky (surveying), N. Davidov and T. Sagiv (photography), J. Abu-Diab, V. Bitman and M. Avrahami (conservation), N. Zak (drafting) and Z. Greenhut, J. Seligman and D. Amit. Additional assistance was provided by G. Bashan, H. Tsoref, G. Avni, N. Malka and I. Rotline of the Jewish National Fund.

During this season, excavations in the water conveyance system near the spring and in the church were conducted.

## The Water Conveyance System (Fig. 1)

The water conveyance system was hewn to trap the spring water and control the flow. This spring is a seep, which emanates from the interface between the dolomite bedrock of the 'Aminadav Formation and the Moza marl aquifer.
The water system began in a vertical shaft (diam. c. 0.8 m , depth c .6 m ) that was cut from surface to the spring. A hewn conduit (length c. 17 m , width 0.5 m , depth c. 1 m ), covered with stone slabs, led northward from the spring to a subterranean collecting hall ( $5 \times 11 \mathrm{~m}$; Fig. 2). Rock-cut steps descended to the hall, which had a barrel-vaulted ceiling. The bottom part of the walls in the hall was lined with large ashlar stones whose interstices were filled with gray mortar. Among the several layers of plaster that were applied to the walls, the bottom one was gray and characteristic of water installations at the end of the Second Temple period. The upper part of the walls and the ceiling are today lined with small stones and modern cement. A square aperture in the middle of the ceiling allowed light inside the chamber and was used for drawing water. The hall was divided into a southern and northern part. The southern part $5.2 \times 5.5 \mathrm{~m}$, max. depth c. 2 m ), c. 1 m lower than the northern part, was meticulously plastered and used for storing water. Close to its bottom, water spouted from a small recess, which was installed at the base of the hall's eastern wall, using some dismantled stones from the lining. The flow of water was perennial and filled the pool during arid seasons. A rock-hewn channel at the bottom of the higher, northern part conveyed the surplus water collected in the southern part northward, to another hewn tunnel. A small irregular-shaped chamber at the beginning of this tunnel was originally perhaps a natural subterranean cavity. Its ceiling was shaped as a pointed vault at whose top was a square hewn shaft, lined with dressed stones, which allowed light and air into the chamber. The stone-slab covered tunnel (length c. 17 m , width 0.4 m , height 0.7 m ) was north-bound and at its northern end, a chamber of concrete and small stones with a square aperture in its ceiling was built in modern times. At the end of the tunnel the water flowed in two directions: eastward, to a sabil within a modern building that was accessed by steps and northward, to a stone trough that was probably meant for watering sheep and goats. A built channel covered with stone slabs emerged from the eastern end of the trough and conveyed water to an open trapezoidal collecting pool ( $7 \times 7 \mathrm{~m}$, depth c. 1.8 m , width of walls 0.8 m ), which was built in the Qobi stream gulley. The pool was carefully coated with numerous layers of hydraulic plaster that indicated its prolonged use. The water flowed to the irrigated cultivation plots in the Qobi streambed through an opening at the bottom of the pool's northern wall. A built channel visible in the center of the streambed was mainly intended for draining surface runoff During the 2000 excavation season, another channel ( min . length 300 m , width 0.3 m , depth 0.3 m ), hewn along the western slope of the Qobi stream and connected to the water conveyance system, was exposed. Water flowed to the cultivation plots in the streambed through openings in the channel's walls.
A square maqam with a dome on its top (Esh Sheikh Ahmad el-'Omari) was documented near the outlet of the water conveyance system. The structure was built of ashlar stones in secondary use and a mihrab was constructed in its southern wall. A column in secondary use was incorporated in the exterior southeast corner of the building.

The water conveyance system was used for a very long time, undergoing numerous repairs, the last phase of which was carried out during the British Mandate era. These repairs were well integrated into the system and sometimes incorporated ancient building elements in secondary use. Therefore, it is difficult to date the system without dismantling its components and excavating probes. An examination of the plaster composition from the different phases may aid in dating the various components. It is assumed that the initial phase of the system can be dated to the Second Temple period and most of the system's components belong to this phase, with the exception of the vaulted cement ceiling of the subterranean collecting hall, the sabil and the trough at the water outlet.
Similar water conveyance systems were found in other springs in the Judean Hills, among them 'En Zova, 'Ein Handaq, Sataf, 'En Ya'el, 'Ein el-Hanniya, 'Ein el-Hadaf and Battir. The Wadi el-Biyar aqueduct in the northern Hebron Highlands, which constituted part of the water-supply system to Jerusalem during the Second Temple period, comprised tunnels that impounded spring water (T. Tsuk, Y. Miron and K. Wolovelsky, 1986. Survey of the Biyar Aqueduct. Niqrot Tsurim 13:109-129 [Hebrew]; A. Mazar, 1989. A Survey of the Aqueducts Leading to Jerusalem. In D. Amit, Y. Hirschfeld and J. Patrich [eds.]. The Aqueducts of Ancient Palestine. Pp 169-195 [Hebrew]). The resemblance of these water systems shows that the Judean population was able to utilize the aquifer water and convey it via tunnels to collecting pools, as early as the Second Temple period.

## The Church (Fig. 3

The church was constructed on the slope of a mountain, c. 50 m east of the spring. It was documented in 1873 by the British surveyors of the Palestine Exploration Fund who dated it to the Crusader period (Conder C.R. and Kitchner H.H. 1883. The Survey of Western Palestine: Memoirs. Vol. III: 25, 100). The church was also briefly documented by Bagatti, who provided archival information about an unpublished survey conducted by M. Gisler in 1939, who dated the church to the Byzantine period (Bagatti B. 1983, Antichi Villaggi Christiani di Giudea e Neghev, Jerusalem, p. 26, Fig. 8.1). The most comprehensive survey, on behalf of the British School of Archaeology in Jerusalem, was performed in 1981 by D. Pringle (1998. The Churches of the Crusader Kingdom of Jerusalem, A Corpus, Vol. II, pp. 156-157, No. 62. Cambridge), who focused on the plan of the structure and its details and stressed the secondary use of stones, whose diagonal stone dressing characteristic of the Crusader period, was not discerned.
The excavation of the church revealed a rectangular hall, oriented east-west ( $11.6 \times 16.0 \mathrm{~m}$ ). The exterior face of the walls (width c. 1.9 m ) consisted of horizontally-set ashlar stones and the interior face was composed of fieldstones and debesh (max. preserved height 6 m ). The entrance to the church (width 1.8 m ) was installed in the middle of the western wall; the threshold and one of the doorjambs survived in situ. Several stones that belonged to the sill of a window frame were preserved in the eastern part of the northern wall. The inner apse of the church (radius $2.0-2.5 \mathrm{~m}$ ) was set in the eastern wall, although it has not yet been exposed. The church was covered with two cross vaults that were supported by elbow columns (Figs. 4, 5), which were incorporated in the middle of the two longitudinal walls. The column capitals were decorated with schematic floral patterns. Such columns were particularly widespread in Jerusalem and its environs and apparently, were prepared in a Jerusalem workshop; they provide an exact date for this phase of the church in the first half of the twelfth century CE (Grabiner E. 1999. The Elbow Column: An Original Crusader Creation. In S. Rozenberg, Knights of the Holy Land, The Crusader Kingdom of Jerusalem, Jerusalem, Pp. 163-169 [Hebrew]). The smooth, light colored plaster, which coated the inside surface of the church walls, corresponded to the elbow columns; hence, the plaster was contemporary with the columns. Small sections of plaster, adorned with polychrome frescoes, were exposed in the northern and southern walls. They had undergone preliminary conservation and were covered to prevent damage to the plaster and paintings. A standing figure is depicted in the painting on the northern wall. It is dressed in a red robe and holds an elongated handle in both hands (Fig. 6). Another shorter figure, whose back is turned toward the standing figure, is probably positioned in front of it. The painting on the southern wall shows the foreleg of a walking animal (a
mule or donkey) and alongside it, the bottom part of a human figure, facing forward and wearing a short red garment, ending above the knee (Fig. 7). The animal's leg and the bottom part of the figure's leg were covered with a light green paint. This may be a portrayal of a scene known from the New Testament, depicting Mary, the mother of Jesus, going to Bethlehem, or a scene of the holy family on their way down to Egypt. Practically no wall paintings from the Crusader period had survived in the country. To date, five other buildings from this period that have in situ wall paintings, are known, including the Church of Nativity in Bethlehem, St. Jeremiah's church in Abu Ghosh, the Theoctistus monastery in Nahal Og, in the Judean desert, the Chapel of St. John the Baptist in Sebastia and the church of Gethsemane in Jerusalem (Boas A. 1999, Crusader Archaeology: The Material Culture of the Latin East, London and New York, pp. 205-210, and further references therein). Modern fill that consisted of soil and stone clearance was excavated in the church to a depth of c. 2 m , yet the floor level has not been reached.
The church had apparently two phases of construction, the first in the Byzantine period and the second in the Crusader period. The building was renovated in the second phase; ashlar stones in secondary use, probably from the Byzantine period, were incorporated in its walls and the ceiling was rebuilt of vaults that rested on elbow columns. Other churches from the Crusader period that have a similar plan are known in the Judean Hills, e.g., Khirbat 'Ein el-Kanisa, 'Ein elMa'mudiya, Horbat Tannur ('Allar as-Sufla) and Bethphage (Pringle D. 1993. Crusader Kingdom of Jerusalem, A Corpus, Vol. I, Cambridge, pp. 27-30, 47-51, 157-160).
Remains of buildings, mostly covered over with earth, were visible to the north and near the church. The buildings and the church adjacent to it were connected to the activities in the vicinity of the spring and possibly also to an ancient road that went up from the Shephelah to Jerusalem.


1. The water system, plan and sections.

2. The subterranean collecting hall in the water system, looking south.

3. The church, plan.


טבט צפונה


מבט דרוטח



פבט טדרחה
4. Views of the elbow column bases.

5. An elbow column in the northern wall of the church, looking north.

6. A wall painting depicting a standing figure.

7. A wall painting showing a figure's leg (on the right side) and an animal's leg.

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## Eshta'ol



1. Distribution of excavation areas.

2. Area D1, Building 1, the threshold, looking north.

3. Area D1, Stratum II, the circular silo, looking north.

4. Area D1, Stratum I, Sq C architectural remains; blocked-up entrance at lower right, line of standing stones at lower left, looking south.

5. Area D1, Stratum I, Sq F architectural remains, looking north.

During June-August 2007, salvage excavations were conducted at a proto-historic site near Moshav Eshta'ol, adjacent to the northwestern side of Highway 38 and southwest of the main entrance to the Moshav (Permit No. A-5163; map ref. NIG 201075/631700; OIG 151075/131700), prior to the widening of Highway 38. The excavation, carried out on behalf of the Israel Antiquities Authority and financed by the Public Works bureau, was directed by A. Golani, with the assistance of D. Storchan (area supervison), Y. Ohion, Y. Lender and R. Abu-Halef (administration), M. Kunin and A. Hajian (surveying), T. Sagiv (field photography), O. Ackerman (geomorphology), H. Khalaily (flint processing), M. Birkenfeld (archaeological inspector) and A. Nagorsky (district archeologist).
The site is located at the base of a moderate slope adjacent to the northwestern bank of Nahal Eshta'ol (wadi Ishwa), a local tributary of Nahal Soreq. A broad expanse of arable land is on the southern side of the wadi, while a dense concentration of foliage and a water pumping station across from the site suggest the existence of a nearby perennial water source. The excavations revealed settlement remains primarily of the Early Bronze IB/Il periods, as well as limited remains of the Chalcolithic and the Neolithic periods (Fig. 1).
The site had previously been sounded by G. Solimany (Area A; Permit No. A-4624) and M. Friekman, on behalf of the Hebrew Union College and the IAA (Areas B and C; License No. B-311/2006; Permit No. A-5088), whereas an additional excavation (Area E; License No. B-322/2007), directed by I. Shay and J. Uziel on behalf of Bar-llan University, has recently been undertaken in the same region. The excavation in Area A exposed remains from the Neolithic period and architectural remains from the EBIB/ll periods were exposed in Areas A and B. The excavations in Areas C and E revealed architectural remains of the Intermediate Bronze Age (EB IV/MB I). The present excavation (Area D) consisted of a single row of 20 non-consecutive squares that were numbered alphabetically and further divided into sub-areas, which are described from northeast to southwest.

## Area D1

This area, c. 50 m south of the Eshta'ol junction, comprised seven consecutive squares (A1, A, B, C, D, E, and F; Fig, 2)-A1 at the northeastern extremity of the area and $F$ at the southwestern end of this sub-area. A dense and deep accumulation of archeological remains emerged in this region, which was apparently near the center of the site. At least five distinct strata were identified.
Stratum V. Due to time limitations, the earliest stratified remains were uncovered in a very limited probe in Sq A1, revealing numerous water-born gravel sediments (Figs. 3, 4) that may represent the seasonal flooding of the adjacent wadi. The archeological material within this probe included fragments of a cornet, a V-shaped bowl and a backed flint blade that could all be attributed to the Chalcolithic period. Although the probe clearly defined this layer apart from the matrix of Stratum IV, the extremely small scope of this exposure means that it is, as yet, unclear whether these sediments represented a habitation layer or were washed in from another locale.
Stratum IV. Remains from this level were only reached within Sq A1, below the base of Stratum III walls (see Fig. 3). A level of medium to large sized stones of unclear plan and a beaten-earth surface were uncovered. The finds included ceramic fragments from EB I and a few lumps of bitumen.
Stratum III. This stratum included remains of two large structures with rounded outer corners of similar orientation (see Fig. 3).
Building 1 was the northernmost structure and only a portion of the western and northern walls (W208, W200) were discovered. Abutting W200 within the building were the remains of a low stone bench. A threshold (width 0.75 m ) that consisted of a large flat boulder was found in W208 (Fig. 5). Within the building, two large, squared and flat-topped stones probably served as pillar bases. Assuming that these stones were positioned along the central axis of the structure and that the entranceway was in the center of W208, a minimalist reconstruction of the building may be suggested ( $5.6 \times 13.0 \mathrm{~m}$ ). Set into the floor within the building was a large boulder with a hewn and smoothed cupmark that may have been used for crushing and grinding. Upon the floor, a scattered accumulation of burnt mud-brick fragments and debris was found, in addition to several crushed, yet complete store jars (Fig. 6) and a high loop-handled cup that may be assigned to EB IB.
To the north of Building 1, additional walls appear to indicate the existence of another, adjacent structure.
Building 2, to the west of Building 1, was partially uncovered (see Fig. 3). The limited remains of this building suggest a structure of similar construction and orientation as Building 1.
Stratum II. This stratum was a direct continuation of Stratum III as indicated by the continued use of Building 1 and the adjacent structure to its north. Building 2 ceased to function and was replaced with an extension, also with a rounded corner, that was attached to W200 of Building 1 (Fig. 7). Immediately to the west of Building 1, a circular structure was built (outer diam. 3 m , inner diam. 2.1 m ; Fig. 8). Entrance to this structure was through an opening (width 0.55 m ) from the north, paved with flat stones, which led down to a beaten-earth floor (Fig. 9). The slightly in-sloping walls (width 0.65 m ) suggest it was a domed structure that may be interpreted as a storage room or an above-ground silo.
Stratum I. Remains of this stratum were exposed in all the excavated squares of Area D1 and consisted of several large walls that shared a common orientation (Fig. 10). The remains of this stratum canceled nearly all the architectural elements of the previous strata and appear to represent the remains of one or more large sized complex buildings that should possibly be dated to the EB II period. A large open space, covered with a beaten-earth surface, was created in the northern part of Area D1, overlaying the previous remains of Strata II and III. Two walls (W215, W217) were identified in Square C, separated by an entranceway that was blocked up (Fig. 11). A line of upright stones next to one of these walls could have been a windbreak or some other construction feature of unclear function. The architectural remains in SqF represented elements of three rooms, two of which were connected by an entranceway (Fig. 12), as well as two superimposed floors.

## Area D2

Situated to the south of Area D1, this area comprised two and a half squares (Sqs H, I, J) in which remains of two superimposed architectural phases were uncovered (Fig. 13). The lack of direct physical linkage between Areas D1 and D2 does not permit, at present, to determine to which of the Area D1 strata, the Area D2 phases should be assigned.
Of the earliest phase, a few walls of unclear plan, all set upon sterile alluvium, were revealed. One of the walls (W216) was found to retain a course of burned mud bricks atop the stone foundation (Fig. 14), indicating that this area was destroyed by fire during an earlier phase.
The area was rebuilt in the later phase and portions of the earlier walls were dismantled. In Square H, a portion of a large wall (W218) with an outer rounded corner was exposed (Fig. 15). Abutting W218 was a small circular stone-built installation with a plastered base (Fig. 16), which contained a crushed store jar (Fig. 17). Several large walls, built of medium-sized to large stones, were revealed in Squares I and J (Figs. 18, 19). Some of these walls, which appear to have been part of a complex structure, were slightly curving. Two large grinding stones within the building (see Fig. 19) were apparently set above the floor.

## Area D3

This area, 15 m to the south of Area D2, included two squares ( $\mathrm{Sqs} \mathrm{N}, \mathrm{O}$ ) in which remains of a single occupational phase that consisted of a curving wall with an associated floor, both set upon sterile alluvium (Fig. 20), were revealed.

Area D4
This area, 25 m south of Area D3, consisted of four excavation squares ( $\mathrm{U}, \mathrm{V}, \mathrm{W}, \mathrm{X}$ ) that revealed meager architectural remains set upon sterile alluvial soil. A portion of a curving wall of unclear plan was revealed in Square U (Fig. 21).

Mechanical probing that followed the excavation in this area revealed another level of architectural remains directly below this wall; however, these could not be fully exposed. Another small portion of a curving wall, which may have belonged to a circular structure, was revealed in Square X.

## Area D5

This area (Sqs AA, AB), c. 30 m south of Area D4, revealed lines of stones that had no clear plan and were set upon sterile soil. The ceramic material from this area was mixed and therefore, the features could not be associated with any specific archeological period.

The present excavations, along with previous investigations in the nearby area, have all exposed portions of an extensive proto-historic settlement of the EB IB/II periods on the western bank of Nahal Eshta'ol, whereas another site of the Intermediate Bronze Age was located farther to the northeast. Scattered finds recovered from the excavation seem to indicate a nearby Neolithic occupation; in situ remains from this period were identified in Area A. A Chalcolithic settlement may have also existed at the site (Stratum V), as evidenced by scattered finds and a limited in situ exposure in Area D1. Although the size of the EB settlement is as yet unclear, it appears to have been spread out along the western bank of the now-dry wadi bed and continues farther upslope toward modern Eshta'ol. Following the present excavation, archaeological inspection of mechanical earthmoving some 500 m southwest of the Eshta'ol junction and southwest of Area D5 revealed more architectural remains that have yet to be excavated. Remains of the Early Bronze Age appear to have been spread out even farther south along the wadi bank, as a cultic site of EB IB is known at Hartuv, located a few kilometers to the south of the present excavation.
During the main period of occupation, EB IB, the site was intensively settled throughout three successive strata that included several large, often complex structures with rounded outer corners alongside large circular structures that were probably intended for storage. The last period of settlement may possibly be associated with the EB II period, as the architectural remains of Stratum I ignored the previous occupation and lacked any remnants of curvilinear architecture that was characteristic of Strata III-II. No evidence of the Intermediate Bronze (EB IV/MB I) settlement was identified in the present excavation; this occupation appears to have been restricted to the area north of the Eshta'ol junction.

2. Area D1, general view looking west.

3. Area D1, Strata V-III, plan.

4. Area D1, Sq A1, a small probe showing difference in matrix of Stratum V (at bottom) and Stratum IV (at top), looking southeast.

5. Area D1, Building 1, the threshold, looking north.

6. Area D1, Building 1, a crushed storage jar upon floor, looking southwest.

Area D1

7. Area D1, Stratum II, plan.

8. Area D1, Stratum II, the circular silo, looking north.

9. Area D1, the entranceway into the silo after clearance of blockage, looking north.


11. Area D1, Stratum I, Sq C, architectural remains; blocked-up entrance at lower right, line of standing stones at lower left, looking south.

12. Area D1, Stratum I, Sq F, architectural remains, looking north.

14. Area D2, burned mud bricks atop stone foundations of W216, looking northwest.

15. Area D2, Sq H, architectural remains, looking south.

16. Area D2, Sq H, a round stone-built installation abutting W218, looking northwest.

17. Area D2, Sq H, a crushed store jar within round stone installation, looking east.

18. Area D2, Sq I at the end of excavation, looking southeast.

19. Area D2, Sq J at the end of excavation; at left, two large grinding stones of later phase, looking southeast.

20. Area D3, Sq N, architectural remains, looking west.

21. Area D4, Sq U, architectural remains, looking west.

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1. Area $A$, general view, looking northwest.

2. Area A, Stratum I, Floor 108 overriding Stratum II W111 of eastern building,

3. Area A, Stratum II, W111 of eastern building and W130 of western building, looking north.

4. Area A, Stratum II, western building, olive crushing basin, looking south.

5. Area $B$, winepress vat.

During December 2001, a trial excavation was conducted at Et-Taiyiba (Permit No. A-3546; map ref. NIG 24220/72340; OIG 19220/22340), in the wake of discovering ancient remains while digging a sewer trench. The excavation, carried out on behalf of the Antiquities Authority and financed by the Gilboa Regional Council, was directed by K. Covello-Paran, with the assistance of A Mokary (field supervision), V. Essman and V. Pirsky (surveying), E.J. Stern (pottery analysis), H. Tahan (drawing) and Y. GorinRosen (glass analysis).

Et-Taiyiba is located in Ramat Yissakhar on the western bank of Nahal Yissakhar. The site had been extensively surveyed in the past (Map of Gazit [46], 1991, Site 53), yet the present excavation is the first at the site. Two excavation areas (A, B) were opened, revealing architectural remains from the Roman, Byzantine, Crusader and Mamluk Periods, as well as additional ceramic finds, dating to the Hellenistic period.

## Area A

Four squares were excavated (66 sq m; Fig. 1), exposing three strata dating to the Byzantine, Crusader and Mamluk periods.
Stratum I (Mamluk Period). Very fragmentary building remains included a wall (W124) and a stone floor (L108; Fig. 2).
Stratum II (Crusader Period). This was the best preserved stratum. Architectural remains of two buildings were exposed (Fig. 3). Two construction phases that included the raising of floors and the partitioning of rooms were distinguished in the eastern building. Some of the walls from this period were preserved 0.9 m high. The western building consisted of a large basalt olive-oil press of the direct-pressure screw type, in situ (Fig. 4). The western building was probably an oliveoil installation and the eastern building-an assemblage of rooms connected to the same unit. Additional finds consisted of potsherds, iron nails and implements, as well as glass.
Stratum III (Byzantine Period). A single wall segment from this stratum was dated according to the pottery found in fills associated with it. Stratum II walls were directly overlying this wall.

## Area B

The collecting vat of a winepress, dating to the Roman period, was excavated east of Area A. This circular vat (diam. 2 m , depth 1.5 m ) had well-preserved plastered walls (thickness of plaster 8 cm ; Fig.5). This winepress was located on the other side of a wadi bed, in close vicinity to Horbat Haddad.

The excavation results enable us to shed light on the Byzantine, Crusader and Mamluk occupations at the site. The exposure of an olive press, weights, and a winepress suggest that industrial activities were undertaken at the site's margins, near an abundant spring and a road that was used to transport the produce. The site had undoubtedly close contacts with Horbat Haddad, to the south.
During the Crusader period, a castle named Forbelet ('Afrabala?) was built at the site. This Hospitaller castle was destroyed in 1187 by Saladin. The castle was not totally demolished since it was later occupied for a few years by marauding Muslims during the siege of the nearby Crusader castle Belvoir. Part of one of the castle's towers is still standing today.

The construction of a Crusader castle at the site reinforces the advantages of its location near a spring, fertile agricultural land and an important ancient road, as well as being a strategic spot for defense.


1. Area A, general view, looking northwest.

2. Area A, Stratum I, Floor 108 overriding Stratum II W111 of eastern building,

3. Area A, Stratum II, W111 of eastern building and W130 of western building, looking north.

4. Area A, Stratum II, western building, olive crushing basin, looking south.

5. Area $B$, winepress vat.

6. Plan and sections.

During July 2001, a salvage excavation was conducted in the center of l'billin-Evlayim (Permit No. A-3456; map ref. NIG 21830-1/74750-1, OIG 16830-1/24750-1), prior to construction. The excavation, on behalf of the Antiquities Authority, was directed by R. Abu Raya, with the assistance of A. Hajian (surveying), H. Tahan (pottery drawing) and D. Syon (numismatics).

The excavation $(6 \times 15 \mathrm{~m})$ took place along the top of the southern slope in the ancient settlement, c. 50 m south of the Greek-Orthodox Church. Remains of a building that dated to the Byzantine period and a farming terrace wall, dating to the Ottoman period, were exposed (Fig. 1).

The southern part of a building (width 12.7 m ), constructed from roughly hewn soft limestone, was exposed. Three rooms with tamped-earth floors (thickness $5-10 \mathrm{~cm}$ ) were arranged along the building's southern wall (W2). An opening was installed in the southern wall of the eastern room (width 5.1 m ), which was the largest of the three. The southern, eastern and western walls of the middle room (width 2.2 m ) were uncovered. A circular tabun (diam. 1 m , depth 0.2 m ) was on the floor of the western room (width 3.2 m ). Collapse of large ashlar stones (max. dimensions $0.5 \times 0.6 \times 0.7 \mathrm{~m}$ ) and soil fill, as well as ash that indicates destruction, were piled above the remains of the building. The soil fill contained fragments of pottery vessels, including mainly bowls, jars, cooking pots and numerous imported vessels. This ceramic assemblage, dating to the Byzantine period (sixth century and beginning of the seventh century CE), is characteristic of sites in the western Galilee. Three coins were discovered within the floor of the middle room and in the fill above the building remains, two of which dated to the fourth century CE (IAA 106151, 106152). Another coin that dated to the same period was discovered on surface (346-361 CE; IAA 106153).

A long farming terrace wall ( W 1 ; length 9 m , width 0.3 m , height 1.5 m ), well-built of one row of roughly hewn mediumsized stones $(0.25 \times 0.30 \times 0.35 \mathrm{~m})$, was exposed above the building remains. On the southern side of the wall, in the direction of the slope, tamped fill and habitation layers that extended down to the foundation of the wall were discovered. These layers of fill yielded fragments of pottery vessels and pipes that dated to the end of the Ottoman period (eighteenth century CE). The eastern part of the wall was next to a square building, which was not excavated and dated to the latter part of the nineteenth century CE; sections of its western (W4) and southern (W6) walls were visible. The walls of the building were built of roughly hewn stones in secondary use that originated from the Byzantine-period building.

Numerous previous excavations were conducted at Evlayim, revealing installations, a burial cave and hiding refuge complexes. The current excavation exposed, for the first time, part of a residential building from the Byzantine period. The building shows that rural construction was impressive and utilized particularly large stones.


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Evlayim (B)


1. The excavation areas.

2. Plan and sections.

During January, June and July 2003 a trial excavation was conducted in the ancient section of 'lbillin (Permit Nos. A-3799, A-3920; map ref. NIG 21836-7/74747-8; OIG 16836-7/24747-8), prior to construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by R. Abu Raya, with the assistance of V. Essman and V. Pirsky (surveying and drafting), H. Tahan (pottery drawing) and D. Syon (numismatics).

The excavation, $(6 \times 12 \mathrm{~m})$ was conducted on a hilltop, in the center of a sanctuary associated with Saint Mariam Baouardy, who lived there in the nineteenth century CE. The excavation area was c. 15 south of the Greek Orthodox Church and c. 30 m north of the previous excavation at the site (HA-ESI 120; Fig. 1). Building remains and artifacts that ranged from the Roman until the Ottoman periods were exposed (Fig. 2).

A ritual bath (miqwe), a hewn tunnel and a cave from the Early Roman period (Strata I, II) were excavated. The miqwe was coated with plaster and consisted of a square pit (L187; $1.5 \times 1.5 \mathrm{~m}$, max. depth 1.6 m ) in whose northern wall was a hewn arched opening that led to a vaulted underground chamber (L189; $1.2 \times 2.1 \mathrm{~m}$, height 1.6 m ). A hewn tunnel (L118; length 3 m , width 1.2 m , height 1.3 m ), which was coated with plaster different than that of the miqwe, led from the western wall of Chamber 189 to a round rock-cut cave (L115; diam. c. 3 m ) that was mostly filled with alluvium and not excavated. It seems that this complex served as a hiding refuge. An arched opening in the western side of Cave 115 led to a plastered underground chamber that was not excavated.

Associated with the Byzantine period (Strata III, IV) were two parts of rooms (Loci 183, 186). An opening (width 1 m) was set in their common wall (W15). A large stone $(0.7 \times 0.8 \times 1.0 \mathrm{~m})$ with a square hewn recess $(0.2 \times 0.2 \mathrm{~m})$ that was used as an installation was exposed in Room 183. Ascribed to the end of the Byzantine period (Stratum IV) were the wellpreserved remains of a building, constructed from ashlars. The building consisted of four rooms (Loci 181, 188, 191, 192), a plastered pool (L182) and a staircase (W10). A tamped chalk floor was uncovered in Room 188; on the floor in the middle of the room was a square stone that could have been used as a column base. The eastern wall of the room and the floor were built on the miqwe from the Roman period. The opening of Room 189 in the miqwe was sealed and the tunnel and cave, which were connected to the miqwe were adapted for storing water. These building remains attest to the importance of the settlement in this period.

The building continued to be used without alterations in the Umayyad period (Stratum V).
The remains from the Fatimid period (Stratum VI) consisted of a cluster of potsherds, including green and white glazed bowls, which was discovered in the eastern part of the excavation area.

A small section of a massive wall ( W 1 ; length 8 m , width 1.6 m , preserved height 1.5 m ) was attributed to the Crusader period (Stratum VII). Wall 1 was oriented east-west and a pilaster (W5; $1.2 \times 1.4 \mathrm{~m}$, height 2.4 m ) abutted it from the south.

A few potsherds from the Mamluk period (Stratum VIII) were discovered; these were mostly found inside later fills and a few had penetrated into the habitation level of the Umayyad period.
The Ottoman period (Stratum IX) was represented by parts of two rooms (Loci 185, 186) and a courtyard (L184), which were founded on the building remains from the Byzantine period. A building that stood there was destroyed in the middle of the twentieth century CE. An east-west oriented tomb (L177) was also found. It contained the primary burial of an old woman whose skeleton was laid in a supine position. Her head was in the west and her arms were crossed on her chest, as customary in a Christian burial.


1. The excavation areas.

2. Plan and sections.
(Volume No. HA-ESI 120 (2008
Gan Ner
Final Report

3. Plan and sections.

4. Western winepress, looking southeast.

5. Eastern winepress, looking southeast.

Leea Porat

During April 2005, a salvage excavation was conducted along the road to Gan Ner (Permit No. A-4435*; map ref. NIG 232003/716560; OIG 182003/216560), prior to its widening. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Gilboa Regional Council, was directed by L. Porat, with the assistance of Y. Lavan (administration), H. Tahan (surveying and drafting), A Shapiro (GPS) and laborers of the IAA.
The site, situated on the northern shoulder of the access road, to the east of Gan Ner, had been damaged in the past during paving work. Two adjacent winepresses, hewn in nari bedrock, were exposed (Fig. 1).

The western winepress (Fig. 2) consisted of a trapezoidal treading floor ( $1.65 \times 2.50 \mathrm{~m}$ ) with two deep recesses in its sides (diam. 0.33 m , depth 0.41 m ). North of the treading floor was a rectangular collecting vat ( $0.78 \times 1.08 \mathrm{~m}$, depth 0.42 m ), with a hewn niche at the bottom. Two perforations (diam. 0.17 m ) in the bedrock partition (thickness 0.2 m ) between the collecting vat and the treading floor connected the two.
This winepress was similar to the winepresses excavated at Migdal Ha-'Emeq ('Atiqot 34:195-197), which were dated to the Middle Bronze Age.

The treading floor $(2.08 \times 4.60 \mathrm{~m})$ in the eastern winepress (Fig. 3) was damaged in antiquity when ashlar masonry stones were quarried in its western part and the paving of a road in the modern era destroyed its southern part. A square mortise in the center of the area became wider toward the bottom ( $0.23 \times 0.30 \mathrm{~m}$, depth 0.2 m ) and secured a screw press that was used to squeeze grape skins. Two conduits that connected between the treading floor and the mortise were cut in the bedrock partition (thickness 0.3 m ) that separated the two. The rectangular collecting vat ( $1.10 \times 1.37 \mathrm{~m}$, depth 1.3 m ) had a wide step in the west, to which a shallow gutter of unclear purpose led. A rectangular pit ( $0.53 \times 0.60$ m , depth 0.2 m ) paved with a white mosaic was hewn in the southwestern corner of the vat's floor. Traces of plaster on the walls of the collecting vat were embedded with potsherds from the Roman period, indicating the date of the winepress.


1. Plan and sections.

2. Western winepress, looking southeast.

3. Eastern winepress, looking southeast.
(Volume No. HA-ESI 120 (2008
Gan Soreq (Southwest)

## Final Report

Uzi 'Ad


1. Plan and sections.

2. Western square, looking west.

3. Western square, habitation level with a jar base, looking east.

4. Western square, east balk.

5. Eastern square, looking north.

During March 2006 a salvage excavation was conducted at Gan Soreq (Southwest and South; Permit No. A-4749*; map ref. NIG 17743/65126; OIG 12743/15126), prior to the installation of a sewage line. The excavation, carried out on behalf of the Antiquities Authority and financed by the A.R. Yitzhaki Company, Ltd., was directed by U. 'Ad, with the assistance of E. Bachar (administration), A. Hajian (surveying), O. Ackerman (geomorphology), O. Segal and E. Yannai (pottery reading), and M. Shuiskaya (drawing).
The excavation area was located on the lowest part of the northern fringes of a hill. In the center of this hill a large site dating to the Middle and Late Bronze Ages was surveyed, as was a site along its eastern edge that dated to the Persian and Hellenistic periods. A farmstead that dated to the Hellenistic period, c. 0.5 km to the east, was recently excavated (HA-ESI 118) and 0.8 km to the west-southwest a village that was occupied from the end of the Iron Age to the Hellenistic period was excavated (Permit No. A-4248).

Two squares were opened at a distance of 30 m from each other (Fig. 1). A habitation level and mud bricks from Middle Bronze IIA were discovered in the western square, while the eastern one revealed a fill with kurkar stones from the same period.
A clayey layer was exposed in the western square. It was overlaid with a habitation level (Loci 2003, 2005; Figs. 2, 3) that contained pottery vessels, remains of sun-dried mud bricks, flint and basalt stones. Pits dug into the clayey layer, possibly associated with the production of mud bricks, were identified in several places. The foundation of a mud-brick wall of the same material was documented on the hilltop, to the south. Above the habitation level was an accumulation $(0.3-0.5 \mathrm{~m})$ that comprised layers of sand and hamra with variable amounts of clay, a few potsherds and lumps of charcoal (L2002; Fig. 4). This was superimposed with a homogeneous fill ( $1.0-1.5 \mathrm{~m}$ ) of dark hamra mixed with chunks of charcoal and several potsherds (L2000). Above the fill was a layer of sand (thickness 7-10 m) that had been removed prior to the excavation.
The kurkar bedrock was exposed in several places in the eastern square (Fig. 5). A concentration of kurkar stones (L2004; $0.25 \times 0.30 \mathrm{~m}$, thickness $0.12-0.15 \mathrm{~m}$; Fig. 6) was discovered in the northeastern corner. Although it is unclear whether they were hewn in situ or brought there, they are indicative of some activity that was conducted in this place. Reddish hamra (L2001; thickness 0.8 m ; Fig. 7), devoid of any finds, was exposed above the kurkar. Above it was an accumulation $(0.3 \mathrm{~m})$ of sand and hamra layers with variable quantities of clay; this was overlain with a homogeneous layer $(0.6 \mathrm{~m})$ of dark hamra mixed with chunks of charcoal and a few potsherds (similar to the fill in the western square; L2000). It seems that the sand and hamra accumulation occurred after the site was abandoned and parts of it were washed away by rain. The homogeneous fill was apparently created by torrential rain and/or an earthquake. As a result of this, walls and parts of the buildings were swept from the hilltop and piled up (thickness 1.5 m ) at the bottom of the slope, while in the settlement's buildings at the top of the hill only the foundations remained. A similar fill was revealed along the southern fringes of the village ( $\mathrm{A}-4248$ ). The discovery of the farmhouse and the village to the east suggests that after the Roman period the region was abandoned and subsequently covered with sand dunes.
A meager assemblage of pottery vessels that mostly derived from the habitation levels (Loci 2003, 2005) was dated to MB IIA and included a large bowl rim (Fig. 8:1), a disc base of a red-slipped platter with radial burnishing (Fig. 8:2), storage jars with everted rims (Fig. 8:3, 4), a jar rim with an inner gutter (Fig. 8:5) and a flat storage jar base (Fig. 8:6).

The findings from the excavation and the survey on the hill to the south show that a large site from MB IIA was situated on the hill and the excavation area was along the northern edge of the hill. The area of the site is estimated to be c. 30 dunams, including the cemetery in its western part, some of which was damaged by development work. The exposed thick clayey layer is indicative of massive construction that utilized sun-dried mud bricks. This site joins similar contemporary sites that were excavated at Yavne-Yam, Ashdod, the cemetery at Bat Yam and along the Nahal Soreq channel. The large MB II cemetery, c. 2 km to the north (Rishon Le-Ziyyon West), where more than 200 burials were exposed, should be mentioned in this context (ES/ 13:75-59).


2. Western square, looking west.

3. Western square, habitation level with a jar base, looking east.

4. Western square, east balk.

5. Eastern square, looking north.

6. Eastern square, concentration of kurkar stones, looking southeast.



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10
8. Pottery

## (Volume No. HA-ESI 120 (2008

## Giv'at 'Ada

Final Report

Abdallah Masarwa

18/8/2008


During October-November 2004, a salvage excavation was conducted at Giv'at 'Ada (Permit No. A-4272'; map ref. NIG 20171-80/71407-22; OIG 15171-80/21407-22). The excavation, carried out on behalf of the Antiquities Authority and funded by the A.A. Ha-Shalom Company and the Industrial Buildings Company, Ltd., was directed by A. Masarwa, assisted by A. Hajian (surveying and drafting).

The excavation was conducted along the eastern fringes of the settlement, above a steep slope on the southeastern edge of Ramot Menashe.
Two areas (A, B) were opened, revealing quarries and a limekiln. Previous archaeological excavations that had been conducted nearby (HA-ESI 118) exposed remains that dated to the Roman and Byzantine periods, as well as sections of a Roman road, to the northeast of the current excavation (License No. B-250/2002).
Area A. Small rock-cuttings were discerned along almost every chalk bedrock outcrop, as well as 27 quarries of the small courtyard type and stepped quarries. The asymmetrical quarries, whose hewing exploited most of bedrock surface, occurred in a variety of sizes and depths. Stones that were not extracted were discerned in some and severance channels for the purpose of detaching the stones with the aid of wooden or iron rods were noted in others. No artifacts that could assist in dating the quarries were found.

Area B. A circular limekiln (inner diam. 2.4 m, outer diam. 3.1 m , depth 1.9 m ; Fig. 1) was excavated. Its western side was entirely bedrock hewn, as was its lower part (L201; depth 1 m ). The upper part, built of dry fieldstone construction utilizing different sized stones (L202), was preserved four courses high. On the northern side of the kiln, between the hewn and built parts, was a ventilation opening (diam. 0.3 m ). The stoke hole was located in the northwestern side of the installation (preserved height 0.4 m ). The kiln's ceiling apparently collapsed and nothing was preserved of it. In the absence of any finds it was impossible to date the kiln.


## 1-1

1. Limekiln, plan and section.
(Volume No. HA-ESI 120 (2008

## Giv'at 'Ada

Final Report

Abdallah Masarwa

18/8/2008


1. Plan.

During November-December 2004, a salvage excavation was conducted at Giv'at 'Ada (Permit No. A-4285*; map ref. NIG 20171-80/71407-22; OIG 15171-80/21407-22). The excavation carried out on behalf of the Antiquities Authority and funded by the A.A. Ha-Shalom Company and Industrial Buildings Company, Ltd., was directed by A. Masarwa, assisted by A. Hajian (surveying and drafting).
The excavation was performed along the eastern margin of the settlement, above a steep slope on the southwestern fringes of Ramot Menashe; remains of quarries were discovered. Previous archaeological excavations were conducted nearby (HA-ESI 120).
On a slope of soft chalk bedrock and in an area of $8 \times 60 \mathrm{~m}$, about 38 rock-cuttings and quarries of the square courtyard type were exposed. One to four layers of quarrying that utilized most of bedrock were discerned in the quarries, as well as severance channels and the negatives of stones that were of uniform size $(0.20 \times 0.35 \times 0.80 \mathrm{~m})$. The work in the quarries was apparently suspended when the quarrymen encountered very hard limestone. The quarries could not be dated due to the absence of ceramic finds.

It seems that the exposed remains were part of an industrial complex, which may have been used to maintain the Roman road passing nearby.


1. Plan.

2. The excavation, looking east.

## (Volume No. HA-ESI 120 (2008 Giv'at Orha (Jukhadar) Final Report

Oren Zingboym
23/11/2008
During July 2006, a trial excavation was conducted within the precincts of Tel Jukhadar and Khan Jukhadar antiquities sites, north of Ramat Magshimim in the Golan Heights (Permit No. A-4848*; map ref. NIG 279775/759130; OIG $229775 / 259130$ ), prior to the widening of Highway 98 . The excavation, on behalf of the Israel Antiquities Authority and at the request of the Jewish National Fund, was directed by O. Zingboym, with the assistance of Y. Ya'aqoby (administration) and laborers from Buq'ata.
The site of Jukhadar and the adjacent khan were described by G. Schumacher in his book on the Golan (The Jaulan, 1888, p. 184). It was investigated in the emergency survey of the Golan, conducted by C. Epstein and S. Gutmann (Judaea, Samaria and the Golan, Archaeological Survey 1967-1968, Jerusalem, 1972, p. 276). At the beginning of the 1970s, D. Urman conducted an extensive excavation at the site, revealing a large settlement from the Roman and Byzantine periods, as well as potsherds whose dates ranged from the Bronze Age until the Mamluk period (License No. K2/1969; HA 26:5; 30:3; 33:11-12 [Hebrew]). The khan, dating to the Mamluk period, has not been excavated to date.
The current excavation was conducted in a flat area of Dalawa basalt that descends gently to the southeast. Prior to the excavation, a probe conducted with the aid of mechanical equipment exposed potsherds that dated to the Roman and Byzantine periods, but none from the Mamluk period were found.

Two squares were opened east of Highway 90, in an area between the Roman-Byzantine site and the khan (Fig. 1). No architectural remains were found, yet ceramics that ranged in date from the Persian to the Mamluk periods (sixth century BCE-fourteenth century CE) were collected, with a considerable amount of potsherds from the Hellenistic to the Byzantine periods (second century BCE-seventh century CE).

It appears that the excavation area is located outside the limits of the Jukhadar site and beyond the area of the Mamluk khan. Based on a topographic analysis of the region, it was determined that ancient roads dating from the biblical period until the modern era probably ran through the area between the khan and Giv'at Orha. No remains of a road were found in the limited excavation and the origin of the recovered potsherds was not ascertained.


1. The excavation, looking east.

## (Volume No. HA-ESI 120 (2008 <br> Gush Halav



1. Plan and section.

2. Overall view, looking north.

3. Walls from the Iron Age I (right) and the Middle Bronze Age II, looking north.

4.A tabun and a fieldstone installation above it, looking east.

4. A pit with an Iron Age wall at its bottom, looking east.

In December 2006 a trial excavation was conducted at Gush Halav (Permit No. A-4976; map ref. NIG 2420/7702; OIG 1920/2702), prior to the construction of a retaining wall for the cemetery in the southeastern part of the tell. The excavation, on behalf of the Antiquities Authority and with the financial backing of the local council, was directed by M. Hartal, with the participation of Y. Yaakoby (administration) and A. Shapira (surveying).

The village of Jish (Gush Halav) is situated on the southern slope of an ancient tell where remains were found that date from the Early Bronze Age to the Early Islamic period. Numerous excavations were conducted within the precincts of the village and on the northern and western slopes of the tell where settlement remains and tombs were exposed. The tell, at the top of the village, has not yet been excavated and for the first time a small section of its area has been exposed. In the excavation, which was conducted on a farming terrace south of the cemetery, a half-square was opened where four settlement strata were revealed (Figs. 1, 2).

## Stratum 4

The most ancient remains were found c. 3 m below the surface (Fig. 1 section). The southern face of a wall section (W520) was exposed that was built of large basalt fieldstones (Fig. 3). A tamped earth floor abutted the wall; on it was an ashy layer (L519) in which pottery vessels of the Middle Bronze Age II were found.

Stratum 3
A basalt wall (W511; Fig. 3) that was abutted by a tamped earth floor (L518) was built above the wall of Stratum 4 and perpendicular to it. On the floor was an accumulation of hard soil and stone collapse in which there were potsherds that date to the Iron Age I.

## Stratum 2

The remains from the Iron Age I were covered by a layer of soil in which fragments of pottery vessels were discovered that date to the Early Roman period (L512), without any building remains. The finds included stone vessels and pottery production debris.

## Stratum 1

Sections of walls (W501, W502) were exposed beneath the surface. In the western half of the square an installation was uncovered whose walls were treated with gray plaster (L504). Next to this installation a large tabun (L515) that was paved with jar fragments (Fig. 4) was built. Fragments of potsherds that date to the Late Roman period were discovered inside the tabun. After the tabun was no longer in use a fieldstone-constructed installation (L509) in the shape of a quarter-circle was built above the northeastern part of it. In the northeastern part of the square two wall sections (W506, W507) that constitute the corner of a room (L505) were found that dates to the Late Roman period.
In the southeastern corner of the square a deep pit (L510) was exposed that went down to the level of the Iron Age I wal and even below it (Fig. 5). The pit was full of small stones and a large quantity of potsherds that mostly date to the third and fourth centuries CE. When the pit was originally excavated in antiquity the corner of the walls from the Late Roman period in the eastern part of the square were damaged and mixed ceramic material was found in the section which goes down from it to the pit. Close to the southern end of the square another disturbance was found that severed the strata from the Roman period and was connected to the pit. The fill in the pit and the nature of the disturbance, which is simila to the finds that were revealed on the northern slope of the tell, indicate it was almost certainly caused by a land slide that destroyed most of the area of Roman Gush Halav.
The excavation at Tel Gush Halav exposed for the first time remains that predate the Roman period. Due to the limited area of the excavation the picture that was revealed is only partial, but is sufficient to contribute towards a reconstruction of the settlement's history. The beginning of the settlement at the tell was in the Early Bronze Age. Only a few potsherds from this period were found in the excavation, probably because it did not reach the lowest levels where remains from this period would be expected. The earliest structure that was exposed is dated to the Middle Bronze Age (Stratum 4). All that was found from the Late Bronze Age was isolated potsherds; in the Iron Age I the area was rebuilt (Stratum 3). The foundations of the wall from this period were built on the top of the wall from the Middle Bronze Age. From the later phases of the Iron Age and the Persian period, at which time the tell was inhabited (according to the survey), no artifacts were found. Only a few potsherds were recovered that date to the Hellenistic period and these were not in situ. In the Early Roman period the area was inhabited (Stratum 2) and even though walls were not exposed, a rich assemblage of pottery, glass and stone fragments was found. Based on the finds and the historical evidence the residents of the settlement were Jewish. Gush Halav was one of the settlements that was fortified in the time of the Great Revolt, and John of Giscala was appointed its head. According to Josephus the city capitulated and was therefore not destroyed.

Walls of buildings and a large tabun were found in the last settlement layer (Stratum 1) which is ascribed to the Late Roman period. At the end of that period the site was damaged, probably by a landslide. With the exception of a few potsherds from the Byzantine period no artifacts that date to later periods were discovered in the excavation. Similar finds were also uncovered in the excavations along the northern slope (HA-ESI 118) of the tell while remains from the Byzantine and Early Islamic periods were found in a small excavation in its southwestern part (Permit No. A-3738).


## 1-1


2. Overall view, looking north.

3. Walls from the Iron Age I (right) and the Middle Bronze Age II, looking north.

4.A tabun and a fieldstone installation above it, looking east.

5. A pit with an Iron Age wall at its bottom, looking east.
(Volume No. HA-ESI 120 (2008
Gush Halav
Archive Report- Final Report
Amit Shadman
30/11/2008
During April 2007, a trial excavation was conducted along the southern fringes of the Gush Halav site (Permit No. A-5116*; map ref. NIG 24191-4/76982-5; OIG 19191-4/26982-5; HA-ESI 120). A single square was excavated, revealing a few ex situ potsherds.


1. Plan and section.

2. The reservoir, looking east.

3. The reservoir after its conversion for use as a dwelling, looking north.

4. Muslim tombs, looking east.
(Volume No. HA-ESI 120 (2008
Ha-Bonim
Final Report
Kareem Sa'id
During December 2006, a trial excavation was conducted in a new neighborhood of Moshav Ha-Bonim on the Karmel coast (Permit No. A-4958*; map ref. NIG 19397-401/72704-6, OIG 14397-401/22704-6), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and financed by Moshav Ha-Bonim, was directed by K. Sa'id, with the assistance of S. Ya'aqovJam (administration), A. Hajian (surveying and drafting), T. Sagiv (photography), A. Dagot (GPS), P. Gendelman (ceramic consultation) and M. Shuiskaya (pottery drawing).
Moshav Ha-Bonim was built on the remains of an ancient settlement, known as Kafr Lam during the Ottoman period, which is documented in historical sources. The name could be a disruption of the Crusader name Kafer Lia. The excavation ( 120 sq m ) was conducted along the western slope of a kurkar ridge, which is c. 1 km east of the coastline. A quarry, a water reservoir from the Ottoman period and Muslim tombs were exposed (Fig. 1). Some 150 m west of the current excavation, a previously large excavation was conducted in the Ha-Bonim fortress (HA-ESI 114:30*-33*), revealing artifacts that dated to the Chalcolithic, Persian, Hellenistic, Roman and Byzantine periods, as well as the remains of a fortress that was used from the Umayyad until the Ottoman periods.

Stone Quarry(L812; $6 \times 8 \mathrm{~m}$ ). Quarrying and severance channels were discovered on several rock-hewn steps. The stepquarrying method was meant to facilitate the rock-cutting and the detachment of stones, providing easy access to all sides of the removed stone. The size of the steps was determined by the size of the quarried stones. Modern debris was mostly found in the fill of the quarry, which belonged to a series of ancient quarries that were located on the kurkar ridge in the vicinity of Moshav Ha-Bonim and mainly operated during the Byzantine period. Several of the quarries were later adapted for use as agricultural installations and burial caves.

Water Reservoir. An L-shaped water reservoir (height 3 m ) was exposed to the west of the quarry. It was built of ashlar stones and comprised two vaulted rectangular halls (A-3.6×6.0 m; B-3.0×3.4 m; Fig. 2). White plaster, which was applied to the interior side of the walls, contained potsherds that dated from the Roman until the Ottoman periods. These potsherds testify to the fact that the reservoir was built during the Ottoman period. An opening in the ceiling of each of the halls enabled the drawing of water from the halls. Soundings excavated in Hall A exposed bedrock that served as the reservoir's floor (Loci 815,816 ), at a depth of 0.2 m below surface. The reservoir was converted for use as a dwelling in a later phase, probably toward the end of the Ottoman period. The conversion necessitated alterations that included an opening and a large window in the western wall (Loci 822, 823; Fig. 3), as well as a partition wall between the two halls (W821). A similar reservoir was discovered in the excavation of the fortress nearby (HA-ESI114:Fig. 46, Vault 22).

Tombs. South and west of the water reservoir, sixteen Muslim cist tombs were exposed (Loci 801-810, 813, 814, 817820; Fig. 4); they were documented but not excavated. The tombs, generally oriented east-west, were built of mostly small fieldstones and a few ashlar stones. It seems that the tombs dated from the end of the Ottoman period until 1948, when the Arab village at the site was abandoned.


1. Plan and section

2. The reservoir, looking east.

3. The reservoir after its conversion for use as a dwelling, looking north.

4. Muslim tombs, looking east.
(Volume No. HA-ESI 120 (2008
Had Nes
Final Report
Oren Zingboym
11/8/2008

5. Dolmen 12, looking north.

6. Dolmen 13, looking north.

During July 2005, a survey prior to development was conducted in the vicinity of Moshav Had Nes (Permit No. A-4535*; map ref NIG 2596-603/7600-10; OIG 2096-103/2600-10), prior to expansion work. The survey, carried out on behalf of the Antiquities Authority and financed by the Golan Economic Development Company, was directed by O. Zingboym and A. Shapiro.
The region is known to be a large field of dolmens and cairns that extends as far north as Qazrin. C. Epstein ('Atiqot 17:20*-58*) had previously conducted excavations in several dolmens north of the survey area and two large dolmens were documented before their destruction, prior to the expansion of the moshav. The survey was performed north and northwest of the development.
Fourteen sites of large dolmens and stone/clearance heaps were documented.

1. A large dolmen (diam. 10-11 m); built burial cell and cover stones.
2. Stone heap (diam. 8 m ), possibly a clearance heap of small stones.
3. Stone heap/dolmen? $(3.0 \times 8.5 \mathrm{~m})$, probably situated on top of a wall.
4. Stone heap/dolmen? (diam. 4 m ).
5. Two adjacent stone heaps without signs of construction, probably stone clearance heaps.
6. A ruinous dolmen (diam. 9 m ).
7. A ruinous dolmen within a heap of stones (diam. 11 m ).
8. A dolmen (diam. 8 m ) and cover stones in situ; the cell seems to be intact.
9. A dolmen (diam. 12 m ) and cover stones in situ; the cell seems to be intact.
10. A dolmen (diam. 11 m ) and cover stones in situ; the cell is robbed. Another dolmen, c. 50 m to the north, was situated beyond the boundaries of the construction plan.
11. An indistinct dolmen/building, possibly the top of a wall or a clearance heap. The area is characterized by much soil and vegetation.
12. A dolmen (diam. 12 m ) and cover stones in situ; the cell was robbed (length 7 m ).
13. A dolmen (diam. 9 m ) and cover stones in situ; the cell seems to be intact.
14. A cluster of stones that may be cover stones; no signs of construction were visible. A dolmen, c. 40 m to the east, was situated beyond the boundaries of the slated construction.

Eight large, distinct dolmens were located in the surveyed area and other sites appeared to be cairns or stone clearance heaps.


1. Survey map.

2. Dolmen 12, looking north.

3. Dolmen 13, looking north.
(Volume No. HA-ESI 120 (2008

## Haifa, Giv'at Ha-Qinyan, Survey

Final Report
Polina Spivak


1. Location and survey map.

During June 2006, a survey prior to development was conducted in the region of Giv'at Ha-Qinyan in Haifa (Permit No. A4838*; map ref. NIG 19849-950/74169-240; OIG 14849-950/24169-240). The survey, carried out on behalf of the Antiquities Authority and financed by H. Erez, was conducted by A. Shadman and P. Spivak, with the assistance of L. Yihye (GPS) and I. Berin (final plans).

The survey extended along the western slope of the Karmel ridge, between Nahal 'Ammiram in the north and Nahal 'Ovadya in the south (Fig. 1). The thick vegetation in the area made the survey work extremely difficult. A few potsherds, dating to the Byzantine, Crusader and Mamluk periods, were collected. The region had been surveyed in the past (Olami, Ronen and Romano. 2003. Map of Haifa - West [22]).

Prehistoric Finds. Five survey sites (15, 21, 22, 24, 38) included scatters of knapped flint implements that dated to the Middle Paleolithic and the Neolithic periods. Four of them (21,22, 24, 38) had especially high concentrations of flint implements that comprised dozens of items per square meter. These flint concentrations were connected to prehistoric sites that had been discovered nearby in the past, including Karmeliyya (ESI 14:137), Nahal 'Ovadya, Ornit Cave and 'Ovadya Cave (see Map of Haifa - West [22], Sites 108, 109). An abundance of raw flint is found in the vicinity.

Settlement Remains. Building remains, rock-cuttings, a quarry, several caves, hewn shafts and soil from a ruined site (Sites 16-20, 25-30) were documented on the northeastern part of the top of Giv'at Ha-Qinyan, indicating that an ancient settlement had existed here (Map of Haifa - West [22], Site 105). Building remains, a cave and soil from a ruined site were documented in the western part of Giv'at Ha-Qinyan (Sites 13, 14). Remains of a building and soil from a ruined site (Sites 10, 11) were observed at the top of a small hill, in the western part of the surveyed area. Due to the dense vegetation it was impossible to evaluate the extent of these remains.

Remains of Agricultural Activity. On the gentle slopes of the hills, a field wall was documented (Sites 4, 12; length c. 500 m ). It was built of two rows of fieldstones with rubble core and preserved three courses high. The wall was abutted by short perpendicular walls (Sites 4, 5, 9) that were built in a similar manner. Another similar wall (Site 33; length c. 100 m ) was discovered along the western slope of Giv'at Ha-Qinyan. The walls apparently delimited agricultural plots or pastureland. Five heaps of fieldstones (Sites 7, 36, 40-42), two circular watchman's huts built of fieldstones (Sites 12A, 39; diam. c. 2 m ), remains of two square buildings (Sites 6, 9) and several farming terraces (Sites $3,34,35,37$ ) were recorded in the area between the field walls.


1. Location and survey map.

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1. Plan.

2. The walls of the building, looking east.

3. The interior room, W357 and W351, looking south.

4. Pottery.

5. A hand axe.

During October-November 2006, a trial excavation was conducted in the Rambam Hospital compound, at Bat Gallim in Haifa (Permit No. A-4930*; map ref. NIG 198843-903/748670-745; OIG 148843-903/248670-745), after antiquities were discovered during probe trenching. The excavation, carried out on behalf of the Antiquities Authority and financed by the Rambam Healthcare Campus, was directed by K. Sa'id, with the assistance of P. Neuman (area supervision), S. Ya'aqov-Jam (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), P. Gendelman (ceramic consultation), I. Reznikov (pottery drawing) and P. Spivak (flint processing).
The excavation area lies in the northwestern part of Haifa, which is considered by many scholars to be the historic Haifa, extending between the German Colony and the Rambam Hospital.
The antiquities inspection files from the 1950s have descriptions of ancient buildings that were discovered in the region when foundations for new buildings were dug. The site had been mentioned in previous surveys (HA 17, 1966:22 [Hebrew]; Map of Haifa - West [22], Sites 12-14) and excavations in recent years (Permit Nos. A-2869, A-3014; License Nos. B-163/1998, B-251/2000) revealed building remains and installations from the Byzantine and Early Islamic periods.
Three excavation areas were opened ( 525 sq m; Fig. 1)
Area A
The remains of a plaster floor (L100) that was founded on a layer of stones and ground kurkar were uncovered in the southeastern corner of the site.

## Areas B, C

On the western side of the area, two outer walls of a large building ( $11.5 \times 19.5 \mathrm{~m}$ ) were exposed. One of the walls (W356) was oriented northeast-southwest and formed a corner with the other wall (W362), which was perpendicular to it and aligned southeast-northwest (Fig. 2). The walls, built of a cast of small and medium-sized fieldstones mixed with bonding material, were set on top of bedrock and preserved four courses high. Remains of a room were discovered in the southern part of the building. Three of its walls had survived: W225 and its continuation W357, W227 in the east and W351 in the west (Fig. 3). North of this room were the remains of two other interior walls, oriented northeast-southwest the first (W230) was built of ashlars and the second (W223) consisted of fieldstones mixed with bonding material. A robber trench is all that survived of another wall, similarly aligned, in the eastern part of the building (Sq E3).
Remains of plaster floors and the beddings of other floors that did not survive were exposed. On the eastern side of the robbed wall were the remains of a plaster floor, founded on a layer of small fieldstones (Sq E3; L206; Fig. 4). To the west of the wall was the small fieldstone bedding of a floor (SqE4; L216) and small fieldstones to the north of the robber trench were part of a plaster floor that was not preserved (Sqs F3, G3; Loci 201, 209). A floor bedding of small fieldstones (Sq G4; L229) abutted the western side of W230 and was also found to its southeast (Sq G4; L228). The remains of another floor bedding (Sq H5; L221) were located east of W223.

Fragments of pottery vessels that included bowls (Fig. 5:1, 4, 8-10, 12) and jars (Fig. 5:15), which dated to the Byzantine period (sixth-seventh centuries CE), were found above and below the floors of the building. The fill in the walls yielded fragments of pottery vessels that included bowls (Fig. 5:2, 3, 5-7, 11) and jars (Fig. 5:13, 14, 16) from the same period, as well as a hand axe (Fig. 6), characteristic of the Lower Paleolithic period.
The excavation exposed parts of a large building that dated to the Byzantine period and was divided into rooms. The remains of the building corroborate the researchers' assumption regarding the location of ancient Haifa.


2. The walls of the building, looking east

3. The interior room, W357 and W351, looking south.



# (Volume No. HA-ESI 120 (2008 <br> Har Dalton <br> Final Report 

Howard Smithline
4/9/2008


1. Location map

2. Plan.

3. Southern square, looking northwest.

4. Southern square, Room 111, looking southeast.

5. Wall 110, doorway between Rooms 109 and 111, looking southwest.

During May-June 2006, a salvage excavation was conducted near Moshav Dalton in the Upper Galilee (Permit No. A-4810*; map ref. NIG 246628-84/769858-940; OIG 196628-84/269858-940), prior to the construction of a communications antenna. The excavation, carried out on behalf of the Israel Antiquities Authority and partially financed by the Pelephone Company, was directed by H. Smithline (photography), with the assistance of V. Essman and V. Pirsky (surveying), A. Shapiro (GPS) and E. Belashov (drafting).
The excavation site (Fig. 1), c. 500 m northeast of Moshav Dalton and 50 m west of the local cemetery, is situated on a rise at the foot of a high hill, Har Dalton, which overlooks the Moshav and dominates the vicinity. This area of the Galilee is noted for its numerous holy sites and pilgrimage destinations, among them traditional tombs of ancient Jewish sages, dating back hundreds of years. Two well-known and popular tombs on the hill above the excavation are those of Rabbi Yossi Ha-Galili and Rabbi Yishma'el ben Yossi, who according to legend was Rabbi Yossi Ha-Galili's son.

The excavation area lies on the edge of the abandoned village of Dalata. In the past, several architectural elements were discovered within the remains of the village, indicating the presence of a Late Roman-Early Byzantine period synagogue whose exact location is unknown. The finds included a relatively long and difficult to decipher synagogue inscription.
During the Middle Ages, Jewish communities continued to exist in Dalata, as well as in nearby villages, such as 'Alma and Bar'am, serving as a common destination for Jewish pilgrims. Dalata was occasionally mentioned in important pilgrimage literature and itineraries and its appearance in a letter uncovered in the Cairo Geniza attest to its active Jewish life.

Three strata were discerned in the southern of the two squares opened in the excavation area (c. 45 sq m ; Fig. 2). Stratum 1 was a modern stone fill; Stratum 2 consisted of a structure dating to the Late Ottoman Period and Stratum 3 was alluvial soil that contained worn Late Roman and Byzantine potsherds.

The northern square comprised sterile alluvial soil above bedrock, with no antiquities.
Stratum 3. Although occasional small worn potsherds, dating to the Late Roman and Byzantine periods, were found throughout the excavation, the majority were retrieved from the alluvium of the deepest excavated area (L105, L112). The potsherds, in spite of being small and extremely worn, suggest the existence of an unclear earlier occupation below the Stratum 2 structure (below). The base of Wall 114 could possibly be a remnant of such an early occupation.

Stratum 2 (Figs. 3, 4). The major construction activity was undertaken during the Late Ottoman period. Two parallel rooms (L109, L111) were unearthed. Room 111 was either a rectangular or apsidal room bounded on its northeast by W103, preserved 0.75 m high and based on the alluvium. It was uncovered for a length of 2.6 m , at which point it reached a large bedrock outcrop that was presumably incorporated into the wall. The continuation of W103 past the bedrock is unclear. It possibly joined W114, the branched-off inner face of W104, thereby, creating a rounded corner.

Wall 110 paralleled W103 and formed the southern wall of Room 111, separating it from Room 109. The confusing confluence of W110, W104 and its branch W114 in the northwestern corner of Room 109 was not elucidated by the end of the excavation.
Wall 110 was a poorly constructed internal wall that consisted mostly of rubble and was one stone thick ( $0.4-0.5 \mathrm{~m}$ ). A doorway in its center was constructed from medium-sized cut stones with fine-tooth combing, typical of late Ottoman stone work (Figs. 5, 6). Room 111 and the doorway were paved with flat stones, basalt and limestone, set on the alluvium. Evidence of burning was uncovered on and around the pavement, leaving a thin layer of fine ash. The southeastern portion of Room 111 was buried beneath the Stratum 1 stone fill' (L108). On the floor were a snub-nosed claw hammer, a small hoe, strips of rubber and decayed pieces of tin from cans and containers.
Room 109 was bounded by the southern face of W110, crudely constructed W104 and W113, which was built of rather flat stones, basalt and limestone, placed vertically widthwise. It appears to be a room divider rather than a full-scale wall. After a distance of $1.9 \mathrm{~m}, \mathrm{~W} 113$ was severely disturbed. The remaining area of the room was buried beneath the stone fill (L108). The finds from the room consisted of modern debris and Rashaya el-Fukhar vessel fragments.

Stratum 1. Nearly the entire square was covered with a fill of stones (L108; 0.3-0.4 m stone size; Fig. 7), among which were modern domestic debris and additional Rashaya el-Fukhar fragments.
The free of antiquities northern square suggests that the excavation was conducted on a parcel of land close to the village of Dalata but not within its core, where denser construction would have been expected. The structure in the southern square is dated to the Late Ottoman Period and, based on the character of the finds, possibly functioned in part as a workshop. Hints of earlier settlements on this site are implied by the recurrent appearance of worn Roman and Byzantine-period potsherds in the deepest areas of the excavation in the southern square.


1. Location map


2. Southern square, looking northwest.

3. Southern square, Room 111, looking southeast.

4. Wall 110, doorway between Rooms 109 and 111, looking southwest.

5. Close-up of doorpost in W110, looking southwest.


## (Volume No. HA-ESI 120 (2008

## Har Hermonit

Final Report
Oren Zingboym


1. Plan.

2. Terrace walls, general view, looking west.

3. Terrace Wall 1, looking north.

During May 2006, a salvage excavation was conducted northeast of Har Hermonit (Permit No. A-4767*; map ref. NIG 27530/78910; OIG 22530/28910), following damage caused by mechanical equipment. The excavation, on behalf of the Antiquities Authority and with financial support of the A.Z. Avidan Company, was directed by O. Zingboym, with the participation of Y. Ya'aqoby (administration).

The site was surveyed in the past (C. Epstein and S. Gutman. In M. Kochavi ed. 1972. Judaea, Samaria and the Golan Archaeological Survey 1967-1968. Jerusalem. Site 260; M. Hartal. 1989. Northern Golan Heights Survey: The Archaeological Survey as a Source of Regional History. Qazrin. Site 2:14, pp. 41-42). A number of buildings were noted on a hilltop and Iturean potsherds dating to the Hellenistic (third-first centuries BCE) and Roman (first-fourth centuries CE) periods were collected. The site is one of a cluster of Iturean settlement sites located in the northern Golan region; not far from the site are four other sites, among them Kh. Zemel (M. Hartal. 2005. Land of the Ituraeans. Qazrin. Pp. 12$60)$. Prior to the construction of a waste water treatment facility to the south of the site (2003), soundings that determined its western and southern boundaries were conducted.

One square was excavated along the southeastern fringes of the site (Figs. 1, 2). The remains of two terrace walls were discovered; the first (W3), probably the earlier of the two, was built of small to medium-sized stones and soil fill that contained a few potsherds. Afterward, Terrace Wall 1 (Fig. 3), which was more massive and founded on bedrock along the lower part of the slope, was built. This terrace wall survived to a height of c. 1.2 m .

A few potsherds were collected, among them jars and bowls that dated to the Hellenistic period.
The two terraces were apparently built by Iturean residents of the site during the Hellenistic period. Based on soundings that were conducted west and south of the site and the results of the excavation and comparisons made with other nearby lturean sites, e.g. Kh. Zemel, we can assume that it was a small, one-period site.


1. Plan.

2. Terrace walls, general view, looking west.

3. Terrace Wall 1, looking north.

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Har Hezron and Har Badar, Survey
Final Report


1. Section I, location of sites.

2. Sections II-III, location of sites.

3. Kh. Jinba, stone wall, looking east.

4. Giv'at 'Adasha, opening o cistern, looking southeast.

5. Granary, looking southeast.

Oren Shmueli and Flavia Sonntag
During October-November 2005, a survey was conducted in the region of Har Hezron and Har Badar in the Judean Desert (Permit No. A-4609*; map ref. NIG 2130-2250/5850-5900; OIG 1630-1750/0850-0900), along the planned route of the separation fence. The survey, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was performed by O. Shmueli and F. Sonntag, with the assistance of Y. Haimi, N.S. Paran, E. Ayash, O. Marder and S. Gal (GIS applications).
An area (width c. 100 m , length c. 10 km ; Figs. 1, 2) that begins in the desert frontier, c. 2 km southeast of Tel Qeriyyot was surveyed. The annual amount of precipitation ( $250-400 \mathrm{~mm}$ ) in this region makes it possible to grow winter grain without irrigation. At Tel Qeriyyot, which is the largest site in the region, a Byzantine-period church with a mosaic floor had previously been exposed, as well as remains of a building and potsherds from MB II (ESI 13:112-113). The main part of the surveyed area extends across the Judean Desert Highlands where the annual amount of precipitation is less ( $100-250 \mathrm{~mm}$ ). This region was used for seasonal grazing in the winter and spring by desert nomads and residents of the desert frontier, and the number of ancient sites in it is considerably fewer than in the area of Tel Qeriyyot.
Section 1 (Khirbat Jinba-Horbat Merkaz) (Fig. 1)
Two ruins and several sites, associated with agricultural activity, were surveyed. At Kh. Jinba, a number of farmsteads surrounded by stone walls, preserved c. 1 m high, and terrace walls (Fig. 3), were exposed. Each farm has at least one hewn cistern, and in most instances, the cistern's opening was found covered with a capstone. Some of the cisterns are still used by local farmers and nomads (Fig. 4). Some of the farms have burial caves from the Late Roman period (second-third centuries CE), which were usually found plundered and are used today by shepherds. At Horbat Merkaz, the remains of a farmstead that date to the Roman, Byzantine and Early Islamic periods (Fig. 5) were surveyed. An olive press, a large winepress and hewn caves, some of which are burial caves or ancient cisterns that were converted to dwellings in a later period, were found in the middle of the settlement. A number of caves near the ruin are currently used as dwellings. In front of them is usually a courtyard that is enclosed by a stone wall. The opening of the caves bore an ashlar lintel. They usually have a central chamber and in some of them there are secondary partition walls of mud and straw that probably separated the dwelling area from the animal pen. Niches for placing oil lamps can be seen in some of the caves' walls.
Terrace walls built of a number of fieldstones courses were constructed on the slopes of the hills. In the wadi valleys, small dams meant for stopping flood water, were noted.
A large cluster of elliptical structures (average $1.5 \times 1.8 \mathrm{~m}$ ) dug into the ground was surveyed. These are most likely granaries built of two rows of fieldstones whose foundations were embedded in the ground to a depth of c .0 .3 m and founded on bedrock (Fig. 6).
Dozens of clusters of stone heaps (diam. 1 m , height 0.5 m ), probably to be identified as cairns, were found along the surveyed route. In addition, natural caves used as shelters by shepherds were found. In most instances the interior of the cave was sooty and next to the opening was debris and ash deposits that originated from inside the cave (Fig. 7). Approximately 0.5 km west of Giv'at 'Adasha a cluster of six round buildings was exposed, each with a centrally-placed stone that probably served as a column base. These buildings should be dated to the Early Bronze Age on the basis of pottery and flint tools (Fig. 8) recovered from within them.
There were also four prehistoric sites in the area, each extending over an area of c. 10 dunams, in which Epipaleolithic flint implements were found.

Sections 2-3: Ketef Hezron-Nahal Harduf (Figs. 2, 9).
The concentration of sites in this area is relatively sparse and consists mostly of campsites and cemeteries used by nomads. The campsites include round structures and an animal pen, together with pottery vessels from the Roman and Early Islamic periods. Isolated stone heaps, which are probably cairns, rising to a height of c. 1 m , were also surveyed. The cemeteries include a scatter of tombs in an area of c. 1 dunam. The tombs, built of medium-sized fieldstones $(0.3 \times$ 0.5 m ), have an elliptical outline $(1 \times 2 \mathrm{~m})$ and contain potsherds from the Early Islamic period.

More than one hundred sites were found along the route of the survey. Those situated adjacent to ruins are most likely related to the seasonal agricultural activity of the residents in the ruins, which are located in a region that affords sufficient amount of precipitation to grow crops. There was also similar activity in this region during the prehistoric period. The distribution of sites in the eastern part of the surveyed area, which is located in the desert highlands, in the heart of the Judean Desert, is sparser and characterized primarily by nomadic campsites, cairns and Muslim tombs.


1. Section I, location of sites.

2. Sections II-III, location of sites.

3. Kh. Jinba, stone wall, looking east.


4. Horbat Merkaz, looking north.

5. Granary, looking southeast.

6. Giv'at 'Adasha, cave opening, looking northwest.

7. Cluster of round buildings, looking northwest.

8. Surveyed area at Ketef Hezron, looking north.

## (Volume No. HA-ESI 120 (2008 <br> Herzliyya C <br> Final Report



1. Plan and section.

2. Floor 104, looking east.

Lior Rauchberger
During February-March 2004, a trial excavation was conducted in Herzliyya C (Permit No. A-4120*; map ref. NIG 182987/674717; OIG 132987/174717), following the discovery of ancient remains by the railroad tracks when a drainage pipe was installed. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Israel Railways Authority, was directed by L. Rauchberger, with the assistance of S. Ya'aqov-Jam and E. Bahar (administration), A. Hajian (surveying), T. Sagiv (field photography), A. Glick (GPS surveying) and T. Kornfeld (drafting). Additional assistance was rendered by E. Ayash, D. Barkan, U. 'Ad and E. Yannai.

The excavation area near Ha-Mesila Street was in a valley that extends east of the second kurkar ridge, west of the Tel Aviv-Haifa railroad track and c. 150 m as the crow flies southeast of the Herzliyya B site (Map of Herzliyya [69]; Site 48). The valley is currently covered with alluvium, but used to have large swamps in the past. One excavation square was opened, revealing a wall stump and the floor of an installation in the eastern part (Fig. 1).

The wall (W103; width 0.55 m ) was built of three rows of small, undressed kurkar stones and survived three courses high, including a single foundation course below the floor level. A very thick floor (L104; thickness 0.1 m ), which abutted the northern side of the wall and sloped slightly northward, was composed of four layers: An upper layer of white hydraulic plaster ( 1.5 cm ), a layer of gray mortar ( 3 cm ), another layer of smooth white plaster $(0.5 \mathrm{~cm}$ ) and a bottom layer of gray mortar that contained numerous carbon inclusions ( $4-5 \mathrm{~cm}$ ); both plaster and mortar layers were mixed with crushed shells (Fig. 2). The bedding below the floor consisted of two courses of fieldstones with hamra soil. The stones in the lower course were slightly larger than those in the upper course, which had a fill of dark soil between them (L106). The thickness of the floor and the quality of its bedding foundations probably stemmed from the necessity to overcome the instability of the alluvial soil in the region.
The pottery finds included a few fragments of cooking pots from the Byzantine period found above and below the floor (L104). A handle fragment of a Middle Bronze Age juglet (Yannai, pers. comm.) was recovered from the alluvium above the installation. It is thought to have originated from one of the tombs from the period that are located in the second kurkar ridge, west of the site (Map of Herzliyya [69], Sites 20, 74).
It seems that the wall and the floor were part of an installation for processing liquids that was built in the Byzantine period, after the Herzliyya swamp was drained by means of a tunnel that was cut in the second kurkar ridge (Tsuk and Ayalon, 1993. Niqrot Tsurim 19:63-65).


2. Floor 104, looking east.
(Volume No. HA-ESI 120 (2008
Hor Ha-Har (West), Survey
Final Report
Oren Shmueli and Yoram Haimi


1. Survey map.

2. Site A1, stone heap (cairn?), looking north.

3. Building B2, looking east.

4. Site 2, a round building. looking east.

5. Site 3, looking east.

During January 2006 a survey prior to development was conducted along the west bank of Nahal Zin (Permit No. A-4702*; map ref. NIG 2015-55/5260-83; OIG 1515-55/0260-83), prior to quarrying in the Zin mine. The survey, carried out on behalf of the Antiquities Authority and financed by the Rotem-Amfert Negev Company, Ltd., was directed by O. Shmueli and Y. Haimi, with the assistance of S. Gal (GIS).
The survey area (200 $\times 3,000 \mathrm{~m}$; Fig. 1) in the Valley of Zin , southwest of Har Zin, is adjacent to Mazok HaZinnim. Most of the c. 40 documented sites were grouped in two clusters (A, B). Nahal Zin, one of the largest wadi channels in the Negev Highlands, had been a convenient route in the past and secondary roads ran through it. A main road, used during the Iron Age and the Roman period, passed c. 10 km north of the Valley of Zin and another primary road (Darb a-Sultan), used throughout the Early Islamic and Ottoman periods, was c. 7 km south of the valley.

The larger of the two clusters (A; c. 10 dunams) consisted of an animal pen and mostly small stone heaps ( $1 \times 1 \mathrm{~m}$, height c. 0.5 m ), which were probably part of a burial field. Next to the wadi cliff, several larger stone heaps that may have been cairns (A1; Fig. 2) were noted; one of them (diam. 4 m ), built of medium fieldstones ( $0.4 \times 0.5 \mathrm{~m}$ ), was preserved four courses high. Several buildings in the northern part of Cluster A consisted of a single elliptical room ( $1.5 \times$ 2.0 m ). A small temporary site was recorded in the eastern part of the cluster, along the edge of the wadi channel.

In the small cluster of sites $(B)$ was a main building (B1) that comprised three elliptical units ( $5 \times 10 \mathrm{~m}$ ) and next to it was another building (B2) that included two elliptical units, a large $(6 \times 10 \mathrm{~m})$ and a small $(2 \times 3 \mathrm{~m})$ one. It seems that the entrance to Building B2 was set in the eastern side (Fig. 3). Near the main building were several small round structures $(2.5 \times 3.0 \mathrm{~m})$, built of medium-sized fieldstones $(0.5 \times 0.5 \mathrm{~m})$ and preserved a single course high; each of them had a single entrance. A courtyard enclosed by walls was noted next to one of the buildings. It is possible that remains of cairns were preserved in some of the buildings.
An installation in the southwestern part of the surveyed area was found (Site $1 ; 4 \times 4 \mathrm{~m}$; Fig. 4). It consisted of a large elliptical unit and a small cell adjacent to it, which were built of a single course of fieldstones, embedded in the ground. Similar installations were discovered in the Negev Highlands and some scholars ascribe them to the cultic activity of the nomads.
A cluster of round structures (Site 2; each $2 \times 2 \mathrm{~m}$; Fig. 5), which were built of medium-sized fieldstones and preserved a single course high, was recorded in the vicinity of Site 1.
Two temporary encampment sites were found in the survey area, one in Cluster A and the other at Site 3 (Fig. 6). They included a fieldstone-built animal pen, a surface that was cleared of stones and stone clearance heaps $(0.3 \times 2.0 \times 3.0$ $\mathrm{m})$.

Most of the surveyed sites were located on a bedrock terrace next to Nahal Zin wadi channel, in an area that was sheltered from the wind. They are characteristic of the Negev Highlands region and it seems that they were used by nomads who moved along the secondary roads in the Valley of Zin.


2. Site A1, stone heap (cairn?), looking north.

3. Building B2, looking east.

4. Site 1 , looking south.

5. Site 2 , a round building, looking east.

6. Site 3 , looking east.


1. The survey map, Areas $A$ and C .

2. The survey map, Area B.
(Volume No. HA-ESI 120 (2008
Horbat Batra - Yehudiya
Final Report
Oren Zingboym
During January 2005, a survey prior to development was conducted in the area of Horbat Batra (Permit No. A-4335*; map ref. NIG 26345-80/7566-79; OIG 21345-80/2566-79), prior to enlarging the orchard area. The survey, carried out on behalf of the Antiquities Authority and funded by Qibbuz Merom Golan, was directed by O. Zingboym and A. Shapiro.
Two antiquities sites are located in the survey area: Horbat Batra and the Yehudiya dolmen field. Horbat Batra is located at the top of a basalt hill that is conducive to an agricultural settlement. The ruin descends precipitously to the east, toward the Nahal Daliyyot channel and gently to the west toward the terrace above the Nahal Yehudiya channel. The dolmen field is located north of the area that was surveyed, on an elongated spur between Nahal Yehudiya in the west and Horbat Batra in the east. The survey extended as far north as the southern part of the dolmen field.
The region had previously been surveyed in the Emergency Survey of the late 1960s (M. Kochavi [ed.], Judah, Samaria and the Golan, The Archaeological Survey of 1968, Jerusalem, 1972, p. 278) and in the 1980s and 1990s ('Atiqot 34:27; ESI 18:5-6).
The site of the ruin is described in a study of synagogues in the Golan (Z.U. Ma‘oz, The New Encyclopedia of Archaeological Excavations in the Holy Land, 1992, 1, p. 293) and by D. Urman (BAR Int. S. 269, Oxford 1985, p.199).

Area A (Fig. 1)
The area north of the orchard is delimited on the east by a military road and on the west and north by the lower slopes of the spur that is located between Nahal Yehudiya and Horbat Batra. Some twenty five dolmens were found in an area that ascends in the direction of the spur from the west and is east of the military road.

Area B (Fig. 2)
The area is partly located within the precincts of the Horbat Batra site and is bordered in the north by the ruin, in the south by a bend in a military road, in the east by the steep slope in the direction of the Nahal Daliyyot channel and in the west by an orchard fence.
Unit 1. Remains of walls, fragments of pottery vessels from the Byzantine period and elements of a public building, including column drums, capitals and a lintel, scattered along the western and southern slopes of the ruin, were discovered. It seems that a small part of the building, which was located alongside the military road in Horbat Batra, was damaged in the past by mechanical equipment. An olive press in the northern part of the site was surveyed in the past. Fragments of pottery vessels that dated to the Hellenistic and Roman periods were gathered in the eastern part of the area.
Unit 2. With the exception on one dolmen, no remains of walls or potsherds were found west of the military road. Unit 3. A meager scatter of potsherds, which was probably the boundary of the site or outside of it, was located south of Unit 2.

## Area C (Fig. 1).

The area, adjacent to the northwestern part of the orchard, was delimited in the west by a terrace in the direction of the Nahal Yehudiya channel. Dolmens that had not been previously damaged by heavy equipment were found in parts of the area.

The ceramic and architectural finds from Horbat Batra attest to an ancient settlement of the Hellenistic-Roman periods that was located in the eastern part of the site and probably also on the hillop. The Byzantine-period settlement was in the middle and northern parts of the site, extending as far as the line of the olive press.

In all likelihood, dolmens had existed in the orchard area, but were damaged during the course of agricultural work.


1. The survey map, Areas $A$ and $C$.

(Volume No. HA-ESI 120 (2008 Horbat Batra, Spur Survey Final Report
Oren Zingboym

2. Location map.

3. General view, looking west.

4. Dolmen 1.

5. Dolmen 10.

During May 2006 a survey was performed along Batra Spur (Permit No. A-4806*; map ref. NIG 26170-270/75630-700; OIG 21170-270/25630-700), prior to enlarging an orchard belonging to Moshav Ramat Magshimim. The survey, undertaken on behalf of the Israel Antiquities Authority, with the financial support of the moshav, was conducted by O. Zingboym, assisted by A. Shapiro.

Batra Spur is a known dolmen and cairn field that extends from the region of Tel Bazaq-Ha-Mapalim Junction in the northeast to the foot of the Golan Heights (cf. Horbat Batra HA-ESI 120). A nearby dolmen field that is characterized by large stones, stone heaps and stone burial chambers (average dimensions $1 \times 2 \mathrm{~m}$ ) had previously been surveyed and partially excavated ('Atiqot [ES] 17:29-30).
Thirteen locations were documented in the survey; most of them are dolmens and a few are possible dolmens (Figs. 1, 2). In addition, a Roman-Byzantine site was located where there are currently the remains of a Syrian village (twentieth century).

1. An open dolmen, without cover stones, a stone heap c. 7 m in diameter. An oak tree is growing in the dolmen (Fig. 3).
2. A closed dolmen whose cover stones are in situ, a stone heap c. 8 m in diameter.
3. An open dolmen with cover stones located along side it, a stone heap c. 7 m in diameter. An oak tree is growing in the dolmen.
4. A closed dolmen whose cover stones are in situ, a stone heap c. 10 m in diameter.
5. A large stone heap, dolmen?
6. A large stone heap that is probably a dolmen; it is apparent that part of it was plundered in the past. The depression in its center may be the location of the chamber.
7. An open dolmen, without cover stones, a stone heap c. 7 m in diameter. An oak tree is growing in the dolmen.
8. An open dolmen, without cover stones, a stone heap c. 9 m in diameter. An oak tree is growing in the dolmen.
9. A large stone heap at the top of the ridge, overlooking the Nahal Yehudiya channel to the north. This is probably a dolmen; the chamber is not visible on the surface level.
10. A dolmen (Fig. 4), a large stone heap rising c. 2 m above the surface level and overlooking Nahal Yehudiya. The chamber was plundered in the past.
11. A large dolmen (diam. c. 12 m , height c. 2.5 m ) whose chamber was plundered in the past. It is situated on a terrace above the slope that descends to Nahal Yehudiya. A number of oak trees are growing in it.
12. A dolmen at the top of a slope that descends to Nahal Yehudiya. The burial chamber was plundered in the past. The cover stones are in situ $(1.5 \times 2.0 \mathrm{~m})$, diameter c. 6 m .
13. A dolmen (diam. c. 5 m ) at the top of a slope that descends to Nahal Yehudiya. The burial chamber was plundered in the past and the cover stones are along side it.

A series of walls made of roughly-hewn basalt stones located at the southwestern edge of the survey region (Fig. 5) belong to a twentieth-century Syrian village. A scatter of potsherds (Late Roman wares and Kefar Hananya vessels) at the site seems to indicate the presence of a settlement from the Roman-Byzantine period below the buildings of the village. It was not possible to conduct an accurate survey due to the thick vegetation in the area.


1. Location map.

2. General view, looking west.

3. Dolmen 1 .

4. Remains of a Syrian village, looking west.

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1. Limekiln (F2), plan and section.

2. Cistern (F11), plan and section.

3. Bowl.

Lior Rauchberger
During May-June 2006, a trial excavation was conducted at Khirbat Beit 'Anaba (West; Permit No. A-4804*; map ref. NIG 194394/614520, OIG 144394/114520), after ancient remains were exposed in soundings conducted along the route of Highway 431 and Ramp 200. The excavation, on behalf of the Antiquities Authority and with the financial support of the Department of Public Works, was directed by L. Rauchberger, with the assistance of E. Bachar (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), B. Ajami (safety), C. Amit (studio photography), E.C.M. van den Brink (pottery reading) and D.T. Ariel and A. Berman (numismatics). Additional assistance was rendered by A. Re'em, T. Kanias, R. Lupu and Y. Elisha (Central District), M. Peilstöker, R. Kletter, J. Ben Michael (Antiquities Authority) and O. Abadi.

The site was located on the western fringes of Kh. Beit 'Anaba, along the northern slope of a hill where a limekiln, a cistern, shafts, quarries, caves and natural cavities were discovered. Due to the meager finds and the nature of the installations it was not possible to date them.
Limekiln (F2; diam. 4-5 m, depth 2.5 m ; Fig. 1). The kiln was round and its bottom part was hewn in the bedrock and lined with wadi cobbles ( $0.20-0.30 \mathrm{~m}$ ). All that remained of the upper part, which survived to a height of $1.0-1.5 \mathrm{~m}$, was the base of its dome that was built of different size fieldstones $(0.10-1.00 \mathrm{~m})$. The opening of the kiln faced west (width 1.50 m ). The upper part of the installation was cleared and its western half, which was excavated by a backhoe, contained white ash and different size stones of limestone, some of which were burnt. A layer of black ash was discerned at the bottom of the kiln.

Water cistern (F11; diam. 0.4 m , depth 2 m ; Fig. 2). The cistern was bell-shaped and rock-hewn; a round opening (diam. 0.9 m ) was located in the middle of its ceiling. The southeastern side of the cistern's ceiling had collapsed. At first its remains were excavated manually; later the fill was cleared by means of a backhoe down to the level of bedrock. Elliptical horizontal notches $(0.1-0.2 \mathrm{~m}$, depth 6 cm ) that were probably used to secure some sort of water raising device were hewn below the tops of the northwestern and southeastern edges of the opening ( 0.3 m ). The opening was found blocked by large stones; a seventeenth century Ottoman coin (IAA No. 107074) minted in Egypt that probably dates to the reign of Sultan Ahmed I (1603-1617 CE) was recovered from between these stones.

Rock-hewn Shafts. Four rock-hewn shafts were excavated but not indicated on the plan: (F4: an elliptical cavity diam. 0.75 m , depth 1.50 m ; F5: an irregularly-shaped cavity, diam. 0.9 m , depth 1.20 m ; F6: a round cavity, diam. 0.3 m , depth 0.51 m ; F7: an elliptical cavity, diam. 0.9 m , depth 2.08 m ). Two steps were located in the entrance to Shaft F4. The shafts, which were excavated in their entirety, were devoid of any finds and did not lead to other subterranean cavities. The possibility that they were abandoned before they were completed cannot be ruled out.

Scattered Rock-cuttings. Six isolated rock-cutting clusters, not indicated on the plan, were cleaned; four were shallow (F8: 1.0-1.5 m, depth 0.23-0.43 m; F10: 1.0-2.3 m, depth 0.05-0.25 m; F16: 0.7-0.8 m, depth 0.09-0.29 m; F21: 2.93.0 m , depth 0.25 m ) and two were deep (F15: $0.6-1.5 \mathrm{~m}$, depth $0.5-0.7 \mathrm{~m}$; F18: $0.6-1.5 \mathrm{~m}$, depth $0.55-0.75 \mathrm{~m}$ ) Detachment channels $8-10 \mathrm{~cm}$ wide were found in F8 and F10. The sides of the channels and those above the front of Cave F9 (see below) were broken as a result of collapse. Detachment grooves indicating that at least six stone blocks of different sizes were removed were noted in the floor of F21. The bottom of the northeastern side of F15 was curved. A step (width 0.4 m , thickness $0.2-0.4 \mathrm{~m}$ ) was left in place on the northwestern side of F18, c. 0.3 m below the surface These two rectangular rock-cuttings were 7 m apart and had identical dimensions. Soil fill was found between their hewn walls and the bottom layer of bedrock which was not hewn. These cuttings were probably intended for use as tombs although no evidence of this was found.

Natural Caves. A natural hollow that was surrounded by rocks was excavated (F1; 2.5-2.9 m, depth 1.14 m ). A bedrock projection on its southeastern side protruded inward, into the hollow. In the soil fill that was excavated to the level of bedrock a few non-diagnostic potsherds were found that had been swept there together with the alluvium or by some other activity that occurred there. It seems that this is a rock shelter or a natural cave whose ceiling had collapsed.

The entrance to a natural cave, which was blocked with soil, and half of an irregularly-shaped hollow in its façade (F9) were also excavated. The bedrock above the cave opening (height 1 m ) was partly straightened and it was flanked on either side by triangular rock cuttings. No finds were discovered in the excavation in the opening of the cave. Soil collapse mixed with stones, some of which were roughly hewn, was excavated in the hollow above the opening (4.0-4.5 $\mathrm{m})$. The collapse also contained a handmade ceramic bowl (Fig. 3) that is slipped and red burnished. It has a high loop handle that protrudes above the rim and an omphalos base, and dates to the end of Early Bronze IA. The hollow was apparently formed by the collapse of part of the cave's ceiling that resulted from an attempt at quarrying, the remains of which were visible along the cave's façade. Six natural cavities and recesses in the limestone bedrock outcrop (F3, F12, F13, F14, F17, F19) that were devoid of any finds were also excavated.
The excavation finds indicate that industrial activity, including lime production and the quarrying of a cistern, building stones and shafts, took place along the western fringes of Kh. Beit Anaba. It seems that the quality of the chalky bedrock at the site was unsuitable for quarrying. In most of their attempts the quarrymen struck natural cavities below the upper bedrock layer that caused the stone mass that was being quarried to collapse and break. This was especially noticeable in the opening of Cave F9 where the rock-cutting remains were still visible on the façade and in the roughly hewn bedrock masses that were found in the hollow in front of the façade. The hewn shafts are probably indicative of an abortive attempt to quarry refuge tunnels, which are known to have existed in this region.




1. General view of excavation area, looking east.

2. Plan.

3. Wall 1, looking northwest.

4. Wall 2, looking northwest.

5. Overview of W1/W2 after excavation, looking northwest.

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Edwin C.M. van den Brink
During November 2007, trial excavations were conducted close to Horbat Bizqa, along Road 10 in the industrial zone of Modi'in (Permit No. A-5282*; map ref. NIG 196460-481/643337-362; OIG 146469-481/143337-362). The excavation, carried out on behalf of the Antiquities Authority and financed by A. Hadar, Construction Entrepreneurs Inc., was directed by E.C.M. van den Brink, with the assistance of E. Bachar (administration), M. Qunin (surveying), T. Sagiv (field photography), A. Dagot (GPS), O. Sion (metal detector) and R. Kool (numismatics).
Antiquities inspection of the construction work along the planned Road 10 noted an alignment of fieldstones, which was partly exposed by the bulldozer while removing the topsoil (c. 0.5 m ) that consisted of very compact, sterile Grumic brown soil (Fig. 1). It became apparent from the cut road sections, north and south of the present site that the compact Grumic brown soils directly overlaid the hill's bedrock, reaching a maximum thickness of $1.0-1.5 \mathrm{~m}$.
The excavation was meant to probe the nature and extent of this fieldstone configuration. Two probes (Squares A1, A2; Fig. 2), set 2.5 m apart from each other, were opened. The fieldstone alignment was situated on the lower reaches of a hill slope, opposite and east of the hill accommodating the Byzantine village of Horbat Bizqa.

## Square A1

A 4 m long segment of a southeast-northwest stone-built wall was exposed (W1; Fig. 3). This segment consisted of a single course of eight well-aligned fieldstones or small boulders (max. width 0.6 m .). Two additional boulders along the north face of W1 at its southeast end and a spread of smaller lime stones between them indicate that W1 had originally been two stones wide (max. width 1.3 m ). The wall was set on the same type of compact, sterile Grumic soil that covered the stone alignment. The excavation was continued to a depth of c .0 .2 m below the foundation level of W1, yielding nothing but sterile brown soil. Part of the west balk of Sq A1 was cleared to establish the westernmost end of W1. An additional 2.5 m of W 1 was exposed, before it ran dead in the wide trench cut previously by the bulldozer. Hence, the original length of W 1 , exposed over a stretch of 6.5 m , could not be established.

## Square A2

A 5.5 m long wall segment (W2) of the same southeast-northwest stone-built wall (W1) was exposed (Fig. 4). This somewhat better-preserved wall segment still consisted of two courses of well-aligned fieldstones or small boulders in some places. The upper course was partly found lying along the south face of W2, most likely because of an apparent southward shift of W2's foundation course, which possibly occurred as a consequence of a tremor or earthquake. The arrangement of a double row of fieldstone boulders with a core of smaller lime stones, which was assumed for W1, emerges even better in W2.
The setting of W2 and the excavation in this square compared exactly to W1 and Sq A1. Part of the west and east balks of Sq A2 were cleared to establish the western and easternmost ends of W2. On the east side, an additional 3.2 m of W2 were exposed, before it disappeared in the bulldozer-cut trench and 1.2 m of W2 were revealed on the west side, in the balk separating between the two squares. Notably, the actual linkage between W1 and W2 is missing (Fig. 5). Whether this was an intentional passage or the stones were accidentally removed, is hard to say.

Wall 1/Wall 2, whose original length could not be established, was preserved in places two courses high (max. width 1.5 m , exposed length 19.5 m , including gap). The considerable preserved length of the wall, having no corners, as well as its embedding in sterile grumic soil, without any evidence of occupation/habitation, in the form of ashes, recognized floor levels and the presence of pottery and animal bones, clearly points to an agricultural function of the wall, which certainly was not part of a structure. The wall was apparently a field wall, separating between two agricultural plots, rather than a terrace wall since it is almost perpendicular to the surrounding terrace walls still visible on the slopes of the surrounding hillsides.
A date for W1/W2 is equally inconclusive. A meager number of potsherds and three miniscule glass fragments were retrieved from the otherwise sterile grumic soils. Although the pottery is dated to the early Byzantine period, all potsherds are much worn and could easily have originated from higher up the hill. A single bronze coin was found in the thin soil above W2. Scarcely visible on one side of its small beveled flan is part of an eight-rayed star. Such crudely struck prutot date to the last part of Alexander Jannaeus reign (80/79-76 BCE; IAA 112080). Given its minuscule size, its stratigraphic position above W2 notwithstanding, it is doubtful if was found in situ and could provide an ante quem date for the construction of the wall. The proximity of W1/W2 to the Byzantine settlement of Horbat Bizqa and the assumed association between the two, may imply a date within the Byzantine period.


1. General view of excavation area, looking east.

2. Plan.

3. Wall 1, looking northwest.

4. Wall 2, looking northwest.

5. Overview of W1/W2 after excavation, looking northwest.

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## Horbat Bizqa

## Final Report



1. Location map.

2. Winepress 16, looking southeast.

3. Bodeda (bottom of photo) and cupmark.

4. Road 13 and Bodeda 12. plan and section.

5. Bodeda 12 and the nearby leveled bedrock surface, looking south.

Orit Segal
29/5/2008
During May-June 2006, a trial excavation was conducted at Horbat Bizqa in the Modi'in labor zone (Permit No. A-4816*; map ref NIG 19671-7/64357-78, OIG 14671-7/14357-78), prior to paving Highway 12. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ehud Tayyar Management and Engineering Company, Ltd., was directed by O. Segal, with the assistance of E. Bachar (administration), A. Hajian (surveying), T. Sagiv (photography), E. Belashov (drafting), R. Vinitsky (metallurgical laboratory) and D.T. Ariel (numismatics).
The site is located northeast of Horbat Kefar Tov, east of Horbat Nekhes and southwest of Horbat Hammim (Fig. 1). The excavation was conducted along the route of Highway 12, extending beside the western fringes of Horbat Bizqa. Two rock-hewn winepresses (F14, F16), an ancient road (F13), bodedot (F12, F16), two quarries (F11, F16) and three farming terraces (F10, F15, F17) were exposed (Fig. 2). The site had been surveyed in the past (HA-ESI 118) and recently excavated (HA-ESI 120).

Winepresses. Winepress 14 (Figs. 3, 4) included a shallow, square treading floor (L140; $0.8 \times 0.8 \mathrm{~m}$, depth 0.18 m ) and an elliptical collecting vat (L141; depth 0.2 m ). The accumulated fill in the winepress contained several body fragments of ceramic vessels that dated to the Hellenistic and Early Roman periods. Winepress 16 (Figs. 5, 6) included a large treading floor (L160; $4.5 \times 5.0 \mathrm{~m}$ ) and two vats that were joined by a short tunnel (L161-1.8 $\times 2.0 \mathrm{~m}$, depth 1.8 m ; L162-$-1.0 \times 1.8 \mathrm{~m}$, depth 0.6 m ). The collecting vat (L161) was first a quarry (below); later, it was made deeper and adapted for use as a collecting vat in a winepress. An earlier rock-cutting that had been repaired and filled-in was noted in the southern wall of the collecting vat (Fig. 6). White plaster was discerned on its walls. The collecting vats were paved with coarse white mosaics. The plan of the winepress shows that it could function in several ways. When the tunnel between the two vats was sealed it was possible to use each of the vats separately and simultaneously to produce red wine, which does not necessitates the separation of skins; when the tunnel was open, the small vat may have been used as a settling pit for the grape skins in the production of white wine. Cupmarks were located in bedrock surfaces around the winepress and the bigger ones may have been used in the wine production process too, or for extracting spices. These were added to the wine during the fermentation phase. A bodeda (Fig. 7) was located near the northern side of the winepress (below). The winepress is dated to the Byzantine period based on its floor of crude white mosaics, ribbed potsherds that formed the bedding for the mortar in the winepress, as well as potsherds recovered from the fill that accumulated in the collecting vats.

Ancient Road. A section of an ancient road (F13; length 20 m , max. width 3 m ; Figs. 8, 9), aligned north-south along the western edge of Horbat Bizqa, was excavated. The eastern part of the road was built of medium and large stones (W133). The western part, which probably suffered damages by development work, was not preserved. The roadbed was a leveled layer of small fieldstones (thickness 0.2 m ) deposited on bedrock. The ceramic finds recovered from the ancient road dated to the Hellenistic and Early Roman periods. The road was possibly a local one, connecting different settlements in the region.

Bodedot. A bodeda (F12; diam. 0.5, depth 0.5 m ; Figs. 8, 10) used for the production of oil was excavated alongside the road. To its south, a bedrock surface that had been quarried straight was used as a working surface. To the west of the bodeda was a straightened bedrock surface where small cupmarks had been hewn. Another bodeda was excavated next to Winepress 16 (see Fig. 7) and consisted of a narrow, shallow surface surrounded by a groove ( $0.3 \times 0.4 \mathrm{~m}$ ) that drained into a niche (diam. 0.3 m , depth 0.16 m ). Based on the proximity of the bodeda to the Byzantine-period winepress, it can be assumed that after being used to extract olive oil, the bodeda was adapted for use as a crushing installation in the process of wine production.

Quarries. A severance channel (width 0.2 m , height 0.7 m ) in the middle of a coarse rock-cutting (length 6 m ) was noted in one quarry ( F 11 ; depth $0.60-0.75 \mathrm{~m}$ ). The second quarry was located in the large collecting vat of Winepress 16 (L161). A step (depth 0.2-0.3 m) was cut in the northwestern corner of the vat. A deeper step, hewn in its southeastern corner, was blocked by a plastered wall when the quarry was adapted for use as a winepress in the Byzantine period (Fig. 11).

Farming Terraces. Soundings were excavated in three farming terraces (F10, F15, F17). The terrace walls, built of large fieldstones, were set on a layer of shallow soil that overlaid bedrock. It can be assumed that some of the terraces were used in the Ottoman period.

The ancient road and Winepress 14 were dated to the Hellenistic and Early Roman periods based on ceramic finds. It is possible that the quarries and the bodeda adjacent to the road also dated to this time. The collecting vat in Winepress 14 was set in a former quarry, which evidently predated the winepress. A coin, found on surface, was minted at Side in Asia Minor and dates to the year 187 BCE (IAA 111436). The coin evinces activity in the region during this period; a columbarium and burial caves, which are characteristic of the period, were documented during the antiquities inspection east of Horbat Nekhes. Winepress 16 was dated to the end of the Byzantine period based on ceramic finds; however, it seems that initially, a small quarry, which could also be dating to the Hellenistic and Early Roman periods, was situated in the area. The farming terraces were apparently associated with the agricultural activity of the Ottoman period in the vicinity of Horbat Nekhes, which may have been a subsidiary settlement of et-Tira.


1. Location map.


2. Winepress 14, plan and section.

3. Winepress 14 , looking east.


4. Winepress 16 , looking southeast.

5. Bodeda (bottom of photo) and cupmark.

6. Road 13 , looking north.

7. Bodeda 12 and the nearby leveled bedrock surface, looking south.

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## Horbat Castra

Final Report
'Abed a-Salam Sa'id
8/1/2008


1. Plan and sections.

2. Pottery.

During March 2004 an excavation was conducted north of Horbat Castra (Permit No. A-3848*; map ref. NIG 19735-50/74440-5 OIG 14735-50/24440-5; HA 15; ESI 7-8; HA-ESI 109, 111, 113, 117; 'Atiqot 29:77-92), in the wake of damage to antiquities caused while installing a water pipe. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Youth Hostel Association, was directed by A.S. Sa'id, with the assistance of S. Ya'aqov-Jam (administration), A. Hajian (surveying and drafting). D. Avshalom-Gorni (pottery reading) and M. Shuiskaya-Arnov (pottery drawing).
A single excavation square was opened inside the compound of the youth hostel, revealing two construction phases (Fig. 1). A north-south oriented water channel (L103; exposed length 4.65 m , width 0.2 m , depth 0.13 m ) was attributed to the early phase. The base of the channel was built of ashlar stones, into which a narrow channel was hewn and the walls were constructed from dressed stones. A wall section (W105), built of two rows of fieldstones and preserved a single course high, was ascribed to the late phase. Wall 105 was built on the northern part of the channel, negating it. The remains were overlaid with an accumulation of brown soil that contained potsherds and small stones.
The ceramic finds recovered from the excavation (Fig. 2) included numerous fragments of imported red-slip bowls that dated to the fifth century CE (Fig. 2:1-4) and many jar fragments (Fig. 2:5, 6), dating to the fourth-fifth centuries CE, which are characteristic of the pottery in the north of the country
The channel apparently conveyed water from an adjacent spring to one of the northern reservoirs of Horbat Castra during the fourth-fifth centuries CE.





1. Plan and sections.

2. General view of the excavation, looking west.

3. Floor 21 in lower part of photograph, looking south.

4. Pottery and glass vessels.

5. Floor 21 on right, Floor 20 on left and Wall 14, looking east.

## Leea Porat

During November 2005, a salvage excavation was conducted at Horbat 'Eved (Permit No. A-4636; map ref. NIG 23050-5/76541-4, OIG 18050-5/26541-4), in the wake of damage to antiquities during construction. The excavation, on behalf of the Antiquities Authority, was directed by L. Porat, with the assistance of Y. Ya'aqoby (administration), A. Hajian (surveying), H. Smithline (photography), A. Shapiro (GPS), L. Kupershmidt (metallurgical laboratory), N. Getzov (ceramic consultation), H. Tahan (pottery drawing), Y. Gorin-Rosen (glass) and G. Bijovsky (numismatics).

Horbat 'Eved is located at the top of the spur where the new settlement of Peqi'in is situated. Building remains from the Roman and Byzantine periods were exposed in the excavation area ( $4 \times 6 \mathrm{~m}$ ) that was in the southern part of the ruin (Figs. 1, 2). The excavation reached neither bedrock nor virgin soil and therefore, it was impossible to determine when construction had first begun. A previous survey at the site (IAA Reports 14: Site 238) had revealed potsherds dating to the Iron Age and the Persian, Hellenistic, Roman and Byzantine periods. A salvage excavation in the western part of the ruin was conducted in 2002, exposing building remains from the Hellenistic and Byzantine periods (HA-ES/ 117).

Stratum III. A floor of flat fieldstones (L21), meticulously set in place (Fig. 3), was exposed in a very small area (c. 1 sq m). Fragments of cooking pots (Fig. 4:1, 2) and jars (Fig. 4:3, 4) were discovered on the floor, as well as fragments of three molded glass bowls. Two of the bowls were decorated with vertical ribbing on the exterior and a horizontal strip below the rim, engraved on the interior; the third bowl has an engraved horizontal strip below the rim, on the interior (Fig. 4:5). The finds on Floor 21 dated from the first century BCE until the first half of the first century CE and the stratum should then be ascribed to the Early Roman period.

Stratum II. A floor of earth and flat fieldstones (L20; Fig. 5) was uncovered c. 0.3 m above Floor 21 of Stratum III. Floor 20 abutted a wall (W14) that was built of one row of large ashlar stones (max. dimensions $0.5 \times 0.7 \times 0.8 \mathrm{~m}$ ) and preserved 0.7 m high. Several threshold stones were discovered in a wide opening (width c. 3 m ) set in W14; some of the threshold stones were removed during the work at the site. It seems that this was the western wall of a public building. East of W14 was a surface (L19) of flat fieldstones whose function was unclear because the area of its exposure was very limited. The finds above Floor 20 dated to the end of the Roman period or the beginning of the Byzantine period and included bowls (Fig. $4: 6,7$ ) and five bronze coins. Two of coins were minted in the fourth century CE and one of them dated to the years 383-395 CE (IAA 100483). The other three coins could not be identified.

Stratum I. A floor of flat fieldstones (L18) that also abutted W14 was exposed directly above Floor 20 of Stratum II. Another wall (W15; width 1.3 m ), built of medium-sized ashlar stones (max. dimensions $0.28 \times 0.30 \times 0.58 \mathrm{~m}$ ) and preserved 0.6 m high, was exposed c. 1.2 m to the west of W14. No diagnostic potsherds were discovered above Floor 18, yet the soil accumulation and stone collapse on the floor contained fragments of imported bowls (Fig. 4:8, 9), cooking pots (Fig. 4:10) and jars (Fig. 4:11) that dated to the sixth-seventh centuries CE.


1. Plan and sections.

2. General view of the excavation, looking west.

3. Floor 21 in lower part of photograph, looking south.


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4. Pottery and glass vessels.

5. Floor 21 on right, Floor 20 on left and Wall 14, looking east.

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1. Location map of excavations.

2. Exposed bedrock and quarries at the beginning of fieldwork.

3. Cave 561, circle of stones around interment

4. Cave 562 , burial layers rich in pottery vessels.

5. Metal spearheads.

Yehuda Dagan and Shelley Sadeh
13/1/2008
During December 2002-March 2003 and May-August 2003, two seasons of salvage excavations were conducted at Horbat Gilan South (Permit No. A-3822; map ref. NIG 20350/710265; OIG 15350/21025; Fig. 1), prior to paving the Trans-Israel Highway.
The excavation, on behalf of the Antiquities Authority, was directed by Y. Dagan, with the assistance of J. Sharvit, A. el-Salam, A Abu-Hamid (area supervision), S. Ya'aqov-Jam and Y. Dangor (administration), A. Hajian and A. Yamim (surveying), T. Sagiv (field photography), Y. Nagar and D. Sklar (physical anthropology), M. Kaufman (DNA analyses), U. Salzman (geological consultation), L. Barda (mapping), S. Sadeh (pottery, stone and flint processing), as well as E. Yannai, E. Eisenberg, R. Gophna, Z. Horowitz and I. Adwwa.

## Area 500

A large area of quarries for nari stones $(62 \times 110 \mathrm{~m})$, in some of which the negatives of quarried blocks were visible and could be measured (Fig. 2), was revealed.
During the clearing of the quarries, openings to 28 burial caves, hewn into the soft chalk below the hard nari layers, were exposed. The caves were not excavated, although several were dated by potsherds found near their entrances, mostly to EB I-II and some to MB I.
In the second season, 4 more burial caves and 8 burial cysts, were excavated. Each the small burial cysts $(0.4 \times 0.5 \mathrm{~m}$, depth $0.5 \times 0.6 \mathrm{~m}$ ) contained a single interred individual and 1-3 pottery vessels. The excavation concentrated on the four large caves.

Cave $561(20.8 \mathrm{sq} \mathrm{m})$. A rectangular courtyard to the east of the cave led, via a narrow opening ( $0.47 \times 0.55 \mathrm{~m}$ ) to Chamber A $(2.3 \times 3.0 \mathrm{~m})$ and from there to Chamber $\mathrm{B}(2 \times 3 \mathrm{~m})$. A bench was located along the eastern wall of Room A , while against the western wall was a step or bench of fieldstones, upon which the remains of two-three deceased were found. A circle of stones (diam. c. 1 m ) in Room B, which contained two burials (Fig. 3), had been built upon an earlier burial of two-four individuals. A few pottery vessels and a bronze dagger were attributed to this earlier burial.

Cave 562 ( 59.92 sq m ). This cave comprised four burial chambers hewn at different stages and combined into a single room during its final stage. The entrance to the cave faced south and led, via three descending steps, to Chamber A. During the second stage, the cave was expanded to the east and Chamber B was added. This expansion may have damaged an adjoining chamber (C), whose entrance was in the northeastern wall. Another burial chamber (D) was uncovered to the east and was entered through an opening in the southern wall. It is possible that the rooms were combined into a single space as early as EB IB, or perhaps EB II. In the second period of the cave's use, during MB IIA, an upper shaft accessed Chamber C and from there, Chamber D. Over 800 pottery vessels were retrieved from Cave 562; the majority ( $2 / 3$ ) from EB IB and EB II and the rest dating to MB IIA (Figs. 4-6).

Cave 548. This heart-shaped cave (c. 40.46 sq m; Fig. 7) was entered from the south. Steps descended to Chamber B, while Chamber A to its east was apparently hewn at a later stage. Two burial periods were discerned, the first dated to EB IB. After a certain gap when alluvium accumulated in the cave, burial continued in EB II. This second layer of burials was also covered with a thick alluvium layer, indicating there was an opening into the cave. A single jar from the Intermediate Bronze Age was found in the top alluvium layer. This cave contained over 500 vessels from EB IB and EB II.

Cave 567. This circular cave ( 31.94 sq m ) had its entrance in the south, with four steps descending inside. A stone slab that used to seal it was found nearby. The cave was apparently expanded northward and an unwanted opening was blocked by a fieldstone wall. Several burial layers were exposed and it was clearly visible that throughout its long usage, earlier burials were pushed aside and their contents discarded inside the cave to make room for new interments. The cave contained 1100 vessels from EB IB, along with a few vessels of EB II date.

## Area 600

This area of quarries and agricultural installations was located up the slope to the north of the burial caves, on bedrock that slanted southward. Most of this area contained quarries for nari stones, as well as two winepresses that evidently pre-dated the quarries (Fig. 8). Hewing techniques were observed in two stone blocks that were almost completely detached from bedrock (Fig. 9). Although potsherds were not found on bedrock, it seems that the quarries can be dated, like those in Area 500, to the Roman or Byzantine period.

The four caves excavated in Area 500 contained over 3500 pottery vessels from EB IB, EB II, MB IIA and two vessels from the Intermediate Bronze Age. Other finds included hundreds of beads, mostly quartz and carnelian (Fig. 10), silver and gold jewelry, ballista stones, metal weapons (Fig. 11), flint artifacts and imported shells.
The size of the caves and the wealth and variety of the finds should enable us to study the trade relations between the populations buried in the caves and the neighboring regions, as well as the cultures of Egypt and northern SyriaMesopotamia. It appears that the ancient trade route that passed through Nahal 'Iron contributed to the rich repertoire of pottery vessels and other finds in the caves, which were part of the extensive cemeteries associated with Tel Esur, c. 1 km to the west.


1. Location map of excavations.

2. Exposed bedrock and quarries at the beginning of fieldwork.

3. Cave 561, circle of stones around interment.

4. Cave 562, burial layers rich in pottery vessels.

5. Cave 562, burial layers rich in pottery vessels.

6. Cave 562, layer of pottery vessels.

7. Cave 548, looking north-east.

8. Area 600, rock-hewn winepress.

9. Area 600 , Stone block partially extracted.

10. Reconstructed bead necklace.


om 2 3 a s $x$ a a 10
11. Metal spearheads.
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12. Plan.

13. Pottery.

During August 2002, a trial excavation was conducted within the site of Horbat Gilan, along the route of the Cross-Israel Highway (Permit No. A-3625*; map ref. NIG 20325-70/71013-30; OIG 15325-70/21013-30). The excavation, on behalf of the Antiquities Authority, was directed by A. 'Ouda, with the assistance of S. Ya'aqov-Jam (administration), V. Essman and V. Pirsky (surveying), A. Masarwa (preliminary probes) and E. Yannai, A. Gorzalczany, T. Horowitz, E. 'Awawdy and laborers from Umm el-Fahm and Nazareth.
The site, situated on a moderate spur along the fringes of the Menashe Hills that descend toward Nahal 'Iron, is c. 500 m northeast of the Barqay Junction and c. 1 km east of Tel Asor. The region is characterized by qirton bedrock upon which a thin layer of nari developed, as well as forest soil and rendzina.
Nine squares were opened, revealing settlement remains that dated to the latter part of the Roman and the Byzantine periods (fourth-fifth centuries CE). Remains of buildings, an industrial installation and tombs were found (Fig. 1).

Building Remains. A wall (W501; $0.7 \times 3.5 \mathrm{~m}$; Fig. 1) was exposed on the hilltop that overlooks the Menashe Hills and Nahal 'Iron. Wall 501, oriented east-west, was built of fieldstones that were preserved one or two courses high. It was abutted from the north and south by floor beddings composed of small fieldstones (L903, L904). Fragments of numerous pottery vessels, mostly cooking pots and jars that dated to the end of the Roman and the Byzantine periods, were found on the floor beddings, i.e., bowls (Fig. 2:1, 2), a cooking krater (Fig. 2:3) and jars (Fig.2:5-8), as well as a few glass fragments and flint flakes.
Probes conducted beneath the floor beddings revealed a few potsherds that dated to Iron III, namely a jar (Fig. 2:4).
Rock-hewn Installation. Part of an installation (L401) that was apparently a winepress was excavated. The installation had a rectangular outline ( $1.2 \times 1.6 \mathrm{~m}$ ) and was hewn in nari bedrock; it was probably used as a treading floor in the production of liquids. Based on its diminutive size it seems that one or two laborers, at the most, could work in it. The installation contained a scant amount of worn, ribbed potsherds, probably ex situ.

Tombs. Seven rectangular-shaped cist tombs were exposed (Loci 101-103, 201-204; $0.7 \times 1.6 \mathrm{~m}$ ), but not excavated. They were oriented east-west, with a slight deviation to the north at the western end and were built of different sized fieldstones.

Part of a settlement that included residential buildings, an industrial installation and tombs was uncovered in the excavation. Based on the assemblage of pottery vessels recovered from the installation, the fill on the floor beddings and the wall, as well as the assemblage on the floor beddings, the site can be dated to the end of the Roman and the beginning of the Byzantine periods (fourth-fifth centuries CE).



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1. The eastern squares, plan and section.

2. Hearth 104 and nearby potsherds and flint flakes.

3. Walls 110, 120, looking south.

4. The western squares, plan.

5. Rock-hewn Pit 109,
looking west.

During January-February 2006, a trial excavation was conducted at Horbat Hammim (South) in Modi'in (Permit No. A-4693; map ref. NIG 19687/64418-25; OIG 14687/14418-25), prior to expanding the Ispro Center. The excavation, carried out on behalf of the Antiquities Authority and funded by A. Noah, was directed by A. Gorzalczany, with the assistance of I. Ohayon (administration), V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (photography), O. Marder (flint implements) and H. Alfredo. Additional assistance was rendered by Y. Dagan, E. Eisenberg, E. van den Brink and I. Milevski.

The site is located northwest of Horbat Nekhes. Two pairs of excavation squares, revealing building remains and rock-cuttings, dating to Early Bronze IA based on the finds, were opened. Excavations and surveys conducted at the site in recent years exposed settlement remains from Early Bronze I (HA-ESI 119; Permit Nos. A-3161, A4310, A-4319, A-4409, A-4415, A-4913).

The Eastern Squares (1, 2). A sequence of three strata (I-III; Fig. 1) was exposed in these squares. A heap of stones (diam. 3 m , height 1.2 m ) from stone clearance or the collapse of a building was ascribed to the upper Stratum I. The dismantling of the heap uncovered potsherds from the Early Bronze Age and worn fragments from the Byzantine period, probably ex situ, as well as flakes of poor quality indigenous flint. Stratum II consisted of a brown soil fill that contained ribbed potsherds and separated Stratum I from Stratum III. An especially thick floor (thickness 0.5-0.7 m) of different sized stones (Loci 105, 107; Fig. 2) was exposed in both squares and attributed to Stratum III. Early Bronze IA ceramics were found on the floor, as well as numerous flint flakes and a hearth (L104; diam. 0.7 m ; Fig. 3). The possibility that L105 and L107 was not a floor but rather, due to their extreme thickness, the bottom part of the stone heap from Stratum I, was raised. However, it can be negated on account of the hearth and the flint flakes found on the stone floor, as well as the difference in the stone density between the heap and Loci 105 and 107. It should also be noted that similar floors were exposed in previous excavations. Two adjacent walls (W110—exposed length 4.9 m , width 0.4 m ; W120—length 3.1 m , width 0.4 m ) were also attributed to Stratum III. The walls, oriented southwest-northeast, consisted of a single row of coarsely dressed stones (Fig. 4). Floor 105 abutted W110 on the south and another floor (L119) abutted W120 on the north. A sounding below Floor 107 exposed unstratified brown soil (L112) that extended as far down as bedrock. The sounding below Floor 105 revealed a layer of packed stones (L113) directly beneath it, which were smaller than the stones of Floor 105. Layer 113 abutted the bottom part of W100 and its continuation was discerned in the eastern section of the excavation, where ash was evident. It seems that Layer 113 was an occupation level that should be ascribed to the first phase of the settlement at the site, whereas Floors 105 and 107 were a renovation of this level. Wall 110 apparently continued to be used during the entire period. Below Layer 113 was a soil fill that reached bedrock (L114) and contained fragments of pottery vessels from Early Bronze IA.

The Western Squares (3, 4; Fig. 5). An elliptical rock-cutting (L108), which contained Early Bronze IA pottery, was exposed in the eastern of the two squares. A circular rock-hewn pit (L109; diam. 0.9-1.2 m, depth 0.9 m; Fig. 6), which contained numerous potsherds of Early Bronze IA date, was uncovered in the western square. To the north of Pit 109 were three flat stones and a pavement of small stones (L118) on which signs of a fire were visible. A rectangular rockcutting (L115; $0.5 \times 0.7 \mathrm{~m}$ ) was discerned south of Pit 109 and beyond the limits of the excavation. To its east was an elliptical cupmark ( $0.25 \times 0.50 \mathrm{~m}$, depth 7 cm ) that whether it is natural or hewn, is unclear.

The assemblage of artifacts recovered from the site included a large quantity of flint flakes, flint cores and a few flint tools, including a hammer stone and a fan scraper. The ceramic finds included jar rims, bowls and ledge handles from Early Bronze I. Most of the pottery vessels were made of light color, coarse, unlevigated clay that contained numerous inclusions; on several of the vessels were traces of red painting. The potsherds bore characteristics of the Chalcolithicperiod ceramic tradition and it therefore seems that the site should be dated to the transition phase from the Chalcolithic period to Early Bronze IA. Following the abandonment of the site, no further activity occurred until the Byzantine period.

2. Floor 105 and 107, looking west.

3. Hearth 104 and nearby potsherds and flint flakes.

4. Walls 110,120 , looking south.

5. The western squares, plan.

6. Rock-hewn Pit 109, looking west.
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## Horbat Horesh

Final Report
Yonathan Mizrachi


1. Area A, plan and section.

2. Area A, looking east.

3. Pottery.

4. Area B, plan and section.

5. Water reservoir, view from inside.

During January 2005, a trial excavation was conducted at Horbat Horesh, near Nahal Yitla, in the northwestern Judean hills (Permit No. A-4358*; map ref. NIG 2045-7/6373-6; OIG 1545-7/1373-6; ES/ 18:100). The excavation, on behalf of the Antiquities Authority, was directed by Y. Mizrahi, with the assistance of A. Hajian (surveying and drafting), T. Sagiv (photography), H. Stark and L. Barda (GPS system) and C. Hersch (pottery drawing).
Two excavation squares (A, B), c. 10 m apart, were opened in the southern part of the ruin, along the western slope of Har Horesh. A probe trench was excavated southeast of Square A and a rock-hewn water reservoir, to the southeast of the excavation squares, was investigated.

Square A (Figs. 1, 2). A farming terrace wall (W1; width 1.7 m ), built of fieldstones and preserved six courses high (1.4 m), was exposed. A group of roughly hewn stones was discovered in the bottom courses of the western face of the wall, which was founded on soil. Another wall (W3), to the east of W1, was built of fieldstones and preserved a maximum of two courses high. A layer of light brown soil (L106; length 0.3 m ), devoid of ceramic finds, abutted W3 on the east. This soil was different than the brown soil in the region and it probably constituted part of an occupation level. The finds discovered on both sides of W1 included potsherds from the Byzantine period (Fig. 3:1-7), fragments of roof tiles (Fig. $3: 8-10$ ) and tesserae, some of which were ceramic.
The probe trench $(1 \times 4 \mathrm{~m})$ to the southeast of the square exposed the continuation of Layer 106, to whose southeast brown soil fill and small stones were visible (L105).

Square B (Figs. 4, 5). A farming terrace wall (W2; width 0.45 m ), built of fieldstones and founded on bedrock, was exposed. It was oriented north-south and preserved two courses high $(0.4 \mathrm{~m})$. East of the wall and below brown soil was a layer of light brown soil (L101), similar to Layer 106 in Square A.

Water Reservoir ( $12 \times 20 \mathrm{~m}$, min. depth c. 10 m ; Figs. 6, 7). The rectangular reservoir had rounded corners, except for the northern side, which was irregular and had hewn niches. Four hewn openings were in its ceiling and a fifth one-in the northern corner. Three hewn steps led to one of the ceiling's openings, which had a rectangular shape and was lined with hydraulic plaster; it resembled the openings of burial caves that were common to the Byzantine period. This northwestern opening was partially blocked by a wall of ashlar stones (length c. 1 m , height 2.5 m ), which was built between the rectangular part of the reservoir and the irregular northern part wherein niches were hewn. The interior face of the reservoir was lined with fieldstones that were coated with a layer of hydraulic plaster. In places where the plaster and fieldstone lining was not preserved signs of stone-cutting were discerned on the bedrock walls.
The opening to which the steps lead, as well as the northern part of the reservoir with the hewn niches point to a rockhewn burial cave that had existed here originally and was negated when the reservoir was quarried. The wall that partly blocked the northwestern ceiling opening was probably a retaining wall, which had been constructed when the reservoir was enlarged and the burial cave was exposed, in fear of the ceiling's collapse.


1. Area A, plan and section.


2. Area B, plan and section.

3. Area B, looking southwest.


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1. Cave 1, lamps and juglet.

2. Cave 1, ossuary.

3. Cave 2 opening, looking south.

4. Cave 2, looking from inside the cave out, beyond the opening.

5. Cave 2, view of the kokhim in the western side of the chamber.

Amit Re'em 5/10/2008
During June 2005 a gang of antiquity thieves was apprehended during an illicit excavation of a burial cave located on the eastern slopes of Horbat Kelah, 2 km west of Modi'in and 7 km east of Lod. The plunder that was confiscated from the robbers by the Unit for the Prevention of Antiquities Robbery (Israel Antiquities Authority) included an assemblage of pottery vessels and an intact ossuary. The cave and an adjacent one (Permit No. A-4555*; map ref. NIG 197140/647689; OIG 147140/147689; NIG 197143/647670, OIG 147143/147670) were documented by A. Re'em on behalf of the Israel Antiquities Authority, with the assistance of T. Kornfeld, D. Sandhaus and R. Bar-Nathan (pottery reading).

Horbat Kelah is the easternmost of two adjacent ruins that extend across a moderate spur in an east-west direction; the western ruin is known as Horbat Zekarya. They were surveyed several times, in the second half of the nineteenth century CE by Clermont-Ganneau and Conder and Kitchner (SWP), prior to the establishment of nearby Modi'in, and before the construction of the Modi'in industrial zone (HA-ESI 111:54*). Building remains were discerned at the summits of the two ruins, and there is probably also a Byzantine church (a building and a baptisterium) at Horbat Zekarya, as well as an extensive scatter of potsherds that date to the Hellenistic, Roman and Byzantine periods. Caves, agricultural installations and cisterns were surveyed at the foot of the ruins. On the northern slopes of Horbat Zekarya is a burial cave which dates to the Roman period, as well as a complex of caves that was used as dwellings by monks, with a large pool (Bir esh-Shami) alongside them. There are those who consider these caves to be "Me'arata Dalod" to which legends have been ascribed about Jews who resided in the region during the time of Roman rule.

## Cave 1

The cave was found filled with alluvium and debris and it was therefore not possible to document it. From the illicit excavation that was conducted in it we noted that this is a kokh-type cave that is typical of the latter part of the Second Temple period. The cave opening is in the north; around it are signs of rock-cuttings in bedrock.Ossuaries were observed in situ in the fill inside the cave along with numerous potsherds and human skeletal remains belonging to a number of individuals.

The pottery assemblage that was removed from the cave during the robbing dates the beginning of its use to the end of the first century BCE-beginning of the first century CE, as evidenced by the mold-made lamps (Figs. 1:1-2;2:2-3) and a fragment of a stirrup juglet (Fig. 2:1). Two other lamps date from the first half of the first century to 68 CE (Fig. 1:3-4). The cave was used between the years 70 and 135 CE as attested by two mold-made Southern-type lamps, one decorated with a strainer pattern on the nozzle and a coalpan, the other with a wreath around the filling hole (Fig. 1:5, 7; Fig. 3). In addition to these vessels a drop-shaped juglet (Fig. 1:6) was found that also dates to the period between the Revolts. The tomb was used again in the third-fourth centuries CE, as evidenced by a lamp with elliptical body and a large filling-hole, a lug handle and a geometric decoration that covers its entire surface (Fig. 1:8). These lamps are characteristic of the third-fourth centuries CE and were popular throughout the central and southern regions of the country. The pottery assemblage is therefore indicative of a prolonged period of use that began in the first century BCE and continued until the Bar Kokhba Revolt ( 135 CE ). Following a hiatus the cave continued to be used during the thirdfourth centuries CE.

In the cave and debris from the illicit excavation a large number of stone ossuary fragments were found, as well as an intact ossuary without a lid that had been removed from the cave during the course of the robbing activity. The ossuary is made of local limestone ( $0.28 \times 0.23 \times 0.50 \mathrm{~m}$; Fig. 4); it stands on four short legs and its side is adorned with two carelessly incised rosettes enclosed within a frame of circles and scales.

## Cave 2 (Fig. 5)

This cave was found devoid of artifacts, a sign that it was probably plundered. It has an opening ( $0.8 \times 0.9 \mathrm{~m}$ ) in its northern façade that is enclosed within a stepped frame meant to incorporate a square sealing stone that was not found in the vicinity (Fig. 6). The burial chamber is square ( $2.8 \times 2.9 \mathrm{~m}$; Fig. 7) and was meticulously hewn. The floor of the burial chamber is filled with alluvium to the top of the kokhim and therefore it is not known if there is a standing pit in its center. Kokhim with a sunken frame around their opening into which a closing stone was meant to be inserted are hewn in the sides of the chamber. Four kokhim (Fig. 8) were hewn in the western wall and two were discerned in the eastern wall; however, it seems that the alluvium is covering one or two others in this wall. In the front of Kokh 4 is a concentration of small fieldstones that blocked the opening. The southern wall of the burial chamber was found covered with alluvium but it seems that kokhim were also hewn there. In the upper part of this wall is a broad opening that is partly hewn and partly natural. The opening is currently blocked by debris and the nature of it is unclear; it probably leads to another burial chamber

Based on the ceramic finds, the method of burial in kokhim and the presence of ossuaries the two burial caves should probably be attributed to a Jewish settlement that existed at the site in the latter part of the Second Temple period. Tomb 1 was reused in the Late Roman period and the beginning of the Byzantine period. These caves join other burial caves and arcosolia tombs located along the eastern slopes of Horbat Kelah and constitute part of the settlement's necropolis from the end of the Second Temple period until the Byzantine period.


1. Cave 1, lamps and juglet.

2. Cave 1, fragments of lamps and juglet.

3. Cave 1, a strainer design and a coalpan on a lamp.

4. Cave 1, ossuary.


5. Cave 2 opening, looking south.

6. Cave 2, looking from inside the cave out, beyond the opening.

7. Cave 2, view of the kokhim in the western side of the chamber.

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1. The well, plan.

2. The well, sections.

3. The openings in the vaulted roof, looking northeast.

4. The vaulted roof, looking northeast.

5. The blocked arch in W8. looking southeast.

1/4/2008
During February 2002 an excavation was conducted in a saqiye well at Horbat Mador (Permit No. A-3568*; map ref. NIG 14899-999/59000-100; OIG 09899-999/09000-100). The excavation, on behalf of the Antiquities Authority and sponsored by the Jewish National Fund, was directed by N.S. Paran, with the assistance of H. Lavi (administration) and A. Hajian (surveying).
Water cisterns, buildings, tombs and two saqiye wells are known At Horbat Mador. An Arab village at the site existed until 1948, when it was abandoned and destroyed. The excavated saqiye well is situated on the northern bank of Nahal Gerar. It was built at the end of the Ottoman period (eighteenth-nineteenth centuries CE) and was renovated at the time of the British Mandate.

## Ottoman Period

A well that consisted of a partially blocked vertical shaft (diam. 2.7 m , min. depth 26 m ; Fig. 1) surmounted by a vaulted building ( $3.8 \times 4.5 \mathrm{~m}$, height 1.8 m ) was excavated. The building was delineated by Walls 2, 9 and 10. An arch was incorporated in the building's northern wall (W8) and two openings in its roof ( $0.60 \times 0.65 \mathrm{~m}$; Fig. 2) were situated above the center of the shaft and separated by a stone beam (width 0.5 m ). On the roof of the building were four short pillars $(0.55 \times 0.55 \mathrm{~m}$; height 0.2 m ) around the openings that were probably meant to support the horizontal axle of the saqiye. Between the northern and southern pairs of pillars were two plastered stone basins that received the well water via the saqiye and a system of plastered channels that branched out from the basins and conveyed the water to storage pools and troughs.
A pool (L109; $1.0 \times 2.9 \mathrm{~m}$, depth 1 m ) covered with a vault and coated with hydraulic plaster was discovered west of the vault and next to W10. The pool was open in its northern part and delimited by Wall $5(0.45 \times 1.60 \mathrm{~m}$, height 0.95 m$)$ on the north and Wall $7(0.65 \times 3.45 \mathrm{~m}$, height 0.65 m$)$ on the west. A three-section ceramic pipe of black Gaza-type ware conveyed water from the basins on the building's roof to the pool. It seems that the pool was meant to store water for local use and based on three pegs that were found above the vault, its opening was apparently covered with a grill.
South of the vaulted building and the covered pool and beyond Wall 2 was an open square pool coated with hydraulic plaster (L104; $4.5 \times 4.5 \mathrm{~m}$, depth 1.7 m ). It was delineated by Walls $1,2,3,4$ (thickness 1.35 m ), on whose inside was a step (width 0.3 m , height 0.3 m ). The corners of the pool, below the step, were built at an angle and two steps were affixed in the northeastern corner to facilitate the descent into the pool. A plastered channel from the roof of the vaulted building filled the pool with water through an outlet of four iron pipes (diam. $3-5 \mathrm{~cm}$ ): the first in the middle of the pool's southern wall (W1; 0.35 m above the bottom of the pool); the second in the western third of W1, below the step, probably to release excess water and to prevent flooding; the third, at the level of the floor, in the middle of the pool's western wall (W4), conveyed water to troughs (L110b); the fourth (W3) was in the center and at the bottom of the pool's eastern wall. Adjacent to the western side of W4 and W7 was a series of troughs (Loci 110a-d; $0.75 \times 10.60 \mathrm{~m}$, depth 0.4 m ) enclosed by W6.
North of the vaulted building and the covered pool was a stone and plaster-built surface (L111; $7.0 \times 7.7 \mathrm{~m}$ ), delimited on all sides by low walls (W20 in the north, W19 in the east, W23 in the south, and W21 in the west), which served as a foothold for the animal turning the saqiye installation.
Two rectangular pillars (W11, W12, $1.3 \times 1.6 \mathrm{~m}$, height 0.7 m ) were discovered west and east of the surface that were used to secure the vertical axle of the saqiye.

## British Mandate

Several changes were made to the well complex. The opening in the northern wall of the vaulted building was sealed with a concrete wall (W8; length 2.7, width 0.25 m , height 1.4 m ). A concrete floor covered with tar (L112; $4.45 \times 4.85$ ) was installed near to the eastern face of the northern surface (L111). This floor was delimited on all sides by walls (W15 in the north, W16 in the east, W17 in the south, and W18 in the west; height c .1 m ) that served as railings. A poured concrete cube $(0.8 \times 1.8 \mathrm{~m}$, height 0.85 m$)$ in the middle of the floor had six screws set at its top; this was probably a mount for the motor that replaced the animal, which until then had operated the saqiye. Two channels (Loci 113, 114), whose function is unclear, were built adjacent to the western side of the motor mount; however, it can reasonably be assumed that they were connected to the motor and the mechanical pumping mechanism, which replaced the saqiye. Walls 13 and 14 were built in this phase next to the western pillar (W11); their function and complete plan are unclear. The northern basin on the vaulted roof was refurbished and tiles were laid down in it $(25.4 \times 25.4 \mathrm{~cm})$; next to it was a poured concrete cube $(0.5 \times 1.2 \mathrm{~m}$, height 0.5 m$)$ that probably served as a seat where the pump was mounted.
In and around the complex were fragments of black Gaza ware (eighteenth-twentieth centuries CE). Some of the potsherds were found covered with hydraulic plaster and in places where the plaster was damaged, potsherds of this type were incorporated in the wall's construction.

The well and its installations were part of a water system established during the Ottoman period in the western Negev and was further developed by the authorities during the time of the British Mandate. Other wells of this kind were identified at Be'er Rabuba, Be'er Sheva' (a large number of wells), at Horbat Mador, c. 300 m northeast of the present saqiye and many others elsewhere.
Three phases can be discerned in the saqiye mechanism for drawing water:
(1) An animal turned the mechanism and jugs were attached by rope.
(2) The motor powered phase, whereby the jugs was replaced by wooden or metal boxes connected by metal links. This is evidenced by the notches remaining in the sides of the openings in the vault's roof.
(3) The pump phase.


2. The well, sections.

3. The openings in the vaulted roof, looking northeast.


5. The blocked arch in W8, looking southeast.
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Horbat Nashe
Final Report
Oren Shmueli , Anan 'Azab and Livnat Yihye
23/11/2008


1. Location map and survey points.

During July 2004, a survey prior to development was conducted in Kochav Ya'ir (Permit No. A-4309*; map ref. NIG 1985-2060/6795-810; OIG 1485-5060/1795-810), in an area slated for construction. The survey, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Israel Lands Administration, was directed by O. Shmueli, L. Yihye and A. 'Azab, with the assistance of S. Gal (GIS applications) and A. Rochman-Halperin (IAA archive)
The area surveyed was delimited in the north by Ha-Perahim Street in Kochav Ya'ir, in the east and south by the settlement's security road and in the west by the residential neighborhood and playground in Zur Yig'al. A large part of the area is planted with pine groves and its western part is covered with large deposits of earth.
Horbat Nashe is preserved in the center of the survey area. It had been damaged in the past by the preparation of security roads, the planting of trees and the dumping of soil. Settlement remains from the Israelite, Persian, Roman and Byzantine periods were found at the site, where a salvage excavation was conducted in 1997, exposing a building from the Roman period, another building from the Byzantine period and a cave from Middle Bronze II (HA-ESI 116).

Buildings that stand several courses high (Fig. 1:1-3), cisterns (Fig. 1:4-9) and a winepress (Fig. 1:10) were recorded at the site. Northwest of the site, a stone clearance heap (Fig. 1:11), an ancient road (Fig. 1:12), a cist tomb (Fig. 1:13) and a complex winepress that included a treading floor and a screw base (Fig. 1:14) were documented. West of the site, cave openings, probably of burial caves (Fig. 1:15, 16), a kiln (Fig. 1:17) and two winepresses that consisted of a treading floor and a collecting vat (Fig. 1:18) were noted.


1. Location map and survey points.

2. Area A, location of excavation sub-areas, plan.

3. Sub-Area A, remains of stone clearance heap upon bedrock, looking south.

4. Sub-Area B, remains of field wall, looking east.

5. Sub-Area C, remains of field wall at upper left, stone clearance heap at lower left and dam at upper right, looking east.

6. Sub-Area E, remains of dam, looking east.
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## Horbat Nekhes

## Final Report

Amir Golani
During November-December 2007, two salvage excavations were conducted in the course of Roads 3 and 12 within the developing industrial zone of Modi'in (Permit No. A-5290*; map ref. NIG 19626-28/64320-22; OIG 14626-28/14320-22). The excavations, carried out on behalf of the Antiquities Authority and funded by A. Hadar Construction Entrepreneurs Inc., were directed by A. Golani, with the assistance of E. Bachar (administration), R. Mishayev (surveying), T. Sagiv (field photography), O. Segal (antiquities inspection) and A. Re'em (district archaeologist).
The excavations were undertaken in the wake of archaeological inspection of development works that revealed several stone concentrations. Consequently, two excavation areas were opened, designated Area A (Road 12) and Area B (Road 3).

Area A
This area is located in a shallow topographical depression between Horbat Bizqa to the northeast and Horbat Kefar Tov to the southwest. Six stone concentrations (Sub-Areas A-F) were exposed during the archaeological inspection (Fig. 1) and, except for one (Sub-Area D), each was excavated manually.

Sub-Area A. Two small probes were opened after development work had damaged the antiquities in this area. A stone clearance heap of unclear size (Fig. 2), which was partially contained within a low retaining wall, built of one row of large fieldstones, was exposed. A limited amount of indicative potsherds from the clearance heap spanned the Late Hellenistic to the Early Byzantine periods.
Sub-Area B. The remains of two parallel field walls built of large fieldstones and set upon the sterile alluvium soil (Fig. 3) were discovered in one square. One of the field walls may be traced all the way to Sub-Areas C and F (see Fig. 1). The very limited amount of worn potsherds did not enable dating this feature.
Sub-Area C. A portion of the field wall exposed in Sub-Area B and built of one to two rows of large fieldstones, set upon the sterile alluvium, was revealed (Fig. 4). To the north of this wall, part of a stone clearance heap that postdated the field wall was uncovered. The heap was demarcated by a curving agglomeration of large to medium-sized fieldstones, which encompassed a fill of small stones.
The main feature in this area was a wall of crescent shape, built of one row of large fieldstones and preserved two courses high, with the lowest course jutting out in a step fashion. The northwestern face of the wall was well-built, while the opposite side appears to have been set upon soil, appearing as a terrace wall. To the northwest of the wall and within its curve, a well-built stone pavement of semicircular shape was revealed. This entire construction, set upon sterile alluvial soil, is interpreted as a dam. The curve of the wall faces upslope, while the stone pavement was intended to prevent any water overflow from eroding the earth away from the base of the dam wall.
The very limited amount of worn potsherds was not helpful in dating any of these features; yet similar constructions that had been excavated in the nearby region (Permit No. A-4028; HA-ESI 120) indicate that the dam itself could have been built as recently as 1953 CE by the Jewish National Fund, as part of a regional unemployment-environmental project. Sub-Area E. Located 50 m to the southeast and upslope from Sub-Area C, the remains of another dam, nearly identical in construction to the previous one, was revealed (Fig. 5). The existence of two nearly identical structures in proximity to one another makes it highly likely that they were both built at the same time as part of the same building project.

Sub-Area F. Two half squares were opened, revealing the remains of a field wall built of one to two rows of large to medium-sized fieldstones, set upon sterile alluvium soil (Fig. 6). This appears to be the same wall uncovered in SubAreas B and C.

## Area B

This area was in a leveled plain to the east of Horbat Nekhes. Two stone concentrations were recorded during the archaeological inspection, buried under c. 0.7 m of alluvial soil. A badly preserved roadway, set upon sterile alluvium, was revealed. The roadway (traced for 55 m ), oriented southeast-northwest, was built of $2-3$ rows of large to mediumsized fieldstones with a core of small to medium-sized stones. The width of the roadway in its northwestern portion reached a maximum of 6 m , whereas the southeastern portion was not well preserved.
According to maps of the mandatory era, this roadway, to the southeast of Horbat Nekhes (Khirbat el-Kunnisa) may have been the track that connected the abandoned villages of Barfiliya to the northeast and el-Qubâb to the southwest, both of which were built upon earlier remains. The limited amount of potsherds recovered from the stone fill of the roadway was too poor and worn for determination of a date, yet the manner of construction appears to resemble many such roadways that are dated to the Roman period.


1. Area A, location of excavation sub-areas, plan.

2. Sub-Area A, remains of stone clearance heap upon bedrock, looking south.

3. Sub-Area B, remains of field wall, looking east.

4. Sub-Area C, remains of field wall at upper left, stone clearance heap at lower left and dam at upper right, looking east.

5. Sub-Area E, remains of dam, looking east.

6. Sub Area F, remains of field wall, looking north.

7. Area B, remains of roadway, looking south.

8. Irrigation Dam 1, plan and section.

9. Irrigation Dam 1, looking northeast.

10. Irrigation Dam 1, looking northwest.

11. Irrigation Dam 2. plan and section.

12. Irrigation Dam 2. looking east.
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## Horbat Nekhes

## Final Report

Edwin C.M. van den Brink
During August 2007, a trial excavation was conducted east of Horbat Nekhes (Permit No. A-5219*; map ref. NIG 195873-973/644728-87; OIG 145873-973/144728-87), prior to the construction of Road 431, 4 km west of Moditin. The excavation, carried out on behalf of the Antiquities Authority and financed by the Nativ Company, Ltd., was directed by E.C.M. van den Brink, with the assistance of E. Bachar (administration), T. Melzen and R. Mishayev (surveying) and T. Sagiv (field photography).
Archaeological inspection of development works in the area by T. Kanias revealed two potential archaeological sites. The excavation was intended to identify the nature and extent of these two sites.

Irrigation Dam 1 (Figs. 1-3). A slightly curved dam wall (W100; length 12 m , max. height 1 m ) was exposed. The drybuilt wall consisted of four courses of inclining limestone ashlars that extended between the east and west embankments of a narrow wadibed. The soft limestone embankments were cut with precision to accommodate the ends of W100, enhancing its resistance against pressure from the water flowing in the wadi. The crevices between the ashlars were filled with smaller lime stones. The number of ashlars in each course ranged from 28 to 38 . Chiseled masonry marks and cut-out holes visible in at least two of the ashlars indicate that the stones had originally belonged to an earlier building, which had been dismantled and its stones reused in building the dam.
A carefully-laid, semicircular stone pavement (L102; max. $2 \times 8 \mathrm{~m}$ ) in front of Dam W100 was also composed of reused ashlars. The purpose of this pavement in the wadibed was to diminish the impact of water overflow, so as to prevent the erosion of the W100 foundations.

Irrigation Dam 2 (Fig. 4, 5). To the west of Dam 1 and 75 m upstream, another significantly smaller irrigation dam (2) was located. The dam consisted of a dry-built, nearly straight wall (W101; length 5.5 m ) that comprised a single course of thirteen limestone ashlars (max. height 0.8 m ). In comparison with the reused ashlars of Dam 1, the limestone blocks of Dam 2 lack any patina or signs of wear, possibly indicating that these stones were cut specifically for the construction of this dam. Unlike the case of Dam 1, no particular chiseled masonry marks were visible on any of the stone blocks. A carefully-laid, semicircular stone pavement (L103; max. $1.75 \times 3.75 \mathrm{~m}$ ) in front of Dam W101 also consisted of ashlars and served the same purpose as the stone pavement associated with Dam 1.

Worn potsherds from the Late Byzantine period were found in the stream sediments that covered the stone pavement of Dam 1. An additional trench (L104; $1 \times 2 \mathrm{~m}$ ) in the middle of the streambed, adjoining and west of Pavement 102 and dug c. 0.5 m below it, equally yielded worn potsherds dating to the Late Byzantine period. The worn character of the potsherds indicates they were in secondary deposition by the water stream and therefore, ex situ and irrelevant for dating the construction of Dams 1 and 2. The few ashlars that bore masonry marks and were reused in the construction of Dam 1 are insufficiently diagnostic to provide a post quem date for its construction. Irrespective of date, it is obvious from the similarity of the mechanical conception and the building style and technique that both dams, which undoubtedly had the same function, were part of one and the same building scheme.
A very similar dam was excavated in Horbat Bizqa, slightly southeast of the present site (Permit No. A-4028). It was suggested ( P . Gendelman, pers. comm.) that the dams could well have been built as recently as 1953 by the Jewish National Fund, as part of a regional unemployment-environmental project. Two additional irrigation dams at Horbat Bizqa that are excavated at present (Permit No. A-5290; HA-ES/ 120) apparently belong to the same master plan of built dams in this region.


1-1

1. Irrigation Dam 1, plan and section.

2. Irrigation Dam 1, looking northeast.

3. Irrigation Dam 1, looking northwest.


1-1
4. Irrigation Dam 2, plan and section.

5. Irrigation Dam 2, looking east.

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1. Plan of 2007excavated areas.

2. Squares A9 (foreground), A8 and A7 (background). looking southeast.

3. Space 3, looking southeast.

4. East end of preserved podium and stylobate of Early Shrine, looking west.

5. Square J8, north corner of Temple II steps, looking west.

Michael C. Nelson, Andrew J. Overman and Daniel Schowalter
27/3/2008
During May-June 2007, the ninth season of excavation at Horbat 'Omrit in the northern Galilee was conducted (License No. G64/2007; map ref. NIG 25222/79153 OIG 21222/29153). The excavation, on behalf of the Antiquities Authority, was directed by J.A. Overman (Macalester College) and associate directors D. Schowalter (Carthage College; photography) and M.C. Nelson (Macalester College; drafting). Participating in the excavation were N.S. Goldman (Macalester College; educational director), C. Reagan (registration), G. Mazor (project consultation), D. Sandhouse (ceramic consultation), as well as students from Macalester College, Carthage College, St. Olaf College and the University of Minnesota. Thanks are extended to G. Avni for his continued and invaluable assistance, as well as to Israel Tourist Corporation and the regional council of northern Galilee for initiating plans to erect a permanent fence around the site to protect it.
The excavation concentrated in four areas (Fig. 1): three squares (A7-A9) to the west of the podium of the later Roman-period temple (Temple II); the entire Spaces 3 and 5 within the interior of the podium of the earlier Roman temple (Temple I); a single square (J8) in the north section of the staircase of Temple II and six squares (M4-M6, N4-N6) in the temenos area, immediately to the east of the temple.
The tightly-packed, tumbled remains of the rear colonnade of Temple II were found in Sqs A8 and A9, which were opened immediately behind the podium of Temple II, c. 2 m below surface (Fig. 2). These two squares were extended eastward to expose the base molding of Temple II's podium. The fallen architectural elements, most of them very well preserved, consisted of a frieze block, two almost complete, though broken architraves (finished length c. 3 m ), 16 column drums and a complete Corinthian capital, which was carved of two pieces and whose bottom piece still retained the incision lines used by the sculptors to layout the capital's decorative floral elements. Sq A7, to the south, was devoid of elements, except for the broken edge of the temenos' basalt pavement.

Space 3 (SP3 in Fig. 1) in the northwest corner of the podium of Temple I was initially uncovered in 2004, but not fully cleared until this season (Fig. 3). The excavation was carried down to the underlying basalt bedrock and the fill within the chamber consisted largely of discarded architectural elements from the Early Shrine (see below) and other associated ancillary structures. The blocks were stacked up within the chamber and most, if not all, of them were well preserved, including pilasters, triglyphs, metopes, cornices and merlons. All the merlon blocks were coated with plaster and painted in solid colors of black, red and ochre. The pottery recovered from Space 3 belonged to Early Roman I and II periods.

Excavations continued in Space 5 (SP5 in Fig. 1), also within the podium of Temple I. In 2006, the stylobate surface of the Early Shrine was discovered. This season, the Shrine's east and north podium walls, which were well preserved and survived from base to crown molding and stylobate, were exposed (Fig. 4). The base, dado and crown were covered with a thin layer of white plaster, which was then molded into raised relief panels over the dado. An Attic-style column base was found, in situ, on the north side of the stylobate, with a Corinthian capital just to the west of it. The capital had been purposely set upside down on the edge of the stylobate sometime in antiquity and probably during the construction of the later Roman-period temples. Both base and capital were removed from the site and placed in storage for safekeeping. Other blocks found in the fill above and around the Shrine's podium included white plastered wall blocks, cornices, a white-plastered column drum and a Corinthian pilaster capital. At this time, the Early Shrine appears to have been a prostyle building with freestanding Corinthian columns and Corinthian pilasters built into its cella walls. An ashlar-built platform, not yet fully excavated and a staircase consisting of three ashlar steps, abutted the podium's east wall. Both were well constructed and the spur walls of the staircase still preserved their white plaster coat.

Square J 8 revealed the north end of Temple II's staircase and its relationship to the basalt pavement of the temenos (Fig. 5). Six limestone steps were found, in situ. A shallow drain or libation channel was cut into the third step along its west edge and ran the full breadth of the staircase. The temenos pavement abutted the lowest step of the staircase. The podium's north wall was extended eastward to form a spur wall; the foundations of the opposite spur wall were revealed in 2002. Two ashlar blocks of the spur wall's south face still stood, although the upper one was slightly pushed out of position sometime prior to the excavation. Several column drums from Temple II's front façade lay tumbled on and above the steps.

Most of the Roman-period altar was exposed in the 2006 season. This season, excavations continued down to bedrock in Sq M6. The altar's west wall was exposed to its preserved height of three courses (Fig. 6). Bedrock had been partially chiseled to provide a leveled surface for the wall's lowest course. Similar bedrock leveling had been prepared for the construction of the interior cross-wall of Temple I. Foundations of a small structure (Fig. 1: E) were discovered immediately to the west of the altar. It was founded directly on bedrock and only its lowest course of roughly worked slabs remained, in situ. Structure E was probably a statue base or an ancillary altar of some sort.

The squares (M4, N4) opened immediately south of the altar revealed a basalt pavement c .1 m below surface. The fill in this area contained rubble, broken basalt pavers and limestone architectural fragments. A small chapel (c. $6.56 \times 8.22 \mathrm{~m}$ ) with an exterior apse at its east end was built next to the earlier altar (Fig. 7). The chapel reused the Roman-period basalt pavement as its floor and the lowest courses of the altar's south wall as the foundation for its north wall. The chapel walls, surviving one or two courses high, were built of reused limestone blocks and block fragments pilfered from earlier structures. A doorway was centered on the chapel's west wall opposite the apse and its threshold was preserved, in situ. The door, now missing, was double-leaf and opened inward, as indicated by the bolt sockets in the threshold. Two limestone doorjambs were found fallen immediately to the west of the doorway. Another threshold preserved in the south wall near its west end indicated a second doorway; however, this doorway was blocked up in the chapel's last phase of use. No other architectural features were found within the chapel, except for a few reused elements from previous buildings.

The 2007 excavation season, which helped clarify our understanding of the architecture of the Early Shrine and the date of Temple II, added another complete Corinthian capital to our catalog of architectural elements and provided more data on the Byzantine occupation of Horbat 'Omrit.


1. Plan of 2007excavated areas.

2. Squares A9 (foreground), A8 and A7 (background), looking southeast.

3. Space 3, looking southeast.

4. East end of preserved podium and stylobate of Early Shrine, looking west.

5. Square J8, north corner of Temple II steps, looking west.

6. The altar (on right) and Structure E (on left), looking north.

7. Squares M4, M5 and N5, Byzantine chapel, looking southeast.
(Volume No. HA-ESI 120 (2008 Horbat Petora (West and Southwest) (A-4047) Final Report
Ilan Peretz and Emil Aladjem

8. Area A, plan and sections.

9. Area A, limekiln, looking northwest.

10. Area B, winepress, looking south.

11. Ottoman pipe.

12. Area B, cupmark, looking south.

During November-December 2003, a trial excavation was conducted at the sites of Horbat Petora West and Southwest (Permit No A-4047*; map ref. NIG 1818-20/6107-9; OIG 1318-20/1107-9), in preparation for the construction of Highway 6. The excavation, carfried out on behalf of the Antiquities Authority and sponsored by the Cross-Israel Highway Co., was directed by I. Peretz (Area A) and E. Aladjem (Area B), with the assistance of H. Lavi (administration), A. Hajian (surveying), P. Nahshoni and D. Varga (Southern District), N. Zak (drafting), L. Kupershmidt (metallurgical laboratory), C. Hersch (drawing) and D.T. Ariel and R. Kool (numismatics).

## Area A

Eight squares that were only partially excavated were opened on the hilltop. A limekiln, a modern terrace and a small shallow pit were discovered (Fig. 1).
The limekiln (Squares E5-F6; Fig. 2), most of which was excavated, was hewn in the bedrock (diam. 4.05 m , depth 3-4 m ) and built of two courses of limestone $(0.12 \times 0.25 \times 0.32 \mathrm{~m})$ along its northwestern side (W32; length 3.10 m , width 0.30 m ). The opening to the flue (L30; Fig. 3) was breached in this wall. The flue was hewn in bedrock and sloped downward from west to east (length 4 m , width $0.30-0.50 \mathrm{~m}$, height 2 m ). Flat covering-slabs were found inside it. Small niches hewn 0.9 m above the level of the bedrock (the western niche: $0.18 \times 0.26 \mathrm{~m}$, the eastern niche: $0.17 \times 0.23 \mathrm{~m}$ ) flanked both sides of the eastern end of the flue.
The limekiln was covered with stones and soil (Loci 11, 20, 28, 31) that contained fragments of black Gaza Ware (Ottoman period) and animal bones. Below the fill were two layers of lime (L33, L35) and two layers of ash (L34, L36) that overlay a floor of small limestone pieces (L37). Partly burnt limestone and a small piece of metal were recovered from the upper layer of lime (L33); no datable finds were discovered under it (L38).
A shallow pit (L27; diam. 0.95 m , depth 0.22 m ; Fig. 1; Square C4) was exposed to the south of the limekiln. To the east of the pit, three squares were opened; one, near a terrace wall (Square B1; W3; length c. 11.5 m , width c. 1.15 m , height 0.80 m ) and two (B2, C2) to the west of it, in which no finds were discovered.

## Area B

In Area B, located 433 m from Area A, a small winepress and several cupmarks were revealed.
A rock-hewn winepress, which included a treading floor (L101; 1.6 $\times 1.8 \mathrm{~m}$, height $0.4-0.6 \mathrm{~m}$; Figs. 4, 5), connected via a shallow channel to a round collecting vat (L103; diam. 1 m , depth 0.8 m ), was excavated. A short run-off channel was hewn in the southern wall of the treading floor; near it was a cupmark that probably held a storage jar.
The finds in the vicinity of the winepress included a few Byzantine potsherds, a silver coin-shaped ornament from the eighteenth century CE (Mustafa III; 1754-1774 CE), an Ottoman pipe from the nineteenth century (Fig. 6) and fragments of black Gaza Ware, also from the Ottoman period.
Some 50 m north of the winepress, an installation that consisted of a large cupmark (L108; diam. 0.50 m , depth 0.22 m ; Figs. 7,8 ) connected to a smaller cupmark (diam. 0.18 m , depth 0.11 m ), without any datable finds, was exposed.


1. Area A, plan and sections

2. Area A, limekiln, looking northwest.

3. Area A, flue of limekiln, looking north.


1-1
4. Area $B$, winepress, plan and section.

6. Ottoman pipe.


1-1
7. Area B, cupmark, plan and section.

8. Area B, cupmark, looking south.

# (Volume No. HA-ESI 120 (2008 <br> Horbat Pi Mazzuva <br> <br> Final Report 

 <br> <br> Final Report}

Hanaa Abu-'Uqsa


1. Plan.

2. The large section of mosaic floor, looking southeast.

3. The small decorated section of the mosaic floor, looking east.

4. Pit 5, looking southwest.

5. Pottery.

During April-May 2004, a salvage excavation was conducted at Horbat Pi Mazzuva in Shlomi (Permit No. A-4153*; map ref. NIG $21485-6 / 77624-5$, OIG 16485-6/27624-5), in the wake of damage to ancient remains during the widening of a road. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Construction and Housing, was directed by H. Abu-'Uqsa, with the assistance of Y. Ya'aqoby and I. Lavan (administration), A. Hajian (surveying and drafting), H. Smithline and N. Getzov (photography) and H. Tahan (drawing)
The ruin is located at the top of a chalk hill and an adjacent spur, south of Nahal Hanita. Remains of rock-hewn installations and rock-cuttings were exposed in the excavation ( $4.5 \times 6.5 \mathrm{~m}$; Fig. 1). A survey in the area of the ruin revealed the foundations of buildings, olive presses, burial caves, some of which were decorated, a quarry and a limekiln. Potsherds that dated to the Persian, Hellenistic, Roman-Byzantine (most of the finds), CrusaderMamluk and Ottoman periods were collected on surface.

Two sections of a white mosaic floor ( $0.5 \times 2.0 \mathrm{~m}, 1.5 \times 3.0 \mathrm{~m}$ ), decorated with black and red geometric patterns (Figs. 2, 3 ), as well as its bedding (c. 0.3 m thick), were preserved on a rock-hewn surface. A circular, bedrock-hewn filtration (?) pit (L5; diam. 0.6 m , depth $0.17-0.19 \mathrm{~m}$ ) had mosaic-paved floor and plastered walls. It seems that a cross motif had originally decorated the floor mosaic in the pit, but the pattern was altered in the wake of repairs (Fig. 4). Two hewn channels (depth 0.25 m ), which may have led to two collecting vats that were not preserved, extended from the pit. To the north of Pit 5 was a small hewn trapezoidal vat (L6; length c. 0.5 m , depth 0.25 m ; Fig. 5), lined with potsherds and plaster, which had a channel at its bottom that led to the west. The function of this vat is unknown. A jar lid dating to the Byzantine period was discovered in the side of Vat 6 (Fig. 6:2). It seems that bedrock surface and the two vats were part of an industrial installation, possibly a winepress, which was damaged during the development work at the site.
It is unclear whether other rock-cuttings nearby were associated with the installation, either predating or postdating it. A shallow channel to the east of the installation led to a vat in the northeast (L13; diam. 1 m ), which bore the remains of plaster. Another channel extended from Vat 13 northward. Remains of a quarry, whose date is unclear, were exposed in the eastern part of the excavation area. The quarry surface was straightened when a tamped chalk floor (Loci 11, 12), which abutted the quarry and postdated it, was installed. Potsherds from the Byzantine period were discovered below the tamped chalk floor, including a bowl (Fig. 6:1), a jar (Fig. 6:3) and an amphora (Fig. 6:4). The installation was negated by a hewn water cistern (L15) and a settling pit (L7), adjacent to each other. Hydraulic plaster was applied to the water cistern, which was blocked with several stones and a small depression (diam. 0.23 m , depth 7 cm ) was hewn in the settling pit (diam. 0.75-0.85 m, depth 0.5 m ). The northern part of the excavation area was paved with masonry stones in secondary use (Fig. 7). Above the pavement and Pits 7 and 15 were mixed ceramic finds that included a bowl (Fig. 6:5) and a cooking pot (Fig. 6:8) from the Crusader period, as well as a cooking bowl (Fig. 6:6) and a cooking pot (Fig. 6:7) from the Mamluk period.


2. The large section of mosaic floor, looking southeast.

3. The small decorated section of the mosaic floor, looking east.

4. Pit 5 , looking southwest.

5. Vat 6 , looking west.

6. Pottery.

7. Pavement of masonry stones in secondary use; Pit 7 on left, looking northwest.

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1. Location map.

2. Winepress 1, plan and section.

3. Winepress 1, looking northwest.

4. Winepress 3, looking northeast.

5. The cupmark, looking northeast.

Rona Avissar
28/5/2008
During February 2004, a salvage excavation was conducted at Horbat Qayit, south of Moshav Nehusha, in the Judean Shephelah (License No. B-283/2004*; map ref. NIG 1955-7/6146-8; OIG 1455-7/1146-8), prior to the expansion of the moshav. The excavation, on behalf of the Institute of Archaeology of Bar Ilan University, was directed by R. Avissar (photography), with the assistance of G. Rosenberg (surveying and drafting).
Several agricultural installations were recorded in a survey that was conducted in the region in recent years. The excavation exposed three rock-hewn winepresses and a cupmark, as well as a burial cave.

Winepress 1 had a circular treading floor (diam. 3.1 m ; Figs. 2, 3) that sloped southward and a hewn tunnel that led to a rectangular collecting vat $(0.92 \times 1.80 \mathrm{~m}$; depth 0.6 m$)$. This is a 'simple'-type winepress (R. Frankel, 1999, Wine and Oi Production in Antiquity in Israel and Other Mediterranean Countries, ASOR Monograph 10:51-52) whose upper part, where the crushing and pressing work was usually done, is slanted so that the liquid flows via a channel or perforation to a collecting vat. This very old type of winepress continued to be used in the Roman and Byzantine periods and therefore, cannot be dated on account of its typology.

Winepress 2 consisted of a square treading floor ( $2.9 \times 3.1 \mathrm{~m}$; Figs. 4,5 ) that sloped eastward and a channel that led to a primary collecting vat $(1.30 \times 1.55 \mathrm{~m}$, depth $1.10-1.25 \mathrm{~m})$. Two steps were hewn in the southern corner of the vat and two circular settling pits were cut in the western corner and in the center of the vat, respectively. To the south, next to the treading floor and the primary collecting vat was another collecting vat ( $0.77 \times 1.27 \mathrm{~m}$, depth 0.6 m ), which was connected to the primary vat by a tunnel and had a circular settling pit in its center. This winepress belongs to Frankel's "complex installation for the production of wine" (R. Frankel 1984, The History of the Processing of Wine and Oil in Galilee in the Period of the Bible, the Mishnah and the Talmud. Ph.d Dissertation, Tel Aviv University, pp. 196-197). It comprises a rectilinear treading floor, a square settling and filtration pit and a square collecting vat. The liquid flowed from the treading floor via the settling/filtration pit to the collecting vat. This type of winepress appears around the country in several periods and can not be dated if lacking supplementary finds.

Winepress 3 comprised a square treading floor ( $2.20 \times 2.95 \mathrm{~m}$; Figs. 6, 7) , which sloped northward and a hewn channel that led to a circular filtration pit (diam. 0.8-1.0 m, depth 0.45 m ) in whose floor, on the southern side, a round settling pit was hewn. The collecting vat $(1.2 \times 1.8 \mathrm{~m}$, depth 0.8 m$)$ was connected to the filtration pit by a tunnel. Two steps, a high and a low one, were cut in the southern part of the collecting vat and in its floor, an elliptical settling pit at the southern side and a circular one near the northern corner, were hewn. This is also a "complex installation for the production of wine" according to Frankel, which consists of a circular collecting vat or settling pit, rather than a square one. This winepress type, like the former one, cannot be dated when lacking additional finds.

The bedrock-hewn cupmark (diam. 0.6 m , max. depth 0.3 m ; Figs. 8, 9), was located halfway between Winepress 1 and the burial cave (below).

The burial cave (Fig. 10) was cut in bedrock and its entrance was blocked by large fieldstones (Fig. 11). At present, it can be accessed by way of a cistern (depth 4 m ). The entrance had an arched lintel (Fig. 12); the corridor was rectangular and the single chamber was corbelled ( $1.9 \times 2.1 \mathrm{~m}$, height 1.7 m ). Remains of ropes in the cave indicate it was plundered in recent years. An illicit dig next to the southern wall left the cave devoid of finds.

A few non-diagnostic potsherds were found. The installations could not be dated solely by their quarrying style, whereas the burial cave was probably of a Roman or Byzantine date, based on the quarrying and its proximity to Horbat Qayit (HA-ESI 116; HA-ESI 118).

2. Winepress 1, plan and section.

3. Winepress 1 , looking northwest.

4. Winepress 2, plan and sections.

5. Winepress 2, looking northeast.


2-2
6. Winepress 3, plan and sections.

7. Winepress 3 , looking northeast.


1-1
8. The cupmark, plan and section.

9. The cupmark, looking northeast.


11. Burial cave, blocked entrance, looking southeast.

12. The cave entrance, looking southwest.

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Oren Zingboym


1. Map of the survey.

During September 2004, a survey prior to development was conducted west, south and southeast of the village of TubaZangariyye (Permit No. A-4255*; map ref. NIG 25400-500/76225-80; OIG 20400-500/26225-80), preceding the construction of a new neighborhood east of the village. The survey, on behalf of the Antiquities Authority, was directed by O. Zingboym and E. Bron.

The village is situated on a basalt ridge that descends from northwest to southeast. A Chalcolithic settlement is located on the western part of the site and compounds, animal pens, dolmens and cairns are found in its eastern part. The region had first been surveyed by Y. Stepansky within the Map of Rosh Pina in the 1990s. A dolmen had been previously excavated north of the area slated for construction (HA-ESI 117).

The present survey is divided into six areas (A-F; Fig. 1).

## Area A

The area had been partially damaged by mechanical equipment in the past.
(1) Dolmen (?) in the east of the area (central map ref. NIG 25444/76250; OIG 20444/26250).
(2) Dolmen (?) southeast of the area (central map ref. NIG 254433/762493; OIG 204433/26493).
(3) An animal pen with two entrances (map ref. NIG 254387/762486; OIG 204387/262486 and NIG 254367/762488; OIG 204367/262488).
(4) A ruinous cairn (?; central map ref. NIG 25434/76252; OIG 20434/26252).
(5) A dolmen (?; map ref. NIG 254303/762578; OIG 204303/262578).
(6) Dolmen/tower west of the area (map ref. NIG 254174/762707; OIG 204174/262707).

## Area B

The area, located within the precincts of the Horbat Senunit site, is overlaid with numerous ceramic artifacts and a few flint items, mostly dating to the Chalcolithic period. Some of the area is built on, but most of it is covered with an olive grove.

Area C
A built-up area within the precincts of Horbat Senunit, made level by mechanical equipment in the past and covered with soil.

## Area D

A built-up area, made level by mechanical equipment in the past and covered with much refuse.
Area E
A built-up area, made level by mechanical equipment in the past.
Area F
(1) Stone circle (diam. 7 m ), standing two partial courses high (central map ref. NIG 254582/762412; OIG 204582/262412).
(2) Small stone rectangle ( $0.8 \times 1.5 \mathrm{~m}$; map ref. NIG 254577/762409; OIG 204577/262409).
(3) Irregular stone circle ( 15.2 m north-south, 14 m east-west), standing two courses high, with a smaller circle nearby (central map ref. NIG 254571/762372; OIG 204571/262372).
(4) Stone heap (map ref. NIG 254627/762372; OIG 204627/262372).
(5) Two stone circles (diam. 8 and 12 m ), standing two courses high, and a stone heap where the two circles are joined (map ref. NIG 254636/762353, OIG 204636/262353).
(6) A stone circle (diam. 10.5 m ) with a stone surface in its center (diam. 2.5 m ; map ref. NIG 254676/762337; OIG $204676 / 262337$ ). Two low fieldstones walls abut the circle; the remains of dolmens may be at the end of the walls.
(7) A heap of stones in whose center is a stone surface (map ref. NIG 254678/762330; OIG 204678/262330).
(8) A stone circle, two courses high (diam. 7 m ), which was severed by development work (central map ref. NIG 25468/76237; OIG 20468/26237).
(9) A bedrock surface and a small ruinous stone circle (map ref. NIG 254683/762386; OIG 204683/262386).
(10) A long wall, two courses high and oriented east-west (length 10 m ), and a small circle (diam. 3 m ); both were cut by development work (map ref. NIG 254341-666/762404-26, OIG 204341-666/262404-26).
(11) A stone circle (diam. 8.3 m; central map ref. NIG 254694/762455; OIG 204694/262455).
(12) A wall and a dolmen (?; map ref. NIG 254745-64/762368-78, OIG 204745-64/262368-78).
(13) A stone circle (diam. 4 m ) and a stone surface in its center (central map ref. NIG 254747/762351, OIG 204747/262351).
(14) A large stone heap on bedrock and an adjacent stone circle (central map ref. NIG 254813/762344; OIG 204813/262344).
(15) A stone heap on bedrock (map ref. NIG 254796/762396; OIG 204796/262396).
(16) A raised stone circle, built two courses high on bedrock, similar to Circles 1 and 3 (map ref. NIG 254809/762424; OIG 204809/262424).
(17) A perforated stone that is apparently natural (map ref. NIG 254756/762429; OIG 204756/262429).
(18) A stone circle (diam. 10 m ) and a smaller circle (diam. 5 m ) within and adjacent to it (central map ref. NIG 254642/762469; OIG 204642/262469).

The center of Area F was damaged by mechanical equipment close to the time of the survey; therefore, it could not be surveyed. No antiquities were found on surface or in the probe trenches. The local residents mentioned that the stone circles in the area were used by the villagers in the 1950s for herding sheep and goats. In the northern part of the site several stone heaps and walls that abutted them were found, possibly dolmens. In the probe trenches no remains of covering stones or ceramics were discerned. In most of the heaps a massive fill of stones was noted on bedrock. The nature of the heaps is unclear; they are not stone clearance heaps and probably are not ancient. Several dolmens were found to the north and east, beyond the survey area.

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## Horbat Titora

Final Report
Israel Korenfeld


1. Watchman's booth, plan and section.

2. Farming terrace wall, plan.

3. Field tower, plan.

During January 2004 a trial excavation was conducted along the western fringes of Horbat Titora (Permit No. A-4071*; map ref. NIG 20055-75/64540-60; OIG 15055-75/14540-60), prior to developing the bypass road around Modi'in's central railroad station. The excavation, carried out on behalf of the Antiquities Authority and financed by the Shafir Civil and Marine Engineering Company Ltd., was directed by I. Korenfeld, with the assistance of A. Hajian (surveying) and T. Sagiv (photography).
The excavation was undertaken in the wake of a preliminary survey across an area of c. 2 dunams. A watchman's booth and a field wall were excavated; a field tower, four stone-clearance heaps, three farming terraces and two small cupmarks were documented. No datable finds were discovered at the site. The remains indicate that this was an ancient agricultural area, similar to many recorded in the vicinity of Modi'in.
The watchman's booth (L100; Fig. 1) was located in the southeast part of the site. A probe was excavated in the southeastern section of the booth (diam. 3.5 m ), which was built of medium-sized fieldstones, set directly on bedrock and preserved a single course high. A fill layer of small stones and hamra soil was excavated inside the booth.
The field wall (W101; exposed length c. 30 m , width c. 1.1 m ; Fig. 2), in the northwestern part of the site, was built of two rows of large fieldstones with a core of small stones. The wall, oriented north-south and preserved a single course high, was set directly on bedrock.
The field tower $(3.1 \times 3.6 \mathrm{~m}$; Fig. 3) was to the northeast of the watchman's booth, beyond the route of the planned road. The tower, preserved three courses high, was constructed from large roughly hewn stones ( $0.7 \times 1.0 \mathrm{~m}$ ) with a core of small fieldstones. Adjacent to the eastern side of the tower was a large courtyard enclosed with a fieldstone-built fence. The tower resembled the square towers excavated in the vicinity of Rehan (HA-ESI 112:44*-45*).


1. Watchman's booth, plan and section.


2. Field tower, plan.
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3. Location map.

4. Plan and sections.

5. Pottery.
 the Early Islamic period.

Rina Avner
During June 2006, a trial excavation was conducted at Horbat Zafrat (Permit No. A-4819*; map ref. NIG 19705/63653-4; OIG $14705 / 13653-4$ ), in the wake of damage to antiquities. The excavation, on behalf of the Antiquities Authority, was directed by R. Avner, with the assistance of R. Abu Halaf (administration), V. Essman and T. Kornfeld (surveying and drafting), T. Sagiv (field photography), N. Zak (final plans), Y. Gorin-Rosen and N. Katsnelson (glass) and E. Braun and M. Avissar (pottery reading).
The excavation was conducted along the northwestern fringes of Horbat Zafrat, next to the road leading to the settlement of Newē Shalom (Fig. 1). Prior to the excavation, numerous glass fragments were discerned on the surface. Initially, two adjacent squares were excavated but after reaching a depth of c. 0.75 m , the excavation area was reduced to two small squares (each $2.5 \times 2.5 \mathrm{~m}$ ), aiming to reach maximum depth (Fig. 2). Four strata were exposed: Stratum IV was dated to Middle Bronze II, Strata III, II, to the Early Islamic period and Stratum I, to the Mamluk period. Two potsherds that belonged to a clay lamp and glass fragments, including slag were discovered on surface and dated to the Byzantine period. These finds were not associated with a specific stratum and therefore, Gorin-Rosen and Katsnelson suggested that the glass was debris from a glass workshop that existed somewhere on the site in the Byzantine period.

Stratum IV. Red terra rossa fill on bedrock (Loci 109, 110) was discovered in the northern square. It contained fragments of pottery vessels from MB II, mostly body fragments of jars. Remains of a curved wall (W1; exposed length 1.65 m ), built of small fieldstones on bedrock, were exposed. The wall, preserved to a maximum of three courses high ( 0.4 m ), extended westward into an area that was not excavated. Six mud bricks were discerned in the southern section of the square (Fig. 2: Section 1-1). The excavation of the square's southern balk revealed soil fill (L111) that contained fragments of pottery vessels from the Middle Bronze Age and the Early Islamic period. No complete mud bricks or remains of mud-brick walls were discovered in the balk. The excavation of the square's western balk (L110; Fig. 2: Section 4-4) exposed mud-brick material.

Stratum III. Overlying the fill of Stratum IV in the northern square was a light gray fill that contained a few small fieldstones and potsherds from MB II and the Early Islamic period. The ceramic finds from MB II included bowls (Fig. 3:1, 2), jars (Fig. 3:3-6) and a body fragment decorated with a herringbone pattern, probably from a jar (Fig. 3:7). The fill in the stratum also yielded a bone plaque, carved with a symmetric scene of two heraldic birds on either side of a solar motif with five sun rays (Fig. 4). Based on its artistic style, the bone plaque is dated to the Early Islamic period.

Stratum II. Gray soil fill (Loci 102-105), which was discovered in the two excavation squares, contained small and medium-sized fieldstones and fragments of pottery vessels, mostly from the Early Islamic period and a few from the Mamluk period. The Early Islamic period finds included two bowls (Fig. 3:8, 9), two jars (Fig. 3:10, 11), a jug (Fig. 3:12) and a lamp fragment (Fig. 3:13). It seems that the ceramic finds from the Mamluk period penetrated from the fill of Stratum I.

Stratum I. Light gray soil fill, composed of wind-borne fine grains (Loci 100, 101), was discovered on surface in the two excavation squares. It contained fragments of pottery vessels from the Early Islamic and Mamluk periods. The finds from the Mamluk period included bowls (Fig. 3:14-15), a krater (Fig. 3:16) and body fragments of a handmade vessel that bore a red-painted decoration (Fig. 3:17).
Artifacts from the Middle Bronze Age were discovered at two other sites near Horbat Zafrat. At Horbat Avimor, c. 900 m south of the site, potsherds dating to the Middle Bronze Age were collected in a survey on the high part of the site. A trial excavation on the western slope of this site (HA-ESI 117) yielded no potsherds from this period. It therefore seems that only the high part of the site was inhabited during MB II. At Khirbat al-Hamir, c. 1.75 km southwest of our site, walls and floors that dated to MB IIB were exposed in an excavation (HA-ES/ 117). The proximity of these three MB II settlements apparently indicates the dense occupation during this period in this part of the Ayyalon Valley, most likely due to the valley's fertile farmland and its being a convenient transportation artery between the Shephelah and the coastal plain.


1. Location map.





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# Horbat Zanoah, Development Survey in the Region Final Report 


2. Site 3 , a hewn opening of an underground installation, looking west.

4. Site 25 , a winepress and burial cave below it, looking south.

5. Site 68, a rock-hewn winepress, looking southwest.

6. Site 21, bodeda, looking north.

7. Site 14 , a burial cave, looking west

During March-June 2003, a survey prior to development was conducted in the region between Highway 10 and Ramat Bet Shemesh (Permit No. A-3869*). The survey, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Ministry of Housing and Construction, was directed by A. Nagorsky, with the assistance of D. Weiss, H. Stark and L Barda (GPS).

The survey region lies within the precincts of Horbat Zanoah and a flat hill to its south (map ref. NIG 1996-2006/6240-56; OIG 1496-1506/1240-56). The western part of the wadi that separates the two hills is covered with a large heap of soil that was deposited during the development work in Ramat Bet Shemesh. The eastern part is a cultivated area of grain fields, which conceal any antiquities that may be located underneath.
Seventy-seven sites (Fig. 1) were recorded in the surveyed area, including ruins, caves, rock-hewn agricultural installations, a columbarium, a limekiln, cisterns, stone clearance heaps, terraces and remains of ancient roads.

Ruins (Nos. 3, 20). At Site 3 were remains of structures $(40 \times 50 \mathrm{~m})$ whose walls are built of well-dressed stones. A cistern with a rectangular opening $(1.0 \times 1.2 \mathrm{~m})$ was exposed and to its north was a hewn opening of an underground installation (Fig. 2). Fragments of pottery vessels collected from the ruin dated to the Early Roman, Late Roman and Byzantine periods. Remains of buildings at Site 20 consisted each of three-four rooms arranged around a courtyard. Remains of a large building in the center of the ruin were surrounded by installations: Columbarium 16, Limekiln 18, and Olive Press 19. The walls of the buildings were constructed from fieldstones and well-dressed stones. Due to illicit excavations at the site, a large quantity of stone collapse, potsherds from the Roman and Byzantine periods, grindstones and fragments of glass vessels were found in the soil fills inside the rooms. It is assumed that an ancient road (No. 8) had led to the ruin. A large soil spill separated the two ruins (3 and 20) and in fact, they were probably parts of the same site.

Winepresses (Nos. 11, 15, 22, 25, 39, 59, 65, 68, 69). Winepress 11 had a rectangular bedrock-hewn treading floor (2.6 $\times 3.1 \mathrm{~m}$; depth 0.4 m$)$; its surface sloped to the east toward the collecting vat $(1.0 \times 1.1 \mathrm{~m})$, which was filled with earth and stones (Fig. 3). Winepress 15 had a square treading floor ( $3 \times 3 \mathrm{~m}$; depth $0.5-1.0 \mathrm{~m}$ ) and a collecting vat on its eastern side. A hewn basin (diam. 0.5 m ) was located above the southeastern corner. Winepress 22 had a shallow treading floor $(3 \times 3 \mathrm{~m})$ and a collecting vat in its northeastern corner that was found filled with alluvium. Winepress 25 had a treading floor ( $2 \times 4 \mathrm{~m}$, depth 0.45 m ) and a settling pit $(0.45 \times 0.45 \mathrm{~m})$ in its northern side. North of the treading floor was a rock-hewn collecting vat that had been destroyed when a burial cave was quarried. The cave's buria chamber extended below the treading floor and its façade faced north (length 3 m ; Fig. 4). Winepress 39 had an especially small treading floor $(1.5 \times 2.0 \mathrm{~m})$. Winepress 59 had a treading floor $(2.5 \times 3.0 \mathrm{~m}$; depth c. 0.4 m$)$ and a rectangular collecting vat $(1.0 \times 1.5 \mathrm{~m})$ to its north. In a later period an opening to a cave was hewn in the vat. Some 4 m to the east was a bedrock surface with ten hewn cupmarks. Winepress 65 had a square treading floor ( $2.4 \times 2.5 \mathrm{~m}$; depth 0.5 m ) and a collecting vat to its north. In a later period the opening of a cave, which extended below the treading floor, was hewn inside the vat. Winepress 68 consisted of a large treading floor ( $3 \times 4 \mathrm{~m}$; depth $0.5-0.7 \mathrm{~m}$ ) and had a collecting vat along its northern side (Fig. 5). Winepress 69 had a small shallow treading floor with round corners and a square rock-hewn collecting vat $(2 \times 2 \mathrm{~m})$ to its north

Bodedot (Nos. 7, 13, 21, 30). Installation 7 was hewn on a leveled bedrock surface. Bodeda 13 had a round press bed $(0.90 \times 1.05 \mathrm{~m})$ and a cupmark for collecting liquid (diam. 0.5 m ). Bodeda 21 had an elliptical press bed ( $0.5 \times 0.7 \mathrm{~m}$ ) and a rectangular cupmark ( $0.45 \times 0.50 \mathrm{~m}$; Fig. 6). Bodeda 30 was located in an area of farming terraces and had an elliptical press bed $(0.45 \times 0.60 \mathrm{~m})$ and a cupmark for collecting liquid (diam. 0.4 m )

Burial Caves (Nos. 14, 17, 40, 42, 48, 49, 55, 56, 57, 61, 70, 73, 74, 77). Burial Cave 14 had a hewn façade (length 3 $\mathrm{m})$. The cave opening was rectangular and surrounded by a hewn frame (Fig. 7). Cave 17 had a built courtyard in front of the entrance that faced north. The cave's facade was hewn in an elongated bedrock cliff and it can be assumed that other caves were hewn the length of it. Cave 40 had a partly hewn and partly fieldstone-built courtyard. The cave's façade was hewn (length 2.7 m ). Cave 42 also had a hewn courtyard. Cave 48 had a rectangular opening (width 0.75 m ), fronted by a built courtyard $(4 \times 5 \mathrm{~m})$; the cave was filled with earth and stones. The façade of Cave 49 was bedrockhewn (length 2.5 m ). Three burial caves at Site 55 were located c. 10 m apart. Signs of illicit excavations in front of the cave openings were visible. Burial Caves 56, 57, and 61 had hewn facades (length 1.5 m ). Remains of an olive press and the negative of a crushing basin (yam) were next to Cave 56 . The rectangular opening of Cave 70 was bedrockhewn and enclosed within a frame. The façade of Cave 73 was concealed behind vegetation and near it was a soil heap that contained human bones. Caves 73,77 had rock-hewn facades and their openings faced north.

Water Cisterns (Nos. 43, 52, 71). Three rock-hewn cisterns with round openings were documented (No. 43-diam. 1.2 m, No. 52 -diam. 1.5 m , No. 71 -diam. 0.8 m ). The cisterns were filled with stones and soil. A square rock-hewn frame where a cover was placed surrounded the opening of Cistern 71.

Building Remains (Nos. 33, 50, 60). The walls of Building $33(6 \times 6 \mathrm{~m})$, preserved two-three courses high, consisted of medium-sized fieldstones. Building 50 was square ( $8 \times 8 \mathrm{~m}$ ) and Building 60—rectangular ( $5.0 \times 5.5 \mathrm{~m}$ ). The walls of Buildings 50 and 60 were composed of coarsely dressed stones and preserved three courses high. The three structures were probably field towers.

Limekilns (Nos. 18, 66). No. 18 was mentioned above in the area of Ruin 20. Limekiln 66 had a horizontal row of fieldstones arranged around a pit (diam. 5.8 m ) that was visible to a depth of four courses. The interior of the kiln was filled with soil and vegetation.

Rock-hewn Installations (Nos. 64, 67). The negative of a crushing basin (yam; diam. 1.2 m , hewn depth 0.3 m ) of an olive press was discovered in Installation 64. Installation 67 was rectangular (width 0.8 m ).

Cupmarks (1, 4, 10, 23, 24, 27, 29, 31, 38, 51, 58, 63). Twelve cupmarks (diam. 0.3-0.6 m) were found in the survey area. A hewn frame around Cupmark 24 served for placing a lid to close it. Three cupmarks (diam. 0.2 m each), hewn next to each other, were found at Site 31. A cluster of three cupmarks was located at Site 63; one of them is large (diam. 0.3 m ) and the other two are smaller.

Quarries (Nos. 44, 53, 72). Three small quarries (each c. $10 \times 12 \mathrm{~m}$ ).
Stone Clearance Heaps (Nos. 32, 36, 37, 47). Stone Clearance Heap $32(8 \times 8 \mathrm{~m})$ consisted partly of dressed stones and it may be the remains of a collapsed building. Three other stone heaps comprised small and medium-sized fieldstones (diam. c. 3.5 m ).

Cave Dwellings (Nos. 6, 54, 76). Cave 6 had a wide opening that faced south. Cave 54 had a narrow hewn corridor ( $1 \times$ 3 m ) that led to an irregular-shaped opening. The ceiling of Cave 76 collapsed; however, the void (diam. c. 7.5 m ) could still be discerned.

Numerous walls of farming terraces and retaining walls that delimited cultivation plots were discerned on the slopes of


1. Distribution map of sites in the survey.

2. Site 11, a rock-hewn winepress, looking southwest.

3. Site 25 , a winepress and a burial cave below it, looking south.

4. Site 68, a rock-hewn winepress, looking southwest.

5. Site 21, bodeda, looking north.


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1. Location map and excavation areas.

2. Area F. Stratum X, collapse from the Umayyad period, looking east

3. Area J. Stratum IX, a lid bearing an Arabic inscription from the Abbasid period.

4. A decorated glass bowl.

5. Stratum II, the superstructure atop the saqiye, looking east.

From May 2005 to November 2006, five seasons of excavation were conducted at Horbat Zerifin (Sarafand al-'Amar; Permit Nos. A-4490, A-4684; map ref. NIG 1860/6517; OIG 1360/1517), prior to the construction of a wholesale marketplace. The excavation, on behalf of the Antiquities Authority and financed by the Tenuva Company, was directed by A. Kohn-Tavor, with the assistance of A. Oren, A. Nesher and Z. Bar-Or (area supervision), E. Bachar and S. Ya'aqov-Jam (administration), A. Hajian and T. Kornfeld (surveying), T. Sagiv (photography), M. Avissar (ceramic reading) and N. Katsnelson (glass).

The site, around which the current Zerifin compound has developed, is located on the main Jaffa-RamlaJerusalem road, c. 3 km northwest of Ramla. The site is situated along the fringes of a hamra hill that protects it from the south, on the southern border of the fertile Lod Valley. Eshtori Ha-Parhi identified the village of Sarafand al-'Amar with Zerifin of the Mishnah and this identification is accepted by most scholars, although no remains in the recent excavations that can be attributed to a settlement from this period were identified. Therefore, I suggest that Sarafand al-'Amar is not the Mishnaic Zerifin and the origin of the Arabic name, which means 'Sarafand the Living' or 'the Built' derives from the Byzantine name of the place.
The site was severely damaged in the 1950s when Ha-Argaz Factory was built. All the archaeological strata in the western part of the site were removed and in the eastern part the remains reach a depth of 2.5-3.0 m where it seems all of the strata have survived, apart from the upper layer. The southern part of the site was not damaged and the buildings remained as they were, surrounded by remains of later period activities.
A limited trial excavation in the southern part of the site was conducted in 2004 (Permit No. A-4112), revealing an industrial installation and buildings from either the Ottoman period or the British Mandate. Backhoe probes that were cut throughout the entire area during the current development work, aided in estimating the size of the site in its different periods. Eighty squares were opened in ten excavation areas (Fig. 1); Areas A-F in the damaged section and Areas $G, H$ and $J$ in the southern part of the site.
The destruction that transpired at the site precludes defining its original area. However, judging by aerial photographs from the First World War and according to the excavations and trial probe remains, the site's expanse seems to have been $15-20$ dunams. The results of the excavation point to a medium-sized village whose habitation sequence spanned 1,500 years. Eleven strata, dating from the Late Byzantine period until the modern times, were exposed. The dating of the strata is based on a preliminary identification of the potsherds and changes are likely to occur during the processing of finds.
Stratum XI, the Late Byzantine Period (sixth century [?]-middle of seventh century CE).
The beginning of settlement at the site was exposed in limited sections, primarily due to their great depth (up to 3 m below surface). The limited number of buildings from this period is probably due to their continued use in the next stratum. Part of a building that was constructed on virgin soil was exposed in Area F. The date ascribed to the building is likely to represent the time it went out of use, possibly in the middle of the seventh century CE. Sections of a building, apparently the southern wing which was dismantled and its stones robbed in the Abbasid period (below), were excavated in Area J. Since its northern part was removed in the 1950s, it is difficult to gain a coherent plan. The excavated part indicates that the building was oriented east-west and had at least three lengthwise spaces that were divided into rooms. A foundation in the western part was surmounted with a row of pillars, standing a single course high. A marble column found nearby probably stood on one of the pillars. The thick, gray-plastered floors of the rooms were adapted to the natural topography, hence their level was not uniform; the western floors were c .1 m higher than the eastern ones. A few remains, dating to the Byzantine or Umayyad periods, which probably belonged to one of the early phases of the building, were found below the floors. The building was covered with a thick layer of fill that contained a large quantity of roof tiles and pieces of marble pavement in a variety of shades, including a chancel screen fragment bearing a carved cross (Fig. 2) and a gilded, glass tessera. It seems the public building was connected to a church, which was probably built in the Byzantine period and used until the Abbasid period, perhaps in a different capacity, thereafter dismantled and covered over. Throughout the site, numerous architectural elements, mainly of marble and probably associated with the church, were found in secondary use in later strata or fills. Noteworthy among them were marble chancel posts, columns and capitals, as well as a fragment of a Late Roman Ware, Type 3 vessel and the base of a bowl adorned with a stamped cross.

Stratum X, the Umayyad Period (mid seventh-mid eighth centuries CE).
The public building in Area $J$ continued to be used during the Umayyad period. Sections of buildings were found in Areas A, A1, E and F and debris from pottery (mostly jars) and glass workshops, as well as layers of fill that dated to the Umayyad period were exposed in Areas B, C and D. An installation, which contained a minimum of three pools placed in a row (max. preserved height 1.7 m ) and whose function is unclear, was found in Area E . The walls of the installation, built of poured gray bonding material, were plastered. A pipe of ceramic sections was incorporated in one of the walls. Part of the installation was cast underground and part, like other installations at the site, was higher than the ancient surface. More foundations of buildings and installations were found in this area; some had probably an extended usage during the Abbasid-Fatimid periods. A building that was partly preserved a single course high and contained a square pool was found in Area A1. Most of the masonry stones were robbed for secondary use and some of the walls were found beneath collapse, which was abutted by occupation levels from Stratum IX, the Abbasid period (eighth century CE ). Other buildings dating to the Umayyad period were probably also erected in the Byzantine period. A building, preserved 1 m high, had a vault in one of its spaces and was probably a water cistern, was found in Area F. Part of it continued in use during the Abbasid period and another part, which was destroyed at the end of the Umayyad period, was filled with crushed pottery vessels and sealed with stone collapse (Fig. 3). A small depression that was indented when the vessel was leather hard occurred on the base of some of the vessels; in some cases, the hole was fully perforated while in others it was smoothed over with clay. The destruction of the buildings was probably local but it may be connected to the wars fought between the Abbasid and Umayyad dynasties. Another possibility is that the destruction was caused by the earthquake of the year 749 CE , although it is thought that this earthquake caused no damage in the region of Ramla. The destruction layer attributed to this earthquake was recently discovered in the nearby Mishmar David excavations (E. Yannai, pers. comm.).

Stratum IX, the Abbasid-Fatimid Periods (mid eighth-eleventh centuries CE).
This stratum was exposed in all the excavation areas and probe trenches; hence it is estimated that the ancien settlement reached its zenith during these periods. The areas along the fringes of the site ( $\mathrm{G}, \mathrm{H}, \mathrm{J}$ ) revealed brown layers of fill that yielded potsherds from this period and installations (see below). Parts of buildings were exposed in Areas A, B, C, E and F. A large part of a building, constructed in the second half of the eighth century CE and went out of use in the eleventh century CE, was discovered in Area B. Five rooms in a row that were probably the southern wing of a courtyard building were exposed. One side of the rooms' walls was built of ashlar stones, whereas the other side consisted of fieldstones, some of which were coated with a thin layer of light plaster. The floors were of tamped earth and many of the building's components were made of poured gray bonding material and small fieldstones, similar to the bonding material of the walls. An installation for storing liquid was in one of the rooms; nearby was a channel and below it a cesspit. Two corner pilasters that apparently supported an arch were found in an adjacent room. On the floor of this room were c. 10 jar lids of a type that is unknown from other sites. On the floor of the public building in Area J was a similar lid, incised with an Arabic inscription that is not yet deciphered (Fig. 4). Below the floor of this room were three jars that functioned as underground storage installations; a similar phenomenon was found in Areas A and F. One of the building's rooms
was divided in a later phase into two separate rooms. The building is a typical example of the construction in this and the preceding period. Buildings that seem to have been built in the Umayyad period and continued to be used, often with some modifications, during the Abbasid and Fatimid periods, were discovered in Areas F and J. Part of a building in Area $F$ was canceled in a proper manner, whereas in another part the floors were raised and changes were made to its interior. The building from Stratum XI exposed in Area J was modified in the Abbasid period. The area between the pilasters was closed by a thin wall, which may point to a change in the function of the building. It seems that the floors of the building were replaced in this period; below the Stratum XI floors were potsherds that dated to the Abbasid period and these were also found in the thick fill that covered the building. The orderly plundering of the walls' stones and the architectural elements related to the church, which were also found in the large fill that covered the building bear witness to the intentional dismantling of the public structure and perhaps reflects the transition from Christianity to Islam.
A noteworthy phenomenon that occurred at Zerifin in general, and in the Abbasid-Fatimid periods in particular, is the multitude of plastered installations. These, which occurred in a variety of sizes and plans, were mostly built of poured gray bonding material and coated with gray hydraulic plaster that contained potsherds. An installation in Area A1 that comprised two adjacent pools linked by a pipe is noteworthy. Its southern floor ( $1 \times 2 \mathrm{~m}$, depth 0.8 m ) was 0.5 m higher than the northern floor $(2.0 \times 5.3 \mathrm{~m}$, depth 1.5 m$)$. A plastered bench adjoined the western and northern walls of the northern pool and in the southwestern corner was a narrow staircase that facilitated the descent into the pool. The installation was partly built above surface and partly dug into the ground and lined with a cast wall. Elsewhere in the site four other circular pools were discovered; two were partly excavated (diam. 4-5 m, min. depth 2 m ). Their walls were coated with gray hydraulic plaster that contained potsherds and in the center of the floor was a depression for collecting liquids. Although refuse from the Ottoman period was found in the pools, they were ascribed to the Abbasid-Fatimid period, based on their construction. The purpose of the installations is yet unknown; however, it appears as though they were used as processing and industrial installations that provided some product to nearby Ramla. Built in a similar manner to the plastered installations were eight vaulted cesspits, the likes of which are known from Ramla. One of the pits was dug in the fill of Area B and four were discovered in Area H; some of them were unstable and built of fieldstones. They were an anomaly in being located beyond the limits of the settlement and not close to a building. A collapse dating to the end of the Fatimid period, which was found in some of the rooms in Areas B and F, was probably connected to the earthquakes that struck Ramla in the eleventh century CE.

Stratum VIII, the Crusader Period (twelfth-thirteenth centuries CE)
A few remains were discovered. A habitation level that sealed the Abbasid-Fatimid layer was found in Area F. The northern pool (above) in Area A1 contained a hearth and a section of an ashlar-built wall that had a sealed opening beneath the Ottoman layers. The building to which the wall belonged was destroyed in a mighty conflagration that left in its wake a layer of ash on the wall and the floor, which contained numerous iron nails. Other remains of collapse were found in a small section of Area J. In Area D was part of a building whose walls were built of two rows of ashlar stones with a core of dry-built fieldstones. This new method of construction at the site continued in later periods. The fill color in this layer and afterward was gray, in contrast with the brown color that typified the earlier fill layers. The Crusader structure in Area D was destroyed in a heavy collapse that covered the floors. The destruction can either be attributed to Salah ed-Din conquest in the year 1187 or to the Mamluk conquest in 1263. This destruction layer and the refuse pits from the Ottoman period contained numerous luxurious Crusader vessels that attest to the economic prosperity of the settlement at this time.

Stratum VII, the Mamluk Period (thirteenth-sixteenth centuries CE).
Buildings from this period were exposed in Areas B, D and E. A wall in Area D was founded on the collapse of the destroyed Crusader walls. A cellar in Area B, which penetrated the Abbasid-Fatimid stratum, was lined with neatly arranged ashlar stones and paved with pebbles that were overlaid with a collapse layer replete with numerous pottery vessels, some of which were intact. Mold-made bowls decorated with script (IAA Reports 26, Type I.1.7.1) were found, as well as a complete mold-blown bowl of purple glass that is decorated with white marvered trails (Fig. 5). Several sections of buildings and floors that were characterized by poor construction and the secondary use of architectural elements were found in Area E.

Strata VI, V, IVa-b, III, the Ottoman Period
The formidable presence of artifacts from this period is evident in all the excavation areas. It was difficult to date the strata in this period due to the multitude of layers and our limited knowledge regarding the typological development of the Ottoman ceramics. In Areas A and A1 a complete strategraphic sequence from the Ottoman period was found and the layers in the other areas are correlated according to it. Due to the absence of physical continuity between the excavation areas, the distinction between the strata is based at this point only on stratigraphy and construction characteristics. In Stratum VI pebble floors were found over a large area that seals the Abbasid-Fatimid layer. Habitation levels (height c 0.4 m ) accumulated on the floors. In Stratum V there was a building that was only partially exposed. The tops of the walls of this layer were used by the builders of Stratum IV as part of a proper stone foundation on which a tamped earth floor was deposited. Stratum IV was exposed across a rather large area and there were two phases to it: an early phase (IVb; Fig. 6) that is characterized by ashlar stone floors and well-built walls and a later phase (IVa) that reflects a significant decline that is apparent by the closing of spaces and the blocking of streets by means of meager partitions built of ashlar stones. Stratum III survived in very few places; most of it was removed in 1950. Sections of stone foundations survived in which the tops of walls from earlier layers were incorporated. A small hoard of coins that dates to the beginning of the nineteenth century which was concealed inside a cloth pouch beneath the floor (Fig. 7) is ascribed to this stratum. The Late Ottoman village is clearly visible in aerial photographs that were taken in 1917 and its dense plan was documented in 1946 within the framework of the "Village Survey". The village mosque, which was used until its destruction in 1948 , was built in the Ottoman period, and possibly even earlier. An Arabic inscription that was carved on the bottom side of a marble abacus in secondary use was fit in place in the mosque's outer wall. Based on a preliminary decipherment by $M$. Sharon, the inscription dates to $962 \mathrm{AH}(1460 \mathrm{CE})$, that is, the end of the Mamluk period. Throughout the entire Ottoman period numerous refuse pits were dug into the earlier strata and installations from earlier periods were also used for this purpose; all of these have yielded a wealth of artifacts. The Ottoman strata are characterized by a large quantity of pale gray sandy fill that was found along the fringes of the village in Areas G and H , which sometimes reach a height of more than 1.5 m . These layers of fill probably represent some sort of unidentified industrial activity or, on the other hand, especially large volumes of refuse.

## Stratum II, the Time of the British Mandate

The nucleus of the village from Stratum III continued in use, preserving the traditional construction. A map of the village from 1946 credibly represents the development of the village during the British Mandate, until its abandonment in 1948. Buildings with courtyards were erected around the Ottoman village during this period, some of which were excavated in Area G. The construction combined cement and ashlar stones, which were probably in secondary use. The extensive use of Marseilles roof tiles (the 'heart' kind) and painted tile floors is quite evident. The destruction layer of the village reached a thickness of 1 m and contained a wealth of artifacts, including ceramic table ware, glass and metal vessels and agricultural tools. The only survived building was the village saqiye well (diam. 3.5 m , depth 20 m ; Fig. 8) that was lined with ashlar stones and had a vaulted superstructure. It included the wheel assembly that turned two bucket belts and a short channel, leading to a pool $(6 \times 6 \mathrm{~m})$ from which irrigation channels extended. Numerous clay 'bottles found near the well were apparently used to ease the superstructure roof's weight. Based on the iron pipes and the Marseilles tiles incorporated in the pool, the well was definitely built prior to the British Mandate era.
Part of the village cemetery where c. 75 graves were discerned was exposed in Area H; the graves were not excavated. These were simple cist graves aligned east-west and built of stones in secondary use. Incorporated in some of them were fragments of cement that indicate the graves should be dated to the time of the British Mandate. The densely packed graves, up to eight graves in a 25 sq m area and sometimes placed one atop the other, indicate the prolonged use of the cemetery, which may have had its beginning in the Ottoman period. According to the village map the cemetery
extended to the southwest and indeed, several cement-built tombs standing in their place are visible beyond the excavation area.

The excavations at Horbat Zerifin greatly contribute to our knowledge of the settlement history in the region of Ramla. The proximity of Zerifin to the city of Ramla and to the road leading to it was a major factor in the village's prosperity. Besides being a farming village, Z्Zerifin was also a station on the main road. Especially interesting is the interrelationship between the village and the adjacent city. It seems that the numerous installations, whose nature still needs to be investigated, supplied agricultural or industrial produce to the city. It is clearly apparent that the material culture of the village, albeit certain differences, was very similar to that of the city. In light of the few, in situ Umayyad finds at Ramla, the early strata at Horbat Zerifin provide the first stratigraphic knowledge from the founding phase of Ramla. The excavation at Horbat Zerifin, which is one of the most extensive projects conducted in a village from the Early Islamic period, supplied much information regarding the rural village in its various periods. The intensive stratigraphic sequence and destruction episodes are likely to offer insight into the settlement processes during the last fifteen hundred years, particularly in the region of Ramla and throughout the country, in general.


1. Location map and excavation areas.

2. Marble elements from the church.

3. Area F, Stratum X, collapse from the Umayyad period, looking east.

4. Area J, Stratum IX, a lid bearing an Arabic inscription from the Abbasid period.

5. A decorated glass bowl.


6. Stratum III, coins from the Late Ottoman period.

7. Stratum II, the superstructure atop the saqiye, looking east.

8. Plan.

9. General view of excavation, looking west.

## (Volume No. HA-ESI 120 (2008 <br> Iksal <br> Final Report

Yardenna Alexandre
26/3/2008
During October-November 2007, a salvage excavation was conducted in the center of Iksal, near Nazareth (Permit No. A-5272*; map ref. NIG 23075-80/73195-99; OIG 18075-80/23195-99), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and partially financed by the landowners O. and A. Shalabi, was directed by Y. Alexandre, with the assistance of Y. Ya'aqoby (administration), T. Meltsen and R. Mishayev (surveying), E. Belashov (drafting), R. Vinitsky (metal laboratory) and D.T. Ariel (numismatics).
The Arab village of Iksal was built on the soft chalky rock of the Nazareth hills, where no spring existed and hence, the reliance on water collected in cisterns.
The place name Kisalot Tabor is mentioned in the Old Testament (Joshua 19:12,18) and the name Iksal must derive from the Biblical name, as does the name of the valley, Kisalot, applied to the part south of the village. During the Crusader or Mamluk periods, a castle, which is still visible today, although in a poor state of preservation, was built in Iksal.

Previous excavations in Iksal exposed rock-hewn burial caves that contained sarcophagi and ossuaries, with funerary assemblages of pottery and glass vessels and jewelry from the Roman and Byzantine periods (Permit Nos. A-1832, A1916, A-2151; HA-ES/ 115:27*). In addition, some Byzantine rock-hewn and plastered agricultural installations, including part of a winepress, were found in the close vicinity of the present excavation (ESI 19:17*-18*) and some building remains from the Mamluk period were recently excavated (Permit No. A-5230).

The current excavation was undertaken at the site after the landowner demolished an old stone house and leveled out the area with a backhoe, which scraped much of bedrock. Consequently, the excavation investigated limited building remains in an area of 50 sq m and bedrock was cleaned to the north of the two excavation squares. The archaeological remains consisted of the spaces created by a chalkstone quarry that probably functioned in the Roman period (Stratum Il-second-fourth centuries CE) and a secondary squatter occupation in these spaces, dating to the late Mamluk-early Ottoman period (Stratum I-fifteenth-sixteenth centuries CE).

## Stratum II, the Roman Period

The earliest activity at the site was the exploitation of bedrock, which naturally sloped down from north to south, for the quarrying and the production of chalk masonry blocks. The regular-shaped negative spaces created by the quarrying indicate that the activity was carried out with a degree of planning and order.
A rock-cut, east-west oriented and scarcely noticeable low step (length over 6 m , height c. 0.3 m ) was found in the eastern square. Parallel to and 1 m south of this step were two entirely vertical and deep rock cuttings, an eastern cut (length over 3 m , height over 2 m ) that extended beyond the square limits and a western cut (length over 3 m , depth 1.3 m ; Figs. 1, 2). The two spaces created by the cuts (L103B, L105B), which were separated by a north-south rock partition, had each a bedrock floor, a northern bedrock wall and another bedrock wall, sloping down. The western space, L103B, incorporated a rock-cut, trough-like cavern (L103) that was secondarily filled with stone blocks, whereas the eastern space, L105B, had no special features. Negative impressions of stones were not visible in either of the two spaces. Several stone blocks that were reused in the second period of occupation (Stratum I) may have been the result of the quarrying. These building blocks had various measurements $(0.6 \times 0.4 \times 0.3 ; 0.5 \times 0.3 \times 0.3 ; 0.40 \times 0.30 \times 0.25 \mathrm{~m})$ and were fairly well dressed, although weathered.
Bedrock sloping down from north to south, having no deep cuts was exposed in the western square. A row of dressed chalk building blocks ( $c .0 .50 \times 0.30 \times 0.25 \mathrm{~m}$ ) to the north of the square seemed to be still attached to bedrock (W108), providing more unequivocal evidence for a quarry.
The quarrying activity may be loosely dated to the Roman period on the basis of a few worn Roman-period potsherds and the building blocks that are characteristically employed in construction of the Roman period.
A bronze coin (IAA No. 115000) found on bedrock was dated to the Early Islamic period (second half of the seventh century CE) and must be a stray find.

## Stratum I, the Late Mamluk-Early Ottoman Periods

The bedrock and the spaces were reused for some squatter occupation. Chalk blocks were laid in a row (W107) to enclose a room, with some plaster patches directly over the bedrock floor (L105). Part of a circular basalt hand-mill was found in the corner of this floor. The trough-like cavern (L103) may have been blocked with stones. A packed-earth floor patch (L104) next to W108 contained some fragmentary remains of a tabun. A flimsy line of worn stones (W110) to the south could hardly be a wall. The potsherds in the accumulated fill of these levels included several hand-painted and green and yellow glazed fragments, dating to the late Mamluk and early Ottoman periods.


2. General view of excavation, looking west.
(Volume No. HA-ESI 120 (2008
'Isfiya
Final Report
Eliran Oren


1. Plan.

During February 1998, a trial excavation was conducted at 'Isfiya (Permit No. A- 2811*; map ref. NIG 20730/73625; OIG $16730 / 23625$ ), after ancient remains were damaged during the installation of a sewer line. The excavation, on behalf of the Israel Antiquities Authority, was directed by E. Oren, with the assistance of A. Hajian (surveying), V. Shorr (drafting) and D.T. Ariel (numismatics).
Two squares were opened to the east of a previous excavation (HA-ESI 110:90*). Architectural remains that included part of a building were revealed (Fig. 1). The building consisted of three wall sections (W400, W402, W403; width 0.6-1.0 m). West of W402 was a thin curved wall (W404), probably part of an installation. A wall stump (W401), perpendicular and north of W400, seems to have been a later addition to the original structure. The walls were built of two rows of large fieldstones and a core of small stones. No floors were discerned. The finds included fragments of baggy-shaped jars dating to the third-fourth centuries CE, an African Red Slip bowl dating to the second half of the second century CE and cooking kraters, as well as nine coins that included a coin from the time of Constantius II (330-335 CE; IAA 75512), a coin from the time of Diocletian that was struck in the mint of Antioch (284-305 CE; IAA 75514) and a coin that is dated to the years 354-375 CE (IAA 75513) were discovered on surface. In the fill near the walls were coins from the time of Elagabalus that were struck in the mint of Sidon (218-222 CE; IAA 75509), a coin of Valerianus from the mint of 'Akko (253-259 CE; IAA 75510 ) and a coin of Constantine I (313-318 CE; IAA 75508).
The building can be dated to the second-fourth centuries CE based on the ceramic and numismatic finds.

(Volume No. HA-ESI 120 (2008 Jerusalem, Giv'at Homa Final Report

Keren Ben-Or
During April 2003, a salvage excavation was conducted along the eastern slope of Giv'at Homa (Permit No. A-3882*; map ref. NIG 221174/62666; OIG 171174/125666), in the wake of development work and construction of the Har Homa neighborhood. The excavation, on behalf of the Antiquities Authority, was directed by K. Ben-Or, with the assistance of R. Abu-Halaf (administration), V. Pirsky (surveying and drafting) and L. Barda (GPS).

A rock-hewn winepress was exposed on the eastern slope of the hill (Fig. 1). The bedrock wall that enclosed it from the southwest was missing.
All the winepress components (Fig. 2), namely a treading floor, a settling basin and a collecting vat, were found. The square treading floor (L1002; $4 \times 4 \mathrm{~m}$, depth 0.95 m ) had a hewn perforation (width 0.6 m ) in its southeastern corner, which led through a sloping hewn passage to the settling basin.
The square settling basin (L1004; $1 \times 1 \mathrm{~m}$, depth 0.93) had a hewn semicircular settling pit (diam. 0.3 m , depth 0.12 m ) in its southeastern corner, as well as a hewn gutter (Fig. 2; Section 2-2), leading to the collecting vat (L1003).
The collecting vat was to the east of and separated from the treading floor by a rock-hewn partition. Its top was square $(1.2 \times 1.2 \mathrm{~m}$, depth 0.3 m$)$, although the vat itself was bell-shaped and coated with brown plaster (max. width at bottom of vat 2 m ). A semicircular settling pit (diam. 0.4 m ) was cut in the southeastern corner of the vat's floor and in the northeastern corner of the opening was a circular perforation (diam. 0.05 m ) that led into the vat. A hewn and leveled rock surface (width 0.6 m ) surrounded the settling basin and the collecting vat


1. Location map.

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## Jerusalem, Lifta

Final Report


1. Location map.

2. Plan.

3. The terraces in L107, plan and section.

4. Locus 201, plan and section.

Rina Avner
18/1/2008
During June-July 2003 a trial excavation was conducted along the eastern bank of the channel, descending from the Me Neftoah spring to the Arazim Valley (Permit No. A-3936*; map ref. NIG 2187/6338; OIG 1687/1338; Fig. 1), c. 250 m from the confluence of the channel with the Arazim Valley. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by R. Avner and Y. Mizrahi, with the assistance of A. Hajian (surveying) and Z. Greenhut (GPS).
Five squares were opened and three probe trenches were dug with the aid of mechanical equipment (Trenches C1, C2, C3; Fig. 2), which was also employed to deepen the excavation in L200. With the exception of two loci, no architectural remains were discovered. A section of a terrace wall whose date is unclear was discovered in L107 and a rock-hewn pit was uncovered in L201. The fill excavated in all the areas consisted of an upper gray layer (height 0.8-2.3 m), which yielded fragments of Ottoman-period pottery, such as Gaza ware and a lower terra rosa soil layer (height 0.2-1.2 m) that contained pottery fragments dating to the Second Temple period.

Three parallel terraces, oriented northeast-southwest (Tr1-Tr3; length of each section c. 3.4 m ; Fig. 3), were found in a square opened on surface (L107) and extended beyond the square balks. Four courses of Terrace 1 (height 1.2 m , width 1.7 m ), three courses of Terrace 2 (height 0.95 m , width 2.5 m ) and four courses of Terrace 3 (height 0.95 m ) were preserved. The terraces were built of different-sized fieldstones with soil among them.
The terra rosa fill east of Terrace 3 contained pottery fragments from the Second Temple period, whereas the gray soil fill to its west contained potsherds from the Ottoman period and fragments of glass vessels that are common to this period. Hence, it was not possible to date this terrace.

The southwestern corner of a rock-hewn pit (L202; length 1.2 m , width 0.58 m , depth 0.64 m ) was discovered in L201 (Fig. 4). It was found sealed with a fill that included potsherds from the Second Temple period and it should be dated, at the latest, to this period.


1. Location map.


2. The terraces in L107, plan and section.

## L 201




1. Plan and section.

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2. Pottery and glass.
(Volume No. HA-ESI 120 (2008 Jerusalem, Salah ed-Din Street Final Report
Irina Zilberbod
During July 2005, a salvage excavation was conducted on the playground of the Anglican School in Jerusalem (Permit No. A4521*; map ref. NIG 221736/632632; OIG 171736/132632), prior to the installation of a new lighting system. The excavation, on behalf of the Antiquities Authority, was directed by I. Zilberbod, with the assistance of R. Abu-Halaf (administration), T. Kornfeld (surveying), E. Belashov (drafting), C. Amit (studio photography), C. Hersch (find drawing), N. Katsnelson (glass processing) and O. Shorr (glass restoration).

Three half squares were excavated in the area ( $2 \times 11 \mathrm{~m}$; Fig. 1). No building remains or rock-cuttings were found. Beneath a modern wall (W1), a fill that was probably meant to level the area, consisted of a layer of reddish brown soil (thickness 0.5 m ) and medium and large stones (L3). The fill contained fragments of jars from the Roman period (Fig. $2: 1$ ), a lid (Fig. 2:2), the fragment of a female figurine (a garment fold) that is characteristic of the Hellenistic and Roman periods (Fig. 2:3) and a candlestick-like glass bottle that is dated from the end of the first century CE to the beginning of the third century CE (Fig. 2:4).

The artifacts indicate that the area was occupied during the Late Roman period.


1. Plan and section


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2. Pottery and glass

# (Volume No. HA-ESI 120 (2008 Jerusalem, Tell el-Ful Final Report 

Ya'akov Billig
During November 2001 a salvage excavation was conducted along the southern slopes of Giv'at Sha'ul (Tell el-Ful) in Jerusalem (Permit No. A-3520*; map ref. NIG 2219/6365; OIG 1719/1365; HA-ESI 111), in the wake of constructing a school. The excavation, on behalf of the Antiquities Authority, was directed by Y. Billig, with the assistance of R. AbuHalaf (administration), V. Essman and V. Pirsky (surveying), C. Amit (photography), E. Altmark (metallurgical laboratory) and D.T. Ariel (numismatics).
Prior to the excavation, numerous rock-cuttings were visible on surface along an elongated bedrock strip (length c. 150 m ). The rock-cuttings were hewn in a layer of hard nari ( 1 m thick) that covered the soft chalk and was exposed the length of a relatively narrow strip, aligned northwest-southeast on the slope of Tell el-Ful. Rockcuttings were entirely absent from the soft chalk bedrock that was exposed east and west of this narrow strip. Some of the rock-cuttings were small and others extended across an extensive area. Ashlar stones (length c. 0.70 m , width 0.35 m , height 0.35 m ) that had not been detached from bedrock were recorded in the quarries. The remains of modern quarrying activity that used explosives, damaging the ancient quarry and removing parts of it, were noted on the western edge of the quarry.
Apart from these quarries, no ancient remains, either built or quarried, were discovered. Potsherds dating to Iron II, the end of the Hellenistic-Early Roman period and the Late Roman-Byzantine period were found on surface. Two coins were discovered at the site; one of Agrippa I, minted in Jerusalem (41/42 CE; IAA 96313) and the other may be from the fourth century CE (IAA 96314). They were apparently swept from the top of the tell.
(Volume No. HA-ESI 120 (2008 Jerusalem, Tell el-Ful


1. The eastern burial cave, plan and sections.

2. The western burial cave. plan and section.

Zubair 'Adawi

During May and August 2002 two burial caves were documented on the eastern and western slopes of Tell el-Ful (Giv'at Sha'ul; map ref. NIG 22185/67223, 22223/63674; OIG 17185/13678, 17223/13674), in the wake of damage caused by mechanical equipment during development work. The documentation, on behalf of the Antiquities Authority, was performed by Z. Adawi, assisted by T. De'adle, B. Turi, A. Hajian (surveying), D. Weiss and L. Barda (GPS).

The caves are hewn in soft limestone bedrock. The eastern cave (Fig. 1) consisted of a rectangular entrance shaft ( 0.70 $\times 1.75 \mathrm{~m}$, height 0.9 m ) and a single burial chamber. The western wall of the cave was partly damaged during the development work, whereas the northern wall was completely destroyed. Two steps were hewn in the entrance to the shaft that was covered with three stone slabs and led to an entrance ( $0.50 \times 0.57 \mathrm{~m}$ ), alongside which was a closing stone slab, in situ. Two rock-hewn steps descended from the entrance to the burial chamber, in whose southern and western walls were two preserved arcosolia, each containing two burial troughs. Another arcosolium and burial troughs may have been hewn in the northern wall. The troughs in the southern arcosolium were preserved in their entirety ( $0.55 \times$ 1.70 m , depth 0.5 m ). The arcosolium's ceiling on the western side was arched, probably where the head of the deceased was placed. Fragmented human bones were discovered in the fill on the bottom of the cave. The cave is dated to the Byzantine period, based on its plan.
The western cave included a rectangular burial chamber ( $2.1 \times 2.9 \mathrm{~m}$, average height 1.9 m ; Fig. 2) whose western wall was destroyed by development work. The entrance to the cave was not preserved, but seems to have been originally in the western wall. An arcosolium with two troughs (average size $0.6 \times 2.1 \mathrm{~m}$, depth $0.3-0.6 \mathrm{~m}$ ) was hewn in each of the northern, southern and eastern walls of the cave. The troughs were provided with raised hewn supports for the head of the deceased $(0.3 \times 0.6 \mathrm{~m})$. The ceramic finds from the cave included lamp fragments from the Byzantine (fourthseventh centuries CE) and Umayyad periods (eighth century CE). Based on its plan, it seems the cave was hewn in the Byzantine period and may have continued to be used in the Umayyad period.



1-1
2. The western burial cave, plan and section.
(Volume No. HA-ESI 120 (2008
Jerusalem, the Old City
Final Report
Irina Zilberbod
During February 2004 a trial excavation was conducted at the Damascus Gate in the Old City of Jerusalem (Permit No. A4106*; map ref. NIG 22723/63165; OIG 17723/13165). The excavation, on behalf of the Antiquities Authority and financed by the Gihon Company, was directed by I. Zilberbod. Three trial trenches (length $4-5 \mathrm{~m}$, width $0.6-0.8 \mathrm{~m}$ ) were excavated to a depth of 1.1-1.3 m. Sand and soil fill, modern water and sewage infrastructures were discovered in the trenches, which were devoid of ancient remains.
(Volume No. HA-ESI 120 (2008
Jerusalem, East Talpiyot Final Report


1. Plan.

2. Pottery from the end of the Iron Age.

3. Pottery from the Early Roman period.

During April 2000, a salvage excavation was conducted on the Armon Ha-Naziv promenade in Jerusalem (Permit No. A-3227*; map ref. NIG 22240/62905; OIG 17240/12905), prior to a construction. The excavation, on behalf of the Antiquities Authority, was directed by G. Solimany and V. Barzel, with the assistance of T. Kornfeld and V. Pirsky (surveying and drafting) and C. Hersch (pottery drawing).
The remains of a building were exposed in the excavation area (c. $6 \times 9 \mathrm{~m}$; Fig. 1). Two construction phases were discerned in the building, the early one dating to the end of the Iron Age and the later phase, to the Early Roman period. A modern farming terrace wall was also discovered. Remains from the Hellenistic period had previously been excavated c. 400 m south of the current building remains (ESI 15:78-79; HA-ESI 112:85*).
A floor (Loci 102, 106, 113) and two walls (W1, W4) are ascribed to the early phase of the building. The floor (preserved area $4.5 \times 5.0 \mathrm{~m}$ ) was set on bedrock and consisted of crushed chalk and stone slabs (slab dimensions $0.2 \times 0.3 \mathrm{~m}$ ). Three ovens (average dimensions $0.5 \times 0.8 \mathrm{~m}$ ) were embedded in the floor, on which burnt areas were discerned in several places. This was probably the floor of an open courtyard that may have been used as a public kitchen. Wall 1 (width 2.7 m ) was built of medium and large roughly hewn stones and preserved six courses high ( 1.5 m ); its upper part collapsed on the floor. Wall 4 (preserved length 1.2 m , width 0.2 m ) was cut into bedrock to a height of 0.9 m and had one course of stone (height 0.2 m ) preserved above the rock-hewn part. The ceramic finds from this phase dated to the seventh century BCE and included bowls (Fig. 2:1-3), cooking pots (Fig. 2:4-6), holemouth jars (Fig. 2:7, 8) and jars (Fig. 2:9-12).

The remains from the late phase of the building were discovered in the eastern part of the excavation area, atop the collapse of the early phase. A wall (W3) and a burnt layer (L109) were exposed. Wall 1 was no longer used during this phase. Wall 3 (length 2.4 m , width 0.8 m ) was built of different-sized fieldstones and preserved 0.5 m high. The burnt layer (thickness 0.3 m ) whose elevation was not uniform abutted W3. The ceramic finds from this phase, dating to the first century BCE and the first century CE, included cooking pots (Fig. 3:1, 2), a flask (Fig. 3:3), jugs (Fig. 3:4, 5), jars (Fig. 3:6-9) and a holemouth jar (Fig. 3:10).

A modern terrace wall (W2; length 3.3 m , width $0.5-1.0 \mathrm{~m}$ ) that consisted of a single course of fieldstones was built on top of W1 and W3. A large stone ( $1 \times 1 \mathrm{~m}$ ) was set in the corner of this wall.


1. Plan.


1


3




6

8



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12
2. Pottery from the end of the Iron Age.

$0 \quad 10$

3. Pottery from the Early Roman period.

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1. Area T, plan.

2. Area H, plan.

3. Pottery, Area T, Stratum III.

4. Pottery, Area H, Stratum III.

5. Pottery, Area H, Stratum

## Gideon Solimany and Vered Barzel

 8/1/2008During September 1999 a salvage excavation was conducted at the Biblical Zoo in Jerusalem (Permit No. A-3102*; map ref. NIG 21650/62795; OIG 16650/12795), prior to the construction of playground installations. The excavation, on behalf of the Antiquities Authority, was directed by G. Solimany and V. Barzel, with the assistance of A. Ganon (administration), A. Hajian (surveying), N. Zak (drafting), N. Ze'evi (pottery drawing), R. Bankirer (flint implements), M. Smilansky (flint drawing) and M. Sadeh (archaeozoology).
Two excavation areas (H, T) were opened in the eastern part of Area 800 of the previous excavations at the site (ESI 9:150-156). Building remains dating to Early Bronze IV (Intermediate Bronze Age; Stratum III) and Middle Bronze IIB (Stratum II) were exposed, as well as a terrace wall from the Byzantine period (Stratum I).

## Area T (Fig. 1)

The area $(5 \times 8 \mathrm{~m})$ had not been excavated previously due to an olive tree that was planted there. The tree has since been relocated and the area was excavated. Three strata (I-III), corresponding to the strata from the previous excavation, were exposed. A terrace wall (W100; preserved length 6 m , width 1.2 m ), built of medium-sized fieldstones and oriented north-south, is ascribed to Stratum I. The northern side of the wall was preserved 1.4 m high, whereas its southern side was only preserved a single course high. A layer of red terra rosa soil (thickness 0.3 m ) that contained a few potsherds from the Byzantine period abutted the wall from the west and extended across the entire excavation area. Stratum II was exposed beneath the layer of terra rosa soil. A corner of two walls (W104-preserved length 1.5 m , width 0.6 m ; W109—preserved length 4.5 m , width 0.5 m ), built of large worked stones, was exposed. A layer of tamped soil, yielding Middle Bronze IIB potsherds, abutted the inside of the corner. Six stone slabs (average size $0.05 \times 0.15 \times 0.20$ m ) were lying in a row above the layer of tamped soil. These may be the remains of a stone pavement whose bedding was the tamped soil. A large grinding stone was discovered in a stone collapse at the level of the stone slabs, near the corner of the walls. It seems that the stone slabs and the grinding stone were part of an open courtyard floor.
Stratum III was exposed beneath the corner of the walls from Stratum II and south of it. The remains of two rooms that flanked a corridor and dated to Early Bronze IV were uncovered. Two construction phases were discerned in the southern room. Two walls (W106, W108) that were abutted by a floor (L3014) of different-sized stone slabs were attributed to the early phase. The doorway to the room was probably set in its northwestern corner. A large pottery vessel (diam. 0.5 m , depth 0.45 m ), probably used for storage, was found inside a pit dug in the ground next to W108. Two walls (W103, W107), abutted by a floor of different-sized stones (L3010), were ascribed to the late phase of the southern room. The doorway in the northwestern corner of the room was made narrower in this phase by the addition of two stones. Two walls (W105 and W109, which continued from the early phase) were exposed in the northern room; they were abutted by a terra rosa floor (L3113) that was leveled on bedrock. A fieldstone-built semicircular installation (L3116) was discovered next to W105. It contained fragments of four-spouted lamps, flint implements and animal bones. A large grinding stone incorporated in the floor was discovered near the western side of the installation. The remains of the northern room were parallel to those of the lower phase of the southern room.

## Area H (Fig. 2)

Two strata (II, III) were exposed in the area, located in the northwestern part of Area 800.
The excavation of building remains in Stratum III that had previously been excavated was completed. Two construction phases, dating to Early Bronze IV, were discerned. Five walls (W202, W203, W204, W205, W206) were ascribed to the early phase; Wall 204 was a partition wall. The doorway to the building (width 0.6 m ) was located between W205 and W206. The tamped-earth floor in the early phase (L4018) was overlaid with a burnt layer that contained a large quantity of potsherds, flint implements and animal bones. An installation $(0.6 \times 0.6 \mathrm{~m})$ built of small pebbles was exposed in the corner formed by W202 and W204. The later phase of the building had a floor of small pebbles and tamped soil (L4005). Wall 204 and the installation were canceled in this phase. A stone socket was preserved in the building's entrance of this phase.
Two construction phases, dating to Middle Bronze IIB, were discerned in Stratum II. An open courtyard, which had a tabun (L4020) and a circular installation that was dug into the soil (L4017; diam. 0.8 m , depth 0.52 m ), was ascribed to the early phase. Potsherds, a worked black stone, a stone weight and animal bones were found in the installation. A wall (W207) was built in the later phase and the installations were canceled. Installation 4017 was blocked with stones and large fragments of pottery vessels and a floor overlaid the tabun. The floor (L4006; $4.5 \times 4.5 \mathrm{~m}$ ) consisted of stone slabs (average size $0.3 \times 0.4 \mathrm{~m}$ ) and abutted W206, which continued from Stratum III and W207. It seems to have continued farther north, but was not preserved. Two column bases that were incorporated in the floor probably supported the ceiling of a room or a roofed courtyard.
The ceramic finds from Stratum III in the two areas dated to Early Bronze IV and those from Stratum II were from Middle Bronze IIB. The Stratum III ceramics in Area T included goblets (Fig. 3:1, 2), a cooking pot with a straight wall (Fig. 3:3), jars with an everted rim (Fig. 3:4-8, 16), a jar with a straight rim (Fig. 3:15), holemouth jars (Fig. 3: 9-11), a four-spout lamp (Fig. $3: 12$ ) and spouts (Fig. 3:13, 17), one of which was an especially large one that belonged to the early phase of the stratum. The characteristic designs on the pottery vessels from the period included straight and wavy combed decoration, rope ornamentation and herringbone patterns (Fig. 3:14). The ceramic finds from Stratum II in Area T included open bowls (Fig. 4:1, 2), cooking pots with straight walls (Fig. 4:3, 4) and jars with a thickened and stepped rim (Fig. 4:5-8). The ceramic finds from Stratum III in Area H included a large bowl with a sloping wall (Fig. 5:1), a small bowl with an inverted rim, adorned with a perforated decoration (Fig. 5:2), goblets decorated with straight and wavy combing (Fig. 5:3-7), jars with everted rims (Fig. 5:8-10), a jar with a ridged holemouth rim (Fig. 5:11) and holemouth jars (Fig. $5: 12,13$ ). The Stratum II pottery in Area H included open round bowls (Fig. 6:1, 2), a cooking pot with a straight wall (Fig. 6:3), a cooking pot with an everted rim and curved wall (Fig. 6:4), jars (Fig. 6:5, 6), a ceramic stopper (Fig. 6:7) and an open bowl with a curved wall and ridged rim (Fig. 6:8). The flint tools collected from the two excavation areas included mostly flakes and a few implements that are not characteristic of a defined period, among them notched tools, denticulates, scrapers and awls. Noteworthy is a Canaanean sickle blade with an irregular retouch, which is common to Early Bronze IV (Fig. 7:1) and two sickle blades that bear the remains of a polished cutting edge that is common to Middle Bronze IIB (Fig. 7:2, 3).

The analysis of the zoological remains had shown that the bones from Stratum III belonged to 1 sheep/goat, 1 bovine and 1 domestic pig, whereas the bones from Stratum II belonged to 2 sheep/goats and 1 bovine.




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3. Pottery, Area T, Stratum III.


6. Pottery, Area H, Stratum II

(Volume No. HA-ESI 120 (2008 Jerusalem, Tell el-Ful Final Report

Rina Avner


1. Map of recent excavations on Tell el-Ful.

2. Plan.

During November 2005 a salvage excavation was conducted along the southwestern slope of Tell el-Ful (Giv'at Sha'ul; Permit No. A-4634*; map ref. NIG 22185/63663; OIG 17185/13663), prior to digging the foundations for a private house. The excavation, on behalf of the Antiquities Authority, was directed by R. Avner, with the assistance of T. Kornfeld (surveying), T. Sagiv (photography) and E. Belashov (drafting).
Several salvage excavations were carried out at Tell el-Ful in recent years (Fig. 1; HA-ESI 110:58*; 111:62*; HAES/ 119). It became clear from the excavations along the southern slope of the hill that this area lay outside the limits of the settlement on the tell in the Roman and Byzantine periods and was mainly used for burial and industrial activity. Yet, an excavation on the tell's northern slope (HA-ESI 120), proved that the settlement may have extended across the northern slope of the tell during the Second Temple period.

Two half squares, adjacent to each other (northern square- $3 \times 5 \mathrm{~m}$, southern square- $2 \times 5 \mathrm{~m}$; Fig. 2), were opened in the current excavation. A light color fill (average depth 2 m ), which overlaid bedrock and contained mixed pottery fragments dating to Iron II and the Second Temple period, was excavated. The natural hollows in bedrock (Loci 3 and 4) contained sterile dark brown soil that was devoid of any finds. The light color fill may be alluvium that had washed down from the top of the tell



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1. General view of the excavation area, looking north.

2. Location map.

3. Plan and sections.


Zvi Greenhut
During July, November and December 2005, a trial excavation was conducted in the 'Bet Ha-Tira' Compound in the City of David (Permit No. A-4529*; map ref. NIG 22244/63115; OIG 17244/13115), prior to development. The excavation, carried out on behalf of the Antiquities Authority and financed by the El'ad Association, was directed by Z. Greenhut, with the assistance of R. Abu Halaf (administration), V. Essman and T. Kornfeld (surveying and drafting), T. Sagiv (photography), S. AI-Amla (metal detection) and B. Artzi, G. Solimany and K. Ben-Or (assistance in excavation).
The excavation was conducted in the heart of the City of David, c. 10 m southwest of the entrance structure to the Warren's Shaft. The limited excavation area ( $5 \times 6 \mathrm{~m}$; Figs. 1-3), was bordered on the east by a high terrace and on the north and west by the residential units of 'Bet Ha-Tira'. The excavation reached a depth of c. 2.3 m below surface in a soil fill that contained mixed finds, the latest of which were modern. Due to safety precautions, the excavation was suspended and the depth of bedrock was determined by drilling (carried out by the 'Oganim Company). The drilling ascertained that bedrock was c. 9.5 m below surface in the southeastern part of the square and c. 8.5 m in the northwestern side. To facilitate digging to this depth a circular shaft (top diam. 3.5 m , bottom diam. 2.9 m ), lined and supported by the Avner and Amir Gilad Company, was excavated. Soil fill and stones, including mixed ceramic finds, were recovered from the shaft. A modern water cistern was documented north of the excavation area.

The excavation of the shaft's upper part to a depth of c .6 m below surface, revealed fill that consisted of soil and different sized stones. Mixed ceramics from the Iron Age and the Early and Late Roman, Byzantine, Early Islamic, Mamluk and Ottoman periods were recovered from this fill, as well as modern roof tiles, coins and an iron stake. A similar fill of soil and stones was found in the bottom part of the shaft, down to bedrock (depth 3.5 m ), mixed with potsherds from the Middle Bronze Age (scant), Iron II, Hellenistic period (scant) and Early Roman period (most). While excavating the shaft a brown vertical strip of wood was discovered in the southern part above bedrock. It is noteworthy that M . Parker excavated several shafts and underground galleries in this area within his work in the City of David (Vincent L. H. 1911. Jerusalem sous terre: les recentes fouilles d'Ophel. PI. VI). This find was probably the end bottom part of one of the shafts that Parker excavated. It seems that the origin of the fill in the shaft was intentional spill deposited either during the construction of 'Bet Ha-Tira' or the blocking of the shafts and galleries that Parker dug.

A rectangular water cistern ( $3.5 \times 9.0 \mathrm{~m}$, depth 9 m ; Fig. 4) was documented 7 m north of the excavation area and lower than it. The cistern's opening $(0.6 \times 1.2 \mathrm{~m})$ was installed in the northern part of the eastern wall. The lower part of the cistern was bedrock hewn (depth of southern wall 4.3 m , depth of the northern wall 5.4 m ), whereas the upper part was built of partially dressed medium-sized stones. The ceiling of the cistern was a barrel vault, coated with modern plaster, which also lined its bottom. The eastern side of the cistern's floor was at least 1.2 m lower than its western slanting side. Based on the construction and the plaster, as well as the location of 'Bet HaTira' above it, it seems that the cistern was installed at the time 'Bet Ha-Tira' was built, during the latter part of the nineteenth century $C E$ or the beginning of the twentieth century $C E$.





1. Plan and sections.

2. The lower level in the quarry, looking southeast.

3. The upper level in the quarry (Loci 8-10), looking south.
(Volume No. HA-ESI 120 (2008
Jerusalem, Ketef Hinom Final Report

Irina Zilberbod
26/3/2008
During November 2005, a salvage excavation was conducted on Ketef Hinom in Jerusalem (Permit No. A-4637*; map ref. NIG 22135-6/63064-6; OIG 17135-6/13064-6), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the Jerusalem Foundation, was directed by I. Zilberbod, with the assistance of R. Abu-Halaf (administration) and T. Kornfeld (surveying and drafting).
The excavation was conducted north of the Khan Theater. A quarry ( $11 \times 11 \mathrm{~m} ; \mathrm{c} .220 \mathrm{sq} \mathrm{m}$ ), in which two levels of stone cutting were discerned, was exposed. Vertical bedrock sides were exposed on the east (L11; length 8 m , height 4 m ), south (L12; length 5.5 m , height 1.2 m ) and west ( L 6 ; length 2 m , height 1.5 m ) in the excavation of the quarry's lower level $(8 \times 10 \mathrm{~m})$. Part of the western side and the northern side were located beyond the limits of the excavation. On the bottom of the quarry's lower level (L5; $5.5 \times 9.0 \mathrm{~m}$ ) were broad severance channels (width $0.35-0.40 \mathrm{~m}$, depth $0.15-0.25$ $\mathrm{m})$ used in removing the stone blocks and narrow quarrying channels (Loci 13, 14, 18; max. length 1.2 m, max. width 0.13 m , max. depth 0.2 m ), as well as the negatives of detached rectangular stones. Layers of quarry chips (thickness of strata $0.2-1.0 \mathrm{~m}$ ) were deposited on the bottom of the lower level, containing fragments of roof tiles from the Byzantine period that indicate the period when the quarry was in use.
The area of the quarry's upper level was smaller (c. $3.5 \times 4.0 \mathrm{~m}$ ) and consisted of severance channels (L15-length 2.5 m , width c. 4 cm , depth 0.2 m ; L17—length 0.9 m , width 0.15 m ) for large stones (Loci 9,10 -depth 0.6 m ) and mediumsized stones (L8-depth 0.3-0.6 m).


2. The lower level in the quarry, looking southeast.

3. The upper level in the quarry (Loci 8-10), looking south.


1. Location map.

2. Plan and section.

3. Pottery.
(Volume No. HA-ESI 120 (2008

## Jerusalem, Tell el-Ful

Final Report
Rina Avner
During October 2003, a salvage excavation was conducted along the northern slope of Tell el-Ful (Permit No. A-4013*; map ref. NIG 22192-200/63710-14; OIG 17192-200/13710-14; Fig. 1), in the wake of damage to antiquities. The excavation, carried out on behalf of the Antiquities Authority and financed by S. Fadal, was directed by R. Avner (photography), with the assistance of V. Essman and V. Pirsky (surveying), A. Pikovsky (pottery drawing) and D.T. Ariel (numismatics).
Artifacts dating to the time of the Second Temple (first century BCE) were discovered in the excavation area (Fig. 2).

A wall (W2; length 4 m ) was discovered in the west of the area, built of ashlar stones with plaster remains preserved on the eastern side at its southern end. The wall extended along the balk and therefore, it was impossible to ascertain its width. A gray-plastered floor (L2; thickness 6 cm ), which abutted W2, was laid directly on bedrock. The floor extended below the eastern and southern balks and was not preserved in the southeastern part. A probe excavated below the floor (L5) and down to bedrock was devoid of any potsherds.
The potsherds on the floor dated to the first century BCE and included a bowl (Fig. 3:1), a cooking pot (Fig. 3:2), jars (Fig. $3: 3-5$ ), a juglet (Fig. 3:6) and a pinched lamp (Fig. 3:7). A coin from the reign of Alexander Jannaeus (IAA No. 111868) was found as well.



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Rina Avner


1. Location map.

2. Plan and sections.

3. Pottery.

During December 2003, a salvage excavation was conducted at the City of David in Jerusalem (Permit No. A-4046*), prior to the opening of the Bet Ha-Zofe Compound in the City of David visitors' center. The excavation, carried out on behalf of the Antiquities Authority and sponsored by the El'ad Association, was directed by R. Avner, with the assistance of V. Essman, V. Pirsky and T. Kornfeld (surveying), I. Berin (drafting), Y. Bukengolts (pottery restoration) and A. Pikovski (pottery drawing). The author wishes to thank M. Avissar and T. De'adle
Two areas $(5.0 \times 23.5 \mathrm{~m} ; 4.5 \times 13.5 \mathrm{~m})$ were opened, apparently within Area H of Kenyon's excavations. The current excavation areas were located c. 50 m east of Reich and Shukron's excvation (HA-ESI 117) and c. 25 m north of D. Bahat's excavation (License No. G-58/1998; Fig. 1).
Five strata of architectural remains were discovered in the northern area and six strata were identified in the southern area.

The Northern Area (Fig. 2)
Stratum V. A rock-hewn channel (L121; length 9.4 m , width 0.57 m , depth 0.1 m ) whose northern part curves to the northwest.
Stratum IV. Perpendicular walls (W8-length 3.3 m , width 0.7 m , height 0.93 m ; W11-length 1.1 m , width unknown, height 0.9 m ), which formed the southwestern corner of an architectural compound (L143). Potsherds dating to the Second Temple period, including a jar (Fig. 3:5) and a base of a Judean lamp (Fig. 3:10) dating to Iron II, were recovered from the fill between the walls. The assemblage was not sealed.
Stratum III. A cistern (L106; length 5 m , width 3.2 m , depth 5.8 m ; Fig. 2: Section 1-1) whose floor and walls were coated with pink-gray plaster (thickness 0.35 m ). The wall at the northern side of the cistern (W10; length 3.5 m , width 0.58 m , height 1.54 m ) was erected on top of an earlier wall (W11). Wall 10, built of medium-sized stones with soil between them, was preserved five courses high. An opening (width 0.7 m , height 1 m ) in the ceiling of the cistern was built of a single course of stones. Potsherds dating to the Fatimid period were found inside the cistern, including a bowl (Fig. 3:1), a jug (Fig. 3:9) and a jar (Fig. 3:6). The cistern was not sealed.
Stratum II. A wall ( W 1 ; length 1.4 m , width 0.9 m , height 0.81 m ), preserved three courses high, which continued west below the balk, was exposed. It was built on W8 of Stratum IV and consisted of two rows of coarsely dressed medium and large stones with a core of soil and small fieldstones. The wall was abutted on the north by a floor (L103) of gray plaster (thickness 0.2 m ) above which was an intact lamp (Fig. 3:11) that dated to the Abbasid period-the second half of the eighth century-first half of the ninth century CE. The potsherds below the floor were ascribed to the Early Islamic period-the seventh-ninth centuries and possibly even the tenth century CE.
Stratum I. A wall (W2; length 4 m , width 0.6 m , height 0.68 m ) was attributed to this stratum. Wall 2, built of rows of small and medium-sized stones and several large stones that were coarsely hewn, with soil and fieldstones between them, was preserved two courses high. It was erected next to the western side of Cistern 106 (Stratum III) and it formed a corner with W1 of Stratum II. Wall 2 was abutted on the south by a floor of tamped earth (L104) that was overlaid with potsherds, including a glazed bowl (Fig. 3:2) from the Fatimid period (second half of the ninth and the tenth centuries CE), indicating that neither Floor 104 nor W2 were earlier than this period.

## The Southern Area

Since the strata in the northern area could not be correlated with those in the southern area, the designation of the strata is different in each.
Stratum F. As in the northern area, rock-hewn channels (Loci 144, 145) oriented north-south were discovered (Fig. 2: Section 2-2). These were probably severance channels in a quarry.
Stratum E. Two perpendicular walls (W6-length 3.75 m , width 0.9 m , height 1.71 m ; W7—length 0.8 m , width 0.6 m , height 1.1 m ), preserved 10-11 courses high, formed the northeastern corner of an architectural space (L142). The walls were built of two rows of coarsely dressed medium and large stones with a core of soil fill. Potsherds from the Second Temple period and Iron II were discovered while dismantling a section of W6. Therefore, this stratum is dated to the Second Temple period and remains from Iron II were probably near the excavation.
Stratum D. Stone fill (L141) was preserved next to the southern balk; it appears to continue northward above L142, which was removed in Kenyon's excavation.
Stratum C. A wall (W4; length 0.7 m , width 0.8 m , height 0.6 m ) and a floor (L111) were preserved in a small section next to the southern balk. Wall 4, preserved three courses high, was built of two rows of coarsely dressed medium-sized stones with a core of soil and small fieldstones. Below the floor that abutted W4 on the west was a krater (Fig. 3:4) from the ninth-tenth centuries CE, which came from a fill that also contained a cooking pot (Fig. 3:3), dating to the first century $B C E$. It therefore seems that the floor and the wall dated to the ninth and tenth centuries CE.
Stratum B. The southern face of a wall (W5; length 2 m , width 0.5 m ) was exposed in the northern balk. It was preserved seven courses high and built of two rows of medium stones, some of which were undressed, with a core of soil. The wall was built on an earlier wall (W6) from Stratum E.
Stratum A. A wall (W3; length 3 m , width 0.9 m , height 0.8 m ) in the eastern balk continued north and south beyond the limits of the excavation. Wall 3 , preserved a single course high, was built of two rows of coarsely dressed stones with a core of soil, small fieldstones and traces of gray plaster.

The latest artifact from the excavation-a pipe fragment (Fig. 3:12) dated to the nineteenth century CE whose mouthpiece is shaped as a lily and inscribed with a woman's name, Zafa-came from the fill on a plaster floor (L111). Other potsherds found after the collapse of the northern balk in the excavation area included a cup from the ninth and tenth centuries CE (Fig. 3:8) and a jar from the second half of the eighth-tenth centuries CE (Fig. 3:7).


1. Location map.

2. Plan and sections.

(Volume No. HA-ESI 120 (2008 Jerusalem, the Mount of Olives Final Report

3. Location map.

4. Plan and section.

During August-September 2005, a salvage excavation was conducted on the Mount of Olives (Permit No. A- 4586*; map ref. NIG 224087/631250; OIG 174087/131250; Fig. 1), in the wake of constructing the separation fence. The excavation, on behalf of the Antiquities Authority, was directed by A. Nagar, with the assistance of R. Abu Halaf (administration), T. Kornfeld (surveying), T. Sagiv (photography) and E. Belashov and I. Berin (drafting).
One square was excavated on a spur that descends from west to east (Fig. 2), revealing a quarry (L101) and remains of a terrace wall (W1).

Rectangular bedrock blocks ( $0.75 \times 1.25 \mathrm{~m}$, height $0.45 \mathrm{~m} ; 0.60 \times 0.75 \mathrm{~m}$, height 0.25 m ), surrounded by severance and cleavage channels that aided in removing the blocks, were found in a quarry (Fig. 3). A natural depression (L102; $0.9 \times$ 1.1 m , depth $0.55-0.66 \mathrm{~m}$ ) that extended beyond the boundaries of the excavation was exposed in the eastern part of the square. Signs of rock cutting were evident in the upper northern part of the depression. Other detachment channels were exposed in the eastern part of the square. The quarry extended beyond the limits of the excavation.
Remains of a terrace wall were discovered in the northern corner of the square, above the quarry remains (Fig. 4). The wall, set on a layer of soil (thickness of 0.3 m ) that overlaid hewn bedrock, was built of medium and large fieldstones and preserved three courses high ( 0.7 m ).
The absence of finds made it difficult to date the quarry. It seems that the terrace wall, built on the quarry, postdating it, was part of the agricultural infrastructure of the region.

3. Quarry, looking southeast.


1. Location map.


2. Quarry, looking southeast.

3. Terrace wall, looking northeast.
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Jerusalem, Khirbat 'Addasa Final Report

4. Plan and sections.

5. Intact ossuary.

6. Cooking pot.

7. Lamps.

Yuval Baruch and Amir Ganor
During January 2005 a burial cave was documented on the southern slope of Kh. 'Addasa, north of Jerusalem (Permit No. A-4438** map ref. NIG 22040/63925; OIG 17040/13925), after it was breached by tomb robbers. The cave was not excavated. The documentation, on behalf of the Antiquities Authority, was performed by Y. Baruch and A. Ganor, with the assistance of R. Kehati, A. Hofesh, T. Shipman and C. Hersch (drawing). The tomb was sealed by S. Fried, inspector of the Ministry of Religious Affairs, upon completion of the documentation.
At the top of the hill is a large massive building; numerous remains are spread across its slopes. At the foot of the hill to the east is the Roman road that reaches Jerusalem from the north. Many potsherds that range in date from the Iron Age to the Middle Ages are scattered throughout the area. Some nineteenth-century scholars identified the site with biblical Gibeah, the city of King Saul, before it was identified with Tell el-Fûl. The site was examined in the Survey of Western Palestine (Conder and Kitchener 1881-1883, III:105-106) and in the Survey of Jerusalem (A. Kloner 2002, Survey of Jerusalem - The Northeastern Sector: Site 4).

The burial cave is located on the southern slope of the site; next to it are other tombs, cave dwellings, rock-hewn installations and ancient terraces. The cave was roughly hewn in the soft chalk bedrock using a broad chisel (width 2-3 $\mathrm{cm})$. Tomb robbers plundered the contents of the cave, mixed the human bones in the soil fill and scattered them in and outside the cave. The poorly preserved bones were those of adult individuals. Artifacts that indicate the tomb was used in the first and second centuries CE were found .

An open hewn courtyard ( $1.5 \times 2.2 \mathrm{~m}$; Fig. 1) is found at the front of the tomb, to the south. A rock-hewn, trapezoidal opening $(0.4 \times 0.5 \times 0.5 \mathrm{~m})$ in the center of the courtyard's northern wall is set within a sunken rectangular frame (width 0.25 m ) on three sides, except for the bottom. A sealing stone $(0.6 \times 0.8 \mathrm{~m})$ that was compatible to the dimensions of the opening was lying nearby. The opening leads to a burial chamber ( $2.5 \times 3.0 \mathrm{~m}$ ), in whose center is a square standing pit $(1.2 \times 1.2 \mathrm{~m})$ flanked by broad surfaces (width 0.87 m ). In the chamber's western wall, two elongated kokhim (c. $0.40 \times$ $1.75 \times 0.80 \mathrm{~m}$ ) with arched openings, enclosed within a sunken rectangular frame (width 0.15-0.20 m), were hewn. A single hewn kokh $(0.40 \times 1.75 \times 0.86 \mathrm{~m})$, surrounded by a similar frame, is cut in the northern wall and another kokh $(0.40 \times 2.00 \times 0.78 \mathrm{~m})$, also surrounded by a frame, is in the eastern wall. It is apparent that an attempt to hew another kokh in this wall was undertaken, yet never completed. The openings of the kokhim were sealed with stone slabs discovered lying inside the cave. The slabs ( $0.50 \times 0.90$, thickness 0.11 m ) were removed from the openings by the tomb robbers, breaking one of them.

A complete ossuary ( $0.40 \times 0.98 \times 0.45 \mathrm{~m}$; lid dimensions $0.38 \times 0.62 \mathrm{~m}$; Fig. 2) made of hard limestone was found; it has thick walls that are smooth and undecorated. It stands on four small legs and is closed by means of a thick lid set in a sunken frame. Elongated slots at both ends of the ossuary aided in lifting the lid and putting it in place. Two thin lids $(0.17 \times 0.37 \mathrm{~m} ; 0.21 \times 0.46 \mathrm{~m})$ made of soft limestone belong to looted ossuaries. A few pottery vessels were discovered, some complete and a few broken, including cooking pots (Fig. 3), juglets, and lamps (Fig. 4), as well as the base of a glass jug and an iron nail.

The plan of the tomb and the assemblage of artifacts indicate that the burial cave was used by Jews during the firstsecond centuries CE. The tomb was also used after the destruction of the Second Temple, as evidenced by the thick stone ossuary, the Southern-type oil lamps and a discus lamp, all of which date to the end of the first century-beginning of the second century CE. This points to a Jewish settlement north of Jerusalem that existed after the destruction of the Second Temple, at least until the time of the Bar-Kokhba Revolt.


2. Intact ossuary.

3. Cooking pot.

4. Lamps.
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## Jerusalem, Salah ed-Din Street, St. George's Church Final Report

## Rina Avner

During September 2003 a trial excavation was conducted in the southern courtyard of the school that belongs to St. George's Church (Permit No. A-3979*; map ref. NIG 67137/18256; OIG 17137/13256). The excavation, on behalf of the Antiquities Authority, was directed by R. Avner, with the assistance of V. Pirsky and L. Barda (surveying) and T. Sagiv (photography).

The excavation area ( $2.1 \times 2.5 \mathrm{~m}$ ) revealed three rock-hewn cist tombs (Fig. 1), which were not excavated. However, it seems they were part of the burial field from the Byzantine period that had previously been excavated near the Ministry of Justice building, on Salah ed-Din Street (HA-ES/ 113:75*-76*).
The first tomb (L104; length over 1.27 m , width 0.53 m ) extended beyond the western boundary of the excavation. The fill that had accumulated in the hewn cist and above the three covering slabs ( $0.36 \times 0.48 \mathrm{~m} ; 0.44 \times 0.54 \mathrm{~m}$; $0.47 \times 0.64 \mathrm{~m}$ ) was excavated. The eastern part of the western slab had been placed partly on the middle slab and was broken lengthwise.
The second tomb (L105) was next to the southern boundary of the excavation and continued beyond it (length unknown, width 0.58 m ). The fill in the cist was excavated but the covering slabs were not found.
The third tomb (L106) was discovered near the northern boundary of the excavation and continued beyond it (length unknown, width 0.5 m ). The fill in the cist was excavated but the covering slabs were not found.


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2/4/2008


1. Plan and sections.

2. Wall 1, looking north.

3. Pottery.

During June 2004 a salvage excavation was conducted in the Beit Hanina neighborhood in north Jerusalem (Permit No. A-4180*; map ref. NIG 2216/6380; OIG 1716/1380). The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Gihon Company, was directed by I. Zilberbod, with the assistance of V. Pirsky (surveying), T. Sagiv (photography), B. Tori (antiquities inspection) and C. Hersch (pottery drawing).
Two half squares ( $3.5 \times 12.0 \mathrm{~m}$; Fig. 1) were opened, revealing a wall ( W 1 ; width $1.4-1.6 \mathrm{~m}$, height 0.88 m ; Fig. 2) that was preserved two courses high. The wall, set atop a soil foundation ( $0.2-0.3 \mathrm{~m}$ ), was built of medium ( $0.4 \times 0.6 \mathrm{~m}$ ) and large stones $(1.0 \times 1.2 \mathrm{~m})$ with a fill of soil and small stones. A surface paved with stones (Fig. 1: Section 3-3; Loci 24, $25 ; 0.3 \times 0.2 \times 0.5 \mathrm{~m}$ ) was exposed east of the wall and to its west was a floor of tamped earth and chalk (Fig. 1: Section 2-2; Loci 17, 18) on top of bedrock, in which numerous fissures and potholes were discerned. Upon both floors fragments of pottery vessels from the Early Roman period (first century CE), including jars (Fig. 3:1-3), jugs (Fig. 3:4-6) and a juglet (Fig. 3:7), were discovered.
It seems that the stone pavement delimited by the wall was part of the Roman road that led from Jerusalem to Shechem. Other sections of the road, which was c. 4.5 m wide, were exposed nearby in the past (Survey of Jerusalem, The Northeastern Sector, p. 9, Site 28; located c. 600 m south of the current excavation).


1. Plan and sections

2. Wall 1 , looking north.


## (Volume No. HA-ESI 120 (2008 Jerusalem, Beit Safafa Final Report

Irina Zillberbod


1. Plan and sections.

During February-March 2005, a salvage excavation was conducted in the Beit Safafa neighborhood of Jerusalem (Permit No. A-4388*; map ref. NIG 21930/61283; OIG 16930/11283), after the exposure of antiquities during an archaeological inspection of earthmoving work. The excavation, on behalf of the Antiquities Authority and financed by the Gihon Company, was directed by I. Zilberbod, with the assistance of T. Kornfeld (surveying), T. Sagiv (photography) and E. Belashov (drafting).
A probably ancient water cistern was found c. 150 m south the ritual bath (miqwe) from the Second Temple period that was excavated in 2004 (HA-ESI 119). During the earthmoving work, before the cistern's exposure, a probe trench had cut its eastern wall. The probe was cleaned in the excavation and the interior of the cistern was excavated.

The cistern, cut within a natural bedrock-hewn cave, was elliptical and had a bell-shaped cross-section (length 5.8 m , width 2.5-4.0 m, depth 2 m ). Its floor and walls were coated with a layer of hydraulic plaster (thickness $0.14 \mathrm{~m})$.

A round aperture (L21; diam. 1.1 m , height 1.5 m ) was hewn in the ceiling, at the northwestern end of the cistern. It was located beneath soil fill and blocked with large stones. The plaster floor (L24) in the cistern was overlaid with a gray soil fill and medium and large stone collapse. The cistern, devoid of any datable artifacts, was in use over a very long time.


1-1

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## Jerusalem, Ramot

Final Report
Irina Zilberbod


1. Burial cave, plan and sections.

2. Burial cave, looking west.

3. The building, plan and section.

4. The building, looking southeast.

5. Columbarium cave, looking southwest.

During May 2005, a salvage excavation was conducted in the Ramot neighborhood of Jerusalem (Permit No. A-4462*; map ref. NIG 21911/63558; OIG 16911/13558). The excavation, on behalf of the Antiquities Authority and financed by the Shikun 'Ovdim Construction Company, was directed by I. Zilberbod, with the assistance of T. Kornfeld (surveying and drafting), T. Sagiv (photography) and R. Kool (numismatics).
The site had been previously examined in the Survey of Jerusalem (Survey of Jerusalem, the Northwest Sector, Site 27). The current excavation exposed a burial cave surmounted by a building and a columbarium cave.

Burial Cave (?) (Figs. 1, 2)
The cave was horizontally quarried into bedrock layers on the eastern slope of the hill. It included a rectangular chamber (L15; $3 \times 6 \mathrm{~m}$, height c .2 m ) that had niches and recesses hewn in its walls.
The entrance was cut in the center of the eastern side (L1; width 0.5 m , height 0.45 m , depth 1.25 m ), facing the slope and four rock-hewn steps (L5; width 0.25 m , height 0.2 m , length c. 0.9 m ) led from it.
A recess was hewn in the middle of the western wall, almost to its entire height (L9; height 1.8 m , width 0.9 , depth 0.6 m ) and two small and nearly identical niches were cut 0.2 m on either side of it, 1.2 m above the floor of the cave (Loci 8,10 ; height 0.55 m , width 0.45 m , depth 0.25 m ).
Another niche was hewn in this wall c. 0.5 m from the northwestern corner (L11; height 0.6 m , width 0.6 m , depth 0.3 m ) and a wide recess was cut in the southwestern corner (L7; height 1.7 m , width 2 m , depth 0.9 m ).
A rectangular niche was hewn south of the steps in the eastern wall, c. 1.4 m above the floor (L6; height 0.65 m , width 0.60 m , depth 0.25 m ). In the northeastern corner was a small hewn chamber (L4; height 2 m , width 1.7 m , depth 1.3 m ) with a stepped niche cut in the middle of its inner wall, c. 1 m above the floor (L14; height 0.90 m , width 0.70 m , depth 0.85 m ). A hewn pit (L13) covered with brown soil that contained human bones was discovered in the middle of the floor of the small chamber. This probably indicates that the cave was used for burial. The excavation in the cave was suspended in agreement with the Ministry of Religious Affairs.
A burial cave had previously been found near the present cave (Survey of Jerusalem, The Northwest Sector, Site 30).
The Building (Figs. 3, 4)
A massive rectangular building ( $6.5 \times 9.5 \mathrm{~m}$ ) was constructed above the cave in a later phase and at the same time the cave was adapted for use as its cellar. In the northwestern corner of the cave's ceiling, which served as the foundation for the floor of the building, a round aperture (L12; diam. 0.9 m , depth 0.9 m ) that connected the two levels was hewn.
The walls of the structure were built of ashlar stones, preserved four courses high. The eastern wall (W2; length 9.5 m , width 1.4 m , preserved height 1.5 m ) was constructed adjacent to the cave's façade, thereby rendering the original entrance to the cave 2 m deep. Potsherds dating to the Ottoman period were discovered on the floor of the building.

Columbarium Cave (Figs. 3, 5, 6)
The cave, exposed in its entirety c .2 m southeast of the entrance to the burial cave, was hewn slightly elliptical in the soft stratified bedrock (L24; diam. 3.7 m , height 1.8 m ). A deep circular shaft (L17; diam. 1.2 m , depth 1.75 m ) that was cut in the southeastern side of the ceiling accessed the cave from surface. The entrance was enclosed by walls built of medium-sized fieldstones (W7-preserved length 1.7 m , max. width 0.5 m ; W5-preserved length 2.5 m , max. width 0.55 m ; W3-preserved length 1.4 m , max. width 0.5 m ). The northern wall (W3) cut the later building near the burial cave.
North of the columbarium, at the elevation of W3, a coin from the time of Antiochus III (223-187 BCE; IAA No. 98101) was found in an occupation level (L26). Fragments of jars and cooking pots, dating to the Early Roman period, were discovered in the columbarium.
This type of columbarium cave is characteristic of the Hellenistic and Early Roman periods and many such examples were exposed at sites around Jerusalem (Survey of Jerusalem, The Northwest Sector, p. 31). The cave is dated to the Hellenistic and Early Roman periods, based on the finds.


1. Burial cave, plan and sections

2. Burial cave, looking west.

3. The building, plan and section.

4. The building, looking southeast.

5. Columbarium cave, plan and sections.

6. Columbarium cave, looking southwest.

## (Volume No. HA-ESI 120 (2008

## Khirbat er-Rām

Final Report

Irina Zilberbod

3/4/2008
509;
During March 2006 a salvage excavation was conducted at Kh. er-Rām (Permit No. A-4765*; map ref. NIG 221617/639509; OIG $171617 / 139509$ ), due to damage caused to the site during work on the separation fence. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Zilberbod, with the assistance of R. Abu Halaf (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (photography), Z. Havkin and N. Epstein (security) and N. Zak (drafting).
Remains of an ancient road (Figs. 1, 2), aligned east-west, were exposed on the slope of a hill; a continuous segment of the road was preserved for a distance of 24 m (width $3.5-5.0 \mathrm{~m}$ ). Along the southern side of the road was a curb (W1; width 0.95 m ) built of two rows of medium-to-large sized stones with a core of small stones and soil, founded partly on bedrock and partly on a bedding of earth. The top of the curb protruded $0.3-0.5 \mathrm{~m}$ above surface. The northern curb (W2) was a bedrock ledge that formed the line of a wall without any additional construction. Between the curbs a layer of brown earth and small stones $(0.10-0.25 \mathrm{~m})$ that contained worn potsherds from the Early Roman period was exposed. The remains of a small winepress with treading floor and a collecting vat (Figs. 1,3) were discovered c. 5 m south of the western end of the section of the ancient road. The hewn treading floor was preserved c. 1 m long and c .0 .15 m high in its southeastern corner only (L6). North and west of it the bedrock was exposed with natural depressions and groovest, without any signs of quarrying.
The square collecting vat (L8; $1.9 \times 2.0 \mathrm{~m}$, depth 1.3 m ), located east of the treading floor, was hewn in hard limestone bedrock; remains of light gray plaster were preserved on its sides and bottom. In the southern corner of the floor was an elliptical rock-hewn settling depression (L12; diam. 0.35 m , depth 0.30 m ). The connection between the treading floor and the collecting vat was not preserved. Potsherds dating to the Early Roman period were recovered from the collecting vat. South of the collecting vat, a row of stones that probably belonged to the southern wall (W3) of the winepress, was revealed.

3. Winepress, collecting vat, looking west.


2. Ancient road, looking east.

3. Winepress, collecting vat, looking west.

# (Volume No. HA-ESI 120 (2008 

## Jerusalem, Khirbat Ras et Tawil (East)

 Final Report
## Ofer Sion



1. Location map of the excavation areas.

2. Area A, limekiln.

3. Area B, winepress.

4. Area B, terrace wall, plan and section.

5. Area D, plan and section.

During August 2004 a salvage excavation was conducted south and west of Hizma, along the route of the separation fence (Permit No. A-4239*; map ref. NIG 223852-4484/637250-8459; OIG 173852-4484/137250-8459). The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by O. Sion, with the assistance of T. Kornfeld (surveying), T. Sagiv (photography), E. Belashov (drafting), E. Boaretto, Weizmann Institute (Carbon 14 analysis) and G. Solimany and L. Barda (preliminary survey).
Agricultural installations, winepresses, quarries, a limekiln and a cistern were exposed in four excavation areas (A, B and C to the north of Kh. Ras et Tawil and D to the east; Fig. 1). The installations date to the Hasmonean, Roman and Byzantine periods.

A limekiln (Figs. 2, 3; diam. 4.5 m; A. Kloner 2002, Survey of Jerusalem - The Northeastern Sector, Site 51) was excavated in Area A. The lower part was hewn in bedrock (dolomitic limestone) to a depth of 2 m . The kiln had a flue that entered in its lower part from the southeast (length 6 m , width and height of the flue on the outside $0.50 \times 0.55 \mathrm{~m}$; width and height of the flue on the inside $0.2 \times 0.3 \mathrm{~m}$ ). The smaller dimensions of the flue on the inside of the kiln compared with those of the flue's inlet created a draft to fan combustion inside the kiln. Different sized stone slabs were used to cover the flue. Piles of ash that had been cleaned from the kiln were found nearby. Based on Carbon 14 dating, the kiln activity is dated to the years 1800-1930 ( $64.3 \%$ probability).

A winepress and terrace wall were excavated in Area B. The winepress (Figs. 4,5) was hewn in bedrock on the eastern slope of the wadi channel. A treading floor ( $2.4 \times 2.6 \mathrm{~m}$ ), settling pit ( $0.4 \times 0.9 \mathrm{~m}$, depth 0.4 m ) and a collecting vat ( 0.65 $\times 1.10$, depth 1.10 m ) were all coated with white plaster. The treading floor was connected to the settling pit by an open channel and to the collecting vat by way of a through-hole (diam. 8 cm ). A rock-hewn mortise ( $0.3 \times 0.4 \mathrm{~m}$ ) used to secure the beam was located in the southeastern side of the winepress. Recesses (depth 0.1-0.2 m) were hewn in the southeastern corner of the settling pit and the collecting vat. No datable finds were recovered from the installation. Based on the color of the plaster and its similarity to examples from the Hasmonean period the winepress can perhaps be dated to that period. A terrace wall was surveyed 30 m southwest of the winepress. The wall (length 6 m ; Fig. 6) was parallel to the winepress; no indicative potsherds were recovered from the terrace.

In Area C three rectangular rock-cuttings (Fig. 7) and a cupmark (Fig. 8) were exposed. The rock-cuttings (Loci 15-17), whose purpose is unclear, were cut to different depths ( $0.55-1.60 \mathrm{~m}$ ); these were probably preliminary soundings made for a quarry that was abandoned due to the friability of the bedrock. The cupmark (L14) was located 30 m south of the rock-cuttings. Next to it was a small shallow surface $(0.75 \times 0.90 \mathrm{~m})$ that was probably used as a bodeda or a small winepress.

A cistern and rock-cuttings (Fig. 9) were cleaned in Area D. Next to the rock-cuttings was a wide bedrock surface ( $25 \times$ 30 m ) with natural depressions in it. Run-off was conveyed from the bedrock surface to the cistern (depth 3.5 m ) by way of a hewn channel (length 5.5 m ; depth $2-4 \mathrm{~cm}$ ). Shepherds in the region currently use the cistern's water for their flocks. Stone troughs were found next to the cistern. No datable material was recovered from the cleaning.

A winepress (Fig. 10; A. Kloner 2002, Survey of Jerusalem - The Northeastern Sector, Site 67) was surveyed c. 40 m north of the cistern. It had a rock-hewn treading floor ( $2.6 \times 2.6 \mathrm{~m}$, depth 0.65 m ); niches and a collecting vat ( $0.90 \times 0.95$ $\mathrm{m})$ were hewn in its southeastern side.

These agricultural installations were probably used from the Early Roman through the Byzantine periods.


## 1. Location map of the excavation areas.





5. Area B, winepress.

6. Area B, terrace wall, plan and section.






1. Map of the surveyed sites.

2. Cross carved on a stone in one of the walls.

## (Volume No. HA-ESI 120 (2008 Jerusalem, Survey of Nahal Darga Final Report

Zubair 'Adawi, Anna Eirikh-Rose and Bilal Tori
During February 2006 a survey was conducted in Nahal Darga, in southeast Jerusalem (Permit No. A-4731*; map ref. NIG 22220-320/62530-60; OIG 17220-320/12530-60), prior to the construction of the Har Homa (East) road. The survey, carried out on behalf of the Antiquities Authority and financed by the Ministry of Construction and Housing, was performed by Z. 'Adawi, A. Eirikh-Rose and B. Tori.

In the surveyed area ( $0.05-0.10 \times 1 \mathrm{~km}$ ), east of Kh. Umm Tuba, north of Kh. Luqa and on the slope of Kh. Mazmuriya (Fig. 1), 56 sites that most likely belonged to these three ruins were documented. Among the features surveyed were stone quarries, agricultural installations, hewn caves (Sites 1, 4, 5, 11, 14, $23,24,28,29,39)$, natural caves, some of which were probably used as dwellings ( $7,9,12,20,54$ ) and some for burial $(17,21)$, and cupmarks $(2,6,8,16,36,38)$. Walls that were apparently used as animal pens were discovered in the courtyards of two caves. At the bottom of the Kh. Mazmuriya slope, agricultural terraces whose fieldstone walls have survived to a height of $2-3$ courses $(3,15,18,19,26$, $27,35,42-53,55,56$ ) and in one instance, the terrace wall was constructed on top of building remains (3) were surveyed. A system of dams (22) and fieldstone walls that probably belonged to buildings or watchtowers (1a-4a, 25, 41) was documented in the wadi between Kh. Luqa and Kh. Mazmuriya. A cross was carved on one of the stones (26; Fig. 2). Six rock-hewn winepresses (10, 30$33,40)$ were also surveyed.

A few of the potsherds gathered in the survey dated to Iron II and the Roman and Early Islamic periods, but the vast majority were from the Byzantine period. A rich concentration of sherds in one of the sites probably indicates the existence of a pottery kiln (1a).

The dense concentration of installations of this nature bears witness to the extensive agricultural use of the region, particularly in the Byzantine and Early Islamic periods.


1. Map of the surveyed sites.


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Jerusalem, Shikune Nusseiba Final Report


1. Quarry A, plan and section.

2. Quarries B and C, plans and sections.

3. Quarry B, looking northeast.

4. Iron adzes.

5. Coin (photograph).

Yonathan Mizrachi
28/5/2008
During September 2004 a salvage excavation was conducted in Shikune Nuessiba at Beit Hanina (Permit No. A-4251*; map ref. NIG 22063-80/63748-68; OIG 17063-80/13748-68). The excavation, on behalf of the Antiquities Authority, was directed by Y. Mizrahi, with the assistance of V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (field photography), C. Amit (studio photography), C. Hersch (pottery drawing) and G. Bijovsky (numismatics).
The excavation was carried out in three quarries (A, B, C); Quarry A was c. 8 m distance from Quarry B and the latter was c. 4 m from Quarry C.

## Quarry A

The western quarry ( $14 \times 17 \mathrm{~m}$; Fig. 1) was composed of three step quarries; between the two northern quarries (Loci 110,112 ) was an unworked area. The northwestern terrace (L112; $5 \times 6 \mathrm{~m}$ ) had five steps and in the northwestern corner was an undetached stone. The northeastern terrace (L110; $3.5 \times 4.5 \mathrm{~m}$ ) had six steps and the third step quarry in the southeast ( $\mathrm{L} 106 ; 4.0 \times 4.5 \mathrm{~m}$ ) had four steps.
A hewn area between the northern and southern step quarries had indications of using explosives, which was a common quarrying method during the nineteenth and twentieth centuries CE. Ancient rock-cuttings had probably existed in this area, although the modern quarrying activity eradicated any trace of them.
On the floor of the quarry were fragments of pottery vessels from the Byzantine period, such as a bowl (Fig. 2:1).

## Quarry B

The main quarry (Loci 104, 108; $8 \times 12 \mathrm{~m}$; Figs. 3, 4) was a large courtyard quarry, composed of a single progressively hewn cavity. A niche in the eastern corner that protruded into the quarry's area had been created when the corner was only partly cut away. The area of the quarry became narrower from step to step, down to the level of the floor ( $3.4 \times 5.5$ $\mathrm{m})$.
Among the finds recovered from the floor of the quarry were two iron adzes (Fig. 5), a jar from the Byzantine period (Fig. $2: 2$ ) and two tiny bronze coins that dated to the first half of the sixth century CE. One of the coins (IAA 80662) is quite worn and the other is a Vandal nummis that was minted in Carthage and has a monogram on its reverse side (IAA 80661; Figs. 6, 7).

## Quarry C

The northern and smallest quarry (L102; $4.2 \times 7.0 \mathrm{~m}$ ) consisted of four steps. The second, third and fourth rows of stones were only hewn on the southeastern part of the quarry, so that the work area became smaller toward the bottom of the quarry (second step $2.3 \times 2.4 \mathrm{~m}$; fourth step $1.0 \times 1.9 \mathrm{~m}$ ). Judging by the severance channels, it is estimated that over one hundred stones (presumed stone size $0.35 \times 0.65 \mathrm{~m}$ ) were removed from the quarry. Detachment marks around the removed stones show that many of them were damaged.

The signs of severance channels and the diagonal grooves that appear on most of the quarries' sides indicate that rockcutting was accomplished by chiseling severance channels around the stone. Thereafter, when the stone was mostly detached, an iron bar was used for its final extraction, as evinced by the two iron axes recovered from the quarry.
A white layer discovered on top of bedrock in all the quarries was debris from rock-cutting and stone dressing that indicated the latter was performed in the quarries themselves and not at the construction sites, thus avoiding the transportation of crude and heavy stone blocks.
The ceramic finds show that quarrying activities occurred in Quarries A and B during the Byzantine period and it seems that Quarry C was used in this period as well. The signs of explosions in Quarry A indicate that the quarry was used in recent centuries.



4. Quarry B, looking northeast.

5. Iron adzes.

6. Coin (photograph)

1. Reg. No. 1034, L108, IAA 80661, Fig. 7.

Vandalic, first half $6^{\text {th }}$ century CE, Carthage.
Obv: ]ANA[ Bust r., pearl-diademed, cuirassed and draped.
Rev: Monogram $\mathbb{N}$
Æ, $n$ ummus, $\downarrow, 0.68 \mathrm{gr}, 8 \mathrm{~mm}$.
BMCV:33, No. 139.

BMCV: W. Wroth. Catalogue of the Coins of the Vandals, Ostrogoths and Lombards and the Empires of Thessalonica, Nicaea and Trebizond in the British Museum. London 1911.*
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1. Location map.

2. Plan and section.

3. The foundation of the floor, section.

Tawfik De'adle
During October 2003, a salvage excavation was conducted in the Old City of Jerusalem, on Ha-Remakhim Street, in the compound of the Austrian Hospice (Permit No. A-4018*; map ref. NIG 222103/631984; OIG 172103/131984), following the collapse of a retaining wall that surrounded the hostel's courtyard (Fig. 1). The excavation, carried out on behalf of the Antiquities Authority and financed by the Austrian Hospice, was directed by T. De'adle, with the assistance of T. Kornfeld (surveying) and I. Lidski (pottery drawing).
In the wake of the retaining wall collapse, a corner of a room that was paved with a coarse mosaic was exposed (L101; 1 $\times 2 \mathrm{~m}$; Fig. 2). The floor consisted of relatively large tesserae ( $2.5 \times 2.5 \times 3.0 \mathrm{~cm}$ ) bonded with light gray cement and founded on a layer of stream pebbles bonded with dark gray cement (Fig. 3). The tesserae were arranged in two ways: diagonal rows in the center of the carpet, whereas the rows along the edges were straight and met at right angles in the corner of the room. The northern side of the floor abutted a wall (W100; $0.33 \times 1.45 \mathrm{~m}$ ), oriented east-west, which was survived by a single course of ashlar stones with a core of small fieldstones. Based on the placement of the tesserae, it seems that an eastern wall had once existed but was not preserved. The floor and the wall were founded on fill that sloped from the east westward (Loci 104, 107).

Two pottery assemblages were found below the floor, one atop the other. The upper assemblage was right below the floor (L104) and contained fragments of pottery vessels that dated to the first century CE, including thin bowls (Fig. $4: 1$, 2), cooking pots (Fig. 4:3-6), jars (Fig. 4:7-9), a jug (Fig. 4:10), a juglet (Fig. 4:11), a flask (Fig. 4:12) and a pared lamp (Fig. 4:13). The lower assemblage (L107), contained fragments of pottery vessels that included a red slipped, wheelburnished bowl (Fig. 5:1), a burnished krater (Fig. 5:2) and jars (Fig. 5:3, 4) that dated to Iron II and a jar (Fig. 5:5) dating to the Hellenistic period.
A third assemblage in the fill above the floor (L101) was dated to the Byzantine-Umayyad transition period, between the sixth and eighth centuries CE and included Fine Byzantine Ware bowls (Fig. 6:1, 2), a cooking pot (Fig. 6:3), a bagshaped jar (Fig. 6:4), jugs (Fig. 6: 5, 6), a FBW jug with a trefoil rim (Fig. 6:7) and a fragment of a zoomorphic vessel (Fig. $6: 8)$. While cleaning the upper part of the section that had been disturbed by a modern sewer, other potsherds were found, including a jug (Fig. 6:9) and a lamp (Fig. 6:10) that dated to Byzantine-Umayyad transition period and a jar neck with a stamped impression (Fig. 6:11) that dated to the Mamluk period.

Due to the limited scope of the excavation, it was impossible to determine the nature of the architectural finds. The pottery vessels discovered below the mosaic floor and the wall indicate that their construction can be dated to the first century BCE-first century CE. The floor and the wall probably continued in use during the Byzantine-Umayyad transition period.


1. Location map.

2. Plan and section.



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3. Plan and section.

During February 2005, a salvage excavation was conducted along the Shu'fat Ridge in Jerusalem (Permit No. A-4381*; map ref. NIG 22055-110/63560-70; OIG 17055-110/13560-70), prior to construction in the Ramat Shelomo neighborhood. The excavation, on behalf of the Antiquities Authority, was directed by Y. Mizrahi, with the assistance of $T$. Kornfeld (surveying and drafting) and $T$. Sagiv (photography).
At the southwestern end of a bedrock slope that had been damaged during development work, an area ( $2 \times 2 \mathrm{~m}$ ) excavated down to natural bedrock (depth c. 3 m ), was opened. An irregular rock-hewn niche ( $1.5 \times 1.6 \mathrm{~m}$, height 1.1 m Fig. 1) was discovered; its entrance (height c. 1.1 m , width c 0.9 m ) was provided with a step (height 0.1 m ). It seems that the niche was used for storage or was part of an installation, whose continuation to the west was not preserved. Non-diagnostic potsherds were found in the northeastern corner of the niche.



1. Map of the survey sites.

2. Site 37, burial cave at Kh. er-Ras.

3. Sites 44-45, quarries at Kh. er-Ras.

4. Typical stone clearance heap.

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Anna Eirikh-Rose and Michal Birkenfeld
During February-March 2006, a survey prior to development was conducted in the Ramot Forest of the Ramat Shlomo neighborhood in Jerusalem (Permit No. A-4716*; map ref. NIG 22000-225/63475-650; OIG 17000-225/13475-650). The survey, carried out on behalf of the Antiquities Authority and financed by the Moriya Company, was performed by A. Eirikh-Rose and M. Birkenfeld, with the assistance of Y. Baruch and O. Barzilai.
Approximately 75 dunams (Fig. 1) were surveyed in the Ramot Forest in northern Jerusalem. Two main ruins were found, Kh. el-Masani (cf. A. Kloner 2000, Survey of Jerusalem: The Northeastern Sector, Site 137), in whose precincts the remains of a rock-hewn church, buildings and agricultural installations were documented, and Kh. er-Ras (Survey of Jerusalem: The Northeastern Sector, Sites 102-103, 112-114, 116-118) where an impressive rock-hewn burial cave and a large complex of quarries were discerned. One hundred forty-six sites were documented, among them the remains of buildings, cisterns, rock-hewn installations, burial caves, quarries, stone clearance heaps and a complex system of terraces. Some of the sites date to the Second Temple period. In addition, an area where an extensive scatter of flint implements, whose dates have not yet been determined, was surveyed.

At Kh. el-Masani remains of a hewn church (Site 60), which was documented in the Survey of Jerusalem and subsequently excavated ('Atiqot $40: 17^{*}-23^{*}$ ), were found. Next to the church were massive walls and various agricultural installations, such as cisterns and other rock-hewn installations, which indicate a monastery was probably located there.

South of Shu'fat, an impressive burial cave (Site 87; Fig. 2) that was also documented in the Survey of Jerusalem (A. Kloner 2000, Survey of Jerusalem- The Northeastern Sector: Site 117) was surveyed. The cave, incorporated into a large stone quarry, has a large courtyard and a round opening that is decorated with incisions. Other rock-hewn caves (Sites 24, 25, 73, 74, 89) were surveyed, some of which were probably used for burial. Four natural caves (Sites 13, 50, $94,116)$ that were used by shepherds as dwellings and/or storehouses were also found in the area.

The most striking finds in the eastern sector of the survey were the large stone quarries that extended across an extensive area. Some of them were terraced while others were courtyard quarries. Among them, the more elaborate ones located south of Shu'fat (Sites 38, 44; Fig. 3) covered a large area with vertical walls that stood 3 m high (A. Kloner 2000, Survey of Jerusalem - The Northeastern Sector, Site 116).

A smaller quarry was found in the southern sector (Site 92) and isolated rock-cuttings were noted throughout the surveyed area (Sites 14, 15, 17, 18, 20, 34, 72, 130).

Agricultural installations were identified in the survey, including rock-hewn cisterns (Sites 27, 62, 80); in one site (62) the remains of a hewn aqueduct that conveyed water to a cistern were discerned. In the southern region five winepresses (Sites 19, 35, 41, 42, 64) were discovered. A number of rock-hewn installations (e.g., Site 90) were documented, as were several cupmarks (Sites 53, 88, 115, 127), whose dates are unclear.

Various buildings were documented in the survey (Sites 9, 16, 82, 101, 109-111, 113, 124, 128, 131-133, 137, 146), some of which can be identified as field structures and watchtowers. Most were located in the northwestern sector where a number of buildings with massive walls were identified; large amounts of pottery dating to the Iron Age and the RomanByzantine period were scattered around them.

Stone clearance heaps (Fig. 4) were documented in the survey areas; these ranged from several meters to $10-12 \mathrm{~m}$ in diameter (Sites 1, 2, 5, 10, 12, 28, 31, 39, 55, 59, 65-67, 69, 70, 79, 85, 86, 91, 103, 106, 112, 114, 118, 120, 135, 136, 140, 143-145, 148). Enclosure walls could be discerned in some of them. Only in a few of the heaps were potsherds discovered, usually dating to the Byzantine period.

Terrace walls were documented on most of the slopes; some were up to c. 100 m in length, while others were shorter (Sites 3, 6, 7, 11, 21, 22, 33, 40, 43, 57, 58, 71, 76, 78, 81, 83, 92, 96-97,100, 102, 104, 105, 107, 108, 117, 119, 123, $125,126,142)$. Most of the terrace walls were preserved one-two courses high.

Walls delimiting cultivation plots and/or animal pens were documented across the slopes.
Two dense concentrations of finds that were not connected to architectural remains were found in the surveyed area. One, in the southeastern sector, contained a large amount of Roman-Byzantine pottery and flint items, while the other, in the northwestern sector, consisted of a large amount of non-diagnostic flint items (Site 141).

A fairly extensive concentration of sites was documented in the survey. In most instances it was not possible to determine the exact boundaries of the sites or to date them with precision. In any case, the region was inhabited for many centuries, during which it served as part of the agricultural hinterland of Jerusalem.


1. Map of the survey sites.

2. Site 37, burial cave at Kh. er-Ras.

3. Sites 44-45, quarries at Kh. er-Ras.

4. Typical stone clearance heap.
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Annette Nagar

5. Location map.

6. General view of the excavation area.

During September 2006, a trial excavation was conducted in Nahal Refa'im (Permit No. A-4904*; map ref. NIG 21472/62782, OIG $16472 / 12782$ ), prior to the preparation of a hikers' route below the railroad track. The excavation, on behalf of the Antiquities Authority, was directed by A. Nagar, with the assistance of R. Abu-Halaf (administration), T. Kornfeld (surveying), T. Sagiv (photography), I. Berin (final plans) and H. Khalaily (flint implements).
The excavation was undertaken along the slope of a hill next to the western side of the Nahal Refa'im stream channel (Figs. 1, 2). The single opened square revealed the remains of a building that dated to the Chalcolithic period (Fig. 3).

Two walls (W1, W2), a level of fieldstones (L103) and a bedrock floor (L105; Figs. 4, 5) were excavated. Wall 1 (length 3.5 m ), oriented east-west, was built of different-sized fieldstones and preserved three courses high (c. 0.5 m ). Wall 2 (length 1.7 m , width 0.7 m ), which abutted W 1 on the south, was built of two rows of small to medium-sized fieldstones and preserved two courses high $(0.35 \mathrm{~m})$. The fieldstone level (L103) abutted W2 on the east. Each of the walls was built on top of a hewn bedrock step (northern-width 1.65 m , height 1.15 ; eastern-width 1.7 m , height $7-30 \mathrm{~cm}$ ). The hewn steps enclosed the flat and leveled bedrock Floor $105(2.25 \times 2.25 \mathrm{~m})$, which continued beyond the limits of the excavation.
The finds recovered from the excavation included potsherds from the Chalcolithic period (fifth-fourth millennia BCE), a few potsherds from the end of the Byzantine period, as well as a basalt vessel and flint implements from the Chalcolithic period. The preservation of the flint items, which included sickle blades, bladelet cores and many flakes, indicates that they were apparently found in situ or brought to the site from nearby ( $10-15 \mathrm{~m}$ ), further up the slope. Near the northeastern corner of the excavation, a cluster of eight-ten white industrial tesserae was discovered, possibly indicating the presence of nearby remains that were later than the Chalcolithic period.

3. Plan and sections.

4. General view of the excavation, looking northeast.

5. Bedrock Floor 105 and Level of Stone 103, looking east.


1. Location map.

2. General view of the excavation area.


3. General view of the excavation, looking northeast.

4. Bedrock Floor 105 and Level of Stone 103, looking east.
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## Jerusalem, Arnona

## Final Report



1. Location map.

2. The center of quarry, looking east.

3. Rock-cutting 108 in center of quarry, looking south.

4. Pottery.

5. A jar handle with a LMLK stamped impression.

## Annette Nagar

During May 2006, a salvage excavation was conducted near Kefar 'Ezyon Street in the Arnona neighborhood of Jerusalem (Permit No. A-4785*; map ref. NIG 22130-3/62835; OIG 17130-3/12835; Fig. 1), prior to the construction of the new American Consulate. The excavation, on behalf of the Antiquities Authority, was directed by A. Nagar, with the assistance of R. Abu-Halaf (administration), V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (photography), Y. Nagar (physical anthropology), I. Berin (final plans), J. Bukengolts (pottery restoration) and C. Hersch (pottery drawing).
Two excavation areas (A, B), 30 m apart, were opened on a slope that descends eastward (Fig. 2). Seven and a half squares were excavated in Area A, the lower of the two, revealing a quarry and a hewn pit whose ceramic finds mostly dated to the Early Roman period. A single square was excavated in Area B where several rock hewn pits were discovered. This area was opened next to the northern wall of a building that had been exposed in a previous excavation (HA-ESI 119). Other antiquities excavated in the area included burial caves (A. Kloner, 2001, Survey of Jerusalem, the Southern Sector: Sites 70-72), a storage cave and a quarry from the Second Temple period (Permit Nos. A-4325, A-4383), as well as a section of the Lower Aqueduct to Jerusalem (Permit No. A-2616).
Area A (Fig. 3). Evidence of quarried, different-sized square stones ( $0.65-0.80 \times 0.35-0.40 \mathrm{~m}$ ) and remains of severance channels around them (width 3-10 cm, depth 2-8 cm ) were exposed in a large quarry (L100; c. 140 sq m ; Fig. 4). In the middle of the quarry was a square hewn surface, delimited by quarried bedrock walls (L108; $1.55 \times 1.60 \mathrm{~m}$, depth $0.1-0.5 \mathrm{~m}$; Fig. 5) whose function is unknown. Eight pits of different sizes (Loci 101, 103A, 103B, 104A, 104B, 106, 107A, 107B; Figs. 6-8), whose function is unclear, were hewn in the surface of the quarry. A large partly hewn pit (Loci 105,$112 ; 6.0 \times 6.8 \mathrm{~m}$, depth 2.5 m ; Fig 9) was discovered west of the quarry. It contained a probably intentional fill that consisted of various-sized roughly hewn masonry stones, fieldstones, a few animal bones and ceramic finds; a few dated to Iron II, including a bowl (Fig. 10:1) and the majority was from the Early Roman period (first century BCE-first century CE), including cooking pots (Fig. 10:2, 3), jars (Fig. 10:4-6) and a jug (Fig. 10:7). The excavation of the pit was cut short by a fraction of extremely orthodox Jews. While using mechanical equipment for the exposure of the site prior to the excavation, a jar handle, bearing a LMLK stamped impression and dating to the end of the eighth century BCE (Figs. $10: 8 ; 11$ ), was discovered c. 7 m east of the quarry. A four-winged scarab is impressed below the word LMLK.

Area B (Fig. 12). Three round pits hewn in limestone bedrock were discovered (L109-0.23 $\times 0.31$, depth 0.47 m ; L110- $0.47 \times 0.59 \mathrm{~m}$, over 0.85 m deep; L111A- $0.38 \times 0.42 \mathrm{~m}$, depth 0.16 m ). The pits seem to have been connected to a building that was dated to the Second Temple period and had been previously exposed nearby (HA-ES/ 119).


1. Location map.


2. The center of quarry, looking east.

3. Rock-cutting 108 in center of quarry, looking south.

4. Hewn depressions 103A and 103B, looking north.

5. Hewn depressions 104A and 104B, looking north.

6. Hewn depressions 107A and 107B, looking north.

7. General view of the hewn pit, looking north.


8. Area B, plan

## (Volume No. HA-ESI 120 (2008 Jerusalem, City of David

During May 2005, a trial excavation was conducted in a private lot in the City of David in Jerusalem (Permit No. A-4453; map ref. NIG 22228/63084; OIG 17228/13084), after ancient remains were detected during an antiquities inspection, performed by A. Nagar, prior to development work. The excavation, carried out on behalf of the Antiquities Authority and financed by the El'ad Association, was directed by Z. Greenhut, with the assistance of T. De'adle (assistance in field; administration), R. Abu Khalaf (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (field photography), the Mabat Company (three-dimensional imaging), S. Al-'Amla (metal detection), Y. Baruch (coordination of field work), N. Zak (drafting), C. Amit (studio photography) and R. Vinitsky and L. Kupershmidt (metallurgical laboratory).

The lot is located at the bottom of the western slope of the Tyropoeon valley, opposite Birkat al-Hamra to the west and c. 650 m above sea level. An escarpment in its western part rises to a height of 13 m above the lot. The lot is located about half way between Kenyon's excavations in Area O, near the Shiloah Pool, and Area F, where Nahal Qidron meets the Tyropoeon valley higher up the slope (K.M. Kenyōn 1974, Digging Up Jerusalem, London and Cambridge, p. 90, Fig. 18).

Three soundings, from west to east, were opened in the area at the foot of the escarpment, which in itself was documented.

A series of rooms that belonged to one building was arranged in stories on the escarpment and its foot. The rooms descended from north to south in accordance with the natural topography of the hill. The upper story was survived by the hewn bedrock terraces, which were apparently the floors of the upper story's rooms.

The middle story had at least three rooms that were built on the slope from north to south. Their western part was hewn bedrock and the western side was arched, indicating their original shape was probably vaulted.
The bottom story included another complex of rooms, built on the slope from north to south, of which two rooms were partly excavated. A raised niche that served as a closet or pantry was in the southern room, as well as remains of molded plaster.
A staircase led from the floor of the building to the basement of the house, which was vaulted and coated with gray plaster, characteristic of the Second Temple period.
The finds recovered from the excavation seem to indicate that the architectural complex dated to the time of the Second Temple period (first century BCE-first century CE).
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Jerusalem, Ras el-‘Amud Final Report

2. Pottery and stone finds.

During August 2004, a salvage excavation was conducted in the Ras el-'Amud neighborhood (Shikunei Nusseiba) of East Jerusalem (Permit No. A-4232*; map ref. NIG 22335/63350; OIG 17335/13350), in the wake of damage to an ancient building while preparing the area for construction. The excavation, on behalf of the Antiquities Authority, was directed by I. Zilberbod, with the assistance of R. Abu Halaf (administration), V. Essman, V. Pirsky and T. Kornfeld (surveying and drafting), T. Sagiv (field photography), C. Amit (studio photography), C. Hersch (pottery drawing) and D.T. Ariel (numismatics).
The center and most of the western part of the exposed ancient building were destroyed.
The foundations of an elongated room and remains of rooms that surrounded it were preserved in the eastern side. Sections of a coarse white mosaic were found on the floor of the elongated room ( $4.5 \times 12.5 \mathrm{~m}$; Fig. 1), which was oriented north-south, and on the floors of the surrounding rooms. The walls of the elongated room were built of ashlar stones (thickness $0.8-0.9 \mathrm{~m}$ ) and coated with plaster on the interior and exterior. The inner plaster layer was gray and incised with herringbone pattern that was apparently meant to stabilize the upper plaster layer, which had flaked off completely. An engaged pilaster (width 0.8 m ) in the southern part of the western wall (W2) protruded from the wall, c. 0.4 m in the south and 0.25 m in the north. A door threshold (L17; width 2 m ) was set in the eastern wall (W1); it protruded slightly into the room and had two low steps that descended into the room to the east.
The eastern room was survived by a section of the northern wall (W9) and a threshold (L27). The southern wall (W10) was destroyed to the level of its foundation. The floor of the room was c. 0.3 m lower than the floor of the western room. A rock-hewn drainage channel (L28) was exposed south of the elongated room and adjacent to the southern wall (W3), which seems to have delimited the complex from the south.
A narrow strip was excavated southwest of W3 and the drainage channel, where the remains of a stone pavement (L13) that may be an outer courtyard of the building and a section of a quarry (L12) were exposed.
North of and adjacent to the elongated room was the southern part of a room of similar width that was paved with a mosaic (L25). Remains of a threshold that protruded into the room were set in its eastern wall (W4).
Remains of two perpendicular walls (W6, W7) and the remains of a mosaic pavement in their corner (L23) were found to the west of the elongated room. The western wall (W7), built next to a rock-cutting, was apparently the bounds of the entire complex on that side.

The ceramic finds on top of the floors dated to the Byzantine period and included bowls (Fig. 2:1-3), a cooking pot (Fig. 2:4), jars (Fig. 2:5-7) and a complete lamp (Fig. 2:9). Glass vessels from the Late Byzantine-Umayyad period were also found.
Fragments of ceramic pipes (Fig. 2:8), a marble chancel screen (Fig. 2:10) and a stone table (Fig. 2:11) were recovered from the stone collapse and soil fills.

The architectural finds and small artifacts indicate that the partially preserved building belonged to one of the monasteries along the desert frontier in the Byzantine period.


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1. Quarry, plan and sections.

2. Quarry, general view to the west.

3. The geological fissure, looking north.

4. Courtyard Quarries 1011, 1012, looking north.

5. Metal artifacts.

## Rahel Bar-Natan

During June 2006, a salvage excavation was conducted in the Sanhedriya neighborhood of Jerusalem (Permit No. A-4827*; map ref. NIG 22080-5/63386-90; OIG 17080-5/13386-90), in the wake of construction work. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by R. Gutel, was directed by R. Bar-Natan, with the assistance of R. Abu Halaf (administration), A. Hajian and T. Kornfeld (surveying), T. Sagiv (field photography), D. Levite (geology), C. Amit (studio photography), L. Kupershmidt (metallurgical laboratory) and C. Hersch (drawing of pottery and metal artifacts).
An ancient masonry stone quarry, oriented east-west, was exposed in an elongated, rectangular lot ( $5.5 \times 20.0$; Figs. 1, 2). The quarry area was larger than that of the excavation and extended below the level of modern buildings. The lot was surrounded by three residential buildings and its western side faced the Sanhedrin Street. The quarry abutted on the southern end of the Second Temple period Sanhedrin tombs (today the Sanhedrin Park), between which extensive ancient quarries were also discovered. As a matter of fact, most of the burial caves in the Sanhedriya region were hewn in bedrock walls that were quarries (A. Kloner, 2002, Survey of Jerusalem, the Northeastern Sector, Sites 142-145, 219).

The limestone bedrock in the region of the Sanhedrin Park is meleke of the Bina Formation, dating to the Turon Epoch. The meleke was preferred for quarrying, as well as for the preparation of masonry stones used in the monumental construction in Jerusalem, due to its coarse crystallized texture and relative softness. Running widthwise across the center of the quarry (L1013) was a natural fissure, generally aligned north-south (Fig. 3), which was a karstic void, created by a dissolution process, of the kind that is very common in the Bina Formation.

The remains of the quarry were preserved in close proximity to surface, which slopes from east to west (depth of the rock-cutting $2-5 \mathrm{~m}$ ). Parts of the quarry were apparently exposed when modern construction had occurred in the area in the 1930s. Modern debris made its way into most of the quarrying pits and some of the pits were filled with debris up to the level of the original quarrying.

Several quarried units of various sizes (Loci 1011-1016), hewn as small 'courtyard quarries', were found at the site (Z. Safrai and A. Sasson, Quarrying and Quarries in the Land of Israel at the Time of the Mishnah and Talmud, 2001, pp. 45). The eastern part of the quarry was hewn to a depth of c. 2 m ; it seems that once the quarrying of the hard limestone terminated, the quarrymen did not continue hewing the deeper soft limestone, but moved on to a new area. The two eastern courtyard quarries (Loci 1011, 1012; Fig. 4) were rectangular and surrounded by bedrock walls that remained dressed, straight and vertical after the quarried stones were extracted for construction. The rectangular Courtyard Quarry $1011(4 \times 5 \mathrm{~m})$ was surrounded by four bedrock walls that formed a hewn courtyard ( $3 \times 3 \mathrm{~m}$ ). Four steps (height 0.170.39 m ) were hewn in the northern wall (W 1031). Courtyard Quarry 1012 was smaller ( $3 \times 4 \mathrm{~m}$ ) and had a small rockhewn courtyard ( $1.5 \times 2.0 \mathrm{~m}$ ). Based on the marks of rock-cuttings that remained in the area it appears that the hewn and dressed stones had various sizes (length $0.6-0.8 \mathrm{~m}$ up to 1.0 m , width $0.3-0.5 \mathrm{~m}$, height $0.17-0.42 \mathrm{~m}$ ). An iron quarrying chisel (Fig. 5:1) was found on one of the hewn steps (W 10314) in Courtyard Quarry 1012. A nail (Fig. 5:2) and a bent stake (Fig. 5:3) that may have been used in quarrying were found in nearby units Locus Nos. 1016, 10115. A bedrockhewn corner, whose western and southern walls were exposed (L1017; $1.5 \times 2.0 \mathrm{~m}$ ) and its leveled bottom was at a depth of c .0 .4 m below surface, was discovered in the northeastern part of Quarry 1011. The corner seems to have been intentionally blocked with stones or stone collapse, but the limited excavation area precluded from ascertaining its nature. It is unclear if this was the corner of a building, a courtyard or a tomb, or part of the quarry.
Large blocks of rock in different quarrying stages had remained in the vicinity of the geological fissure in the center of the quarry (Loci 1013, 1014); severance channels were clearly visible (Figs. 3, 6).
At the western end of the quarry, at the bottom of the western slope, the quarrying had become deeper (W 1039) and was terraced in three steps to a depth of c. 5 m (Loci 1016, 10112, 10116, 10117; Figs. 1, Section 2-2; 7).
The quarry was covered with gravel debris after it was no longer used (Fig. 1, Section 2-2), indicating that the stones were dressed on site. The deep western quarry pit was especially filled with large quantities of gravel and large stones, among them an almost square ashlar stone ( $0.87 \times 0.95 \mathrm{~m}$, height c .0 .41 m ) that was left behind, apparently because it was not fit for construction (Fig. 6). At the last phase of the quarry, it was covered with a farming terrace of terra rossa soil that was retained by W10311 (Fig. 8), which was built into the gravel layer.

It seems that the quarry was operated in the Roman period. The quarrying debris was devoid of coins and potsherds and the modern debris that had penetrated into the quarry made it difficult to date it. The dating was determined on account of a few pottery fragments from the end of the first century BCE-first century CE, which were found on the bottom of the quarry units (Loci 1011-1014, 1016), including small bowls with an everted rim (Fig. 9:1, 2), a cooking pot with a triangular rim (Fig. 9:3), jars with a thickened rim (Fig. 9:4-6), and the base of a jug (Fig. 9:7). Because of the quarry's proximity to the Sanhedrin tombs of the Second Temple period, it can be assumed that the quarry was contemporary with them.
The exposed quarry has several characteristics that are consistent with a small courtyard quarry. Typical to such quarries was a variety of small-sized units that enabled the division of work among a small number of laborers. The quarrying methods involved severance channels that were marked by a chisel, weighing 2.35 kg . The stones were probably extracted from bedrock with the aid of hammers and chisels. Signs of wood or water usage were not discerned, since they were not necessary for the easily quarried meleke bedrock. Based on the stone left behind in the area and the quarrying debris, it seems that the dressing was done on site. The quarrying in the western section that is located on the slope was done on steps, which provided access to the stone in the bedrock's facade ('Atiqot 55:37-44 [Hebrew], for an extensive discussion about quarries and quarrying methods).

The exposed quarry joins other large masonry stone quarries of the Second Temple period in northern Jerusalem. The region of Sanhedriya-Mahanayim has an abundance of ancient quarries, whose stones were utilized in the public construction of Jerusalem (A. Kloner, 2003, Survey of Jerusalem, the Northwestern Sector, p. 34). The quarry was probably used in the second century CE as well. The farming terrace that covered it (Loci 1015, 10111, 10113, 10115) contained potsherds, dating to the Iron Age, including bowls (Fig. 10:1-6), holemouths (Fig. 10:7, 8), juglets (Fig. 10:9, 10), a stand (Fig. 10:11) and a lamp (Fig. 10:12); to the Late Hellenistic period, including a bowl with a rim folded inward (Fig. 9:8) and a jar (Fig. 9:9) and the Early Roman period, including a jar with a square rim (Fig. 9:10) and a jug (Fig. 9:11). It seems that the ceramics originated in the agricultural soil that was brought from nearby sites. A ridged jug (Fig. 9:12), a trefoil mouth of a jug (Fig. 9:13) and particularly a krater with a ledge rim (Fig. 9:14), which were discovered at the bottom of the quarry and dated to the first-second centuries CE, indicate that the quarry was used at least until this time period and afterward the region was utilized for farming. With the renewal of construction in the 1930s, as well as in 1967, the builders damaged the quarry and probably quarried new stones for local building needs.


1. Quarry, plan and sections.

2. Quarry, general view to the west.

3. The geological fissure, looking north.

4. Courtyard Quarries 1011, 1012, looking north.

5. Metal artifacts

6. Rocks in different stages of quarrying, looking east.

7. Rock-cutting in steps and quarry debris in the section, looking northeast.

8. Retaining wall W10311 of the farming terrace above Quarry 1012, looking north.

(G)
(0)



9. Pottery from the Hellenistic and Early Roman periods.


10. Plan and section.

11. The treading floor and the shelf, looking northeast.
(Volume No. HA-ESI 120 (2008

## Jerusalem, Har Homa

Final Report
Zubair 'Adawi
During November 2006, a salvage excavation was conducted in the Har Homa neighborhood in southern Jerusalem (Permit No. A 4933*; map ref. NIG 221428-40/626086-97; OIG 171428-40/126086-97), prior to paving a road. The excavation, carried out on behalf of the Israel Antiquities Authority and financed by the Ministry of Housing and Construction, was directed by Z. 'Adawi, with the assistance of R. Abu Halaf (administration), T. Kornfeld (surveying), T. Sagiv (field photography), A. Nagar (GPS), S. al-Amlah (metal detection) and R. Kool (numismatics).
A winepress and a nearby underground cavity were discovered on a northern slope of Giv'at Homa, where agricultural installations and farming terraces had previously been found (Kloner A, 2000, Survey of Jerusalem, the Southern Sector, Sites 129, 131). A monastery from the Byzantine period was excavated at the top of the hill (Jebel Abu Ghunneim) and to the southwest, at Khirbat el-Qatt, another monastery was explored (Survey of Jerusalem, the Southern Sector, Sites 128, 130). A more recent survey was conducted at the site (HA-ESI 110:95*) and a salvage excavation was undertaken at the Christian settlement Khirbat Umm Tuba, to the northeast of the site (Permit No. A-4397).
The winepress, cut on a moderate bedrock slope, consisted of a square treading floor (L100; $5.0 \times 5.5 \mathrm{~m}$; Fig. 1) that was carelessly hewn at a gentle angle toward the north. The leveling of the floor was meticulous and it was probably paved with a mosaic, as evidenced by the tesserae in the fill that covered it. Part of its eastern side did not survive probably due to the erosion of bedrock. North of the treading floor were two collecting vats (Loci 103, 104; width 1.5 m , depth 1.5-1.8 m ) whose sides were coated with gray plaster (thickness 2 cm ) that was composed of chalk, ash, marl, and fine gravel. The western vat (L103) had a step, c. 0.5 m above its floor. A niche ( $0.2 \times 0.2 \mathrm{~m}$, depth 0.1 m ) was hewn in the upper southern side of the eastern vat (L104). The relationship between the collecting vats was unclear and only the Vat 103 was connected to the treading floor by means of a shallow channel (width $0.2-0.3 \mathrm{~m}$, depth $0.1-0.3 \mathrm{~m}$ ). A shelf (L105; $1.0 \times 6.3 \mathrm{~m}$; Fig. 2) was discovered above the southern side of the treading floor. It continued above the southern part of the western side, whose northern side was made level (L101). It seems that the shelf and the leveled bedrock was the area for placing the grapes prior to pressing.

The winepress was covered with alluvium that originated farther up the slope (L102); it contained modern objects and a small bronze coin of the Byzantine ruler Honorius (408-423 CE; IAA 115108).

The underground cavity (L200) was hewn in bedrock, c. 7.5 m southeast of the winepress. The cavity, which was not excavated, included a rectangular shaft $(0.55 \times 1.15 \mathrm{~m}$, depth $0.6-1.1 \mathrm{~m})$ and a central chamber $(1.75 \times 2.60 \mathrm{~m}, 1 \mathrm{~m}$ height to top of fill in its bottom). Most of the chamber's walls and ceiling had collapsed.

No datable finds were discovered in the winepress and it seems that the provenance of the coin in the alluvium was the Byzantine monastery at the top of the hill. No datable artifacts were revealed in the cavity, which apparently served as an arcosolium tomb.

These remains should probably be considered part of the installations that belonged to the local monasteries or the settlement at Khirbat Umm Tuba, although it is possible they had predated them.


1. Plan and section


# (Volume No. HA-ESI 120 (2008 Jerusalem, Giv‘ati Parking Lot 



1. Location map.

2. Aerial photograph of excavation area.

3. Foundations and walls in one of the Byzantine buildings.

4. Roman roof-tile fragment with production stamp of Tenth Legion.

5. Vaulted basement floor of building from latter part of Second Temple period.

Doron Ben Ami and Yana Tchehanovetz
25/8/2008
During March-October 2007, a season of excavations was conducted in the City of David parking facility (Giv'ati Parking Lot; Permit No A-5071; map ref. NIG 22234/63128, OIG 17234/13128). The excavation, carried out on behalf of the Antiquities Authority and funded by the El'ad Association, was directed by D. Ben-Ami and Y. Tchekhanovets, with the assistance of S. Bachar, N. Nissim Ben-Ephraim, A. Zilberstein and D. Gottreich (area supervision), V. Essman, M. Kunin and M. Kipnis (surveying and drafting), T. Sagiv (field photography), Y. Gecht and M. Cimadevilla (computing), D. Sandhouse (identification of Byzantine pottery) and D.T. Ariel (numismatics). Students from the Institute of Archaeology of the Hebrew University in Jerusalem and other academic institutions took part in the excavations, as well as volunteers from abroad and a group of workers from Silwan and other nearby villages. Special thanks are extended to H. Geva and M. Hershkovitz for their assistance in identifying the pottery vessels.
The excavations were resumed in the aftermath of an initial excavation season that was headed by R. Reich and E. Shukron (HA-ESI 117). The excavation area is located on the northwestern side of the City of David spur, along the eastern fringes of the main valley that delimits the spur on the west (Fig. 1). The excavations are part of a multi annual project whereby the entire area of the car park (c. 5 dunams) should be excavated. It was decided to excavate this season approximately one quarter of the area (Area M1) down to bedrock and establish the stratigraphic and chronological sequence and the different periods (Fig. 2).

Early Islamic Period. The latest remains uncovered in the area, other than the modern remains from the middle of the last century, dated to the Early Islamic period and included four phases from the Abbasid period and another phase, probably from the Umayyad period.

Dwellings and installations discovered in the high, eastern part of the excavation area were part of a residential quarter from the Abbasid period. A system of primary drainage channels, to which secondary drainage conduits were connected conveyed the settlement's sewage westward, to the bottom of the valley. The bottoms of the channels and their sides were coated with a thick layer of plaster; their upper parts were covered with stone slabs. An obvious and significant decrease in the characteristics of the settlement occurred toward the end of the Abbasid period and during its final phase, the area was no longer residential and numerous pits were found dug into it.

Byzantine Period. During this period, the City of David experienced an impressive building boom. It is evidenced by the construction of large buildings, which occupied an extensive area and were part of a residential quarter that was built along the northeastern slopes of the Tyropoeon Valley. The network of streets and drainage channels passing beneath the buildings attests to the meticulous planning of the area.
The earlier of the two Byzantine-period phases (fourth-fifth centuries CE) included a system of large buildings that were distinguished by their planning and impressive foundations, which descended to a great depth, frequently 3 m or more. These foundations formed constructive cells, which were loaded with artificial fill that consisted of soil, gravel and fieldstones. The cells were meant to create artificial surfaces that would facilitate the construction along the western slopes of the City of David spur; they bear witness to the engineering solutions that needed to be devised by the builders of the period.
The impressive foundations bore the walls of the buildings, which were often preserved to the height of the doorways installed in them (Fig. 3). The walls of the buildings consisted of different masonry stones than those used in their foundations. The walls were mostly built of dressed limestone and sometimes, large ashlar stones that were dressed in the typical Herodian style, which alluded to their previous provenance, were incorporated in them. The later phase of the Byzantine settlement (sixth-seventh centuries CE) often followed the plan of the early phase, with slight modifications that included the raising of floor levels, the narrowing of entrances and the addition of other elements that did not alter the basic plan of the building. Elsewhere, more fundamental changes, which differentiated between the two settlement phases, occurred. These included the adaptation of some spaces to the course of the wide street that was established in this phase along the upper part of the Tyropoeon Valley.

Roman Period. The remains of this period were represented by random finds, mostly fragments of pottery vessels without any architectural features. The complete absence of building remains was consistent with the currently known overall archaeological picture of Jerusalem that shows no Roman occupation within the precincts of the Lower City. Numerous Roman roof tiles were noted among the finds of the period, two of which bore the production stamp of the Tenth Legion Fretensis. The wild boar (Fig. 4) symbol of the legion appears on one of the better-preserved stamped impressions.

Second Temple Period. A system of walls and installations that dated to the latter part of the Second Temple period was discovered directly below the complex of Byzantine buildings. This system was part of a large architectural complex that consisted of two main units, a southern and a northern one. A large impressive edifice, whose northeastern corner has only been revealed to date, was in the southern unit. The eastern wall of the building (exposed length over 14 m , thickness c .2 m , height more than 5 m ) was built of large roughly dressed fieldstones, some of which were hundreds of kilograms in weight. The northern wall (width c. 1 m ) was also preserved to a substantial height. The interior portion of the building, within the limits of the excavated area, indicated that the structure was divided into elongated halls, oriented northwest-southeast. The eastern part of three of the halls was exposed and an additional hall seems to have been situated to the south. These halls, standing at least two stories high, continued westward beyond the limits of the excavated area. The vaults that composed the ceiling of the basement floor consisted of neatly worked, white ashlars whose bottom courses were preserved in all the vaults of the discovered halls, while the upper stone courses were found inside the collapse of the building's destruction (Fig. 5). On the interior face of the walls in the story above the vaults, which were also preserved to a considerable height of several meters, remains of the original smooth white chalky plaster that had a different composition than the plaster in the basement floor were still visible. Remains of frescoes, colored in shades of red, yellow and green, with thin black lines, discovered in the building collapse, indicate that the plastered walls were decorated with painted designs.

The northern unit was another wing in the architectural complex, north of and next to the building in the southern unit. It included a number of plastered water installations, some of which were ritual baths (miqwa'ot). The installations were dug into the ground rather than quarried in bedrock. Their sides were fieldstone-built walls, coated with gray plaster that is characteristic of the period; it is apparent that more than one plaster layer was applied to them. As in the main building to the south, the entire area of the wing was not exposed, as it extended beyond the limits of the excavation. Two complete miqwa'ot and a square water cistern that probably supplied water to the baths were discovered. A plastered bathtub was uncovered next to one of the miqwa'ot (Fig. 6).
The building ended in a massive destruction. The enormous fieldstones incorporated in the walls toppled into the structure, bringing down the vaults in the basement floor and the floors of the halls caved in together with the vaults. Both the pottery vessels and the coins indicate that the building was demolished in the year 70 CE, with the destruction of Jerusalem at the end of the Second Temple period.

Hellenistic Period. The architectural remains from this period included a long broad retaining wall that was preserved to a considerable height (c. 3 m ) and floor levels that abutted it on the west. The retaining wall was built of large worked limestone and small fieldstones between them. The earthen fill that accumulated above the floors consisted of a considerable amount of potsherds, which included a wide variety of bowls and a large quantity of imported vessels,
primarily Greek black glazed bowls and Rhodian amphorae, 22 handles of which bore stamped impressions (Fig. 7). The relative absence of building remains from the third-second centuries BCE in Jerusalem underlines the importance of this discovery. Exposing other remains from the Hellenistic settlement within the area slated for excavation will aide in defining the nature of the Hellenistic settlement in the City of David.

Iron Age. The remains of the period, exposed in five strata that represented most of the Iron Age, were founded directly on bedrock, marking the earliest settlement in this part of the City of David. This period was mainly characterized in this area by relatively densely built houses of careless and poor construction. The houses, built of one-stone-wide walls, contained a variety of domestic installations. These indicate a residential quarter that existed in the area during this period.
The early phase of the Iron Age was noted for the use of bedrock the builders had employed for setting the buildings' walls and incorporating it within their built complex of structures. Thus, 'habitation pockets', confined between the buildings' walls and bedrock outcrops, were discovered. This phase was dated earlier than the eighth century BCE, based on the abundance of ceramic finds. The later phase of this period dated to the seventh-sixth centuries BCE. No building remains from Iron I were discovered

The absence of architectural and ceramic remains from the Bronze Age period is especially conspicuous. With the exception of a small number of potsherds from the Middle and Late Bronze Ages, these periods were not present in the excavation area.


1. Location map

2. Aerial photograph of excavation area.

3. Foundations and walls in one of the Byzantine buildings.

4. Roman roof-tile fragment with production stamp of Tenth Legion.

5. Vaulted basement floor of building from latter part of Second Temple period.

6. Ritual baths and water installations in northern wing of building from Second Temple period.

7. Stamped impressions on Rhodian amphora handles.
(Volume No. HA-ESI 120 (2008
Jerusalem, the Garden Tomb
Final Report
Yehiel Zelinger

8. Location map.

9. Plan and section.

10. Wall 502 and the foundation trench, looking southeast.

11. Pottery and other artifacts

During August 2006, an excavation was conducted in the Garden Tomb, north of the Damascus Gate (Permit No. A-4873*; map ref. NIG 22193/63232; (WAR) of Then photography), I. Berin (final plans) and C. Hersch (pottery drawing).

The excavation was conducted south of the natural bedrock outcrop that was identified by General C. Gordon in 1883 as Golgotha, located within the precincts of the Garden Tomb, north of the Damascus Gate (Fig. 1). R. Wyatt conducted an excavation in the 1980s, which revealed a number of subterranean cavities. In the wake of the excavation carried out in 2005 , which cleaned and documented the cavities (HA-ESI 118), a square ( $5 \times 7 \mathrm{~m}$ ) was opened for the purpose of exposing the remains from surface to the underground cavities. Meager remains of agricultural installations that dated to the Roman and Byzantine periods were exposed.

## Stratum 1

A wall (W502; $0.35 \times 4.50 \mathrm{~m}$, height 1.2 m ; Figs. 2, 3), built of ashlar stones and a core of small stones, was exposed in the southern side of the square, at a depth of c. 0.4 m below surface. It seems that the wall was part of a building from the Islamic period, which extended beyond the limits of the excavation. The foundation (depth 0.7 m ) of W502 was wider than its upper part and a foundation trench ( 1.2 m ) that reached bedrock contained bonding material mixed with stones and plaster. The foundation trench had cut through the remains of a tamped-chalk floor that was bonded with lime and charcoal. It was impossible to date the floor due to the absence of any diagnostic potsherds below it.

Stratum 2
A wall (W510; height 1.2 m; see Fig. 3), built of small stones and founded on bedrock, was exposed some 4.2 m below surface. It delimited a staircase ( $0.8 \times 0.9 \mathrm{~m}$ ) of which three steps survived; the stratigraphic context of the staircase was unclear. It seems that the region was disturbed by the Wyatt excavation that had apparently damaged the continuation of the staircase. Evidence of this excavation could be seen in the remains of ropes, tools and refuse that were found inside the tunnel that was cleared close to bedrock surface. The upper part of an oval-shaped room was exposed in the 2005 season south of the staircase.
The curved side of a plastered water cistern (diam. 5 m ) was exposed in the western part of the square. The fill in the cistern (L514) contained fragments of pottery vessels from the first-second centuries CE, including a jar (Fig. 4:1), a jug (Fig. 4:2) and a juglet (Fig. 4:3); the third to sixth centuries CE, including bowls (Fig. $4: 4-8$ ) and a jar (Fig. 4:9), as well as an intact lamp (Fig. 4:10), dating to the thirdfourth centuries CE, which is characteristic of the group of lamps with a piriform body and a lug handle whose provenance is the Jerusalem region. Other artifacts included a bone implement, notched and worked on its broad side (Fig. 4:11), which was probably used to decorate pottery vessels or to make thread and spin fabric, and a shell with two holes (Fig. 4:12) that was most likely strung on a necklace. Most of the cistern was situated beyond the limits of the square and due to safety constraints its excavation was not completed.
The remains probably represented installations that were built outside the city walls during the Late Roman and Byzantine periods. A building was constructed above the installations in a later period. One of the building's walls was exposed; however, ground penetrating radar (GPR) tests indicated that the continuation of the structure was located south of the excavation's boundaries.


1. Location map.


2. Wall 502 and the foundation trench, looking southeast.


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4. Pottery and other artifacts.
(Volume No. HA-ESI 120 (2008 Jerusalem, Horbat Teliliya Final Report
Annette Nagar


1. Location map.

2. Plan and section.

3. The excavation area, general view to the north.

4. The opening to the cistern. looking east.

During November 2006, a salvage excavation was conducted in the Ramot Alon neighborhood of Jerusalem (Permit No. A-4943*; map ref. NIG 21900/63565; OIG 16900/13565), prior to construction. The excavation, carried out on behalf of the Israel Antiquities Authority and financed by the Shikun 'Ovdim Company, Ltd., was directed by A. Nagar, with the assistance of R. Abu Halaf (administration), T. Kornfeld (surveying), Y. Nagar (physical anthropology), I. Berin (final plans), R. Bar-Natan (pottery reading) and I. Lidski-Reznikov (pottery drawing)

On the slope of a southeastern spur (Fig. 1), a natural cave that was converted to a plastered water cistern (Figs. 2, 3) was exposed. The ceramic artifacts dated to Iron II and the Early Roman period.

The water cistern was installed in a naturally vaulted cave (L103; $4.5 \times 6.0 \mathrm{~m}$, depth 4.5 m ) and its rectangular-shaped opening ( $1.2 \times 1.7 \mathrm{~m}$ ), hewn in its southern side, was probably the widening of an existing natural opening (Fig. 4). The eastern and western sides of the opening were shallower than the others.
On the southern side (height 2.15 m ) of the cistern was a rock-cut step ( $0.2-0.4 \times 1.3 \mathrm{~m}$, depth 0.6 m ; Fig. 5) near the opening. The sides of the cave and its floor, which sloped to the south (Fig. 6), were coated with friable light gray plaster (thickness 4.5 cm ) that contained a few small clay and carbon inclusions; two plaster layers were applied to the sides. The cistern was intentionally blocked with fill, which consisted of earth, different sized fieldstones, large rocks and potsherds that were found in the southern part of the cistern, near the opening and on the floor. In addition, half of the cistern's capstone ( $0.50 \times 0.65 \mathrm{~m}$, height 0.27 m ; dimensions of perforation $0.15 \times 0.30 \mathrm{~m}$; Fig. 7) was found in the fill. The potsherds dated to Iron II and the Early Roman period. Those from the Iron Age included bowls (Fig. 8:1, 2) and jars (Fig. $8: 3,4$ ) and the potsherds from the Early Roman period (first century BCE-first century CE) consisted of cooking pots (Fig. 8:5-7), jars (Fig. 8:8, 9) and a jug (Fig. 8:10).
A survey, which had been conducted in the past near the cistern, documented a burial cave, building remains and another water cistern (Kloner A. 2000, Survey of Jerusalem, The Northwestern Sector, Sites 27, 28); a columbarium cave (HA-ESI 120) and a limekiln (Permit No. A-4300) were excavated nearby. It seems that the water cistern belonged to this complex of remains and even though the period of its use is unclear, it appears to have been blocked close to the end of the Early Roman period.


1. Location map.


2. The excavation area, general view to the north.

3. The opening to the cistern, looking east.

4. The bedrock step in the cistern's opening, looking east.

5. The floor of the cistern, looking southwest.

6. The cistern's half-capstone.


# (Volume No. HA-ESI 120 (2008 Jerusalem, Binyanē Ha-Umma, South Final Report 



1. Location map.

2. Plan.

3. Water cistern and Caves A-C, plan and section.

4. Water cistern, looking north.

Annette Nagar
7/9/2008
During August 2005, a salvage excavation was conducted in the government campus, c. 20 m west of Bet Ha-Hayyal (Soldier's Home; Permit No. A-4567*; map ref. NIG 21953/63240; OIG 16953/13240; Fig. 1), in the wake of construction work. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Defense, was directed by A. Nagar, with the assistance of R. Abu-Halaf (administration), V. Essman (surveying), T. Sagiv (field photography), T. Kornfeld and R. Berin (drafting and final plans), C. Hersch (pottery drawing) and R. Kool (numismatics).
Three and one half squares were opened within the precincts of the village esh-Sheikh Bader; a plastered water cistern that dated to the Ottoman period and the remains of a burial cave, hewn in soft limestone bedrock (Cave A, Fig. 2), which dated to the Early Roman period, were exposed. Other burial caves (B-E), dating to the Early Roman period (B, D, E) and the Late Roman-Byzantine period (C), were documented north and east of the excavation area. Caves A-C were discovered when surface was being exposed, whereas Caves D and E were visible prior to the excavation.

Water Cistern $(3.7 \times 4.2 \mathrm{~m}$; Figs. 3, 4). Part of this installation was built and part of it was hewn in the soft limestone bedrock. The walls (W1-W4; preserved height 1.0-2.8 m) were built of various size fieldstones. The inner face of the walls consisted of a single row of ashlar stones. A vertical shaft ( $0.5 \times 0.7 \mathrm{~m}$, preserved height 2.8 m ) was built in the cistern's southeastern corner. The cistern was coated with white lime plaster, to which gray cement was applied. The northwestern corner of the cistern was built on top of the eastern side of Cave A's courtyard. Based on the construction style and the composition of the plaster it seems that the cistern was installed in the Ottoman period and served the residents of the village of esh-Sheikh Bader. A coin, dating to the reign of Mahmud II (1808-1839) and discovered north of the cistern (L104), was also ascribed to this period.
Cave A was discovered in a poor state of preservation; all that survived of it was a courtyard ( $2.0 \times 2.5 \mathrm{~m}$ ) and part of the opening (Fig. 5). Only two sides of the courtyard that were hewn in the soft limestone bedrock remained. The eastern side was exposed below W4 of the water cistern. An opening decorated with a stepped façade (width 0.5 m , height 0.5 m , depth 0.3 m ) was hewn in the northern side. The rolling stone $(0.6 \times 1.0 \mathrm{~m})$ was found lying alongside the opening
The ceramic finds, dating to the Early Roman period (first century BCE-first century CE), included a bowl (Fig. 6:1), cooking pots (Fig. 6:2-5), a lid (Fig. 6:6), a jar (Fig. 6:7), a jug (Fig. 6:8), a juglet (Fig. 6:9) and a stand (Fig. 6:10).
Cave B was hewn in the western part of a bedrock outcrop for a distance of 8 m . The opening, whose upper part was visible, faced west and was sealed with a rolling stone. The cave was neither excavated nor documented.
Cave C had a square, vertical, bedrock-hewn shaft ( $0.8 \times 0.9 \mathrm{~m}$; Figs. 7, 8), which descended to an entrance (width 0.8 m ) that led to a burial chamber. Three arcosolia, which included four troughs (I-IV; Fig. 9), two of them (II, III) in the western arcosolium, were each hewn in the three walls of the burial chamber ( $1.4 \times 2.5 \mathrm{~m}$, height 1 m ). The cave was found plundered and devoid of artifacts.
Cave $\mathbf{D}$ was partly preserved and some of the burial chamber remains $(1.9 \times 2.5 \mathrm{~m}$; Fig. 10 ) included two rock-hewn kokhim $(0.7 \times 1.8 \mathrm{~m})$ in the southern and western sides. The cave had been looted and was devoid of finds. Its plan is characteristic of Jewish burial caves that were common to the Second Temple period.
Cave E (Fig. 10) was survived only by a corner of the burial chamber and it was impossible to evaluate its plan. The cave was found plundered and devoid of finds.

The remains are indicative of a burial compound that was used during several periods. The early caves (A, B, D and possibly E) are dated to the Early Roman period, based on their plan and ceramic finds. Cave C is similar in plan to the arcosolium caves, which are known in Jerusalem during the Late Roman and Byzantine periods.

In the Ottoman period, the water cistern was hewn above the remains of the courtyard of Cave A.


2. Plan.


1-1
3. Water cistern and Caves A-C, plan and section.

4. Water cistern, looking north.




8. Cave C, entrance shaft, looking southwest.

9. Cave C, burial chamber, Troughs I-III, looking southwest.


# (Volume No. HA-ESI 120 (2008 <br> Jerusalem, Khirbat Ka'kul Final Report 

Ofer Sion


1. Winepress 1, plan and section.

2. Winepress 1, looking southeast.

3. Pottery.

4. Winepress 2. plan and section.

5. Winepress 2, looking west

During August 2005, a salvage excavation was conducted west of Khirbat Ka'kul (Permit No. A-4580*; map ref. NIG 22350-3/63571-6; OIG 17350-3/13571-6), along the route of the separation fence. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by O. Sion, with the assistance of T. Kornfeld (surveying), T. Sagiv (field photography), E. Belashov (drafting) and Y. Rapuano (pottery reading). A preliminary survey was conducted by G. Solimany and L. Barda prior to the excavation.
The excavation area extends over 60 m along the route of the separation fence, c. 400 m west of Khirbat Ka'kul (J. Seligman, 2006, ‘Atiqot 54:1-73). Two winepresses, a water cistern, a quarry, two caves and a farming terrace were excavated. The ceramic finds dated to Iron II and the Hellenistic, Roman, Mamluk and Ottoman periods. The findings are described below from north to south.
Winepress 1 (map ref. NIG 22350/63576; OIG 17350/13576; Figs. 1, 2) was hewn in the middle of a bedrock slope. It consisted of a treading floor (L100; $2.4 \times 2.8 \mathrm{~m}$ ) and a collecting vat (L107; diam. 0.9 m , depth $1.15-1.40 \mathrm{~m}$ ), which were joined by way of a channel. Two recesses ( $0.3 \times 0.5 \mathrm{~m}$, depth $0.50-0.65 \mathrm{~m}$ ) were hewn in the western side of the treading floor for the purpose of anchoring a beam. Hewn recesses in a treading floor are a known phenomenon in winepresses of Iron II (S. Riklin, 1997, 'Atiqot 32:17). Potsherds that dated to the latter part of the Hellenistic period and the beginning of the Roman period (the Hasmonean-Herodian periods), including a bowl (Fig. 3:1) and jars (Fig. 3:2-4), were discovered on the treading floor. Three ceramic fragments, among them a jar handle from Iron II (Fig. 3:5), a jar from the Early Roman period (Fig. 3:6) and a jar from the Ottoman period (Fig. 3:7), were recovered from the collecting vat. A retaining wall (length 1.8 m ) of a small farming terrace (L106; width 1.5 m ) was exposed next to the southern side of the winepress.

Winepress 2 (map ref. NIG 22352/63575; OIG 17352/13575; Figs. 4, 5) was bedrock hewn and included a treading floor (L101; $1.55 \times 1.75 \mathrm{~m}$ ) and a collecting vat (L102; $0.95 \times 1.60 \mathrm{~m}$, depth 0.85 m ) that were joined by a short conduit (length 0.3 m ). Eight cupmarks (diam. $0.15-0.30 \mathrm{~m}$, depth $0.05-0.25 \mathrm{~m}$ ) were cut around the winepress. A hewn bodeda (L116) was discerned c. 1.5 m east of the collecting vat. It consisted of a shallow round depression (diam. 0.5 m , depth 0.1 m ) and a small, adjacent collecting vat (diam. 0.4 m ). Similar installations are common in the hill country ( O . Sion and Z . Amar, 1997, 'Atiqot 32:205). A farming terrace wall (length 3.7 m ) that was built of fieldstones and preserved a single course high was exposed 5 m southwest of the winepress.

Rock-hewn Water Cistern (map ref. NIG 22353/63571; OIG 17353/13571; L104; Figs. 6, 7). The opening of the cistern was rectangular $(1.1 \times 1.4-1.8 \mathrm{~m})$. The cistern (depth to the top of the debris 2.1 m ) was coated on the inside with a single layer of white plaster. Based on the color and composition of the plaster it seems that the cistern should be dated to the Hasmonean period (Y. Porath, 1989, Hydraulic Plaster of Aqueducts as a Chronological Indicator, in D. Amit, Y. Hirschfeld and J. Patrich (eds.), The Aqueducts of Ancient Palestine, pp 69-76 [Hebrew]). Next to the eastern corner of the cistern's opening was a small settling pit (L110) through which water flowed into the cistern. East of the cistern, a stone wall (W1) that was apparently built for the purpose of draining rainwater into the cistern, was discovered. While cleaning bedrock east of W1 (L108) potsherds were discovered, including a bowl (Fig. 3:8), a cooking pot (Fig. 3:9) and a holemouth (Fig. 3:10), from Iron II, a jug (Fig. 3:11) from the first-second centuries BCE and jugs (Fig. 3:12, 13) from the Mamluk period.

Quarry (Figs. 6, 7). Remains of a quarry were exposed north, west and south of the water cistern. Severance channels (e.g., L103) that were used to detach the stones were discerned in the quarry. South of the water cistern was a hewn installation (L111; a trough?) to which water was conveyed via a rock-hewn channel, located to the east.

Cave A (map ref. NIG 22353/63571, OIG 17353/13571; Figs. 8, 9). A natural cave (L105; $2.5 \times 4.0 \mathrm{~m}$, height $1.1-1.7 \mathrm{~m}$ ) located on the middle of a slope, whose opening faced east and was set in a rock-cutting. The stepped floor of the cave was highest in the center. Only a single diagnostic potsherd-a fragment of an Iron II holemouth jar (Fig. 3:14) —was recovered from the cave.

Cave B (map ref. NIG 22352/63574, OIG 17352/13574; Fig. 10). The cave was only documented due to the constraints of the excavation. It was hewn in the middle of a slope ( $2.4 \times 3.6 \mathrm{~m}$, height $1.4-1.7 \mathrm{~m}$ ), at the same level as Cave A , and its opening (width 1.2 m ) faced east.
Farming Terrace (map ref. NIG 22358/63574, OIG 17358/13574; L113; Figs. 11, 12). The terrace, covered with soil debris, was discovered on the slope, east of the water cistern. The terrace's retaining wall (length 3.1 m ), preserved to a maximum of four courses high ( 1.3 m ), was built of various sized fieldstones on the exposed bedrock. The middle part of the wall consisted of two rows of stones. The terrace's excavation yielded a single diagnostic potsherd, namely a fragment of an Iron II bowl (Fig. 3:15).
The excavation area was part of Khirbat Ka'kul's agricultural complex. The ceramic finds were discovered in debris and fills; hence they can not assist in dating the different features at the site. Judging by the typology of the winepresses, it can be assumed that those at the site were hewn in Iron II. It is possible that the caves were connected to the winepresses as a storage site for wine jars. The water cistern is dated to the Hasmonean period, based on its plaster. The ceramic finds from Iron II and the first-second centuries BCE show that activity had apparently taken place at the site during these periods.
The potsherds from the Roman period (mostly the Herodian period), which were collected in Winepress 1 and the vicinity of the cistern, show that the installations were probably used in this period. A few fragments of jugs from the Mamluk and Ottoman periods point to temporary activity at the site during these periods.




1-1
4. Winepress 2, plan and section.

5. Winepress 2, looking west.

6. Water cistern and quarry, plan and section.

7. Water cistern, looking east.


9. Cave A , the opening, looking west

10. Cave B, plan and section.

11. Farming terrace wall, plan and section.

(Volume No. HA-ESI 120 (2008
Jerusalem, Survey in the Talpiyot-Arnona Neighborhoods Final Report


1. The survey map.

2. Two layers of plaster in the aqueduct (Site 8).

3. The later ceramic pipe inside the aqueduct (Site 14)

Leticia Barda and Omry Barzilai
During February 2007, a survey preceding development was conducted in the Talpiyot-Arnona neighborhoods in Jerusalem (Permit No. A-5035*; map ref. NIG 2213-9/6279-87; OIG 1713-9/1279-87), prior to construction. The survey, on behalf of the Antiquities Authority, was performed by L. Barda and O. Barzilay.
The survey area extended across the eastern and southern slopes of the hill where the Diplomat Hotel is located (Fig. 1). Fifteen sites with antiquities were recorded and the most outstanding finds were sections of the Lower Aqueduct to Jerusalem (8, 12-15). The route of the aqueduct in these sections was measured with the aid of GPS and marked on the map. In addition, caves, walls and a water cistern, relating to agricultural activity, were documented.
(1) A farming terrace wall built of small and medium-sized flint stones.
(2) A wide cave, partly natural and partly rock-hewn, which is fronted by a low wall.
(3) A natural cave.
(4) A hewn, rounded cave.
(5) A hewn cave that has three round chambers.
(6) A mostly ruinous farming terrace wall that is built of different sized flint stones.
(7) A field wall built of two rows of small and medium-sized stones.
(8) A section of the Lower Aqueduct to Jerusalem. The aqueduct is coated with two layers of white plaster. The lower plaster application is mixed with potsherds, whereas the upper plaster layer contains small pieces of flint (Fig. 2). Potsherds dating to the Roman period were collected nearby.
(9) A rock-hewn water cistern with a rounded opening.
(10) A field wall, built of medium-sized flint stones, has a tower-like thickening.
(11) A curved field wall built of medium-sized flint stones (installation?).
(12) A section of the Lower Aqueduct to Jerusalem; two or three parallel walls that are built of medium-sized stones.
(13) A section of the Lower Aqueduct to Jerusalem that was excavated and reconstructed (Permit No. A-2616).
(14) A section of the Lower Aqueduct to Jerusalem. The aqueduct is damaged in this part where a later ceramic pipe was installed (Fig. 3). The aqueduct was filled with soil, its walls were plastered on the interior and its exterior wall was built of medium-sized stones.
(15) A section of the Lower Aqueduct of Jerusalem. A rock-hewn trough in secondary use is incorporated in this section. Layers of white plaster are visible on the aqueduct wall.
The survey contributed important information about the Lower Aqueduct to Jerusalem, which was stone built and plastered. A ceramic pipe, installed in the aqueduct at a later phase, confirms the theory that it was also used during the Ottoman period.


1. The survey map.

2. Two layers of plaster in the aqueduct (Site 8).


# (Volume No. HA-ESI 120 (2008 Jerusalem, the Zahal Square Final Report 

Annette Nagar


1. Location map.

2. Plan and sections.

3. Wall 103 and Wall 101, looking north.

4. Soil fills between Walls 101 and 104, looking northwest.

5. Pottery.

During January 2004, a trial excavation was conducted in the Zahal Square in Jerusalem (Permit No. A-4081*; map ref. NIG 2214/6318; OIG 1714/1318; Fig. 1), prior to the installation of a water pipe. The excavation, on behalf of the Israel Antiquities Authority, was directed by A. Nagar, with the assistance of R. Abu Halaf (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), E. Belashov (drafting), R. Bar-Natan (pottery reading) and A. Pikovsky (drawing).
The remains of three walls (W101, W103, W104; Fig. 2) that were severely damaged due to modern development activity in the area $(2.64 \times 6.50 \mathrm{~m})$ were exposed. Another wall (W111) was revealed beyond the boundaries of the excavation.
The walls were set on bedrock and extended beyond the limits of the square. All the walls were built of various sized fieldstones that were bound with large quantities of cement and lime-based bonding material. It seems that Wall 106 (width 1.3 m , height 1.3 m ) was the continuation of W 104 (width 1.3 m , height 1.1 m ), which had been severed by development work.
Wall 103 (width 1.2 m ), preserved a single course high (height 0.3 m ), was built of two rows of roughly hewn stones with a fill core that consisted of small and medium fieldstones. This was the only wall to have two smooth, properly arranged outer faces. Wall 103 was incorporated with W101 (preserved height 1.4 m ), whose core was the only surviving part. A level of fill, composed of four layers of soil (width 0.9 m , height 1.3 m , Loci 105 , 107-109; Fig. 4), was exposed between Walls 101 and 104. The pottery finds recovered from the fill included jars (Fig. 5:1, 2) and a spindle bottle (Fig. 5:3), dating to the Hasmonean period and bowls (Fig. 5:4-6), a goblet base (Fig. 5:7), a juglet (Fig. 5:8) and a cooking pot lid (Fig. 5:9) from the Byzantine period.
Another level of fill (Loci $112 \mathrm{a}-\mathrm{e}$, width 1.85 m , height 1.85 m ) that consisted of five layers of soil, which were devoid of any ceramic finds, was exposed between Walls 103 and 106 and in the balk of the square.
Wall 111 (width 1.20-1.85 m, height 1.3 m ) was discerned in the side of the infrastructure channel, to the west and outside of the excavation area
The remains of the walls are indicative of one construction phase that should be dated to the Byzantine period or later, based on the ceramic finds. The walls were destroyed by the ongoing modern development and infrastructure activity. It was impossible to evaluate the plan of the building due to the limited area of the excavation.



1-1


2-2
2. Plan and sections.

3. Wall 103 and Wall 101, looking north.


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(Volume No. HA-ESI 120 (2008 Jerusalem, Augusta Victoria Survey Final Report


1. Survey map.

Zubair 'Adawi, Leticia Barda and Bilal Tori
5/10/2008
In October 2006, a survey was conducted within the Augusta Victoria compound (Permit No. A-4915*; map ref. NIG 63245-95/22330-90; OIG 13245-95/17330-90), prior to construction. The survey, carried out on behalf of the Israel Antiquities Authority and funded by the World Lutheran Federation, was performed by Z. 'Adawi, B. Tori and L. Barda (GPS).
The area along the northern spur of the Mount of Olives and the eastern, southern and western slopes of Mount Scopus was surveyed (Fig. 1).

Eighteen sites that could not be dated were documented. These included the poorly preserved remains of water channels (1, 10, 17), quarries and rock-cut installations (2-6, 14-16), cave openings and the remains of another cave (18), a modern water reservoir with a vault, built of dressed stones and fed by an aqueduct that was partly built and partly bedrock hewn $(9,10)$, a well whose opening was dug into the ground and lined with fieldstones (13) and an ex situ concentration of tesserae (12).
The sites were covered with alluvium, which made it difficult to identify them. A few potsherds that date to the Roman, Byzantine and Mamluk periods were found in the surveyed area, particularly in its western part.



1. Map of the survey sites.
(Volume No. HA-ESI 120 (2008 Jerusalem, Shu'fat Final Report

Zubair 'Adawi and Leticia Barda
11/10/2008
During March 2007, a survey preceding development was conducted between the neighborhoods of Shu'fat and Bet Hanina in Jerusalem (Permit No. A-5073*; map ref. NIG 22070-125/63650-87; OIG 17070-125/13650-87), prior to the construction of a new neighborhood. The survey, carried out on behalf of the Israel Antiquities Authority and supported by funding from the Community Administration for the Development of Bet Hanina, was carried out by Z. 'Adawi and L. Barda.

The survey was undertaken in a rocky area where a few cultivation plots were discerned. Some of the area is covered with modern refuse. Twelve sites were surveyed, including caves, a cistern, rockcuttings and stone heaps (Fig. 1). The area had previously been inspected within the Jerusalem survey (A. Kloner 2001. Survey of Jerusalem: The Northeastern Sector).

Caves. Six caves (Sites 3-6, 10, 12) were documented. Rock-cuttings were discerned in the ceiling of Cave 3. Pink plaster was noted in the opening of Cave 4. Next to the entrance of Cave 12 were two quarrying lines. It was impossible to determine whether the rest of the caves were natural or hewn.

Rock-hewn Cistern (Site 9). The cistern's opening was shaped as a circular shaft, on whose top a circular capstone was placed. A circular perforation in the middle of the capstone was set within a square frame. The remains of a rock-hewn trough were noted to the east of the cistern's opening and to its northeast were the remains of a shallow, rock-hewn channel. A few potsherds dating to the Early Roman period were gathered from the surface. The remains of two farming terraces were visible in the vicinity of the cistern.

Rock-cuttings. Two round rock-hewn depressions (Site 2) that may have been burial shafts were documented, as well as three hewn cupmarks (Sites 7, 11). Two of the cupmarks were at Site 11 and two quarrying lines that formed a corner were noted nearby.

Stone Heaps. Two stone heaps were recorded (Sites 1, 8).


1. Map of the survey sites.
(Volume No. HA-ESI 120 (2008

## Jerusalem, Ramot

Final Report
Rina Avner


1. Plan of the site.

2. F1, plan.

3. F2, plan and section.

4. F3, plan and sections.

During December 2004, a salvage excavation was conducted in the Ramot A neighborhood of Jerusalem (Permit No. A-4300*: map ref. NIG 21930/63545; OIG 16930/13545), prior to expansion. The excavation, carried out on behalf of the Israel Antiquities Authority and financed by the Ministry of Construction and Housing, was directed by R. Avner, with the assistance of V. Essman and V. Pirsky (surveying and drafting) and M. Salzberger (field photography).
The excavation area extended across a slope, south of Qadima and west of Truman Streets (Fig. 1). Three farming terraces (F1), a cistern, a plastered vat and two walls (F2), as well as a limekiln (F3) were excavated. A few pottery fragments, whose date is uncertain, were discovered in the excavation. The potsherds, of light colored clay and coarse sandy texture, are apparently modern.

F1 (Fig. 2). The retaining walls of the three farming terraces (W1-W3) were built on bedrock in a similar manner, namely a single row of large fieldstones with soil between them. Wall 1 was preserved to a maximum of four courses high (length 11 m , average width 0.4 m , preserved height 0.36 m ), whereas Walls 2 and 3 survived a single course high (Wall 2length 8 m , average width 0.45 m , preserved height c. 0.35 m ; Wall 3—length c. 7.5 m , width c .0 .35 m , preserved height c. 0.6 m ). The walls of the three terraces formed a rectangular area ( L 102 ; width 7.1 m ), whose length was unknown and its excavation uncovered a fill that consisted of small and medium-sized fieldstones with a small amount of soil between them. This fill, discarded in a later period, was possibly quarrying debris that postdated the use of the terrace walls or was intended for leveling another terrace, perhaps for agricultural use.

F2 (Fig. 3). A rock-hewn cistern (L202) and a circular vat (L200) to its north were discovered c. 6.7 m west of the farming terraces. The cistern was bell-shaped (max. width 3.4 m , excavated depth 4.5 m ) and had a round hewn aperture (diam. 1.2 m ), on top of which four stones arranged in the shape of a rectangle were placed. Fill that consisted of small fieldstones and a little soil was deposited between the four stones. A hewn semicircular niche, whose function is unclear, was in the northern side of the cistern. The sides of the cistern, including the niche, were coated with two layers of plaster. Body potsherds of light yellow clay were embedded in the pale yellow bottom plaster layer (thickness 6 cm ), whereas many pottery chips were mixed in the upper pinkish gray plaster layer (thickness 3 cm ) that was very hard. The excavation in the cistern did not reach its bottom.
The bedrock-hewn vat (diam. $1.4-1.6 \mathrm{~m}$, depth $0.25-0.40 \mathrm{~m}$ ) had medium-sized stones, haphazardly dressed, placed around it. A fill of small stones that was meant to level the surface around the vat was deposited to its northeast and southeast. The interior of the vat was coated with a single layer of plaster (thickness 0.1 m ) similar to the upper layer of plaster in the cistern.
Two walls (W20—length 7.1 m , width 1.2 m ; W21—length 3.6 m , width 1.4 m ) that formed the northwestern corner of a building (L201) were excavated c. 6.7 m west of the vat. The two walls, built on bedrock and preserved a single course high, consisted of two rows of roughly dressed stones and a core of earth and small fieldstones. It is possible that the other parts of the building had been washed down the slope.

F3 (Fig. 4). A limekiln was excavated c. 42 m north of the walls. Its walls were built of stones, with soil and plaster between them, similar to the cistern and vat. Three phases were discerned in the kiln, whose inner part was at its largest (diam. 9.4 m ) during the first phase (W30A). The wall of the kiln (W30B) in the second phase was made thicker, thus reducing the inner diameter of the installation $(8.6 \mathrm{~m})$. In the third phase the wall of the kiln was made thicker once again (W30C) and the inside diameter was further deceased ( 7.9 m ). Between the walls of the kiln from the first and second phases was fill comprised of limestone and terra rossa soil; the color of the soil was red as a result of the fire in the kiln and traces of soot were visible, probably from the burnt fuel in the kiln. A rectangular ventilation hole was installed in the western side of the kiln (L302; width 3.5 m , height 1.2 m ). A floor paved with medium-sized fieldstones (L303) was discovered near the northern side of the kiln, where wood and limestone were apparently placed for use in the kiln. The floor was enclosed within two walls (W31—length 2 m , width 1.1 m ; W33—length 1.5 m , width 0.65 m ) that were built of large roughly dressed stones. Wall 31 was preserved three courses high and W33 was preserved a single course high. Wall 33 was the continuation of W 30A and therefore, it is clear that they were built in the same phase (the first). Floor 303 also belonged to the first phase, because it abutted W30A. It is difficult to date the kiln as it was devoid of ancient potsherds. Based on the plaster, it may be assumed that the kiln was contemporary with the cistern and the vat.




1-1

4. F3, plan and sections.


1. The cistern top in the building lot, looking north.

2. Stamped Marseille roof tiles.

3. The arched opening and the square top of the cistern, looking north.

4. Rock-hewn bench, looking north.

5. Rhodian amphora handle stamp.

## (Volume No. HA-ESI 120 (2008 Jerusalem, Sonnenfeld Street Final Report

Gerald Finkielsztejn
28/10/2008
During November 2007, a salvage excavation was conducted on a building site in Sonnenfeld Street, Jerusalem (Permit No. A5286*; map ref. NIG 221174-80/632854-55; OIG 55-132854/80-171174), in the wake of discovery and partial destruction of antiquities. The excavation, on behalf of the Israel Antiquities Authority, was directed by G. Finkielsztejn (photography, Marseille tiles), with the assistance of A. Eirich-Rose (area supervision), E. Behar (administration), M. Kunin (surveying) and C. Amit (studio photography).
A modern water cistern, fragments of stamped Marseille roof tiles and a stamped Rhodian handle fragment, were discovered in the excavation.

The cistern, hidden below surface debris (Fig. 1; 777.28-774.91 m), was filled up almost to its top with modern building debris that included, among other things, stamped Marseilles roof tiles (Fig. 2). Local residents claimed that the cistern had been used until the late twentieth century CE.
The top of the cistern comprised half a dome that covered half of the bedrock opening on the southern side (Fig. 3). The dome consisted of elongated lentill-like stones, held by a slab-built arch to the north that lay on the bedrock edge. One of the arch slabs was a late twentieth century CE floor tile that allowed dating its construction. The top of the cistern to the north was square and built of three elongated ashlars, set directly on bedrock or on some smaller stones that leveled the edges. A hole in bedrock, outside the northwestern corner of the opening, enabled the collection of rain water from the floor of the courtyard. The cistern (Fig. 4) had an elongated shape and was roughly oriented north-south. A rock-hewn bench (height c. 0.5 m above floor; Fig. 5) was in the northwestern corner, below the opening and a rock shelf was hewn in the southeastern corner (height c. 0.9 m above floor; Fig. 6). The walls and floor of the cistern were coated with a thick layer of high quality plaster, composed of white lime, grog, as well as larger fragments of Marseille roof tiles that clearly indicate the coating was done in the twentieth century CE. The plaster surface was dark green, very hard and polished.

Although not connected to the cistern, the surface discovery of a Rhodian amphora handled stamp is significant of activities in the area during the Hellenistic period (Fig. 7). The inscription on the stamp is framed by a thin line and reads: 'ETi 'A[vס $\rho \circ v \varepsilon i]$ [in the year of] Andronei-
kou
kos
$\Delta a \lambda$ íou $\quad$ [in the month of] Dalios
The restoration of the eponym name Androneikos is based on the style of the stamp; his year of office is set c. 132 BCE (Finkielsztejn G. 2001. Chronologie détaillée et révisée des éponymes amphoriques rhodiens de 270 à 108 avant J.-C. environ. Premier bilan [BAR Int S. 990]. Oxford. Pp. 146, 195; PI. XIV, 8).
The cistern was constructed in the twentieth century CE; it may have been hewn earlier and functioned as a chamber before it was converted into a cistern. The context of the Rhodian amphora stamp could not be identified, yet it is an important addition to the corpus of stamped Rhodian handles from the Land of Israel.


1. The cistern top in the building lot, looking north.

2. Stamped Marseille roof tiles.

3. The arched opening and the square top of the cistern, looking north.

4. Cistern, plan and section.

5. Rock-hewn bench, looking north.

6. Rock-hewn shelf, looking south.

7. Rhodian amphora handle stamp.
(Volume No. HA-ESI 120 (2008
Jerusalem, Shikune Nuesseiba Final Report

8. Quarry R, plan and
section.

9. Quarry R, looking south.

10. Quarry T, looking east.

11. Quarry D, looking east.

12. Pottery.

During May-July 2005, an excavation was conducted in the Shikune Nuesseiba neighborhood in Beit Hanina (Permit No. A-4458*; map ref. NIG 22063-83/63748-68; OIG 17063-83/13748-68). The excavation, on behalf of the Israel Antiquities Authority, was directed by Y. Mizrachi, with the assistance of T. Kornfeld and A. Hajian (surveying and drafting), T. Sagiv (field photography), Y. Bukengolts (pottery restoration) and C. Hersch (pottery drawing).
The excavated area is part of an extensive site that comprises a large concentration of different size quarries that were worked to various depths (Fig. 1). The site is located on a mountain ridge north of Jerusalem and northwest of Beit Hanina. Nineteen quarries (Table 1), a limekiln and two parallel walls (a road?) were exposed.

The smallest quarry (R; Figs 2, 3) occupied an area of c. 10 sq m , whereas the largest quarry (D; Figs. 4-6) covered an area of c .760 sq m . The area of most quarries ranged from 20 to 80 sq m (Quarries C, F, G, H, I, J, L, M, N, Q, S, T). The depth of the quarries ranged from 1.2 m (Quarries R, T; Fig. 7) to c. 7 m (Quarry D; Fig. 8). The signs of stone detachment and splitting bedrock were apparent in the quarries, indicating that most of the quarried stones were rather uniform in size ( $0.35 \times 0.6-0.7 \mathrm{~m}$ ). Larger stones ( $0.4-0.5 \times 0.8-1.2 \mathrm{~m}$ ) were probably removed only from Quarry E (Fig. 9). A count of the hewn steps and an examination of the rock-hewn severance channels enable to estimate that
c. 40 stones were removed from the smallest quarry ( R ). Several hundred to a thousand stones were detached from the medium-sized quarries, for example, c. 320 stones from Quarry G (Fig. 10) and c. 700 stones from Quarry C (Fig. 11), while thousands of stones were removed from the largest quarries (Quarries D, O; Fig. 12). A bedrock-carved cross (Fig. 13), exposed prior to the excavation, was discerned in the eastern corner of the northern wall in Quarry B (Fig. 14). The excavation of the quarries revealed a few ceramic finds that dated to the Byzantine and Early Islamic periods (sixtheighth centuries CE), including bowls (Fig. 15:1-6), a cup (Fig. 15:7), a cooking pot (Fig. 15:8), jars (Fig. 15:9, 10) and a juglet (Fig. 15:11), as well as a potsherd bearing a stamped impression of a cross (Fig. 15:12), which is characteristic of bowls from the Byzantine period. Based on the ceramic finds, the carved cross in Quarry B and the stamped cross on the potsherd, it is assumed that the quarries were used during the Late Byzantine period. The many construction projects in and around Jerusalem during the reign of Emperor Justinian (sixth century CE) supports this assumption.
A limekiln (Loci 118, 126; diam. 4 m, depth 4.5 m ; Figs. 16, 17) was exposed in the eastern part of Quarry A (Fig. 18). It was built on a layer of soil fill (thickness 1.2 m ) that covered the quarry. The kiln was delimited by hewn bedrock on all its sides, except for a fieldstone wall (W3) on the southern side. The vent hole in the kiln faced west. The air flowing into the kiln's center was delimited by Wall 1 on the south and Wall 4 on the north. The kiln's date is apparently the Ottoman period.
Two parallel walls (W1, W2; Figs. 19, 20), generally aligned east-west, were visible along the surface between Quarries O and Q. Stone fill was discovered between the walls (L119), which probably delineated a rural road.
Table 1. Quarry Dimensions.

| Quarry | $\begin{aligned} & \text { Area } \\ & (\mathrm{Sq} \mathrm{~m}) \end{aligned}$ | Maximum depth (m) |
| :---: | :---: | :---: |
| A | C. 170 | 6.0 |
| B | c. 150 | 5.0 |
| C | c. 82 | 3.5 |
| D | C. 760 | 7.0 |
| E | c. 150 | 2.0 |
| F | c. 20 | 3.5 |
| G | c. 45 | 2.5 |
| H | c. 40 | 2.5 |
| 1 | c. 35 | 2.5 |
| J | c. 70 | 4.5 |
| L | c. 40 | 2.0 |
| M | c. 30 | 3.0 |
| N | c. 30 | 1.5 |
| 0 | c. 400 | 4.0 |
| P | c. 380 | 4.0 |
| Q | c. 60 | 4.5 |
| R | c. 10 | 1.2 |
| S | c. 35 | 2.0 |
| T | c. 30 | 1.2 |




1-1
2. Quarry R, plan and section.


4. Quarry D, the south part, plan and section.


6. Quarry D, the north part, plan.


8. Quarry D, looking east.

9. Quarry E, plan.

10. Quarry G, looking southeast.

11. Quarry C, looking south.


13. Carved cross in Quarry B.

14. Quarry B, plan and section.



17. Limekiln, looking east.


19. Two walls (a road?), plan.

20. Two walls (a road?), looking east.
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## Jerusalem, Abu Tor

Final Report
Ofer Sion


1. Plan and sections.

2. The excavation, looking west.

3. Pottery.

During December 2003, a salvage excavation was conducted on Aminadav Street in Abu Tor (Permit No. A-4060*; map ref. NIG 22155/63035; OIG 17155/13035), prior to construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by O. Sion, with the assistance of R. Abu Halaf (administration), V. Essman and T. Kornfeld (surveying), T. Sagiv (field photography), Y. Rapuano and R. Ba-Natan (ceramics) and M. Smilansky (artifact drawings).

Parts of the site had been surveyed and excavated in the past (C.R. Conder and H.H. Kitchener 1883. The Survey of Western Palestine III, Judaea; J.A. Montgomery. 1923. A Catacomb Church on the Hill of Counsel. ASOR II-III:126-128; A.M. Schneider. 1933. Zu Einigen Kirchenruinen Palastinas. Oriens Christianus 8:152160; H. Goldfuss and J. M. Gozlan 1985. Abu Tor. ESI 4:51-52.). A church, crypt, marble columns, capitals and a chancel screen that dated to the Byzantine period were exposed.

The excavation was carried out along the western fringes of a hill ( 380 sq m ), c. 50 m west of the church compound and west of and adjacent to Aminadav Street. A cistern and the edge of a building were excavated (Figs. 1, 2).
The cistern was rectangular ( $9.8 \times 0.7 \mathrm{~m}$, overall height $5.5 \mathrm{~m}, \mathrm{c} 150 \mathrm{cu} \mathrm{m}$ ) and consisted of bedrock hewn and built parts. The bottom of the cistern was filled with sewage and not excavated. The rock-hewn part of the cistern (height 3.4 m ) was lined with stone-built walls (thickness $0.3-0.4 \mathrm{~m}$ ); the upper part was built of dressed stones
(thickness 1.9-2.4 m, height 2.1 m ). The cistern's ceiling was a barrel vault in whose apex was a square aperture ( $0.5 \times$ 0.5 m ) for drawing water. The entire interior of the cistern was coated with two layers of plaster. The bottom layer (thickness $1-3 \mathrm{~cm}$ ) was rich in pink grog and the top layer (thickness $0.5-1.0 \mathrm{~cm}$ ) had a light yellow hue. Enclosure walls (W1-W4) surrounded the cistern at a distance of $1.3-2.0 \mathrm{~m}$. The walls, except for W3, founded on bedrock inside shallow channels (depth 0.3 m ), were uniform and blended together (thickness 1 m , height $0.90-1.95 \mathrm{~m}, 9$ courses). Walls 1, 2, 4 were built of two rows of medium-sized fieldstones, with a core of small stones and bonding material. Wall 1 abutted W3; Wall 4 was severed and may have been built as such originally. An opening in its eastern end was near bedrock. Walls 3 (length 11.5 m ) and 5 (length 1.8 m ) in the east, which bonded and formed a corner, were different from the other walls. They were built of two rows (thickness $0.4-0.5 \mathrm{~m}$ ), the outer of fieldstones ( $0.3 \times 0.4 \mathrm{~m}$, height 0.3 m ) and the inner of small stones. The walls were coated on the outside with pale pink plaster (thickness $0.5-1.0 \mathrm{~cm}$ ) and continued northward and eastward respectively. Wall 6 (length 2.4 m ), which abutted W3 from the south, was built of different size stones in a dry construction technique; its southern part rested against bedrock. A section of a small-stone floor (L20) was exposed south of W5 and east of W6. The southern part of the floor was supported by natural bedrock and its northern part was set on a layer of fill.
All the pottery vessels recovered from the excavation dated to the end of the Hellenistic-beginning of the Early Roman periods and the Byzantine and Early Islamic periods.
The jars, which dated to the end of the Hellenistic-beginning of the Roman periods, were found in layers of fill at the base of W3 (L13; Fig. 3:1-3); they seem to have originated from earlier activity elsewhere at the site.
Most of the pottery vessels, dating to the Byzantine-Early Islamic periods, were found above bedrock (L11) and below and above the floor (Loci 19, 20), including bowls (Fig. 3:4-10), jars (Fig. 3:11-13), an amphora (Fig. 3:14), lamps (Fig. $3: 15,16$ ) and a roof tile (Fig. 3:17).

It seems that the cistern and parts of the floor exposed in the excavation belonged to a monastery whose church had been exposed at the beginning of the twentieth century CE. The cistern and the walls around it were probably built next to the side of the monastery during a phase that postdated the construction of the church, but still within the Byzantine period. Based on the ceramic finds, it was determined that the activity at the site ceased in the Early Islamic period.


2. The excavation, looking west.



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\sum F_{11}
$$


3. Pottery.

# (Volume No. HA-ESI 120 (2008 <br> Jerusalem, the Israel Museum Final Report 

Achia Kohn-Tavor
4/12/2008


1. Plan and section.

2. Jar.

3. Metal plaque fragment.

During August-September 2007, a salvage excavation was conducted within the precincts of the Israel Museum in Jerusalem (Permit No. A-5243*; map ref. NIG 21937/63116; OIG 16937/13116), after an underground ritual bath (miqwe) was damaged during the course of development work. The excavation, on behalf of the Israel Antiquities Authority, was directed by A. Kohn-Tavor, with the assistance of I. Ohayon (administration), M. Kunin (drafting), M. Avissar (pottery reading), A. Ganor-Vernay (pottery restoration) and I. Lidski (drawing of finds).
The miqwe, discovered below the old entrance boulevard to the museum, at the eastern bend of the spur on which the museum is built, was hewn in soft limestone bedrock and opened to the east. The ceiling, upper steps and most of the entrance were destroyed by development work. The miqwe should be dated to the Second Temple period, based on its plan.
A staircase that survived by the bottom two steps (length 1 m , height c. 0.25 m ; Fig. 1) led to the miqwe. A rock-hewn double portal (width of openings 0.57 m and 0.67 m ) separated between the steps and the immersion chamber. The bottom part of the partition pillar, which apparently bore two arches, one on either side, survived in the center of the portal. The immersion chamber was almost square $(2.45 \times 2.90 \mathrm{~m}$, max. height 2.5 m$)$ and at its bottom were four rockcut steps (each c. 0.25 m high; length of two top steps 0.4 m , length of two bottom steps 0.8 m ). The entire miqwe, including the remains of the ceiling, was coated with gray plaster of very high quality. The bottom part of the side (to a height of 1.5 m ) was coated with another plaster layer of a similar quality. Based on the height of the maximum possible water storage capacity in the miqwe, there were probably one or two other plastered steps outside the bath that were destroyed prior to the excavation. The miqwe was the first allusion to the existence of a small settlement or farm from the Second Temple period in this region; the nearest known settlement of this period is located at Sheikh Badar (Binyane Ha'Umma), c. 2 km north of the miqwe (ESI 13:72-78; HA-ESI 120).

During the modern era, the miqwe was used as a room or storeroom. The interior of the miqwe was filled and leveled to the height of the top step. It is apparent that the fill was deposited in an orderly manner after the miqwe had been cleaned of earlier finds. The fill included various sized fieldstones and indigenous terra rossa soil, which contained some eroded potsherds. A tamped earth floor was set on top of the fill. Several steps of roughly hewn stones that led into the room were built in this phase. A jar from the Ottoman period (Fig. 2) was positioned near the outer side of the portal pillar, below the level of the floor, to collect the runoff from the outer steps and prevent water from entering into the chamber. The finds above the floor, which included 'Gaza' potsherds, glass fragments and soles of shoes, as well as the jar in the entrance, date the second phase of the miqwe to the second half of the nineteenth century or the first half of the twentieth century CE. The fill contained ceramic fragments, mostly dating to Iron II, some were from the Second Temple period and a few dated to the Byzantine period, as well as bones of sheep or goats and chickens.

During its last phase of use, the miqwe served as a repository for old holy books, probably a the nearby synagogue. The repository was probably established in the 1940s and 50 s , or at the very latest, prior to the construction of the Israe Museum in the 1960s. According to the testimony of I. Israel, a cave in this region, probably a reference to the miqwe was used for storing holy books in the 1950s. Despite their poor state of preservation, Pentateuchs, prayer books, a Babylonian Talmud, an ornamental curtain (parochet) or a covering for a torah scroll and tefillin straps were identified, as well as a metal plaque fragment (c. $0.35 \times 0.45 \mathrm{~m}$; Fig. 3) that bears soldered metal letters symbolizing the Ten Commandments. These artifacts were transferred to another repository of sacred objects.



3. Metal plaque fragment.

## (Volume No. HA-ESI 120 (2008

## Kafr Bara

Final Report
Marwan Masarwa


1. Burial cave, plan and sections.

2. Oil lamp.

3. Glass vessels.

During June 2003 a salvage excavation was conducted in a rock-hewn burial cave in Kafr Bara (Permit No. A-3929*; map ref. NIG 19675/67020; OIG 14675/17020), which had been damaged when the area was being prepared for the construction of a factory. The excavation, on behalf of the Antiquities Authority, was directed by M. Masarwa, with the assistance of N. Distenfield, A. Hajian and V. Essman (surveying and drafting), T. Sagiv (photography), Y. Gorin-Rosen (glass), O. Shorr (glass restoration) and C. Hersch (drawing of glass vessels).
The cave (Fig. 1) was discovered along the western fringes of the antiquity site in Kafr Bara, on a dirt road that connects Kafr Bara to Kafr Qassem. It was severely damaged and its western part was destroyed. The cave's main burial chamber (L500) was preserved and a burial kokh was hewn in each of its northern and southern walls (Loci 501, 502). A hewn opening in the eastern wall led to another burial chamber (L503; diam. 1.5 m , height 1.1 m ), where a two-course high stone wall that was probably built to retain the crumbling bedrock wall, was discovered. A layer of alluvium (thickness 0.5 m ), which had accumulated on the floor of Chamber 503, contained the glass finds (below). Otherwise, the artifacts recovered from the cave included disintegrated bones, a discus-like oil lamp from the Roman period (second century CE; Fig. 2) and small metal fragments that could not be identified.

The Glass Vessels
Yael Gorin-Rosen
The glass artifacts comprised thirteen glass vessels, two of which were complete (Fig. 3:1, 3), and thirty body fragments that could not be identified. The finds are well-known from funerary assemblages in the country and date to the latter part of the Roman period and the beginning of the Byzantine period (fourth century and beginning of fifth century CE). The finds included a globular jar of pale green glass; it has a wide rim with an open fold below it and three handles and it is adorned with turquoise trails (Fig 3:1); a kohl tube of pale blue-pale green glass (Fig. 3:2) and a double kohl tube of glass that ranged in color from pale green to olive green on the base, decorated with trails the color of the vessel (Fig. 3:3). Four more fragments of the lower part and a rough handle from another double kohl bottle were found among the vessel fragments, as well as two rims of a beaker/bowl, decorated with turquoise trails, a delicate everted rim of a beaker/bowl, a funnel-like bottle rim and a bottle's rim, folded-in haphazardly.




1. Remains of walls in the eastern section, looking north.

2. The cluster of mosaic pieces on top of bedrock. looking southeast

3. General view of bedrock surface; cluster of mosaic floor pieces in far left corner, looking southwest.
(Volume No. HA-ESI 120 (2008
Kafr Kama
Final Report
Edna Amos
5/10/2008
During March 2006, a salvage excavation was conducted in the east part of the Kafr Kama village in the Lower Galilee, on the eastern bank of Nahal Kama (Permit No. A-4736*; map ref. NIG 241874-83/736203-12; OIG 191874-83/236203-12). The excavation, on behalf of the Israel Antiquities Authority, was directed by E. Amos, with the assistance of Y. Lavan (administration) and N. Getzov (guidance)

The excavation area was located in a lot that had been cultivated many years ago and was expanded into bedrock to the east. Remains of walls that were founded on top of bedrock were visible in an exposed section (Fig. 1). A probe trench was excavated, revealing pieces of an industrial mosaic, a floor's bedding and numerous potsherds.

A large cluster of white limestone tesserae $(2.0 \times 2.5 \mathrm{~cm})$ that belonged to a mosaic floor and potsherds covered with plaster from the Byzantine and Early Islamic periods were exposed (Fig. 2). The pieces of mosaic and dismantled floor bedding were found mixed in agricultural soil that was deposited on top of a large bedrock surface (Fig. 3).

It became evident that the foundations of the ancient walls noted in the sections were above the level of the lot. It seems that during the preparation and leveling of the area in recent years, agricultural soil, which contained the remains of a farming installation from the Byzantine or Early Islamic periods, was brought here from the surrounding vicinity. Modern artifacts among the pieces of mosaic indicate that this installation was dismantled during the modern era.


1. Remains of walls in the eastern section, looking north.

2. General view of bedrock surface; cluster of mosaic floor pieces in far left corner, looking southwest.

3. Plan and section
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Kafr Misr
Final Report
Yardenna Alexandre
During September 2006, a salvage excavation was conducted on a building plot in Kafr Misr in the Lower Galilee (Permit No. A4907*; map ref. NIG 239950/727775 OIG 189950/227775). The excavation, on behalf of the Antiquities Authority, was directed by Y. Alexandre, assisted by Y. Laban (administration), V. Essman (surveying) and workers provided by the landowner.

The village of Kafr Misr is c. 3 km southeast of Mount Tabor, on a ridge overlooking Nahal Shumar, a tributary of Nahal Tabor (Wadi Bireh).
The architectural remains in the present small-scale excavation (c. 32 sq m ) were uncovered very close to surface and thus suffered much damage from agricultural activities over the years.

The fragmentary remains of three connected stone walls (W106-W108) were exposed in a 16 sq m square, forming three sides of a small stone installation (c. $2.0 \times 2.5 \mathrm{~m}$ ), set directly on the basalt bedrock (Fig. 1). The walls, built of large hewn stones combined with smaller roughly worked stones, were preserved a maximum of two courses high ( 0.6 m ). Patches of plaster coating on all the walls and the floor (L102) were traced; three consecutive layers were observed in a couple of places. The plaster contained several ribbed ceramic body fragments, from either the Late Roman or the Byzantine periods, thus providing a date for the plastering of the small installation, which may have been a pool. It is probable that the pool was built in the Middle Roman period and continued in use down to the Byzantine period. The location of the pool may indicate it was meant to catch overflow waters from the spring, which provided for drinking or watering animals, or perhaps irrigated the orchards.

The small excavation provided evidence for activities around the water source in the Roman and Byzantine periods, at the time when a Jewish community that had a synagogue ('Atiqot 25:117-134) occupied the site of Kfar Misr.


# (Volume No. HA-ESI 120 (2008 <br> Kafr Misr <br> Final Report 

Abdalla Mokary
During January 2004, an excavation was conducted in Kafr Misr (Permit No. A-4091*; map ref. NIG 2390-400/7270-80; OIG 1890-900/2270-80), prior to construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by A. Mokary, with the assistance of laborers provided by the contractor.

The excavation area was located in the nucleus of the ancient village, 70 m northeast of the mosque. A square was opened and a layer of homogenous fill was excavated down to the level of basalt bedrock. Remains of a wall (length c. 4.3 m , width 0.6 m ; Fig. 1) that was built of limestone and basalt were exposed. The wall was overlain with soil fill (thickness 0.6 m ) that contained fragments of pottery vessels, some of which dated to the Early Islamic period.


1. The excavation, looking west.

2. Location of Areas A-W, relevant to all ensuing reports.

3. Area A, plan and section.

4. Area A, lion figurine.

5. Area A, Wall 13, looking west.

6. Area B. plan and section.

Yardenna Alexandre
29/1/2008
During July and October 1999 two small salvage excavations were conducted at the southeastern edge of Karm er-Ras, located at the western margins of the Kafr Kanna village in the Lower Galilee, near Nazereth (Permit No. A-3086; Area A map ref. NIG 231580/739335; OIG 181580/239335; Area B map ref. NIG 23160/73933; OIG 18160/23933), in the wake of private construction. The excavations, on behalf of the Israel Antiquities Authority and financed by the landowners B. Safuri (Area A) and M. Safuri (Area B), were directed by Y. Alexandre (surveying and photography), with the assistance of B. Hana (field supervision), E. Belashov and E. Berin (drafting) and H. Tahan (pottery drawing).

The following introduction to the site and excavations applies to all other excavation reports from Karm er-Ras. Karm er-Ras is a low hill, 226 m above sea level at its top and 211 m at its margins. The extent of the site has not yet been finally determined but it seems to approximate 100 dunams. The hill is nowadays covered with ancient olive trees, some of which were planted in the Mamluk period, giving the site its name 'the top of the olive grove'. The soil composition is chalky, thin and well-drained and the land around is well-suited for sheep and goat grazing. Water was supplied by the copious spring, located 0.5 km to the southwest of the site, which served the village of Kafr Kanna until modern times. The surplus water from the spring flowed into Wadi Kanna, close to the southern edge of Karm er-Ras. The extensive Bet Rimon and Bet Netofa valleys, whose fertile lands were cultivated by the inhabitants of the region, lay c .1 km to the north of the site.

These excavations (Areas A, B) are the first two of a series of small-scale excavations that were carried out at the site between 1999 and 2006 (Areas A-W; Fig. 1). The correlation of stratigraphical data from the different excavations permits the presentation of the architectural layers in general rather than local strata, although the processing of data may necessitate changes and fine-tuning of the stratigraphy and additional excavations will undoubtedly provide further valuable data for the interpretation of the evidence.

The strata exposed in the excavations:
The strata exposed in the excavations:

| Stratum | Archaeological period | Approximate Historical dates |
| ---: | ---: | ---: |
| X | Iron IIA | Mid-tenth-mid-ninth century BCE |
| IX | Iron IIB | Mid-ninth-early eighth (732/722) century BCE |
| VIII | Iron IIC | $722-586 \mathrm{BCE}$ |
| VII | Persian period | $539-332 \mathrm{BCE}$ |
| VI | Early Hellenistic period | $332-198 \mathrm{BCE}$ |
| V | Middle-Late Hellenistic period | $198-63 \mathrm{BCE}$ |
| IV | Early Roman period | 63 BCE-135 CE |
| III | Middle Roman period | $135-250 \mathrm{CE}$ |
| II | Late Roman period | $250-360 \mathrm{CE}$ |
| I | Byzantine period | Fifth century CE |

The majority of excavations were undertaken on the eastern side of the archaeological site where intensive consecutive occupations from the Hellenistic, Early and Middle Roman periods (Strata VI-III) were exposed. A small-scale Byzantine occupation (Stratum I) followed here after a decline or occupation gap at most of the site. Significant remains from early Iron IIA-B periods (Strata X, IX) and the late Persian period (Stratum VII) were uncovered only in two excavations at the top of the hill (Areas G and W). Extremely limited pottery remains from the late Iron Age (Stratum VIII) were exposed in a single excavation (Area M). Notably absent were architectural and artifact remains from the late eighth-fifth centuries BCE (Iron IIC-early Persian period).
It is unfortunate that the small area ( 25 sq m ) of some of the individual excavations prevented the exposure of coherent house, or even room plans and only permitted the establishment of stratigraphy.

## Area A

A single square, partially excavated down to bedrock, reached a depth of 2.3 m below surface. Architectural remains from the Hellenistic (Strata VI, V), the Early Roman (Stratum IV), Middle Roman (Stratum III) and the Byzantine (Stratum I) periods were uncovered (Fig. 2). A stone wall (W14; height 1.7 m ) was built directly on bedrock. A packed earth floor (L105) overlaid with Hellenistic potsherds, ran up to the lowest course of the wall. A small chalk lion figurine was discovered at this level (Fig. 3). Two adjoining stone walls (W13, W15; Fig. 4), preserved 1.3-1.5 m high, abutted W14, reusing the latter to form a room, which had a packed-earth floor (L104) dated by potsherds, including everted neck store jars, to the Early Roman period. A later floor (L103) was found at the level of the top courses of Walls 13-15, indicating that Floor 103 post-dated the room. Middle Roman-period potsherds (Kefar Hananya and Shikhin wares) were found on Floor 103. The latest remains in this square (Stratum I) comprised a floor (L101) of flat flagstones and packed earth uncovered 0.2 m below surface and some wall stubs (W10, W11) whose stones were mostly robbed. These remains were dated by potsherds, including Late Roman Red Ware, to the Byzantine period (fifth century CE).

## Area B

This area, c .20 m to the east of Area A, was excavated only to a depth of 1.6 m below surface, not reaching bedrock (Fig. 5). Two well-built parallel stone walls (W16, W17), at a distance of 1.1 m between them and preserved $0.6-0.7 \mathrm{~m}$ high, were uncovered. Three floors were discerned between the walls and consisted of a packed earth floor (L111), running up to the base of Walls 16 and 17, a plaster floor (L110; 0.10-0.15 m thick), adjoining Walls 16 and 17 at a higher level and another packed earth floor (L107) that abutted W16A-a single course of stones added to W16, which possibly extended above the top of W17. A handful of potsherds were recovered from this square and it seems that W16, W17 and the lowest Floor L111 may be dated to the Early Roman period (Stratum IV), the middle floor (L110), together with the two reused W16 and W17, to the Middle Roman period (Stratum III) and the upper floor (L107), as well as W16a, to the Byzantine period (Stratum I). It is possible that an unexcavated Hellenistic stratum existed above bedrock and below the Early Roman remains.

The small excavation in Areas A and B revealed architectural remains, probably of domestic buildings, datable to the Hellenistic (Strata VI, V), Early and Middle Roman (Strata IV, III) and Byzantine (Stratum I) periods. No evidence for destruction was discerned at the site. The pottery indicates there may have been an occupation gap in the fourth century CE, between the Middle Roman and the Byzantine periods.


1. Location of Areas $\mathrm{A}-\mathrm{W}$, relevant to all ensuing reports.



0 4
3. Area A, lion figurine.


5. Area B, plan and section.
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## Karm er-Ras (Areas C, D)



1. Area C, plan and section.

2. Area C, northern square, looking north.

3. Area C, miqwe, looking east.

4. Area D, plan.

Yardenna Alexandre
29/1/2008
During November 2000 a salvage excavation was conducted in the southeastern area of Karm er-Ras (Permit No. A-3339; Area C map ref. NIG 23164/73938; OIG 18164/23938; Area D map ref. NIG 231625/739390; OIG 181625/239390), in the wake of private construction. The excavation, on behalf of the Antiquities Authority and financed by the landowners S. Abu Daud (Area C) and S. Abu Daud (Area D), was directed by Y. Alexandre (surveying), with the assistance of B. Hana (field supervision), H. Smithline (photography), E. Belashov and E. Berin (drafting), L. Porat (pottery restoration), H. Tahan (pottery drawing) and A. Oshri (animal bone analysis)

Subsequent to the excavation in Areas A and B, it was decided to increase the excavated area for each building plot. Two squares were excavated in Area C and although the same size area was scheduled for Area D, preliminary trenching by mechanical equipment did not expose any architectural remains in the second square hence only a single one was excavated. The finds in Areas C and D are dated to the Hellenistic, Roman and Byzantine periods.

## Area C

The excavation partly reached bedrock at a depth of 1.9-2.2 m below surface. Remains from the Hellenistic (Strata VI, V), Early Roman (Stratum IV), Middle Roman (Stratum III) and the Late Roman-Byzantine periods (Strata II-I) were uncovered (Fig. 1). No architectural remains from the Hellenistic period were found, yet potsherds on bedrock and in the fills (L212) were retrieved. The earliest architectural remains were two parallel stone walls (W26, W27) set directly on uneven bedrock. The walls, built of well-dressed nari stones and preserved $0.8-1.0 \mathrm{~m}$ high, curved toward each other and seem to be the springing stones for a low vaulted ceiling (Fig. 2). This structure had a packed earth floor, which evened out the bedrock surface (L211) and may have been a cellar for storage, since its original height could not have exceeded 1.3 m . It is dated by potsherds to the Early Roman period (Stratum IV). Walls 26 and 27 were put out of use by a later building complex that consisted of several stone walls (W20, W21) and a floor (L209) in the northern square and other walls (W23, W28, W29) and a floor (L210) in the southern square. Wall 20 incorporated a couple of upstanding rectangular well-dressed nari stones placed between fieldstones in a Phoenician building tradition. Contemporary with this building, a miqwe (ritual bath; L207) seems to have been constructed, enclosed within two stone walls (W22, W25) that abutted the building (Fig. 3). Technically, the miqwe could have been a later addition, but it certainly coexisted with the main building. The miqwe (length c. 1.9 m , including steps, width c. 1.4 m , max. depth 1.68 m ) was entered from the west via six steps. Its floor was cut into bedrock and the whole installation was coated with fine white hydraulic plaster that was rounded at the corners and contained no potsherds. The capacity of the miqwe was only c .4 cu m , indicating that it was a private or family miqwe rather than a public facility. At the time of the excavation the miqwe was full of stones and earth with some mixed potsherds, which could not be relied upon for dating either the building's period of use or the date it fell out of use. Two basalt grinding stones, recovered from L209 and L215, may suggest this area was used for culinary activities. The pottery assemblage in the building is clearly domestic, including several cooking pots, one of which still contained sheep or goat bones. All the pottery belonged to the Kefar Hananya and Shikhin repertoires and dated to the Middle Roman period (Stratum III).
Within the walls in the southern square was apparently an installation built of very large upstanding stones (L214). Its function is not clear, but it may have been a large storage bin or an element for food-processing, which was probably located in an unroofed courtyard (L204, L210). A chalk-stone vessel fragment was found in this unit. Analysis of the several animal bones from the excavation revealed that the occupants' diet consisted predominantly of cattle, goat and sheep, whereas pig bones were entirely lacking.
The latest element in the northern square was a single wall of a large, rectangular plastered cistern (L202A), which had cut through and damaged the earlier buildings (W21, W26, W27 and Floor L211), yet was only partially preserved due to agricultural activities that involved the olive tree cultivation in the plot. The plastered cistern was dated to the Byzantine period (Stratum I) on the basis of potsherds incorporated in the plaster.

## Area D

Building remains from the Hellenistic and Roman periods were exposed in the square (Fig. 4). Two stone walls (W33, W34), forming a corner of a room, were built directly on bedrock ( 1.7 m below surface). This unit, which had packed earth floors (L311, L312) that evened bedrock surface, was dated to the Hellenistic period (Strata VI-V). Another structure that overlaid the Hellenistic room was built of stone walls (W30-W32) and had packed earth floors (L307-L310). Wall 32 incorporated two upright rectangular stones, in similar style and probably contemporary to W20 in Area C. Limited potsherds from these floors dated this unit to the Early and possibly Middle Roman period (Strata IV, III). The accumulation above this unit contained Byzantine pottery, including Late Roman Red Ware, but no architectural elements.
The limited excavation in Areas C and D revealed architectural remains of domestic buildings, datable to the Hellenistic, Early and Middle Roman and Byzantine periods. The evidence suggests a change of house plans between the Hellenistic and the Roman periods. The presence of a miqwe, a stone vessel fragment and the absence of pig bones support the identity of the Roman-period house residents as Jews. The miqwe may even provide evidence for occupation by kohanim (priests) at the end of the first century CE. No evidence for any destruction level was discerned at the site and the pottery indicates that there may have been a gap in occupation between the Middle Roman and the Byzantine periods.


| Stratum I שכבת |
| :---: |
| Stratum III שכבn |
| Stratum IV שכה |
| Strata VI , V שכות |



1. Area $C$, plan and section.

2. Area C , northern square, looking north.

3. Area C, miqwe, looking east.


Strata IV ,III שכבות
Strata VI,V שכבות

4. Area D, plan.

## (Volume No. HA-ESI 120 (2008 Karm er-Ras (Area E)



1. Area E, plan.

Yardenna Alexandre
29/1/2008
During April 2001 a limited salvage excavation was conducted in the eastern part of Karm er-Ras (Permit No. A-3397; map ref. NIG 23164/73950; OIG 18164/23950), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the landowner A.S. Subhi, was directed by Y. Alexandre (surveying and photography), with the assistance of E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing).

The extremely limited area of excavation (12 sq m) prevented any significant understanding of the architecture in this plot. The potsherds represented the Hellenistic, Roman and Byzantine periods.
The area was mostly excavated to a depth of 1.1 m , reaching bedrock at a depth of c .2 m below surface in a very small area (L407). Three stone walls (W41-W43), preserved $0.8-1.2 \mathrm{~m}$ high, were exposed. Wall 43, built on bedrock, formed a corner with W41 and it seems that both walls were contemporaneous. A patch of packed earth (L405; elevation 218.87 m ), with some Early Roman potsherds, may be part of an associated floor (Stratum IV). Wall 42 abutted W41 and was probably a later addition (Stratum III), although this is uncertain since the base of the wall was not reached. The potsherds adjacent to the walls dated to the Hellenistic (Strata VI-V), Early Roman (Stratum IV) and Middle Roman (Stratum III) periods. Byzantine potsherds occurred in topsoil (Stratum I).

This small excavation revealed building remains, probably of a private house, dating to the Early and Middle Roman periods, which may possibly have been originally built in the Hellenistic period.


Stratum III שלכה

## Stratum IV שלבה

1. Area E, plan.
(Volume No. HA-ESI 120 (2008

## Karm er-Ras (Area K)



1. Plan and section.

2. Area K, looking west.

Yardenna Alexandre
During October 2001, a small salvage excavation was conducted in the southern part of Karm er-Ras (Permit No. A-3509; map ref. NIG 231560/739325; OIG 181560/239325), in the wake of private construction. The excavation, on behalf of the Antiquities Authority and financed by the landowner B. Safuri, was directed by A. Moqary, who kindly granted the publication rights to Y . Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), E. Belashov and I. Berin (drafting) and H. Tahan (pottery darwing).

Prior to the excavation, the topsoil layer (thickness 0.5 m ) was removed by mechanical equipment. The excavation exposed archaeological strata dating to the Hellenistic (Strata VI, V), Early and Middle Roman (Strata IV, III) and Byzantine (Stratum I) periods.

The excavation reached bedrock at a depth of c. 1.7 m below surface (Fig. 1). Two small sections of adjacent stone walls (W1013, W1015) directly on bedrock seem to be the earliest architectural remains, dating to the Hellenistic (Strata VI, V) or possibly to the Early Roman period (Stratum IV).
A stone wall (W1005; exposure length 5 m ; Fig. 2) was built over these walls and formed a corner with another small wall section (W1014). A packed earth floor (L1006), partially plastered and incorporating a few flagstones, was contemporary with W1005 and W1014 and may date to the Middle Roman period (Stratum III). The mixed nature of the pottery assemblages in these levels precluded reliable dating.
Two later parallel walls (W1009, W1010) that had cut into the Middle Roman stratum were associated with a fine plastered floor (L1002), which incorporated several flagstones and ran over the top course of the earlier W1005. Wall 1010 was adjacent to a small plastered pit (L1007A) or installation with rounded walls, which was only partially uncovered. This pit may be part of a food-processing or other industrial installation, whose nature is unclear. This stratum (I) is dated by potsherds to the Byzantine period (fifth century CE).

The excavations in Area K revealed a few walls from the Hellenistic/Early Roman and Middle Roman periods but no coherent architectural plan could be restored from this data. The architectural remains from the Byzantine period seem to belong to a food-processing or an industrial installation.


1. Plan and section.

2. Area $K$, looking west.

## (Volume No. HA-ESI 120 (2008 <br> Karm er-Ras (Area L)



1. Plan and sections.

2. W111 and W119, looking east.

3. Floor L918, looking east.

4. Coins from Byzantine period

Yardenna Alexandre
29/1/2008
During May-June 2002, a salvage excavation was conducted in the eastern area of Karm er-Ras (Permit No. A-3642; map ref. NIG 23165/73943; OIG 18165/23943), in the wake of private construction. The excavation, on behalf of the Antiquities Authority and financed by the landowner Y. Safuri, was directed by Y. Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), Y. Ya'aqoby (administration), D. Syon (photography, metal detection and numismatics), E. Belashov and I. Berin (drafting), H. Tahan (pottery drawing) and Y. Gorin-Rosen (glass).

The excavation area ( 100 sq m ) whose size was determined on account of previous excavations at this part of the site, revealed extensive building remains from the Hellenistic (Strata VI, V), Roman (Strata IV, III) and Byzantine (Stratum I) periods (Fig. 1). Prior to the excavation, trial trenches exposed the top of two stone walls. Wide balks ( 2 m ) were left between the squares, which were dug down to the top of the walls with mechanical equipment at the end of the excavation, to fill in the basic plan.
Strata VI, V. The excavation reached bedrock (depth $1.6-1.7 \mathrm{~m}$ ) in a very limited area, in two of the four squares. The earliest building phase consisted of small segments of several walls, underlying the later buildings, yet combining to present a reasonably coherent plan. The bottom course of these walls was laid just above bedrock. Sections of four stone walls (W122, W123, W125 and W126) were running parallel in an east-west direction, $2.0-2.8 \mathrm{~m}$ apart from each other. Another wall (W127), oriented north-south, probably linked these walls together to form part of rooms in a single house; Wall 114 may have also belonged to this early complex. A clear tendency is apparent in this, as well as in later periods, although not universal, to 'break' the line of walls, avoiding the weakness of a single long continuous wall. Several floors (L927, L929, L932, L933, L935-L938) abutted these walls. Since bedrock is sloping down from north to south, the house was built in terraces, the northern sections lying slightly higher than the southern ones. Many potsherds from the Hellenistic period were found on the floors, despite the limited exposure. Evidence for a significant burnt layer, which overlaid some of these floors and contained ashy earth and charcoal, was discerned. This may have been a local fire or perhaps the result of enemy destruction some time during the Hellenistic period, a more precise date of which may be determined after the processing of pottery. It should be pointed out that a similar burnt layer was found in some of the other excavated areas.

Stratum IV. Wall 116, and its probable continuation W135, belonged to this stratum together with two well-dressed wall stubs, which may have been once part of a vaulted structure, similar to the one observed in Area C. Several adjacent floors (L914, L916, L919 and L922) seem to be contemporary with these limited building remains. The associated potsherds indicate an Early Roman date for this stratum.

Stratum III. A stone-walled house that consisted of several rooms was exposed (Fig. 2). The house followed a slightly different orientation from the house of Strata VI, V. Five rooms were uncovered, yet it is unknown whether this was the complete house plan, or if additional rooms were located beyond the limits of the excavation. Packed-earth and sometimes plastered floors were discerned in all rooms (L907, L911, L918, L925 and L926); two superimposed floors were in one of the rooms (L908 over L912). Entrances with thresholds led from one room to another. Room L918 was a courtyard with a flagstone floor (Fig. 3). Considerable quantities of pottery in this house dated it to the Middle Roman period. Fragments of soft chalk vessels were found, hinting to the presence of a Jewish population that was concerned with issues of ritual purity.

Stratum I. Evidence for a limited occupation, subsequent to the period of abandonment after the Middle Roman period, was noted in the area. The floor in the courtyard was raised and another stone pavement was laid down (L909). A tabun on this floor may date to the Byzantine period, or later. A collection of small worn bronze minimi coins (Fig. 4) that was found hidden under a raised floor in the corner of one of the rooms dated the occupation to the fifth century CE.
The excavation in Area L exposed portions of complex houses from the Hellenistic, as well as the Early and Middle Roman periods. These excavations consolidate our understanding of Karm er-Ras as an intensely occupied village during the Hellenistic and Roman periods.


1. Plan and sections

2. W111 and W119, looking east.

3. Floor L918, looking east.

4. Coins from Byzantine period
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## Karm er-Ras (Area M)



1. Plan and section.

Yardenna Alexandre
During January 2003, a small salvage excavation was conducted in the northeastern area of Karm er-Ras (Permit No. 3820; map ref. NIG 231675/739490; OIG 181675/239490), in the wake of private construction. The excavation, on behalf of the Antiquities Authority and financed by the landowner A. Iyad, was directed by Y. Alexandre (surveying, photography), with the assistance of E . Belashov and I. Berin (drafting) and H. Tahan (pottery drawing).

This excavation exposed very few archaeological remains and no walls, which is rather exceptional for the site of Karm er-Ras. The excavation was undertaken in difficult weather conditions, with heavy rains flooding the site and preventing a clear understanding of the limited remains. Furthermore, trial trenches, carried out at the site prior to the excavation, caused damage to the area. The potsherds indicated that the limited remains should be dated to the very end of the Iron Age (sixth century BCE?), a period unknown from any of the other excavations at the site.

The single square was excavated to a maximum depth of 1.3 m , down to the extremely uneven bedrock. The minimal finds consisted of a flagstone floor section (L940, L942 and L946) and the semicircular contour of a mud-brick installation (L947; external diam. c. 2.5 m ), built directly on bedrock. The potsherds retrieved from the floor and the installation suggested that these remains should be dated to the very end of Iron IIC, possibly the sixth century BCE (Stratum VIII?).

The limited archaeological remains in Area M may be indicative of a very sparse occupation at the site, at the end of Iron IIC. Intensive habitation levels of Iron IIA-B (Strata X, IX), uncovered in Areas G and W, indicate that the site was destroyed and abandoned toward the end of the eighth century BCE. The data from Area $M$ is very scanty and it would be rash to interpret the few Iron IIC (?) potsherds as proof for even a limited occupation revival of the site.

## Area M שטח



Stratum VIII שלכה


1. Plan and section.

## (Volume No. HA-ESI 120 (2008 <br> \section*{Karm er-Ras (Area N)}



1. Plan and sections.

2. Area N, looking west.

3. Area N, looking south.

Yardenna Alexandre
29/1/2008
During March 2003, a salvage excavation was conducted in the eastern area of Karm er-Ras (Permit No. 3839; map ref. NIG 23163/73943; OIG 18163/23943), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the landowner F. Safuri, was directed by Y. Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), Y. Ya'aqoby and A. Dadush (administration), E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing).

The excavation, despite its limited area ( 24 sq m ), revealed a significant stratigraphical sequence with limited architectural remains from Iron IIB (Stratum IX), as well as walls from the Hellenistic (Strata VI, V) and Byzantine (Stratum I) periods (Fig. 1). At the beginning of the excavation, the topsoil layer (depth $0.2-0.5 \mathrm{~m}$ ), down to the first appearance of walls, was removed with mechanical equipment.

Stratum IX. The excavation reached bedrock in two small areas (total 6 sq m ) at a depth of 1.4 m below the removed topsoil layer. A packed earth layer (depth 0.3 m ) leveled out the bedrock and, combined with small stones, formed a stone floor (L963, L964) in a small area. Diagnostic potsherds of late Iron IIB were found on the floor. No walls from this period were revealed, possibly due to the limited exposure area of this level. The nature of the floor suggests that it may have been a living floor, associated with a building.

Strata VI, V. The main architectural remains in this area were from two stages of the Hellenistic period. A stone wall (W144b; 0.8 m high) in the earlier stage (Stratum VI) was built directly on bedrock, partially cutting through the Iron Age layer. Together with this wall was an unusual rounded pillar base or podium (W142b) that consisted of large rough field stones (Fig. 2). It probably served as a base for a pillar, although its location adjacent to W144b makes this uncertain. This structure seems to have continued in use in later periods. Wall 141b was added in the second stage. Its base was at a higher level than W144b, with which it formed a corner. Thick burnt layers (thickness c. 0.5 m ) clearly testified to the destruction of this occupation stage. A lower burnt layer (L961, L962) was a gray ashy and fine earth, whereas an upper layer (L959, L960) comprised dark brownish black soil. Both layers contained considerable quantities of potsherds dating to the Hellenistic period. It has yet to be determined, on the basis of pottery analysis, whether these were two chronologically distinct destruction layers.

Strata IV, III. It is noteworthy that almost no pottery datable to the Roman period was revealed in this excavation. It thus seems that this particular area was deserted following the destruction by fire. This is in clear contrast to the overall material from the site, where the Roman periods show the most intensive occupation.

Stratum I. Several well-dressed nari stone walls can be dated to this period (Fig. 3). Wall 141a was raised directly over W141b and a new wall (W140) was built, both abutting the Hellenistic W144b, which was overlaid with an additional nari course (W144a). Wall 143 may also have been built in this period. These walls, some characterized by the use of the nari stone, were associated with carefully laid stone (L956) and packed earth (L955) floors. The podium (W142b), first built in the Hellenistic period, still seems to have been in use and there is some indication of a shallow stone-lined channel in W144a. The potsherds in this stratum are dated to the Byzantine period.

The small-scale excavation in Area $N$ has exposed significant architectural strata from the Hellenistic and the Byzantine periods. Of singular interest is the absence of a stratum that can be dated to the Roman period.
Although the evidence from most of the excavated areas at the site shows that the Roman building plans had an overall tendency to follow the basic village plan of the earlier Hellenistic population, the missing Roman-period walls in Area N indicates that this was not always the case.


2. Area N, looking west.


## (Volume No. HA-ESI 120 (2008 <br> Karm er-Ras (Area P)



1. Plan and sections.

2. Pit L982, looking north.

3. Area P, looking east.

Yardenna Alexandre
During April 2003, a salvage excavation was conducted in the northeastern area of Karm er-Ras (Permit No. 3883; map ref. NIG 231650/739455; OIG 181650/239455), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the landowner P. Safuri, was directed by Y. Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), Y. Ya'aqoby (administration), D. Syon (photography and numismatics), E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing)

The excavation, despite its limited area of a single square, revealed a significant stratigraphical sequence of archaeological remains from Iron IIB (Stratum IX), as well as the Hellenistic (Stratum VI, V), Roman (Strata IV, III, II) and Byzantine (Stratum I) periods (Fig. 1).
Prior to the excavation, the landowner removed the topsoil layer (depth c. 0.6 m ), causing slight damage to one wall and trial trenches were carried out by the IAA to determine the presence of archaeological remains at the site.

Stratum IX. The excavation reached bedrock at a depth of c. 1.8 m below the removed topsoil layer. No architectural remains from the Iron Age were recorded but diagnostic potsherds from Iron IIB were found directly on bedrock (L981, L984) in the northern part of the square. It is possible that some building activity from the Iron Age occurred in this area, but all traces of it were removed by later construction.

Strata VI, V. Part of a plastered floor (L978) with Hellenistic potsherds was revealed c. 0.2 m above bedrock in the northern part of the square. This floor was cut by the foundation trench of the building from the Roman period.

Strata IV, III, II. Major building activities were carried out in the Roman period and at least three building phases are evident. Two stone-lined circular pits or installations were built directly on bedrock in the southern part of the square (L982-diam. c. 2.4 m; Fig. 2; L983-diam. c. 1.2 m ). It is probable that these pits removed any earlier (Iron Age or Hellenistic) building remains that may have existed here. The stones of the pits were roughly worked and traces of plaster were visible in Pit L983. The smaller pit L983 was cut by the larger pit, L982, indicating their chronological sequence. The discovery of a mass of burnt stones in Pit L982 suggests that it might have been an oven or furnace, although no additional finds to corroborate it were discerned in its vicinity. The recovered pottery from the installations, including an Early Roman intact lamp, dated them to the Early Roman period. At some stage, the installations fell out of use and a building, some of whose walls consisted of roughly worked stones, was constructed (W146-W151; Fig. 3). Stone floors (L969, L971, L977) and superimposed living floors (L968, L970) indicate that this building was in use for a fairly long time. The pottery and coins in this house are dated to the third-fifth centuries CE. It remains to be checked whether this occupation was continuous or intermittent, as evidenced in other excavated areas.

Stratum I. The top courses of the walls from the earlier house were leveled out and incorporated into a plaster floor (L966), which was preserved in patches. No walls survived from this period and it is probable that they were dismantled after the site was abandoned, as a result of recycling building materials and the subsequent agricultural activities carried out at the site. Floor L966 was overlaid with a large quantity of Byzantine potsherds and some complete vessels and in one of its corners was a small tabun (clay oven; L967).

The small-scale excavation in Area P exposed significant architectural strata from the Hellenistic, Roman and Byzantine periods. Of particular interest is the possibility to examine whether a single house had an uninterrupted, continued use from the Early Roman to the Byzantine periods, or was there a period of abandonment and subsequent reuse. It is probable that the pottery analysis will supply an answer to this question.



# (Volume No. HA-ESI 120 (2008 <br> <br> Karm er-Ras (Area Q) 

 <br> <br> Karm er-Ras (Area Q)}


1. Plan and sections.

2. Wall 248 , looking north

Yardenna Alexandre
29/1/2008
During July 2004, a small salvage excavation was conducted in the southern edge of Karm er-Ras (Permit No. 4197; map ref. NIG $231545 / 739335$; OIG 181545/239335), in response to a court ruling. The excavation, on behalf of the Antiquities Authority and financed by the landowner L. Safuri, was directed by Y. Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing)

The removal of topsoil was carried out during the first few days of the excavation, leaving insufficient time for excavating the earlier, lower strata. Nonetheless, archaeological remains from the Hellenistic (Strata VI, V), Early and Middle Roman (Strata IV, III) and Byzantine (Stratum I) periods were exposed, yet in a limited area (Fig. 1).
Floors of houses from the Hellenistic (L249) and Early Roman (L247) periods were revealed, but without associated walls. A well-built Middle Roman-period wall (W248; Fig. 2) that was dug into earth floors, was probably part of a domestic structure.
The pottery finds from the destruction level dated to the Hellenistic period and should be compared to the finds from other excavated areas, aiming to establish whether a general destruction by an enemy had occurred at the site.




1. Plan and sections.

2. Area T, looking east.

3. Area T, the underground gabled unit (L434), looking east.

Yardenna Alexandre

During January 2005, a salvage excavation was conducted in the southeastern area of Karm er-Ras (Permit No. A-4340; map ref. NIG 231625/739420; OIG 181625/239420), in the wake of private construction. The excavation, on behalf of the Antiquities Authority and financed by the land leaser F. Safuri, was directed by Y. Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), Y. Laban (administration), H. Smithline (photography), E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing).

The excavation revealed a significant stratigraphical sequence from Iron IIB (Stratum IX), the Hellenistic (Strata VI, V), Early and Middle Roman (Strata IV, III) and Byzantine (Stratum I) periods, as well as important architectural remains from the Early Roman period (Fig. 1).
At the beginning of the excavation, the topsoil layer (depth c. 0.4 m ), down to the first appearance of walls, was removed with the aid of mechanical equipment.

Stratum IX. Bedrock was reached over an extensive area in the western square, at a depth of c. 1.5-1.7 m below the removed topsoil layer. Several diagnostic Iron IIB potsherds were found on bedrock and in the packed-earth level (L432) directly above it. No walls could be attributed to this period but it may be deduced that some occupation was present here during the Iron Age.

Strata VI, V. Two or three occupation phases were dated to the Hellenistic period. A floor of packed earth with plaster patches (L431) was overlaid with a thick burnt layer (L426), containing considerable quantities of pottery, overwhelmingly bag-shaped jars with rounded rims, dating to the Early Hellenistic period. Many sheep and goat bones that had signs of butchering were found in association with this pottery. A single wall (W416) was associated with Floor L426. It seems that the area to the west of W416 was an open courtyard, which was part of a house that stood to the east of W416. The house was built in the Hellenistic period and continued in use in later periods, undergoing some changes. Another wall (W412), parallel to W416, may have been built in the Hellenistic period; however, as it is isolated from other Hellenistic remains by later building activities, it is impossible to determine its affiliation with certainty. The thick burnt layer was the result of a general destruction rather than local activities. Another floor (L424) that bore Hellenistic potsherds and overlaid the burnt layer L426 indicates that life continued after the destruction without any gap in occupation. A third floor (L414) was also associated with Hellenistic potsherds and the area probably continued in use as an open courtyard into the Early Roman period.

Stratum IV. The picture obtained in the western square is distinct from the one in the eastern square, where evidence of floors from the Hellenistic period is completely lacking and apparently, all earlier remains (Iron Age, Hellenistic) were removed by later Roman building activities. While the western area continued in use as a courtyard, part of a house was found in the eastern square (Fig. 2). Two of the house's walls were initially constructed in the Hellenistic period (W412, W416) and continued to function in the Early and Middle Roman periods. Other walls of the house (W417, W419, W437) may have been added at different phases in the Early Roman period.
The most significant feature in this area was the discovery of three underground units, each of a different nature. A huge circular rock-cut water cistern (L422) that contained a stone fill was not excavated for safety reasons, but it could be observed that its depth exceeded 4 m . The lower part of the cistern was rock hewn for at least 2 m and its upper part was carefully roofed with a dome, built of small stones. A second unit (L434; $2 \times 4 \mathrm{~m}$, max. height 1.5 m ) in the north of the square was a rectangular room, entered via a shaft (L421) and carefully built of stone walls with a dressed stone-slab gabled ceiling (Fig. 3). The third unit was a corridor, covered with dressed stone slabs, which was not excavated except for its shaft (L415). The narrow, square stone-built shafts of the two latter units were disguised from view by two flimsy walls (W418, W420). Ceramic finds in the gabled unit, as well as pottery and coin finds in its shaft indicate that these underground units were in use no later than the second half of the first century CE. We interpret these features as an underground hiding complex used by the occupants of the house at the time of the Jewish Revolt against the Romans (66-70 CE). This discovery is of great importance to the history of the site and the Lower Galilee in the first century CE.

Stratum III. The house continued to be occupied, as evidenced by the superimposed floors (L411), although the underground units were no longer functional. The pottery shows that the site was occupied during the third, but not the fourth century CE.

Stratum I. A packed earth and plaster floor near surface (L410), as well as potsherds and some small fifth century CE minimi, provide evidence for a fifth century CE occupation.

The excavation in Area T revealed several Hellenistic occupation levels and an intensive Early and Middle Roman occupation. The underground hiding complex, which probably belonged to a core or an extended family, provides evidence for the resistance of the village population in the Galilee to the Romans during the Great Revolt of 66-67 CE. This issue, which has many ramifications, leads us to consider the political affiliations of the population in the villages and the neighboring towns (Sepphoris, Tiberias) throughout the first century CE.


2. Area T, looking east.

3. Area T , the underground gabled unit (L434), looking east.

## (Volume No. HA-ESI 120 (2008 <br> Karm er-Ras (Areas H, J)



1. Area H , plan and sections.

2. Area H, miqwe, looking east.

3. Area J, plan and section.

4. Area J, W805 and W804, looking west.

During July-August 2001 two excavations were conducted in the northeastern part (Area H) and the southeastern part (Area J) of Karm er-Ras (Permit No. A-3465; Area H map ref. NIG 231630/739525; OIG 181630/239525; Area J map ref. NIG 231625/739320; OIG 181625/239320), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the landowners, B. Salaame (Area H) and J. Safuri (Area J), was directed by K. Covello-Paran, who kindly granted publication rights to Y . Alexandre, with the assistance of V. Essman and V. Pirsky (surveying), Y. Ya'aqoby (administration), H. Smithline (photography, Area H), L. Porath (pottery restoration, Area J), D. Syon (metal detection, numismatics, Area H), Y. GorinRosen (glass, Area H), E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing).

## Area H

The results of previous excavations, which evinced the intensity of the archaeological remains at the site, determined the size of the excavation area to be 100 sq m . The four excavation squares were placed between the extant olive trees, which proved to have damaged the upper archaeological strata. The excavation revealed archaeological remains from the Iron Age (Stratum IX), the Hellenistic (Strata VI, V), Roman (Strata IV, III) and Byzantine (Stratum I) periods (Fig. 1).

Stratum IX. Bedrock was reached in small areas at a depth of c. 2 m below surface in three of the four squares. On the basis of associated potsherds, the extant stubs of two walls (W746, W747) built of single rows of boulders directly on bedrock could be from the Iron Age.

Strata VI, V. A layer of fine gray debris found directly over bedrock contained both Iron II and Hellenistic potsherds. Some pits close to bedrock may have been dug in the Hellenistic period, although this will be clarified only after the pottery analysis.

Strata IV, III. A building that consisted of several rooms was exposed. The eastern exterior wall (W759) of the structure ran the whole length of the excavation (c. 10 m ) and was probably bordered on the eastern side by a courtyard (L720). The other exterior walls were not found as they lay beyond the limits of the excavation. All the walls were built of roughlyhewn stones of varying widths $(0.3-0.6 \mathrm{~m})$ and several of them were plastered. The rooms were interconnected by doorways, often with extant thresholds. The floors were of packed earth or flagstones (Fig. 2) and some installations were in the rooms, including Installation L758 in L724, which may have been an internal courtyard. A plastered miqwe (ritual bath; L735; Fig. 3) with three steps in Room L737 may have been added to the house at some stage during its occupation. The building was in use over a considerable period of time, during which several changes were carried out, including the addition of walls and entrances and the raising of floors. The finds in the rooms included pottery, some glass fragments and chalk stone vessels. On the basis of the finds, the house was in use during the Early and Middle Roman period (first-third centuries CE). These strata were destroyed by fire, evidenced by the presence of burnt wood, plaster and gray ashy debris.

Stratum I. Three stubs of walls (W710, W715, W719), constructed from a single course of boulders and associated with some patches of a plaster floor, overlaid the walls of Strata IV and III. Stratum I, badly damaged by the cultivation and roots of the olive trees, was dated to the Byzantine period (fifth century CE) on the basis of pottery in the accumulated fill which contained a most important find—a marble fragment that had an inscription mentioning the tenth legion-no doubt a relic from the Roman period.

The excavations in Area H exposed significant architectural remains from the Early and Middle Roman periods, attesting to an intensely-occupied village from these periods at Karm er-Ras. The discovery of a house with a private miqwe and fragments of chalk stone vessels, similar in nature to the finds in the house from Area C, suggests that these areas of the village were occupied by a Jewish population who was concerned with issues of purity.

## Area J

Prior to the excavation, the topsoil layer (depth c. 0.4 m ) was removed by mechanical equipment. Archaeological strata from the Early and Middle Roman (Strata IV, III) and the Byzantine (Stratum I) periods were exposed (Fig. 4).
The excavation reached virgin soil directly above bedrock, which was uneven and protruded in one place, at a depth of c. 1.5 m below surface. Above virgin soil were several stone walls (width c. 0.7-0.8 m). One wall (W805; length 10 m ; Fig. 5) traversed the whole length of the excavation from east to west. Another wall (W814) abutted W805 and two additional walls (W817 and W820) seem to have been contemporary to this wall. No coherent plan of a building could be obtained. Associated with these walls were two patches of stone pavements (L812, L818), which bore no finds that could reliably date the structures. However, they may be dated to the Early-Middle Roman period (Strata IV-III) on the basis of potsherds recovered from the vicinity and the overlying accumulation. Indeed, a layer of gray soil (L803, L806, L810), containing significant quantities of layered gravel, flints, bones and potsherds, overlaid these walls. The nature of the layer clearly suggests that it was deposited by water activity, probably by inundation from the over-swelled wadi Kanna, located 100 m to the south. This phenomenon has not been perceived in any of the other excavation areas; hence, it may need to be explained as a more local occurrence. Middle Roman potsherds in the deposit probably date it to this period. A stone wall (W804), constructed from large fieldstones above the water-laid deposit was uncovered. It incorporated a single large dressed stone with a north-south carefully-hewn channel cutting through it. No floors were found in association with this wall, which is dated to the Byzantine period (Stratum I) on the basis of potsherds.

The excavations in Area $J$ revealed a few walls from the Early-Middle Roman periods and a single wall from the Byzantine period, but no coherent plan could be restored from this data. The architectural remains do not seem to have been part of domestic units. The new information from this excavation concerns some inundation that seems to have occurred in the Middle Roman period, although its nature is unclear.


2. Area H , looking south.

3. Area H, miqwe, looking east.

4. Area J, plan and section.

5. Area J, W805 and W804, looking west.


1. Area F, plan and section.

2. Area F, looking south.

3. Area G, plan and sections.

4. Area G, looking east.

## Yardenna Alexandre

30/1/2008
During May-June 2001 two excavations were conducted in the eastern (Area F) and the northern (Area G) parts of Karm er-Ras (Permit No. A-3427; Area F map ref. NIG 231640/739475; OIG 181640/239475; Area G map ref. NIG 231550/739565; OIG $181550 / 239565$ ), in the wake of private construction. The excavation, on behalf of the Antiquities Authority and financed by the landowners, A. Muntaha (Area F) and S. Na'il (Area G), was directed by Y. Alexandre (surveying and photography, Area F), with the assistance of B. Hana (field supervision, Area G), V. Essman and V. Pirsky (surveying, Area G), H. Smithline (photography, Area G), H. Tahan (pottery drawing) and E. Belashov and E. Berin (drafting).

## Area F

The small-scale excavation ( 24 sq m ) exposed architectural remains from the Hellenistic, Roman and Byzantine periods. A single square was excavated to a depth of 1.6 m , not reaching bedrock (Fig. 1). The earliest remain was a floor of flat medium-sized flagstones (L514; 1 sq m ), overlaid with Hellenistic potsherds. A very small section of a stone wall protruding beneath a later wall (W56) may also belong to this occupation layer (Stratum V).
Five stone walls that belonged to a single architectural complex (W51-W55; Fig. 2) superimposed Stratum V. It seems that, at least technically, W52 and W54 were first built, followed by W51, W53 and W55 that abutted the first ones. However, the walls were in use contemporaneously for a considerable period of time, as indicated by the sequence of consecutive floors that adjoined them. The earliest associated packed-earth floor (L512) was at the base of the walls. Subsequent floors were a packed-earth floor (L511) and a flagstone floor of medium-sized stones (L507), into which a fired clay tabun (L509) was sunk. The few indicative potsherds on the floors and in the fills show that the house was built in the Early Roman period (Stratum IV) and continued in use during the Middle Roman period (Stratum III).
During the Byzantine period (Stratum I), after a period of abandonment, the walls were leveled and the top courses were incorporated into a flagstone floor (L502).
The limited excavations in Area F indicated that houses in this area existed during the Hellenistic (Stratum V), Early Roman (Stratum IV), Middle Roman (Stratum III) and the Byzantine (Stratum I) periods.

## Area G

This was the first excavation on the higher tell (elevation 222 m asl). It was undertaken since other houses had already existed on this part of the tell. The excavation ( 100 sq m ; Fig. 3) exposed a significant size of the site, revealing a multiperiod settlement of meaningful depth and complexity that included early strata from the Iron Age and the Persian period (Strata X, IX, VII), not found to date in all other excavations at the site.
The excavation area was close to the top of the northern terraced slope of the tell. Several ancient olive trees were uprooted from the area prior to the excavation and surface soil was removed (depth c. 0.5 m ) with mechanical equipment. The sloping and terraced modern surface proved to be a true reflection of the ancient topography and the ancient buildings were constructed on terraces. The excavation reached a depth of $1.5-2.0 \mathrm{~m}$ below surface in severa areas, but in no location was bedrock exposed, nor was there any indication of proximity to bedrock. It is feasible that beneath the lowest excavated level was a meter or more of archaeological deposits that were not touched. Thus, since the earliest exposed occupation level was Iron Age IIA, no information about pre-Iron Age archaeological strata on the tell is known.

Strata X, IX (Iron IIA-B)
Three superimposed strata of the Iron Age were uncovered in this area (Fig. 4). The remains of each architectural stratum were incomplete, yet sufficient to determine that a least three distinct building strata that had different plans, although similar in concept, existed. The sloping surface has resulted in the erosion of the more northern exterior buildings of the later periods. For the sake of convenience, Stratum IX was divided into two phases, IXB and IXA. On the basis of architectural remains it appears that each phase may have been independent, not exploiting or reusing the earlier walls; however, the limited building remains preclude the assignment of an independent stratum to each phase. It is expected that additional excavations in this vicinity may clarify the stratigraphy.

Stratum X. The earliest building stratum consisted of several small segments of stone walls that appeared beneath the later Iron Age walls, which were not removed in the excavation. Moreover, the construction of the later walls caused extensive damage to the earlier walls. Wall 69, W71b, W72 and W77-W81 were probably part of a contemporary structure, built in steps down the slope. The stone walls (mostly $0.6-0.7 \mathrm{~m}$ wide) consisted of two roughly worked faces and a rubble core. Wall 69 was built along the contour of the slope and had an entrance, possibly the main one into the building that may have been a private house. Wall 72 was a long north-south oriented wall, exposed for c. 9 m (interrupted by the balk) down the slope and abutted by W69. Wall 71b, lying beneath the later W71a, together with W69 form a narrow corridor ( 0.8 m wide), too constricted to be functional; it is possible that an additional phase may be present here. Four floor layers (L632A, L635, L644 and L645) were associated with this building. The function of the square mud-brick structure (L646) attributed to this level is not clear.
The topography of the slope indicates that a fortification wall probably stood at the northern end of the excavated area, which is now overbuilt with a modern house. The wall, not exposed in the excavation, was possibly located slightly to the north.

Stratum IXB. Four stone walls (W60, W61, W64 and W70) enclosed a room, which had a different orientation to the Stratum X building. Two walls (W68, W73) of a second room, whose other walls may have been concealed by the wide central balk, were exposed at a lower level. Wall 66 and W71a, which was either the addition or the repair to W71b, may have also belonged to this stratum. Packed-earth and flagstone floors (L606, L618, L631, L632B and L636) were associated with the rooms, which were either individual or part of different houses, terraced down the slope.

Stratum IXA. A corner of another house (W63b and W74) was built over and cut into the walls of the earlier houses.
The three Strata X, IXB and IXA contained considerable quantities of Iron IIA-B pottery and many other artifacts. The pottery repertoire from Stratum $X$ can be dated to Iron IIA (the late tenth-early ninth century BCE), whereas the one from Stratum IXA can be dated to the second half of the eighth century BCE. It is thus clear that domestic houses existed in this area from the late tenth to the second half of the eighth century BCE. There is significant evidence for a destruction level at the end of Stratum X, reflected by much mud-brick debris that comprised many finds of basalt grinding bowls, pottery and loom weights. However, no evidence for a gap in occupation or a lapse in time before the construction of the subsequent house was present. A second destruction layer seems to have brought the occupation of Stratum IXA to an end in the late eighth century BCE; thereafter, the site was abandoned.

Stratum VII (the Persian Period)
The Iron Age village at the site was deserted for a period of at least 200 years until its resettlement in the late Persian period. No architectural remains could be assigned to this period. A layer of accumulation fill ( 0.6 m thick) that contained many building stones and enormous quantities of pottery overlaid the Iron Age walls. Careful excavation led to defining the general contours of many large oval-shaped pits that were dispersed in the area. Eight pits could be delineated, some cutting into others (L605, L607, L610, L611-L613, L615, L623; diam. 2-7 m). The pits were mostly at the larger end of the scale, not lined, but simply cut into the debris of the Iron Age strata. The large quantity of building stones in the pits seems to come from the collapse of Iron Age walls and there is no indication of any walls associated with the Persian stratum. The mass of pottery consists predominantly of large store jar fragments, whose quantity and dense distribution suggest that many had stood here, in situ. The type of jar is overwhelmingly the bag-shaped jar of buff-colored ware with a short neck and a thickened rim, dated to the fourth century BCE. Only few other types were present in this stratum. The
homogeneity of the repertoire implies that this occupation may not have been long-lived, although the quantity may suggest otherwise. As no indication for a destruction level occurs, it is possible that the occupation on the higher part of the tell was abandoned in the third century BCE.
It is not easy to determine the nature of occupation in this period. It is possible that the inhabitants lived in temporary quarters, such as tents. This stratum may have been partly destroyed by the roots of olive trees, as well as by preliminary work of mechanical equipment that, to some extent, prevented a clearer understanding of the remains.

Stratum III (the Middle Roman Period)
The only indication of a later presence in this specific area of the tell, subsequent to the abandonment of the Persian occupation, is a round pit (L643; diam. 2 m , depth c. 0.5 m ) cut into the Iron Age stone walls at the northern edge of the excavation. The pit contained considerable quantities of potsherds dating to the Middle Roman period.

Stratum I (the Byzantine Period)
A single row of large building stones (W62), overlying the Persian stratum, was probably an agricultural terrace wall, dated by some potsherds to the Byzantine period.
The excavated area on top of the tell (Area G) revealed intensive domestic occupation of Iron Age IIA-B (tenth-eighth centuries BCE) which, in historical terms, defines the duration of the Northern Kingdom of Israel. During this period, the building remains at the site were destroyed twice, most probably by an external enemy. The first destruction occurred in the early ninth century BCE and may be attributed to one of the Aramaean attacks on the north of the country. The second destruction, in the second half of the eighth century BCE, can almost certainly be assigned to the Assyrian ruler Tiglath-Pileser III, who conquered the Galilee in 733 BCE. The gap in occupation, following this destruction, coincides with the Exile of the Northern Kingdom. The renewed, if temporary settlement, established here in the fourth century BCE may reflect an influx of Phoenician settlers from the coastal area or, less probably, the return of the Exiles.


2. Area F, looking south.

3. Area G, plan and sections.


## (Volume No. HA-ESI 120 (2008 <br> Karm er-Ras (Area S)



1. Plan and sections.

2. General view of excavation, looking west.

3. The miqwe, looking east.

Yardenna Alexandre
20/1/2008
During October-November 2004, a salvage excavation was conducted in the southeastern area of Karm er-Ras (Permit No. A4263; map ref. NIG 231605/739420; OIG 181605/239420), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the land leaser I. Daoud, was directed by Y. Alexandre, with the assistance of Y. Ya'aqoby (administration), V. Essman and V. Pirsky (surveying), H. Smithline (photography), E. Belashov and I. Berin (drafting) and H. Tahan (pottery drawing).

The excavation (c. 50 sq m ; Fig. 1) revealed a significant stratigraphical sequence with impressive architectural remains from the Hellenistic (Strata VI, V), Early and Middle Roman (Strata IV, III) and Byzantine (Stratum I) periods.
At the beginning of the excavation, the topsoil layer (depth c. 0.3 m ) down to the first appearance of walls was removed with the aid of a backhoe.
Stratum IX. The excavation reached bedrock in two small areas (L359, L360), at a depth of c. 2 m below surface, after removal of top soil. The outline of a circular, bedrock-hewn pit (L360) was traced, but the pit was not excavated and therefore, could not be dated. The potsherds on bedrock were mainly from the Hellenistic period, although several could be dated to Iron IIB.

Strata VI, V. A packed-earth floor (L350, L351), exposed in the two squares on either side of the balk, 0.3 m above bedrock, was probably associated with a stone wall (W352) and with the lower courses of two additional stone walls (W338b, W326b). No coherent plan could be obtained as the early remains were overlain by the later walls and it is clear that the later Roman strata reused the earlier Hellenistic walls, with changes. A thick burnt layer with much ash and a considerable quantity of store jar and cooking pot fragments from the Early Hellenistic period overlaid the floors, as well as many animal bones, showing signs of butchering. These finds probably indicate that the Early Hellenistic house suffered a violent destruction. An additional packed earth floor (L349) superposed Floor L351 and was also strewn with a large quantity of Hellenistic potsherds. The dating of the Hellenistic stratum's destruction will be determined after the pottery analysis.

Strata IV, III. Several phases may be observed within these strata. A single large building with several rooms was constructed in this period. A major long wall (W326a/W329; Fig. 2), running the whole length of the excavation (10 m), was exposed. Several walls were built perpendicular to it (W337, W338, W362), as well as a covered water channel (L348), built of dressed upstanding nari blocks, alongside and at one point crossing W328a. An additional channel (L357), built in an identical fashion, ran along the western side of W328/W328a and joined up with Channel L348, leading water in an easterly direction, beyond the excavation limits. An impressive, almost completely preserved miqwe (ritual bath) was attached to this building. This large miqwe (length 4.3 m , width 2.3 m , preserved max. height 2.2 m ; Fig. 3), partially rock hewn and partially built of stone, had six broad steps and was completely coated with a thick layer of plaster. The extant walls indicated that the miqwe had originally a vaulted ceiling, which had caved in. Despite its large size, entrance into the miqwe from inside the house suggests that it belonged to a family, possibly an extended one. Alterations to the outer walls of the miqwe were noted and at some stage during the Middle Roman period, the miqwe was no longer in use and intentionally filled with considerable quantities of stones that partly came from the collapsed ceiling. Two superimposed floors that abutted the same walls were found in most of the excavated rooms, indicating at least two phases of use in the house. Unfortunately, the limits of the excavation did not permit the recovery of the complete plan of the house, which was abandoned at some stage. A gap in occupation in this area, probably in the fourth century CE, is assumed on the basis of absent pottery.

Stratum I. Subsequent to the period of abandonment, occupation at the site was renewed to a limited extent. The remains from this stratum comprised a segment of a single wall (W322) and a packed-earth floor (L321), lying about 0.2 m below surface. The finds consisted of animal bones and potsherds from the fifth century CE.

The excavations in Area S have revealed part of a Roman house, overlying the remains of a Hellenistic house. The Roman house consisted of several rooms, and most importantly, a large miqwe. This is the third excavation area at Karm er-Ras that exhibits a private house with a miqwe. Another rock-hewn miqwe, possibly not associated with a house, was discerned c .100 m to the north of this area. These miqwa'ot, as well as the discovery of several chalk vessels, clearly suggest that the occupants of this area in Karm er-Ras were concerned with ritual purity, as was characteristic of priestly families. This shift of the priestly families from Judea to the Galilee after the Bar-Kochba revolt is reflected in later synagogue inscriptions, in which the village of Cana is probably the home of the eleventh priestly course of Elyashiv. Due to the importance of the finds, the IAA did not permit the construction of a house at this site.

2. General view of excavation, looking west.

3. The miqwe, looking east.

## (Volume No. HA-ESI 120 (2008 <br> Karm er-Ras (Area V)



1. Plan and section.

2. Close-up view of Floor L1026.

Yardenna Alexandre
During November 2005, a salvage excavation was conducted in the northern part of Karm er-Ras (Permit No. A-4621; map ref. NIG 23164/73960; OIG 18164/23960), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the landowner V. Elias, was directed by Y. Alexandre, with the assistance of Y. Laban (administration), V. Essman and V. Pirsky (surveying), H. Smithline (photography), E. Belashov (drafting) and H. Tahan (pottery drawing).

The excavation, located on a gentle slope, was the most northerly excavation so far undertaken at the site. Two squares ( 50 sq m ) were excavated and an additional adjacent square was abandoned because of inundation. Topsoil (depth c. 0.4 m ) was removed with a backhoe and the excavation reached bedrock at a depth of c. $0.7-$ 0.8 m below the new ground level.

Two periods were uncovered in the excavation (Fig. 1).
Strata X, IX, Iron IIA-IIB periods (tenth-ninth centuries BCE), included several floors with no walls, but with considerable quantities of pottery.
Stratum III, the Middle Roman period (second-third centuries CE), included a single circular stone installation.
The limestone bedrock in this area was rather uneven and covered over with a thin layer of soil ( $0.15-0.30 \mathrm{~m}$ ) that leveled it out (L1025, L1029, L1031, L1032) and contained a very flimsy row of small stones (W1035) and a few potsherds.

Strata X, IX
Directly above the soil layer, a packed-earth floor (L1022, L1026, L1028; Fig. 2), strewn with an extremely large quantity of Iron IIA-IIB large potsherds, in situ and in the accumulated fill directly above it (L1023), was exposed. An additional packed-earth floor (L1020, L1021) overlaid the fill. No mud-brick or stone walls were found in the accumulated fill (L1023), apart from a row of variously sized stones (W1027), which resembled more the remains of a poor terrace wall. Nonetheless, it is clear that the Iron Age pottery was in situ, on two superimposed packed-earth floors, which may have been part of a courtyard between two houses, or of a building that once had mud-brick walls. The pottery included dozens of bowls, cooking pots and holemouth jars, with hardly any storage jars, an unusual composition of a repertoire, datable to Iron IIA-IIB. Ridged-rim cooking pots prevail, although a few triangular rims are present on both the lower and the upper floors.

## Stratum III

A circular installation (L1030; diam. 1.5 m ), built of three-four courses of small stones, was found dug into the Iron Age debris. It contained a few potsherds dating to the Middle Roman period.

The archaeological finds from Area V add a further dimension to the understanding of the Iron Age settlement at Karm erRas. It is evident that the Iron Age occupation, possibly agricultural processing activities, extended beyond the walled settlement on the upper hill.


2. Close-up view of Floor L1026.

## (Volume No. HA-ESI 120 (2008 <br> Karm er-Ras (Area U)



1. Plan and sections.

2. General view of excavations, looking west.

3. Wall 539, the marginally bossed stones.

4. Walls of the Roman-period house, looking west.

During April-June 2005, an archaeological excavation was conducted in the southeastern area of Karm er-Ras (Permit No. A-4418; map ref. NIG 23165/73935; OIG 18165/23935), in the wake of private construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the landowners A. and R. Abu Daud, was directed by Y. Alexandre, with the assistance of Y. Laban (administration), V. Essman and V. Pirsky (surveying), H. Smithline (photography), E. Belashov (drafting), H. Tahan (pottery drawing) and D. Syon (numismatics).

The excavation was first conducted as a trial excavation ( 50 sq m ) and then expanded ( 90 sq m ). The squares were located between the olive trees in the plot and topsoil (depth c. 0.4 m ) was removed with a backhoe. The excavation reached bedrock at a depth of c. 1.8 m below the new ground level.
A sequence of four strata was uncovered in the excavation.
Strata VI, V, the Hellenistic period (third-second centuries BCE)
Stratum IV, the Early Roman period (first century BCE -first century CE)
Stratum III, the Middle Roman period (first-third centuries CE)
Stratum I, the Byzantine Period (fifth century CE)
Since pottery has not yet been processed, the information in this report is preliminary and may be subject to some revision in the final report.

Strata VI, V
The earliest architectural remains uncovered in the excavation were two parallel long stone walls, W548 and W539/W569, built directly on bedrock (Figs 1, 2). Wall 548 (length over 7 m ), underlying a later wall (W525), stood up to three courses high. Wall 539 (length over 13 m ) ran parallel to and at a distance of c. 2.5 m from W548. Wall 539 was built of large dressed stones and consisted of several segments, including a segment (W569), which was set back from the original line and seems to be a later addition. One segment of W539, built of massive blocks dressed with drafted margins (Fig. 3), was preserved 1.2 m high, yet other segments of W539 were badly damaged by later activities. An additional wall (W579) formed a corner with W539 and was also built of large stones. Between W539 and W548 was an accumulated fill that contained fragments of terracotta water pipes and significant quantities of Hellenistic potsherds. No floor was found, yet the top level of the Hellenistic debris was rather clear. It seems that W539 was the northern wall of a large building and W548, the southern wall of a different building; the strip between the two walls was a road or a path. The excavation to the south of W539 revealed no data on the presumed Hellenistic building and it seems that the evidence was entirely cleaned out by the later Roman occupation. The small strip to the north of W548 was not excavated down to the Hellenistic levels.

## Strata IV, III

There is evidence for the reuse of the Hellenistic W539 in the building of this period and the segment W569, set back from W539, might have been built at this time. Several stone walls (W563, W565, W570, W576, W577, W578 and W590) were built to the south and against W539, creating a series of small rooms that were partly interconnected with doorways and thresholds (Fig. 4). The floors of these rooms were mainly of packed earth, directly overlying bedrock. Significant quantities of Early Roman pottery were found on these floors, including several complete vessels. Evidence for some burning indicated that this stratum (IV) may have terminated in a fire.
Signs of changes, as well as additional floors overlying the earlier ones, were noted in several of these rooms. The potsherds found on the later floors dated to the Middle Roman period (Stratum III).
The Hellenistic path or road on the northern side of W539 seems to have continued to serve the same function. The parallel Hellenistic W548 seems also to have continued in use. A paved stone layer (L551; Stratum IV), covered over with several layers of plaster (L543, L531; Stratum III), overlaid the Hellenistic accumulated fill between the two walls. It seems that this was a road or path that ran to the north of the Roman building.

## Stratum I

Several stone-wall stubs were found above the debris of Stratum III, including segments of a new long wall (W525) that was built at a higher level, but followed a similar line to the old W548. A layer of hard plaster (L520 and reused L531) covered much of the old path/road area to the south of W548. A long robber's trench adjacent to the old W539 was cut though this plaster layer, allowing access to the large stones of W539; it is probable that the stones of this wall were robbed sometime in this period. Some areas of stone paving (L521) were found adjacent to W525 and W526, overlying Plaster Layer L531; remains of a circular installation that cut into and destroyed the earlier W539, were noted. Potsherds and glass fragments dated Stratum I to the Byzantine period.

The excavations in Area $U$ exposed significant architectural strata from the Hellenistic, Roman and Byzantine periods. Of particular interest are the building remains from the Early Hellenistic period (Strata IV, III), which seem to have been part of a large and probably a public building, whose nature remains enigmatic. The road and the terracotta water pipes reflected a degree of town planning. Unfortunately, the small scale of the excavation did not allow further investigation of the building. The Roman period witnessed reuse of the Hellenistic walls for domestic occupation. There may well have been a destruction level in the Early Roman period and it seems that a gap in occupation may have existed between the Roman and Byzantine periods.


1. Plan and sections

2. General view of excavations, looking west.

3. Wall 539, the marginally bossed stones.

4. Walls of the Roman-period house, looking west.
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## Kefar Daniel

Final Report
Anan 'Azab


1. Miqwe, plan and section.

During March 2006, a trial excavation was conducted at Kefar Daniel (Permit No. A-4753*; map ref. NIG 193715-27/649281-91; OIG 143715-27/149281-91), as part of a project to expand Highway 10. The excavation, on behalf of the Antiquities Authority and with financial support of the Department of Public Works, was directed by A. 'Azab, with the assistance of $E$. Bachar (administration), A. Hajian (surveying), A. Dagot (GPS surveying), M. Peilstöker and A. Re'em (Central Region)
The excavation was located on the gentle northern slope of Kefar Daniel. On the surface one could discern ancient settlement remains, pits and tombs along with potsherds that dated to Iron II and the Hellenistic and Roman periods.

A ritual bath (miqwe; $3.80 \times 4.20 \mathrm{~m}$, height 4.20 m ; Fig. 1) that was hewn in the chalk bedrock was excavated. The miqwe was accessed via an arched entrance $(0.80 \times 1.80 \mathrm{~m})$ and a rock-hewn staircase. Four steps treated with a layer of hydraulic plaster led to the immersion pool. The first step was the entrance level (L102; $1.40 \times 2.00 \mathrm{~m}$ ); the second, third (Loci 103, 104; $0.50 \times 1.20 \mathrm{~m}$ ) and fourth (L105; $1.10 \times 1.65 \mathrm{~m}$ ) steps descended into the pool. The pool (L106; 2.4 $\times 4.0 \mathrm{~m}$ ) was elliptical and its bottom and walls were covered with a layer of hydraulic plaster to a height of 1.7 m .
The miqwe, which was located near rock-hewn tombs that dated to the time of the Second Temple period, was well preserved. Plaster repairs made to its walls were noted. It should be ascribed to the Jewish population that inhabited the settlement at that time.


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1. Miqwe, plan and section.

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## Kefar Menahem

## Final Report



1. Plan.

2. Area A, northern section.

3. Flint conglomerate, including a core and flakes.

Omry Barzilai
During July 2005, a salvage excavation was conducted at Kefar Menahem (Permit No. A-4524*; map ref. NIG 18305-40/62740-70; OIG 13305-40/12740-70), as a result of work that included the widening of the railroad track to Be'er Sheva' and the paving of Highway 6. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Cross-Israel Highway Company and Israel Railways, was directed by O. Barzilay, with the assistance of H. Lavi (administration), V. Essman and V. Pirsky (surveying), O. Ackermann (geomorphology), L. Zeiger (flint drawing), O. Marder, A. Malinsky-Buller, D. Varga and Y. Israel.
A site of the Lower Paleolithic period, which joins a group of other prehistoric sites scattered around Qibbuz Kefar Menahem that were excavated in the 1970s (HA 69-71:59 [Hebrew]), was exposed. Flint implements and animal bones were found at another site that is located inside a kurkar quarry, c. 300 m north of the excavation; the site was destroyed by mechanical equipment when the road and railway track were constructed.
The excavated site, 'Kefar Menahem West', was identified following the discovery of flint items in heaps of soil near a pit that was dug by the Meqorot Company, south of the site. Prior to the excavation, three probe trenches were excavated and a thorough collection of artifacts was performed by O. Marder and Z. Matskevich.
Three areas (A-C; 24 sq m ; Fig. 1) were opened in the excavation and flint implements and pebbles were found. An identical geological sequence, composed of three units (Fig. 2), was exposed in all three areas. The upper Unit I is grumusol soil that was removed by mechanical equipment prior to the excavation. Unit II is a clayey paleosol below Unit I that contains chalk concentrates and gray-brown manganese. It was deposited on top of the lower Unit III, which is a paleosol soil that consists of red hamra that contains chalk concentrates. The chalk concentrates in the two units stem from sediments that have been washed after the soils were deposited.
Between the two paleosol units was a habitation level that contained flint implements, pebbles and a few bones.
The density of the finds in the three areas varied. The density in Area A ( 15.5 sq m ), the largest area, was as high as sixty items per square meter; in Area C, it was fifteen items and in Area B-only six items per square meter.
The flint industry in the three areas is similar and mostly consists of flake production. Most of the flint items are in a fine state of preservation. They are fresh and bear no signs of wear, although some have traces of patina on them. The origin of the raw material was not identified; however, based on the shape of the pebbly cores it appears to have been collected from the wadi channels.
The flint industry is complex and includes at least three technologies. The first is simple and minimalistic, involving the production of $2-5$ flakes, mostly preliminary items that were not knapped from hierarchal striking platforms. The second is more complicated and includes numerous knappings from discoidal cores that have a peripheral or semi-peripheral striking platform. It should be noted that one sequence of production in this manner was restored (Fig. 3). The third technology involves the production of elongated flakes from semi-pyramidal cores that have a smooth striking platform.
The types of tools at the site included retouched flakes, scrapers, awls, denticulates and notches, double tools and burins. With the exception of three chopping tools, no tools that can be considered as fossil directeurs were found at the site.
The nature of the implements, like the density, varies in the three areas. Noticeably more industrial debitage exists in Area A, whereas in Areas B and C the emphasis is on cores and tools. Furthermore, Area A provides evidence that fire was used-forty two burnt items were found, although no hearths were identified. Hardly any bones ( $\mathrm{N}=2$ ) were discovered and the primary reason for this seems to be the post-deposition processes that altered the soil composition and damaged the bones.

The excavation at Kefar Menahem West contributes to our understanding of the assemblage of Lower Paleolithic sites in the vicinity of Kefar Menahem. It seems that the area of the southern Shephelah, which included such large sites as Revadim and Bizat Ruhama, served as a focal point of human activity in the Lower Paleolithic period. The nature of the finds and their distribution at Kefar Menahem West is indicative of localized knapping-related activity. The availability of the raw material (the flint cores) is probably the main factor for the existence of the site. It seems that the same ancient hominoids arrived in the vicinity to utilize the raw material to produce flake tools and possibly also chopping tools. Although no radiometric dating was done the site can be ascribed to the end of the Lower Paleolithic period based on the flint tool assemblage and its geological location between the layer of hamra (Unit III) and the dark gray layer of clay (Unit I), similar to the site at Revadim, which is dated c. 300,000 BP (ESI 20:113*-114*).


2. Area A, northern section.

3. Flint conglomerate, including a core and flakes.

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## Kefar Shemaryahu

## Final Report



1. Location map.

2. Plan and sections.

3. A selection of bowls and lids.

4. A selection of jugs and lamps.

5. Rhodian handles.

## Aviva Buchennino

 25/8/2008During December 2002-January 2003, a salvage excavation was conducted in a refuse pit at 45 Derekh Ha-Gannim Street in Kefar Shemaryahu (Permit No. A-3805*; map ref. NIG 183150-5/676970-5; OIG 133150-5/176970-5; Fig. 1), which was damaged during the installation of electric cables. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Electric Corporation, was directed by A. Buchennino, with the assistance of A. Hajian (surveying and drafting), T. Sagiv (studio photography), M. Shuiskaya (drawing), G. Finkielsztejn (Rhodian handles) and N. Carmon (murex shells).
The refuse pit (Fig. 2) was partly excavated, not reaching its bottom; it contained an abundance of pottery vessels and murex shells. The ceramic finds, dating from the fourth to the second centuries BCE, were homogenous and characteristic of Hellenistic-period sites in the country. They included a very large quantity of bowls (10 intact; Fig. 3), jars, cooking pots, jugs (4 intact), lamps (3 intact; Fig. 4) and two Rhodian handles (Fig. 5). A few fragments of pottery vessels from the Roman period and a tiny number of glass fragments were also found.

The bowls formed the majority of the ceramic assemblage and were divided into several groups.
Hemispherical bowls (Fig. 6:1-4). The bowls, slipped red or black, have an inverted rim and a ring base. These locally produced bowls appear frequently in sites of the period, from the end of the fourth until the end of the second centuries BCE (Guz-Zilberstein B. 1995. The Typology of the Hellenistic Coarse Ware and Selected Loci of the Hellenistic and Roman. In E. Stern et al. eds. Excavations at Dor, Final Report IB. Areas A and C: The Finds [Qedem Report 2], Jerusalem. Pp. 289-290).
Fish bowls (Fig. 6:5-8). The bowls, slipped black or red, have a broad ledge rim, everted downward, a ring base that is concave on the interior and has a round depression in its center. These bowls are locally produced, very common in the country and date to the third-second centuries BCE.
Carinated bowls (Fig. 6:9). These small bowls have an everted rim, carination at the bottom of the wall, ring base and a lustrous grayish black slip. The bowls continue the Athenian tradition and date from the fifth to the third centuries CE (Guz-Zilberstein 1995:290-291).
Bowls with handles attached to rim (Fig. 6:10-12). These bowls are carinated on the upper part of the wall, have two special horizontal handles close to the rim, a ring base and a red and/or black slip on the both sides of the bowl. The bowls, dated to the second century BCE, are widely distributed across the country in sites of the period, albeit in small numbers (Guz-Zilberstein 1995:294).
Imported mold-made bowls (Fig. 6:13-15). These bowls have a plain everted rim and a black slip on the outside and inside (the slip on Bowls 13, 14 has barely survived). Bowl 13 has an upper strip of ovolo decoration and a floral design below it. The upper strip of the relief decoration on Bowl 15 is enclosed by beads; a scene below it is survived by winged figures. The provenance of the bowls is in the Hellenistic East, in northern Syria and in southern Asia Minor and they appear from the beginning of the last quarter of the third century BCE until the middle of the first century BCE-beginning of the first century CE.
Deep krater (Fig. 7:16). This krater fragment has an everted turned down ledge rim, two horizontal handles and a ring base. The krater is dated to the end of the third-beginning of the second centuries BCE.
Cooking pots. The large quantity of cooking pots is divided into three main types: (1) cooking pots with a tall neck, inverted rim and two broad strap handles that are drawn from the rim to the wall (Fig. 7:17-20); these are common in the Persian and Hellenistic periods, (2) cooking pots with an everted rim and two ridge handles, drawn from the rim to the wall (Fig. 7:21-24) and (3) cooking pots with an inverted rim and a gutter below it, globular body and two small handles, extending from rim to shoulder (Fig. 7:25-26). This cooking pot is dated to the third-second centuries BCE (GuzZilberstein 1995:299).
Cooking kraters. A krater without handles that has a carinated wall and an everted rim fitted for a lid (Fig. 7:27). It is dated from the third-beginning of the first centuries BCE (Guz-Zilberstein 1995:300, Fig. 6.21:10-13). Another krater has a globular body, two handles that extend from rim to shoulder and an inverted rim with a ridge below it (Fig. 7:28). A third krater has an everted rim, two horizontal handles (Fig. 7:29) and a lid (Fig. 7:30).
Jars (Fig. 8:31-42). Bag-shaped jars of light colored clay, which have a thickened and everted rim, sometimes with a ridge at its base, a short neck and two handles drawn along the side of the vessel. This jar is common from the Persian until the Hellenistic periods (Guz-Zilberstein 1995:311-312).
Amphora (Fig. 8:43). A Rhodian amphora base of levigated pinkish orange clay and well fired. The amphora is dated to the end of the third-beginning of the second century BCE, based on two Rhodian handles (Fig. 5:1, 2). Handle No. 1, stamped by Agrianiou in the eponym year of Pausanias, is dated to 199 BCE; Handle No. 2, stamped by Sokrates II in the time of the eponyms Theuphanes II, Symmachos and possibly also Nikasagoras I, is dated to the years 203-170 BCE.
Jugs (Fig. 8:44, 45). The jugs have a wide cylindrical neck, everted rim and a single thick handle, extending from rim to shoulder. This type of jug appears during the Persian period and becomes very popular toward the end of the fifth-fourth century BCE.
Jug/Decanter (Fig. 9:46).
Juglets with a narrow aperture (Fig. 9:47, 48). The juglets, which have a spherical body, flat base and a handle that is drawn from rim to shoulder, are dated to the first century BCE ('Atiqot 5, Fig. 7:9-10; Bar-Nathan 2002. Typology of the Herodian 3 Pottery. In E. Netzer [Director] Hasmonean and Herodian Palaces at Jericho. Vol. III. Jerusalem; p. 163, Fig. 103).

Juglets (Fig. 9:49-52). The juglets have a short wall, everted rim and a single handle. Two of the juglets $(49,52)$ have a shallow base ring and the other two $(50,51)$ have a flat base, with string-cut signs.
Spindle bottle (Fig. 9:53). This vessel has an elongated body, thick wall and a flat base with signs of string cutting; it is dated from the end of the Persian period until the second century BCE.
Miniature bottle (Fig. 9:54). This miniature vessel lacks handles, has a flat base and a thickened and everted rim; it probably contained ointments.
Lamps (Fig. 9:55-57). The lamps are mold-made and characteristic of the second half of the third century-second century BCE. The circular Lamp 55 has a long spout decorated with a grooved radial pattern and a perforated lug on the side ('Atiqot 6, Fig. 10:3; Rosenthal-Heginbottom 1995. Imported Hellenistic and Roman Pottery. In E. Stern et al. Excavations at Dor, Final Report Vol. IB Areas A and C: The Finds [Qedem Report 2]. Jerusalem. Fig. 5.17, Type 13.7). Lamp 56 is wheel-made and pared. Its sides are curved and it has a perforated lug on its side ('Atiqot 6, Fig. 10:4; Rosenthal-Heginbottom 1995. Fig. 5.14, Type 7.2). Lamp 57 is a closed type with a high base and a spout that rises slightly. The lamp is characteristic of the end of the fourth-beginning of the third century BCE ('Atiqot 6, Fig. 10:6).

## Pottery from the Roman Period

Wine tasting jar (Fig. 10:58). An imported jar, without handles, from the Roman period, whose base is sometimes perforated.
Flask (Fig. 10:59). This vessel is characterized by an everted rim, a long narrow neck and two handles that extend from the neck to the shoulder. It dates to the Early Roman period and resembles the flasks from the region of Jerusalem.

The ceramic finds indicate that the refuse pit was used in the Hellenistic period (fourth-second centuries BCE), probably by the residents of Tel Michal/Appollonia, although some of the vessels, particularly Jars 31-40 and Cooking Pots 17-20,
are dated to the Persian period.
The large quantity of the murex snail shells in the refuse pit belong to the Bolinus Brandaris species, which was used to produce the prestigious purple-color dye. The snails were also used for food and their crushed shells were used for fills, floors, plaster and as raw material in lime production. The murex shells from Kefar Shemaryahu were found complete, meaning they were used for food and not for producing purple dye, which necessitates their breaking. Notwithstanding, they were probably collected for the production of purple dye, but were either not utilized or the snail could be removed from the shell in this Bolinus Brandaris species, without breaking it.
Complete shells of this species were found by the thousands at Tel Mor, together with layers of complete and broken pottery vessels from the fourth-second centuries BCE. They came from a hewn well that was no longer in use as such and functioned as a refuse pit (M. Dothan, 1960, The 1959 Season of Excavations at Tel Mor, The Bulletin of the Israe Exploration Society 24: 120-132; IAA Reports 32, pp. 233-237). Next to the well was an industrial installation, which included two connected pools that were apparently used in the purple-dye industry. The excavations at Appollonia/Arsuf exposed whole murex shells of the Bolinus Brandaris species together with broken murex shells of the Hexaplex Trunculus species in a refuse pit that was dated to the second-first centuries BCE (Roll I. and Tal O. [eds.], AppoloniaArsuf, Final Report of the Excavation, Vol. I. The Persian and Hellenistic Periods [Tel Aviv University Monograph Series No. 16], pp. 269-280). It should be mentioned that the Bolinus Brandaris species, which is the most popular mollusk in these sites, is very frequent along the coastal regions of the Land of Israel. The absence of other species of mollusks that were used for food or other animal bones in the refuse pit at Kefar Shemaryahu corroborates the assumption that the murex shells were industrial debris from the production of purple dye.


1. T-316/1940
2. A-2605
3. \&-31/1962
4. $\mathrm{A}-2845$
5. A-1914
6. A-3473
7. A-1960
8. A-3629
9. A-2590
10. A-3722
11. A-2581
12. A-3805
13. A-2622
14. A-3689


15. Rhodian handles.


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6. Pottery: bowls

7. Pottery: kraters, cooking pots and lid.



$0 \quad 10$

8. Pottery: jars and jugs.


10. Pottery from the Roman period.
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## Kerem Maharal

## Final Report



1. Square A, plan and section.

2. Square B, plan and sections.

3. Remains of a treading floor, looking east.

4. Settling pit L504.

During November 2005, a salvage excavation was conducted in Moshav Kerem Maharal (Permit No. A- 4629*; map ref. NIG 19920-5/72752-4; OIG 14920-5/22752-4; HA-ESI 118, HA-ESI 119), prior to private construction on Lot 303. The excavation, carried out on behalf of the Antiquities Authority and financed by the Schwartz family, was directed by M. Masarwah and K. Sa'id with the assistance of T. Kornfeld (surveying and drafting), T. Sagiv (photography), P. Gendelman (pottery reading) and M. Shuiskaya-Arnov (pottery drawing).
The excavation was conducted on a hill along the southwestern border of the moshav. Remains of rock-hewn winepresses from the Byzantine period that may have been part of an industrial area were exposed in two excavation squares (A., B).
Square A (Fig. 1). Remains of a treading floor (L502; $0.4 \times 2.0 \mathrm{~m}$ ) that was founded on a layer of white plaster and paved with a white mosaic were exposed. A rock-hewn vat ( $\mathrm{L} 508 ; 0.8 \times 0.8 \mathrm{~m}$ ) in the southwestern corner of the floor was probably used for washing one's feet prior to treading the grapes. A circular vat (Loci 507, 512; diam. 1.2 m , depth 1 m ) was exposed south of the treading floor. Fragments of jars (Fig. 2) that dated to the sixth century CE were discovered in the fill of the vat.

Square B (Fig. 3). Remains of a treading floor (L501; $0.4 \times 0.6 \mathrm{~m}$ ) that was paved with a white mosaic were exposed (Fig. 4). A settling pit (L504; diam. 0.8 m , depth 0.4 m ), which had a white tesserae-paved bottom and sides coated with white plaster, was cut in the floor (Fig. 5). Two circular basins (Loci 516,517) to the east of the vat were also paved with white mosaic and probably used for filtering the must. The collecting vat (L514; depth 1.2 m ), which had a white mosaicpaved bottom, was partly discovered in the eastern part of the square; part of it was beyond the limits of the excavation area. The treading floor sloped to the east, toward the basins and the collecting vat. The remains of two stone walls (W100, W101), which were founded on bedrock and may have delineated the winepress, were exposed. Rock-hewn notches (Loci 512, 513,515) that were probably the remains of quarrying activity, as well as a rock-cut cupmark, were exposed in this square.


1. Square A, plan and section.

2. Jar fragments from the Byzantine period.


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4. Remains of a treading floor, looking east.

5. Settling pit L504.
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## Kerem Maharal

## Final Report



1. Location map.

2. Area $A$, plan.

3. Area A, stone quarry, looking southwest.

4. Area B, plan.

5. Area B, stone quarry, looking south.

During December 2005 a salvage excavation was conducted at Moshav Kerem Maharal (Permit No. A-4656*; map ref. NIG 199151-80/727486-511; OIG 149151-80/227486-511). The excavation, on behalf of the Antiquities Authority and funded by the Tirak family, was directed by M. Masarwa and K. Sa'id, with the assistance of T. Kornfeld (surveying), T. Sagiv (field photography) and N. Zak (drafting).
The excavation was conducted along the southwestern fringes of the moshav, in Lot 298 (Fig. 1). Excavations in the vicinity had been conducted in the past (HA-ESI 118; HA-ESI 119; HA-ESI 120). Three areas, A, B and C, were opened.

Area A. Two strata were exposed in the area, located in the southeastern part of the lot ( $6 \times 12 \mathrm{~m}$; Fig. 2).
Stratum I. A wall (W2510), built of medium-sized fieldstones and bonded with white mortar, was founded on top of the quarry from Stratum II. The wall was part of the buildings in the Arab village that was abandoned in 1948.
Stratum II. A stone quarry (Loci 2502, 2505) that was open to the north and east. It consisted of steps that were hewn according to the desired size of the stone. The severance channels were clearly discernable (Fig. 3).

Area B. Two strata were exposed in the area ( $5 \times 7 \mathrm{~m}$; Fig. 4), located in the southwestern part of the lot. Stratum I. Wall remains that were built of fieldstones on top of bedrock (W2511, W2512, W2513) belonged to the buildings of the Arab village that was abandoned in 1948.
Stratum II. A stone quarry with a small courtyard that had signs of quarry steps (Loci 2501, 2508, 2510; Fig. 5). A bedrock-hewn pit (L2509; $1.0 \times 1.5 \mathrm{~m}$, depth 2 m ) was exposed in the southeastern corner; its sides were coated with white plaster and it was probably used for storing liquid.
Area C, a natural bedrock surface that was cleaned and a small rock-cutting was found at its end.
A few worn, non-diagnostic potsherds were found.
The quarries and the plastered pit were part of an industrial zone in the settlement of the Byzantine period; they join the agricultural installations that had been exposed nearby in previous excavations. The wall remains belonged to the houses of the Arab village ljzim that was abandoned in 1948.


1. Location map.

2. Area A, stone quarry, looking southwest.

3. Area B, plan.

4. Area B, stone quarry, looking south.
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## Kerem Maharal

Final Report
Kareem Sa'id
24/12/2008


1. Plan and section.

2. Wall 693 (Stratum I) in foreground and W694 (Stratum II) at left side, looking northeast.

3. Wall 695 and Floor 699 (Stratum III), looking northeast.

4. Pottery.

During May 2005, a salvage excavation was conducted in Moshav Kerem Maharal (Permit No. A-4463*; map ref. NIG 19920-2/72775-80; OIG 14920-2/22775-80). The excavation, undertaken on behalf of the Israel Antiquities Authority and financed by the Moshav, was directed by K. Sa'id, with the assistance of A. Hajian (surveying), T. Sagiv (field photography), P. Gendelman (ceramic consultation) and M. Shuiskaya (drawing of finds).
The site, on one of the peaks in the southwest Karmel mountain range, is located south of a plain and north of a broad wadi (Abu Madi). The name Agzam is mentioned in the Ottoman census of 1596 as a village that belonged to the Shefaya sub-district in the district of Lajun. Agzam was the birthplace of Sheikh Mas'oud AIMadi, governor of the Haifa region at the beginning of the nineteenth century CE. It is mentioned in the report of Edward Rogers, the British vice-consul in Palestine, who visited the village in 1859 and wrote that a thousand inhabitants who subsisted on agriculture resided there. The village is also mentioned in the travels of the Frenchman V. Guerin, who described a tent settlement on the hill at the foot of a plateau with olive trees and buildings, in which ancient stones were incorporated.
The Mandatory Folder No. 69 in the IAA archive includes two reports from the years 1942 and 1944 by the antiquities inspector N . Maholy, who described the houses of the village that were built of ancient stones. A previous excavation at the site was conducted by the author (HA-ES/ 118).
An area ( $2.5 \times 10.0 \mathrm{~m}$ ) was opened, revealing three strata (Fig. 1).
Stratum I (Fig. 2). Remains of a north-south aligned wall (W693) that was built of a single row of ashlar stones were discovered. The wall was founded on a layer of fill, which contained a few potsherds, including bowls (Fig. 4:1, 2) and jars (Fig. 4:3-5) that dated to the Mamluk and Ottoman periods.
Stratum II (Fig. 2). An ashlar-built wall (W694), surviving by two courses in a north-south direction, was exposed. A stone floor (L697) abutted its eastern side and to its south were remains of a floor of crushed chalk (L692). The fill in the wall contained a few potsherds, including bowls (Fig. 4:6-9) that dated to the Mamluk period.
Stratum III (Fig. 3). Three courses of an ashlar-built wall (W695), oriented north-south, were preserved. Sections of a floor (L699) that consisted of large stones were uncovered on the western side of the wall. The fill above and below the floor contained a few potsherds that dated to the Byzantine period, including a bowl (Fig. 4:10) and jars (Fig. 4:11, 12).
Building remains from the Mamluk and Ottoman periods, which incorporated stones from earlier periods in secondary use, were exposed. The function of the buildings could not be determined due to the limited scale of the excavation. Excavated as well was a section of a wall from a large building that was paved with stones and used during the Byzantine period.


3. Wall 695 and Floor 699 (Stratum III), looking northeast.

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## Kh. Farfur (South)

## Final Report

Oren Zingboym


1. Plan.

2. Cairn 3, plan.

3. Cairn 4, looking north.

4. The road prior to excavation.

During February 2005, a salvage excavation was conducted at Kh. Farfur (South) in the southern Golan Heights (Permit No. A4384*; map ref. NIG 27368-415/75400-35; OIG 22368-415/25400-35), prior to the construction of henhouses. The excavation, carried out on behalf of the Antiquities Authority and sponsored by Moshav Ma'ale Gamla, was directed by O. Zingboym (photography), with the assistance of Y. Ya'aqoby (administration), V. Essman and V. Pirsky (surveying and drafting) and N. Getzov (guidance).
Six cairns were excavated east of Highway 98 (Area A) and another area (Area B) was opened along the route of a damaged road that extended south of Area A (Fig. 1). The excavation area was located along a basalt plain that gently descends to the southeast. Remains of a settlement from the Chalcolithic period (Rasm al-Kabsh; HA 74-75 [Hebrew]; IAA Reports No. 4) had previously been excavated near the current excavation, to the east of which passes a Roman road that ascends from the Sea of Galilee in the west and continues to the Huran in the east. Farther along the road to the west a watchtower had previously been exposed (ESI 1:32-33) and several clusters of milestones were located nearby. Some 200 m east of the excavation a milestone was documented near the road and a watchtower may have been present there.

## Area A

Cairn 3 (Fig. 2) consisted of two stone circles in its base (diam. 5.5 m and 6.5 m ). It was apparently a dolmen whose burial cell was not preserved.
Cairn 4 (Figs. 3, 4) was built of small and medium-sized fieldstones. At the base of the cairn was a rectangular structure $(6.6 \times 8.0 \mathrm{~m})$ whose walls retained a soil fill. A few potsherds from the Roman period were recovered from the excavation in the center of the structure down to bedrock. It appears that the walls were used to delimit a cultivation plot in the Roman period or later and were concealed below a piled-up stone clearance. The structure was probably used for burial in an earlier stage.
Cairn 5 (diam. 12 m ) was a stone clearance heap on bedrock. It was devoid of finds and had no building remains at its base.
Cairn 7 (Fig. 5), built of small and medium-sized fieldstones, was delimited by two circles of stone (diam. 10 and 12 m ). A sounding $(3 \times 3 \mathrm{~m})$ excavated in the center of the cairn revealed no architectural remains, yet potsherds dating to the middle Roman period were found. This may have been a dolmen that was disrupted during the Roman period, apparently because of the nearby Roman road.
Cairn 8 was built of two stone circles (diam. 4.5 and 6.8 m ). A rectangular area excavated in the middle of the cairn down to bedrock contained no artifacts. It is possible that this was a dolmen whose burial cell was destroyed.
Cairn 13 (diam. 14 m ; Figs. 6, 7) consisted of an elongated burial cell in the center, built of large stone slabs ( $0.8 \times 4.5$ m ) and covered with stone slabs, which was devoid of finds. The cell, plundered in the past, was accessed by an entrance corridor that was also built of stone slabs.

## Area B

The excavation ( $8 \times 8 \mathrm{~m}$ ) along the course of the road exposed bedrock at a depth of $0.35-0.60 \mathrm{~m}$ below surface. Medium-sized fieldstones, overlain with smaller stones, were deposited on bedrock to form a level of uniform elevation (Figs. 8, 9). Modern artifacts, including metal and ammunition from the Yom-Kippur War in 1973, were discovered at a depth of 0.2 m below surface. This was apparently a Syrian military road that paralleled the Roman road, which was 10 m to its south in this section. The Syrian road overlapped the Roman road c. 200 m east of the excavation area. The Roman road (width 7-8 m), documented during the excavation, was delimited on both sides by curbstones and had a stone wall running down its center.


1. Plan.

2. Cairn 3, plan.

3. Cairn 4, plan.

4. Cairn 4, looking north.


5. Cairn 13 , looking northeast.



6. The road prior to excavation.

7. Section of the road.
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## Khallat Abu Halah

## Final Report



1. Location map and placement of excavation squares.

2. Northern area, plan.

Kamil Sari and Polina Spivak
During September 2005, a trial excavation was conducted within the precincts of the Khallat Abu Halah site (Permit No. A-4593*; map ref. NIG 20470-80/72145-60; OIG 15470-80/22145-60), prior to paving the Cross-Israel Highway. The excavation, on behalf of the Israel Antiquities Authority, was directed by K. Sari and P. Spivak, with the assistance of S. Ya'aqov-Jam (administration), A. Dagot (GPS surveying), O. Marder, E. Yannai and M. Masarwa.
The excavation area, south of Qibbuz Ramot Menashe, was located on a moderate slope c. 20 m east of Tel Khallat Abu Halah North (Fig. 1). A trial excavation (Permit No. A-321) that was conducted in 1971 exposed the remains of a stratified settlement that dated to the Neolithic and Chalcolithic periods and the Middle Bronze Age.

Ten squares were opened and two additional squares $(2 \times 2 \mathrm{~m})$ were excavated next to Tell Khallat Abu Halah North, for the purpose of locating the boundaries of the site. All of the squares were excavated down to bedrock (depth 0.2-0.6 m below surface).
The fragmentary remains of two farming walls, which could not be dated due to their poor state of preservation and the absence of any in situ finds, were found. A habitation level, which yielded potsherds that dated to Middle Bronze I and aided in defining the eastern boundary of the site, was exposed only in the two squares next to the tell.

A wall (W25) built of fieldstones and preserved two courses high was documented in the northern area of the excavation. The wall, oriented east-west (exposed length 17 m , width 1.5 m ), was constructed near and parallel to a natural bedrock terrace, crossing six of the excavation squares (A1, D1, E1, F1, G1, H1; Fig. 2). It was severed by mechanical equipment in Squares E1 and F1 during the course of modern activity. The small finds in this area included flint implements from several periods, which were mixed with potsherds from the Roman period that had probably been swept there.
A layer of leveled fieldstones, between which were in situ potsherds dating to Middle Bronze I, was exposed in Square AB2. This was the only habitation layer in the excavation area that contained vessels in situ and it indicated the eastern boundary of the site.
The small finds, including the potsherds, were worn.
One can assume that W25 served as a farming terrace wall. In the absence of any in situ finds it was impossible to date the terrace and determine the period of its use. The main contribution of the excavation lays in the clearly determined the eastern boundary of Tell Khallat Abu Halah North.


1. Location map and placement of excavation squares.


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## Khirbat al-Fakhta

## Final Report

Emil Aladjem
During June 2005, a salvage excavation was conducted south of Khirbat al-Fakhta (Permit No. A-4497*; map ref. NIG 1966-8/5841-2; OIG 1466-8/0841-2). The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Ministry of Defense, was directed by E. Aladjem, with the assistance of A. Hajian (surveying)

Twenty-five meters of a single course high agricultural pen (length c. 70 m ) were examined. A cistern was discerned c. 50 m southwest of the wall.

The pen was built of fieldstones that were set on soil or on bedrock where it was high (length of excavated section 4 m ).
The cistern was bedrock hewn and had two openings. The capstone on the eastern opening was a round monolith section with a hole in its center. A trough was situated nearby. The western opening, identical to the eastern one, was destroyed and no longer used; fragments of its capstone were still located nearby

The pen and the cistern, which were probably remains of agricultural activity from the settlement of Khirbat alFakha, are still being used to date.

## Khirbat 'Amuda

 Final Report

1. Location map.

2. Pottery.

3. Weight.

4. Coin.

## Pirhiya Nahshoni

During November 2005, a trial excavation was conducted at Khirbat 'Amuda (Permit No. A-4578*; map ref. NIG 163536/612795; OIG 113536/112795), along the route of a gas pipe line. The excavation, on behalf of the Antiquities Authority and with financial support of the Israel Natural Gas-Line Company, was directed by P. Nahshoni, with the assistance of H. Lavi (administration), Y. Israel, D. Varga, Y. Huster and O. Feder, C. Amit (studio photography), C. Hersch (pottery drawing), G. Bijovsky (numismatics), R. Kletter (bronze weight identification), as well as laborers from Ashqelon.

Several concentrations of archaeological remains exist at the Khirbat 'Amuda site. One concentration consists of building remains in a grove, c. 200 m southwest of the current excavation. Another concentration of pottery fragments is located on either side of the railroad track, in the cultivated fields of the surrounding settlements, c. 100 m north of the excavation. A salvage excavation, revealing building remains that dated to the latter part of the Byzantine period, had previously been conducted c. 100 m northeast of the current excavation (HA-ESI 114:93*$94^{*}$ ).
The current excavation was carried out along the edge of a cultivation plot on the southern slopes of a hill (Fig. 1). Four squares were opened, revealing a layer of refuse that contained potsherds from the end of the Byzantine period and a few small stones. An especially thick layer of fill (c. 0.6 m ) was found in one of the squares. It contained pottery fragments and production debris that is indicative of a pottery workshop located nearby. Fragments of imported bowls (Fig. 2:1, 2), large kraters with combed decorations (Fig. 2:3), a Gaza-type jar (Fig. 2:4) and jugs (Fig. 2:5) were found. The vessels dated to the end of the Byzantine-beginning of the Early Islamic periods.

A square bronze weight ( 2.17 grams; Fig. 3), which is clearly marked on the right side with the letter B and bears another marking that may be the letter I, was found. The combination of IB denotes a siliqua (carat) value of ' 12 ', which is the equivalent of 2 grams. The weight is dated to the Byzantine period.
Two coins were recovered; the earlier one is a coin of Valentinian III (425-450 CE; IAA 99857) and the later one is a follis of Constans II (c. 643 CE; IAA 99858; Fig. 4).
The excavated area was located along the southern fringes of the settlement and probably served as a refuse site in the Byzantine and the beginning of the Early Islamic periods.


1. Location map.

2. Pottery.






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3. Weight.

4. Coin.

## (Volume No. HA-ESI 120 (2008 <br> Khirbat Burnat



1. Excavation area, plan.

2. Walls and floor of room, Square F11a, looking west.

3. Building remains and city wall, Square F10e, looking east.

4. Building remains, Square F7c, looking east

5. Square F7b, plan.

In September-October 2003 a trial excavation was conducted at Khirbat Burnat, east of Shoham and Tel Bareket (Permit No. A3991; map ref. NIG 196105-605/657305-735, OIG 146105-605/157305-735), in preparation for an extensive salvage excavation (A-4188) as part of the expansion of the Modi'in Industrial Zone. The excavation, undertaken on behalf of the Israel Antiquities Authority and sponsored by the Industrial Buildings Corporation, was directed by H. Torge and P. Gendelman, with the participation of T. Kanias and Y. Arbel (area supervision, probe trenches and antiquities inspection), E. Bachar and S. Ya'aqov-Jam (administration), A. Hajian (surveying), L. Yihye (GPS), T. Sagiv (field photography), O. Marder (flint implements), M. Shuiskaya (drawings) and N. Zak (drafting).
The site is located on a rocky hill east of Tel Bareqet and extends across an area of c. 180 dunams, of which some 80 dunams were slated for the trial excavations. The region was surveyed in the past (C.R. Conder and H.H. Kitchener. The Survey of Western Palestine II, 1881-1883, pp. 329-330; R. Gophna and I. Beit-Arieh. Map of Lod [80], Site 67) and more recently (A-4068). Recent excavations conducted there (A-3233, A-3360; HA-ESI $114: 46^{*}-47^{*}$ ) yielded remains ranging in date from Iron II until the Byzantine period.
Forty-four squares were excavated (Fig. 1). In the west and south finds were discovered that date to the Early Bronze II. In the center, east and north a few finds were discovered from the Iron II and the Persian period; however, most of the finds in this area date to the Hellenistic, Roman and Byzantine periods. On the northern slopes of the hill farming terraces were exposed that date to the Early Islamic period. The remains included residential buildings along with a city wall, cisterns, limekilns, burial caves, miqwa'ot (ritual baths) and agricultural installations. Most of the remains that were discovered in the trial excavation were further exposed and connected in the subsequent salvage excavation and will be described in detail within the framework of the final publication.

## The Northwestern Area

Seven squares (F11a-e, F15a-b) were excavated in this area. In addition, a winepress was cleaned at the top of the hill (F17).

The finds in five squares (F11a-e) were dated to the EB II; in three of them (F11a [Fig. 2], F11b, F11d [Fig. 3]) walls and the remains of floors were discovered upon which pottery vessels, animal bones and flint tools were sitting. The walls were built of medium-sized fieldstones and the floors were made of tamped earth and flagstones (Fig. 4).

In Square F11b remains of the northern city wall (W120/1, not on plan) were discovered which enclosed the settlement during the EB II. The southern face of the wall was built of boulders; the northern side of the wall was not discovered. The southern side of the wall was abutted by other walls which indicate that the settlement's structures were built up against the city wall. The tops of the walls were visible on the surface but were not excavated. Other walls that protruded above the surface were discerned to the north of the city wall. Two squares (Squares F15a-b) were opened along side two of them, exposing the remains of farming terraces from the Early Islamic period. North of these squares (F15) the tops of walls were identified along the surface. Based on their distribution and the nature of the stone it seems that most of them are farming terraces; however, since the slope which ascends to the Early Bronze Age site is very moderate, some of these presumably delimit an ancient road.

## The Southwestern Area

Nine squares (F1-3, F6, F10b-f) were excavated in this area. No building remains or habitation levels were discovered in Squares F1-3. In Square F6 installations were exposed that included a cistern and a bodeda (an oil-press installation characteristic of the Iron Age). In the five other squares (F10b-g; Figs. 5, 6) situated along the high area in the south building remains were uncovered that included the city wall (width 3-4 m) built of boulders with a core of medium-sized fieldstones. South of the city wall no building remains were discovered, rather stone collapse. In Square F10c a thickening of the northern side of the city wall (width 7 m ) was observed. An earthen floor which abutted the northern side of the city wall dates to the EB II.

A high rocky area located some 20 m north of the city wall yielded numerous hewn installations consisting mostly of cupmarks and basins. Mechanical equipment was used to excavate probe trenches between this area and the city wall where habitation levels and walls were discovered that date to the Early Bronze Age.

## The Southeastern Area

Thirteen squares (F4, F5a-d, F10a, F19) were opened; those located on the upper part of the hill date to the EB II while those on the lower eastern slope (F7a-c) dated to the Second Temple period.

In Square F7d a large, impressive wall was exposed that was built of two rows of dressed stones. It was abutted from the west by walls and floors on which pottery vessels, flint implements and animal bones were found. The continuation of the wall to the east of the square was also identified on the surface of the hill's upper terrace. It should probably be considered part of the settlement fortifications that encircled the hill in the EB II.

In four out of six squares in F5 (Fig. 7) and in Square F4, remains of walls and floors were discovered that date to the EB II. The remains in these squares were identified as residential buildings; installations, pottery vessels, animal bones and flint implements were discovered on their floors.

East of Squares F5, remains of the eastern city wall were visible on the surface at the edge of the slope; next to it was a cave that was not excavated due to safety considerations.

In Square F19, at the top of the southeastern slope, a slightly curved wall was exposed (oriented southwest-northeast) which belonged to an EB II construction. Since it was built against the outside of the city wall it should probably be identified as a tower.

In Square F10a a sounding was excavated next to the southern side of the city wall where the line of the wall descended precipitously. The southern face of the city wall was exposed, as was some of its stone core. It seems that the decline in the elevation of the city wall was a result of later damage (possibly caused by mechanical equipment).

In Squares F7a-c finds were discovered that date to the Hellenistic and Early Roman periods. In Square F7c (Fig. 8), beneath the floor from the Hellenistic period, walls from the end of the Persian period and the beginning of the Hellenistic period were discovered. A miqwe was identified on the surface of a terrace between Squares F7b and F7c. The remains of white plaster were apparent on its walls and on the southern side of its entrance.

In Square F7b (Fig. 9) fieldstone walls (W5, W6, W7) were exposed as well as a leveled bedrock floor into which a bathtub was hewn. The bathtub was negated in a later phase by a tamped earth floor. The walls continue in Square F7a, which was located on the lowest terrace. The walls of another room of the building, one with a threshold, could be seen on the surface to the north. Two tamped earth floors mixed with chalk (Fig. 10) were discovered in the room of the building that was exposed in Square F7a; the lower one (L1033) dated to the Hasmonean period and the upper (L1028) to the Early Roman period.

## The Northeastern Area

In the steeper northeastern part of the area where one could discern numerous walls along the surface that were part of the overall residential complexes, fourteen squares (F7e, F8a-d, F9b, F9d, F12a-d, F14a-b, F16) were opened and the entrance to a miqwe (F13) was cleaned.

Square F7e, which was located on the hilltop next to the northern slope, was opened adjacent to a large wall built of roughly hewn fieldstones. It was preserved to a height of four courses and was abutted by a tamped earth floor. The potsherds recovered from the floor were mixed and it was therefore not possible to date it with certainty.
The remains were better preserved on the lower terraces of the hill where walls, floors and alleys were exposed. Most of the finds in this area were from the Hellenistic and Early Roman periods. Squares F12, on the northeastern side of the hill, revealed building complexes (Fig. 11) with domestic installations such as tabuns, a silo, pressing installations and basins. The walls of the buildings, in which a number of phases were identified, were preserved to a height of two-three courses. A portion of an olive press was discovered in Square F12d (Fig. 12).

In Squares F8 a narrow alley situated between two structures was identified. In the southern building, which was dated to the Roman period (F8a-c), sections of four rooms with stone floors were exposed. The walls were built of fieldstones that were founded on bedrock (Fig. 13). In Square F8c a threshold was discovered in which there were two phases. In Square F8b a sounding was excavated below the floor, yielding finds from the Early Roman period. On the floors, pottery vessels were discovered that date from the beginning of the second century CE, thus providing an indication of the building's continual existence. A fragment of a roof-roller was also discovered. South of the building an alley and another building were discovered.

In Square F9b a dwelling complex was discovered in which a number of phases were identified; its walls were preserved to a height of four courses $(1.6 \mathrm{~m})$. The building included a silo, floors made of chalk and leveled bedrock and a plastered installation that was most likely a miqwe.

Terraced construction was noted in the area and one could see the continuation of its walls to the south. In Square F16, the easternmost square in the area, the northern part of a residential building and an alley that ascended westward to the top of the hill were exposed.

Four squares (F8d, F9d, F14a-b) were opened in the network of alleys and paths that linked the residential complexes. In the latter two squares two phases of a road were identified which descended toward a large cistern that was in the middle of the northern slope of the hill. From here the road continued to the wadi and went around the hill to the east. The upper part of the road was hewn in the form of shallow steps.
In the northwestern part of the hill two rock-hewn installations (F13, F17) were surveyed; the former was initially used as a miqwe and was later converted into a cistern (not excavated).
In Square F17 the entrance to a burial cave was exposed (Fig. 14) that was not excavated. The entrance included a long narrow corridor that was flanked on either side by high benches. The cave opening was arched, a characteristic of the Second Temple period; it was blocked by a rolling stone that was discovered in situ. By the beginning of the second century CE the tomb was no longer in use and the entrance was turned into a refuse dump that contained mostly jar and cooking pot fragments.

The site can be divided into three settlement regions. In the west and south of the site remains were discovered that date to EB II; in the north and east the remains were from the Iron II until the Byzantine period, but mostly from the Hellenistic and Roman periods; whereas in the center part of the site an overlapping of the two settlements was noted.

The EB II settlement was fortified. Its center was located at the top of the tell and its bottom part was spread across the low spur which offered effective protection. From the little that was excavated we were able to identify residential buildings, installations and a city wall. The installations were mostly hewn in the bedrock whereas the residential buildings were constructed between the bedrock outcrops. The settlement ceased to exist at the end of EB II, as evidenced by the ceramic repertoire represented by a bowl (Fig. 15:1) and jars (Fig. 15:2-4). No signs of destruction were apparent in it and the portions of its fortification wall that collapsed can be ascribed to the ravages of time.

No architectural remains were discovered that date to the Iron II, Persian and early Hellenistic periods; the pottery evidence (not illustrated), however, attests to some presence in those periods. Finds from the Late Hellenistic period, including a stamped pentagram handle (Fig. 15:5) and a lamp (Fig. 15:6), and from the Roman period, represented by a bowl (Fig. 15:7), a cooking pot (Fig. 15:8), a juglet (Fig. 15:9), jars (Fig. 15:10, 11) and a lamp (Fig. 15:12) provide evidence that the settlement was built on the eastern and northern slopes in accordance with the area's topography and thus the construction there is terraced. Since there are still walls of the Early Bronze Age buildings that are visible in the area it seems that the inhabitants of the Hellenistic settlement were familiar with them and in the center part of the hill they even reused them.

The settlement from the Hellenistic and Roman periods was rural in nature and included residential buildings and installations separated by alleys. The miqwa'ot and stone vessels (measuring cups) that were discovered bear witness to the Jewish origin of its inhabitants. The settlement did not cease to exist after the Bar Kokhba uprising and continued uninterrupted until the third century CE. The ceramic finds from the Byzantine period, represented by a casserole (Fig. $15: 13$ ) are indicative of a later occupation on part of the site that made secondary use of some of the buildings and installations.


2. Square F11a, plan.

ריבוע Square F11d

3. Square F11d, plan.

4. Walls and floor of room, Square F11a, looking west.

5. Square F10b, plan.

6. Building remains and city wall, Square F10e, looking east.

7. Building remains, Square F5c, looking northeast.

8. Building remains, Square F7c, looking east.


11. Building, Square F12b, looking southwest.

12. Olive press, Square F12d, looking west.

13. Square F8b, plan.

14. Entrance to cave, Square F17, looking east.


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## (Volume No. HA-ESI 120 (2008 <br> Khirbat el-‘Asfura (Qidron)



1. General view, looking north; Moshav Qidron in background.

2. Pottery.

3. Flint implements.

4. Stone artifacts.

Danny Rosenberg, Ron Shimelmitz and Iris Groman-Yaroslavsky
During June and August 2003, two seasons of a trial excavation were conducted at Khirbat el-'Asfura, near Moshav Qidron (License No. B-273/2003; map ref. NIG 182402-547/635119-245; OIG 132402-547/135119-245), prior to the construction of a water reservoir. The excavation, on behalf of Tel Aviv University, was directed by D. Rosenberg, with the assistance of R. Shimelmitz and I. Groman-Yaroslavsky (area supervision), M. Shuiskaya (pottery drawing) and R. Pinhas (drawing of flint and stone vases).

The site is located c. 1 km southeast of Moshav Qidron (Fig. 1), next to the confluences of Nahal Timna, Nahal Soreq and Nahal Altaqa, c. 52.5 m above sea level. The soil is brownish black clay, characterized by concentrations of chalky stream pebbles and Pleistocene conglomerates.
Two areas were investigated in the trial excavations, on behalf of the Antiquities Authority (HA-ES/ 118).
During the first season of excavations, eight squares (A-H) were opened in several areas to ascertain the nature of the site and locate its boundaries. Simultaneously, the excavation was resumed in the two areas examined in the trial excavation. The finds from Squares A-H and from the southern area of the first season were rather poor and included a few artifacts of flint, pottery and stone that were associated with the Wadi Rabah culture. Contrary to the southern area, the excavation in the northern area yielded a large quantity of ceramic finds, along with numerous flint implements, limestone and basalt tools and animal bones, all belonging to the Wadi Rabah culture.

Most of the finds were recovered from a large oval pit (length c. 5 m , width c. 4.5 m , depth $1.5-2.0 \mathrm{~m}$ ), oriented eastwest, which was discovered at the end of the first season and was focused on during the second season. The pit was located c. 70 m from the current course of Nahal Altaqa. The excavation was suspended at a depth of 1.3 m below the top of the pit, before virgin soil was reached. The pit had apparently two or three phases of use.
The finds recovered from the pit included c. 6,800 fragments of pottery vessels, including jars, bowls of various sizes and spindle weights (Fig. 2); c. 3,000 flint items, among them 270 cores (Fig. 3:1-3), c. 50 sickle blades (Fig. 3:4-9), seven bifacial tools (Fig. 3:10, 11) and two transverse arrowheads (Fig. 3:12, 13) ; 86 stone objects, mostly made of limestone, such as grinding stones (Fig. 4:1-3), a miniature bowl (Fig. 4:4), a bowl (Fig. 4:5), a small mortar on a stream pebble (Fig. 4:6), a limestone axe (Fig. 4:7), a miniature axe (Fig. 4:8), a bracelet fragment (Fig. 4:9), a flaked limestone disk (Fig. 4:10), a chopper (Fig. 4:11), a flaked blade (Fig. 4:12), pestles, a grooved whetstone, pounders and fragments and flakes from the flaked limestone industry. An assorted faunal assemblage was also found. Based on the ceramic, flint and stone assemblages, the site is ascribed to the Wadi Rabah culture, probably to its last phases.

Khirbat el 'Asfura is one of a few Wadi Rabah sites south of Nahal Soreq, which is located a few kilometers northwest of Teleilat Batashi. Although no obvious architectural remains were found at the time of the trial excavation, the amount of finds, the size of the pit and the artifacts it contained, as well as the occupation level discovered south of it during the first season, point to an apparently permanent settlement that was situated here during the middle of the seventh millennium BCE.


1. General view, looking north; Moshav Qidron in background.


2. Flint implements.

3. Stone artifacts

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1. Plan.

2. Main room, looking south.

3. Wall 10 at the back and Wall 11 to the right, looking west.

4. Pottery.

5. Base of glass vessel.

Moshe Ajami
In July-September 2003, salvage excavations were conducted at Kh. el-'Asfura, located in the Azorim neighborhood of Rehovot (Permit No. A-3965*; map ref. NIG 18242-320/64260-330; OIG 13242-320/14260-330). The excavation, carried out on behalf of the Antiquities Authority and funded by the Azorim Company, Ltd., was directed by M. Ajami, with the participation of G. Hillel (area supervision), E. Bachar and S. Ya'aqov-Jam (administration), A. Hajian (surveying), T. Sagiv (photography), M. Avissar (pottery reading), M. Shuiskaya (finds drawing), Y. Gorin-Rosen (glass), J. Sharvit (mollusks), A. Lester (metal artifacts) and A. Berman (numismatics).

A small salvage excavation was conducted in the past near the current excavation (HA-ESI 109:79*-81*; cf. BASOR $350: 20$ ), yielding architectural remains from the Late Byzantine and Early Islamic periods (sixth-ninth centuries CE).
In the current excavation nine squares were opened in which a three-room building (Fig. 1) that dates to the seventh-tenth centuries CE was exposed. The building included a large central room (L130), another large room to its south (L113) and a small room to its west (L129). The plan of the building is incomplete; no openings were found in its walls and no floors were found in its rooms.

The walls of the rooms (central: $3.50 \times 4.75 \mathrm{~m}$; southern: $3.5 \times 3.9 \mathrm{~m}$, wall width $0.60-0.80 \mathrm{~m}$; western: $1.55 \times 4.75 \mathrm{~m}$, wal width $0.60-0.80 \mathrm{~m}$; Fig. 2) were built of medium-sized fieldstones bonded with gray mortar (width $0.6-0.8 \mathrm{~m}$, preserved height c. 0.75 m$)$. They were founded on hamra soil. A row of foundations stones was exposed in the northern side of the southern wall (W1) of the central room. In the eastern side of the room a round feature (diam. 1.5 m ) was exposed made of fieldstones and gray bonding material; this was probably the base of some sort of installation. A large quantity of potsherds from the Early Islamic period (eighth-tenth centuries CE) and fragments of glass vessels and metal artifacts, including a kohl stick, were discovered in the room. Similar artifacts were discovered in the southern room, but nails, coins, parts of a bronze necklace and beads were also found there.

A floor of compacted kurkar granules and chalk (Loci 126-128) was exposed east of the central and southern rooms. The floor abutted Wall 11 in the north. It seems that the southern part of the floor (L126) originally abutted Wall 9, but the latter was robbed for almost its entire length, except for a tiny section that formed a corner with Wall 6.

The foundation of a rounded building or installation made of fieldstones and bonded with gray mortar (L117; Fig. 4) was partially excavated in the area south of Wall 6 (ext. diam. 3.15 m ; int. diam. 0.7 m ).

West of W5 a pit (L121) that contained modern finds was exposed. The pit cut through a wall stump (W13) that was oriented differently than the walls of the building. No finds were discovered when it was exposed; the relation between it and Wall 5 is unclear.

The ceramic finds discovered in the excavation date to the Early Islamic period (seventh-tenth centuries CE) and include bowl dated to the seventh century CE (Fig. 5:3), a bowl from the eighth-ninth centuries CE (Fig. 5:8), bowls from the eighthtenth centuries CE (Fig. 5:2, 4, 6, 7), a coarse bowl decorated with combing (Fig. 5:1), a glazed bowl (Fig. 5:5), a fine-ware bowl (Fig. 5:9), buff-ware jugs (Fig. 5:10-12, 18, 19), a saqiye jug (Fig. 5:11), cooking pots (Fig. 5:13) and jars (Fig. 14-17).

Three coins were found in the building, two on the floor of the western room (IAA 97953, 97954) and one in the southern room (IAA 97952). The coins date to the ninth century CE.

Metal artifacts include fragments of earrings, decorations and beads that originally hung from a loop and a bronze kohl stick The earrings from the southern room (L113) are made of a bronze wire bent in the shape of a loop to which two tiny metal loops were soldered. A wire twisted like a spring and flat beads that were cut from a shell and perforated were suspended from the loop. A gold earring of this type was discovered in a jewelry hoard from the Temple Mount excavations that was dated to the Fatimid period (Qadmoniot 62-63:88-91).
The beads are of different types, mainly small balls made of shell, clay and pearl and a fragment of a large glass bead decorated with embedded wire.

A bronze cosmetic spoon from the western room (L129; length 11.5 m ) has a long rod-like handle, one end of which is pointed and the other end with a tiny spoon that is slightly deformed as a result of use. Near the spoon is an engraved decoration that is part of the casting of the spoon. At the rear of the spoon is an incised cross-hatch decoration that is probably a later addition. Similar cosmetic spoons dated to the seventh-eighth centuries CE were found at sites such as Hammat Gader, near Jerusalem, and Kafr Jinnis, near Ben-Gurion Airport.

Thirteen diagnostic fragments of glass vessels in a poor state of preservation were found in the excavation, all dating to the eighth century CE. Among them is a fragment of a thickened base of a bowl or large bottle made of bluish-green glass. It is decorated with a combination of yellowish-brown glass trails added to form a bifurcated pattern on the bottom part of the vessel and a pinched trail in the same color of the vessel arranged in a wavy pattern around the circumference of the base (Fig. 6). This fragment probably belonged to a decorated lamp bowl that is characteristic of the Umayyad period.

In addition, five worked shells, whose sources include the Mediterranean Sea, Nile River and Red Sea, allude to trade relations with other countries. The shells include two Glycymeris insubrica and one each of Acanthocardia tuberculata, Cypraea pantherina and Chambardia rubens.

2. Main room, looking south.

3. Wall 10 at the back and Wall 11 to the right, looking west.


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5. Pottery.


# (Volume No. HA-ESI 120 (2008 <br> Khirbat el-Hannuna <br> Final Report 

llan Peretz


1. General plan.

2. Pottery and stone finds.

3. Clay ampoules.

4. Area A, pottery workshop and irrigation conduit, sections.

5. Area A, the northern pottery kiln, looking north.

During February-March 2006, a sampling excavation was conducted at Khirbat el-Hannuna (Nahal Meqorot; Permit No. A-4694*; map ref. NIG 15823-44/60382-409, OIG 10823-44/10382-409), prior to the construction of a separation fence around the Gaza Strip. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Peretz, with the assistance of Y. Drayyer (area supervision, photography), H. Lavi and Y. Ohayon (administration), A. Hajian (surveying and drafting), T. Sagiv, Y. Israel, G. Seriy, Y. Baumgarten and Y. Haimi (photography), I. Berin (final plans), C. Amit (studio photography), L. Kupershmidt (metallurgical laboratory), Y. Bukengolts (pottery restoration), I. Lidski (pottery drawing), Y. Gorin-Rosen (glass), and G. Bijovsky (numismatics).

The site extends across gentle hills, c. 2 km west of Qibbuz Nir'am. Previous records of antiquities in the area included an artificial tell, perhaps the hill on which a church was identified north of the excavation, building remains, architectural elements, water cisterns and fragments of pottery vessels that dated to the Roman and Byzantine periods (IAA Archive/Mandate, Folder 62). Probe trenching was undertaken at the site prior to the excavation. Two excavation areas (A, B; Fig. 1) were opened. Building remains and a pottery workshop from the Byzantine period (sixth-seventh centuries CE), as well as an irrigation conduit from British Mandate times, were discovered in Area A (102 sq m), the southern of the two. Refuse pits and remains of a wall from the Byzantine period (sixth-seventh centuries CE) were exposed in Area B (c. 34 sq m).

## Area A

Building Remains from the Byzantine Period (Fig. 2). Remains of a building ( $2.50 \times 3.15 \mathrm{~m}$ ) whose eastern part was not excavated were uncovered in Sq B2. The walls (W1, W3, W5; width $0.5-0.9 \mathrm{~m}$ ), preserved one to five courses high ( 0.56 m ), were built of small and medium-sized kurkar stones, mostly unworked, and mortar mixed with a small amount of dark green slag from a workshop. It seems that the inner face of W1 was slightly bent inward, possibly constituting the beginning of an arch. A thin layer of ash on top of a soil layer (L151) that could be the remains of a floor was exposed in the building. Debris from a pottery workshop, which consisted of numerous fragments of vessels that dated to the Byzantine period (sixth-seventh centuries CE), were discovered west of W3 and south of W5 (Loci 115, 136). Similar pottery fragments were found inside and on top of the building (Loci 108, 135). The assemblage included fragments of bowls and kraters (Fig. 3:1), cooking pots (Fig. 3:5), Gaza jars, jugs (Fig. 3:10) and sandal lamps (Fig. 3:15). A ceramic goblet (Figs. 3:12; 4) and two intact clay ampoules (Figs. 3:13, 14; 5) were recovered from the layers of fill above the building remains. The unusually large quantity of workshop debris near the building and the use of workshop slag in the construction of its walls indicate that the structure was founded after the workshop had commenced production (below) and it went out of use still within the Byzantine period.
Remains of a wall (W9) that was built of medium-sized, mostly unworked, kurkar stones (average dimensions $0.10 \times 0.22$ $\times 0.30 \mathrm{~m}$ ) were discovered in Square B1. Another wall of similar construction probably abutted W9 from the west. A large amount of potsherds, mud-brick fragments and slag was discovered in the excavation. The ceramic finds dated to the Byzantine period (sixth-seventh centuries CE) and included mostly fragments of Gaza jars, as well as a fragment of a goblet (Fig. 3:11).

A Pottery Workshop from the Byzantine Period (Figs. 6, 7). Parts of two pottery kilns with vaulted fireboxes were exposed. The northern kiln was oval (outer length 4.25 m , inner dimensions $2.50 \times 3.80 \mathrm{~m}$, depth $2.39-2.79 \mathrm{~m}$; Fig. 8) and its western part was not exposed. The kiln was built into the ground, extending as far down as the kurkar bedrock, which served as the floor of the firebox (L143). Four arches ( $6,7,8,13$ ) were incorporated in the firebox side wall (W2; thickness $0.20-0.35 \mathrm{~m})$, which was built of reddish pink-fired mud bricks $(0.10 \times 0.15 \times 0.15 \mathrm{~m}, 0.1 \times 0.2 \times 0.2 \mathrm{~m})$. The thin yellowish layer that covered the interior of the firebox was produced during the firing process. Arch 6 , built of large mud bricks $(0.10 \times 0.15 \times 0.40 \mathrm{~m})$, was well preserved together with its pillar (length 2.5 m , width 0.4 m , max. preserved height 1 m ). The fragments of white tiles, lime and pottery vessels, mostly Gaza jars discovered near Arch 6 (L125) could be, together with the upper course of Arch 6, the remains of the firing chamber's floor. A well-built wall (W10; exposed length 3.9 m , width 0.6 m , exposed height 0.54 m ) was discovered on the southern side of the kiln. The wall's southern side consisted of two rows of kurkar stones $(0.20 \times 0.20 \times 0.49 \mathrm{~m})$, some of which were worked, and the northern side was built of unworked fieldstones, $(0.30 \times 0.36 \times 0.45 \mathrm{~m})$, bonded with mortar. Between the top of the wall's eastern end and the top of its western end was a difference in elevation of c .1 m ; therefore, it is suggested that the wall was part of an unpreserved staircase, which led to the opening of the firing chamber. South of W10 was a layer of hard earth that contained small and medium-sized kurkar stones (L148) that could be the remains of the staircase or the staircase's southern wall.
The rounded southern kiln was built into the ground (outer diam. 2.6 m , inner diam. 2.25 m , exposed depth 0.8 m ; Fig. 9) and its the southern side was not excavated. The side of the firebox (W11) was built of fired mud bricks that were larger than those of the northern kiln $(0.11 \times 0.31 \times 0.32 \mathrm{~m})$. One of the firebox arches was preserved almost in its entirety (Arch 12; length 2.25 m , width 0.4 m , preserved height 0.8 m ). It was built of mud bricks, some of which were identical in size to those used in the side wall of the firebox and some smaller $(0.1 \times 0.2 \times 0.2 \mathrm{~m})$. A sounding above the level of the arches (L132) revealed white tiles that may have been part of the firing chamber floor. In the squares east of the kilns only a level of fine ash and potsherds was discovered.
The layers of fill inside the kilns contained pottery finds that dated to the end of the Byzantine period (sixth-seventh centuries CE), which represent the time when the kilns were no longer in use. The ceramic finds included fragments of deformed and unfinished vessels, combed kraters (Fig. 3:2-4), a few bowls, very few cooking pots, numerous Gaza jars that had various rims and bases (Fig. 3:6-8), a bag-shaped jar (Fig. 3:9), a flask, a lid, a sandal lamp and a handle that bore a potter's mark (Fig. 3:16), as well as a few fragments of glass vessels, which dated to the Roman and Byzantine periods.

An Irrigation Conduit from the British Mandate (Fig. 6). Numerous irrigation channels in the vicinity of the site are dated to the time of the British Mandate. The excavated channel (L114; exposed length 21 m , outer width 0.4 m , inside width $0.20-0.25 \mathrm{~m}$, depth 0.25 m ) was built of cement and kurkar. It conveyed water from a nearby cistern or well to an orchard that was planted on part of the site. A few potsherds of gray clay Gaza jars were found on surface.

## Area B

A large refuse pit, which contained brown, relatively soft soil that contained many fragments of pottery vessels, bones and large stones, was exposed in Sq G8. Overlying the refuse pit was a layer of firmly tamped, dark brown soil, which contained numerous potsherds of mostly Gaza jars and small pieces of kurkar that were probably debris from the pottery workshop. A dry construction wall (length 1.7 m , width 0.65 m ) built of different sized fieldstones was exposed in Sq G7. A refuse pit was discerned above this wall. Other pits were discovered in Squares F7 and F8.
The numerous finds from the pits dated from the second half of the fifth century CE until the seventh century CE and included pottery and glass vessels, a fragment of a marble bowl (Fig. 3:20), two bronze coins and bones. The ceramic finds consisted mainly of Gaza jars, bag-shaped jars, kraters, LRC and CRS-type bowls (Fig. 3:17-19), closed cooking pots and juglets. The glass vessels dated primarily to the Byzantine period, but also included one fragment that may be dated to the Early Roman period and another fragment that dated to the Late Roman period. These two fragments may allude to the existence of some activity at the site during these periods. One of the coins, dated to the reign of emperor Valentinian II, was probably struck in the mint at Kyzikos in the years 383-392 CE (type - SALVS REIPVBLICAE; IAA
100480). The poorly preserved second coin could not be identified with certainty; yet, based on its shape, it should be dated to the fifth century CE (IAA 100481).

The excavation revealed what was probably part of an industrial zone that existed along the fringes of the site. The pottery kilns are characteristic of the southern part of the country in the latter part of the Byzantine period. Mostly Gaza jars were manufactured in these kilns, along with kraters decorated with combed patterns, and possibly also some smaller vessels, among them ampoules and goblets. It is possible that the building in Sq B 2 was part of the pottery workshop, due to its proximity to the kilns. It also appears that the refuse pits were associated with the workshop.

During an antiquities inspection of construction works after the conclusion of the excavation, a wall (width $0.45-0.50 \mathrm{~m}$ ) of medium-sized kurkar stones was exposed $10-15 \mathrm{~m}$ west of Area $A$, together with mud-brick material, slag from a pottery workshop and numerous potsherds that dated to the Byzantine period. These finds indicate that other pottery kilns were present at the site.


1. General plan.


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2. Pottery and stone finds.


3. Area A, pottery workshop and irrigation conduit, plan.


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7. Area A, pottery workshop and irrigation conduit, sections

8. Area A, the northern pottery kiln, looking north.

9. Area A, the southern pottery kiln, looking south.
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10. Location map.

11. Plan and section.

During March-April 2006, a trial excavation was conducted west of Khirbat el-Mansiyah, next to the 'En Tut interchange (Permit No. A-4757*; map ref. NIG 203472-562/723832-915; OIG 153472-562/223832-915), after ancient remains were discovered in probe trenching. The excavation, carried out on behalf of the Antiquities Authority and financed by the Cross-Israel Highway Company, was directed by M.A. Tabar, with the assistance of A. Hajian (surveying).
The remains of an Ottoman khan were recorded and described by Y. Olami in a survey of the region (Map of Dalia [31]:56-57) and various excavations had been conducted there (ESI 15:49-50; 16:59-63; Permit Nos. A4389; A-4698; Fig. 1).

The western part of a structure (Fig. 2) was exposed in six half squares, oriented north-south. The outer (W3) and inner walls (W4, W5) of the building, preserved two courses high, were built of two rows of ashlar stones founded on bedrock. Three of the building's rooms, built in a row along W3, were exposed (Loci 108, 109, 110). The northern room (L110) was 3 m wide and the middle room (L108)—2 m wide, whereas the width of the southern room was not ascertained as its southern wall was not excavated. The fill in the rooms consisted of soil and different sized ashlar stones ( 0.30 $\times 0.45 \times 0.55 \mathrm{~m}$ ) that had collapsed from the walls. A few potsherds and fragments of roof tiles that dated to the Ottoman period (eighteenth-nineteenth centuries CE ) were recovered from the fill.
The location of the building, its plan and the artifacts allude to the possibility that this is the khan from the Ottoman period that was described in the aforementioned survey.


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## Final Report

Aviva Buchennino


1. Plan.

2. Pottery.

3. Pit grave, looking southwest.

During November 2005 a trial excavation was conducted at Khirbat el-Mukheizin (Permit No. A- 4640*; map ref. NIG 18232-7/63459-67, OIG 13232-7/13459-67), after ancient remains were found when a gas pipeline was installed. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Natural Gas-Line Company, was directed by A. Buchennino, with the assistance of A. Dagot (GPS system), N. Zak (drafting), M Shuiskaya-Arnov (pottery drawing), H. Khalaily (flint implements) and E . Ayalon (guidance).
The site is located in the middle of the coastal plain, north of Qibbuz $\underline{H}$ afez $\underline{\text { Hayim }}$ and east of Gedera. It is situated on a poorly drained clayey alluvium. A single excavation square was opened, revealing a mostly ruinous tomb (L101; Fig. 1) that dated to Late Bronze II. A previous excavation had been conducted at the site in 2000 (HA-ESI 115:76*), exposing meager building remains from the Byzantine and the beginning of the Early Islamic periods, along with flint implements that belonged to the Mousterian culture. A Middle Bronze IIA cemetery was uncovered at the site during two excavation seasons (A. Yasur-Landau and M. Gizowska, 2005. A Middle Bronze Age IIA Cemetery at Khirbet Muhayzin. Salvage Excavation Reports No. 2:38-49).

The boundaries of the exposed pit grave were not preserved. Human bones that probably belonged to a single individual were discovered in the grave. A cluster of medium-sized fieldstones was found near the bones. The ceramic finds dated to Late Bronze II and included an in situ broken jar, bowl rims (Fig. 2:1-6), a milk bowl fragment (Fig. 2:7), a jar rim (Fig. $2: 8$ ) and the base of a jar (Fig. 2:9). A sickle blade, similar in shape to those from the Iron Age, was discovered in the fill above the level of the burial (L100). It is a broad blade whose both narrow ends were truncated straight and the cutting edge was on one of the long sides. The grave may indicate that the burial tradition at the site, which began in Middle Bronze IIA, continued into this period.



3. Pit grave, looking southwest.


1. The site prior to excavation (Squares A, B), looking west.

2. Square A, plan and section.

3. Square A, refuse pit, looking north.

4. Pottery.

5. Square B, mud-brick wall, looking south.

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Dor Golan
During November 2006, an excavation was conducted at Khirbat el-Mukheizin (Permit No. A-4948*; map ref. NIG 18236-44/63451-6; OIG 13236-44/13451-6), after ancient remains were damaged by mechanical equipment. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Kal Binyan Company, Ltd., was directed by D. Golan (photography), with the assistance of Y. Ohayon (administration), E.C.M. van den Brink (pottery reading), C. Hersch (pottery drawing) and E. Yannai, M. Peilstöker, M. Ajami and F. Volynsky.
The site is located c. 2.5 km north of Qibbuz Haefez Hayyim. The excavation area was on a hill next to Nahal Timna, a tributary of Nahal Soreq. Three squares ( $\mathrm{A}, \mathrm{B}, \mathrm{C}$ ) were opened within the drainage ditch of a road that runs northeast-southwest (Fig. 1). Two refuse pits dating to Middle Bronze IIB and Late Bronze II and a mudbrick wall were exposed. Previous excavations at the site had revealed a wall and a floor from the end of the Byzantine period-beginning of the Early Islamic period (HA-ESI 115:76*-77*) and a cemetery from MB IIA (A. Yasur-Landau and M. Guzowska, 2005, Salvage Excavations Reports, No. 2:38-58).

Square A $(2.5 \times 5.0 \mathrm{~m})$. This square was opened along the edge of the drainage ditch. An oval pit (L100; diam. 1.4-1.6 m , depth 1.5 m ; Figs. 2-4) that contained gray soil was exposed at a depth of 0.15 m below surface. The pit became wider toward the bottom and at a depth of 0.6 m from the top a light brown-colored mud-brick matrix $(0.12 \times 0.20 \times 0.20$ m ) was discovered, adjacent to the northern side. A gray-white layer of soil (thickness $2-3 \mathrm{~mm}$ ) was exposed on the bottom of the pit. The pottery fragments recovered from the pit dated to MB IIB, including jars (Fig. 5:2, 3), among them a "Red White Blue" jar (Fig. 5:4) and LB II, including bowls (Fig. 5:7, 8, 12-14) and a cooking pot (Fig. 5:18). Animal bones were also discovered. The shape of the pit is reminiscent of a burial shaft; however, no human bones were discovered and the artifacts in the pit do not allude to an interment, but rather to a refuse pit.

Square B (Fig. 6). This square, c. 15 m southwest of Square A, was opened along the edge of the drainage ditch. A refuse pit whose shape is unclear was exposed, although only partly excavated (L200; upper width 0.6 m , bottom width 2 m , depth 1.62 m ). The pit contained gray soil mixed with potsherds that mostly dated to MB IIB, including a krater (Fig. 5:5) and a jar (Fig. 5:6), and to LB II, including bowls (Fig. 5:9-11, 15), kraters (Fig. 5:16, 17), a jar (Fig. 5:19) and a flask (Fig. 5:20). This pit also yielded a single fragment of a holemouth rim from the Wadi Rabah culture (Fig. 5:1). Southeas of the pit, at the bottom of the drainage ditch, a wall that was built of one or two rows of mud bricks (L201; length 1.2 m , max. width 0.3 m ; Fig. 7) was exposed. The mud bricks, not uniform in shape or color, were poorly preserved and probably in secondary use. The wall extended as far as the edge of the refuse pit; however, it is unclear if they were connected. Jar fragments were discovered between the mud bricks and north of the wall.

Square C. This square was c. 30 m west of Square B, along the edge of the drainage ditch. A few non-diagnostic potsherds and flint industrial debitage were scattered at a depth of 0.5 m below surface.
The remains in the excavation dated to MB IIB and LB II, the latter never before exposed at the site. A settlement was probably situated at the site during these periods, using Nahal Timna as its source of water. The region is known to have been occupied by villages during MB II, such as Khirbat Umm Kalkha (Yesodot), which is c. 4 km northeast of the site ('Atiqot 49:5-11) and Revadim, located c. 4 km southeast of the site (Gophna R. and Beck P, 1981, Tel Aviv 8:45-81). According to Gophna and Beck, rural villages in the region were connected to Yavne-Yam, which was the main site in the area during this period.


1. The site prior to excavation (Squares A, B), looking west.

2. Square A, refuse pit prior to excavation, looking north.


3. Square A, refuse pit, looking north.

4. Pottery.


5. Square B, mud-brick wall, looking south
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## Khirbat er-Rujm

## Final Report

Yoav Lerer


1. Stratum 1, plan and section.

2. Head of clay figurine.

3. Pottery.

4. Stratum 2. plan and section.

During September-November 1998 an excavation was conducted at Khirbat er-Rujm on the Sharon Plain (Permit No. A-2924* map ref. NIG 2037-45/6982-7; OIG 1537-45/1982-7). The excavation, carried out on behalf of the Antiquities Authority and funded by the Electric Company, was directed by Y. Lehrer, with the assistance of K. Tibi, S. Ya'aqov-Jam (administration), I. Vatkin and V. Essman (surveying), Y. Nagar (physical anthropology), V. Shorr (drafting), T. Sagiv (studio photography), E. Altmark (metallurgical laboratory), R. Kletter (identification of figurines), M. Shuiskaya-Arnov (pottery drawing) and E. Yannai.
The excavation area that consisted of a single square was located east of the Baqa al-Gharibiya-Tulkarm road, c. 300 m east of the previously conducted excavation at the site (ESI 18:49). Building remains, dating to the Persian period (Stratum 1) and Middle Bronze IIA (Stratum 2) were exposed.
Sections of two walls (W1, W2) were exposed in Stratum 1 (Fig. 1). Wall 1 (preserved length c. 3 m , width 0.6 m ), oriented north-south and preserved a single course high, was built of small fieldstones. Wall 2, oriented east-west and preserved a single course high, was built of medium-sized fieldstones. Several artifacts were discovered at the level of the walls, including the head of a clay figurine (Fig. 2), a fragment of an imported Cypriot vessel (Fig. 3:3), a bronze arrowhead (Fig. 4) and a bronze fibula (Fig. 5), all dating to the Persian period.
Sections of three walls (W3-W5) that probably formed part of a building were exposed in Stratum 2 (Fig. 6). The walls, preserved three courses high, were built of small and medium fieldstones. An infant burial was discovered west of W5, below the level of the walls. The burial jar, surrounded with fieldstones, was interred below the building's floor level and contained the bones of an infant, who died close to the time of birth or shortly thereafter, according to the anthropologica examination. A ceramic juglet (Fig. 3:2) was placed near the burial jar (Fig. 3:1) and both are dated to Middle Bronze IIA.


2. Head of clay figurine.


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3. Pottery.



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1. Map of the survey.

2. Wall remains (Site 10), looking north.

3. A bodeda (Site 9), looking east.

During December 2006, a survey preceding development was conducted near Khirbat esh-Sheikh Ghazi in Moshav Avi'ezer (Permit No. A-4988*; map ref. NIG 2010-4/6210-2; OIG 1510-4/1210-2), prior to the expansion of the moshav. The survey, carried out on behalf of the Israel Antiquities Authority and financed by the Tiran Engineering Company, Ltd., was performed by M. Birkenfeld, A. Nagorsky (photography) and D. En-Mor.
Settlement remains, burial caves, water cisterns, hewn winepresses and other rock-cut installations are visible at Khirbet esh-Sheikh Ghazi. The site has not been excavated to date. Fifteen antiquity sites were documented in the survey (Fig. 1), among them building remains, caves, water cisterns, agricultural installations, a stone clearance heap and walls of farming terraces. Based on the potsherds that were gathered during the survey, it seems that a settlement at the site existed from the Iron Age until the Byzantine period.

Building Remains (Sites 8, 10). A wall that was aligned north-south and built of roughly hewn medium and large size stones (Site 8; presumed length c. 10 m ) was documented. The southwestern corner of a building (Site 10; Fig. 2), whose walls were built of a single row of roughly hewn stones, was identified. It seems that modern activity disturbed the vicinity of the building.

Hewn Cave Dwelling (Site 4). The opening of the cave (length c. 1.5 m ) faced south and led to a chamber ( $3.0 \times 3.5 \mathrm{~m}$ ). An opening in the eastern side of the chamber led to another chamber that was filled with soil (a subterranean complex?).

Hewn Burial Cave (Site 5). A hewn courtyard with a staircase was at the front of the cave, whose façade was vertically hewn (exposed portion-length 0.9 m , width 1.36 m ). An arched opening was cut in the façade and led through a vaulted corridor to a burial chamber that was filled with soil and stones.

Hewn Water Cistern (Site 3). This round water cistern $(6 \times 7 \mathrm{~m})$ had a rectangular opening ( $1.1 \times 2.7 \mathrm{~m}$ ) and its sides were coated with thick gray plaster. The cistern, filled with soil and stones, had cut another earlier installation.

Hewn Rectangular Opening (Site 15). The opening was filled with soil and a fig tree had grown inside. It can be reasonably assumed that this was the opening of a rock-hewn water cistern or some other underground feature.

Rock-cut Installations (Sites 6, 9, 12). A bodeda for extracting olive oil was hewn in a bedrock outcrop (Site 6; c. $2.0 \times$ 4.5 m ). The bodeda consisted of a press bed (diam. 0.3 m ) and a small vat (diam. c. 0.2 m ). A work surface, composed of two leveled bedrock surfaces, was located in Site 9 . On the western surface ( $7 \times 10 \mathrm{~m}$ ) was a hewn bodeda (Fig. 3) that consisted of a round press bed (diam. c. 1 m ) and a collecting vat (diam. 0.6 m ), filled with soil. A hewn, irregularshaped pit ( $0.9 \times 1.5 \mathrm{~m}$ ) was discerned near the western side of the collecting vat. Three conical cupmarks (upper diam. $0.3 \mathrm{~m}, 0.7 \mathrm{~m}$ and 0.15 m ) were hewn in the eastern surface $(3.0 \times 3.5 \mathrm{~m})$. A square-shaped rock-cut installation (Site 12; $0.7 \times 0.7 \times 0.7 \mathrm{~m}$ ) whose use is unclear was also documented.

Stone Clearance Heap (Site 6; $3 \times 5 \mathrm{~m}$ ). The stone clearance heap, located south of the bodeda (above), was delineated by a wall that was built of a single course of large fieldstones. The wall of a farming terrace, built of small and medium-sized fieldstones, was discerned alongside of the heap.

Walls of Farming Terraces (Sites 1, 2, 7, 8, 11, 13, 14). The walls were built in various directions of a single row of medium-sized fieldstones and roughly hewn stones in secondary use. They were preserved two or three courses high on average. One wall (Site 11) was built of three rows of medium and large stones (length $30-40 \mathrm{~m}$, width $3.0-3.5 \mathrm{~m}$ ) along the slope of a stream channel. Half a meter wide gaps between the stones were filled with alluvium and small stones over the course of time. This seems to be a dam, based on the construction of the wall and its location. A curved wall (Site 14) was built of roughly hewn stones in secondary use. A concentration of potsherds that ranged in date from the Roman to the Mamluk periods was observed next to the wall in Site 14.

Based on the finds from the survey, this region was probably the agricultural hinterland of the settlement at Khirbat eshSheikh Ghazi. The burial cave documented in the survey was apparently also connected to the settlement, as part of its cemetery.


1. Map of the survey

2. Wall remains (Site 10), looking north.

3. A bodeda (Site 9), looking east.

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Ofer Sion


1. Location map.

2. Plan and sections.

3. Site 1, ancient road, looking southeast.

4. Site 3, winepress, looking northeast.

5. Site 4, cave, looking northeast.

During May 2005 a salvage excavation was conducted west of Khirbat esh-Sheikh Madkur (Permit No. A-4468*; map ref. NIG 19995/61724; OIG 14995/11724). The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by O. Sion, with the assistance of A. Hajian (surveying), E. Belashov (drafting), L. Kupershmidt (metallurgical laboratory), Y. Rapuano and R. Bar-Natan (pottery reading), C. Hersch (pottery drawing) and D.T. Ariel (numismatics).
The excavation was conducted on a spur southwest of Khirbat esh-Sheikh Madkur. A preliminary survey in the area revealed several sites, including winepresses, a cave and an ancient road, dating to the Roman and Byzantine periods, which were excavated (Fig. 1).
Site 1 (Figs. 2, 3)
An ancient road was exposed at the top of the slope, which led from Khirbat esh-Sheikh Madkur to cultivation plots, c. 350 m to the west. The entire length of the road was delimited by two walls founded on bedrock, which consisted of two rows of fieldstones that were preserved two courses high $(0.9 \mathrm{~m})$. The road was 2.4 m wide at the top of the slope and 5.2 m wide at its lower part. Two soundings were cut across the road, revealing a stone fill that had been deposited to conform to natural bedrock (height $0.1-0.9 \mathrm{~m}$ ). Stones cleared from the fields were used to raise the road surface $0.2-0.4$ m above the surrounding area. To the north and south of the road were cultivation plots delimited by walls, which were partly preserved a single course high and abutted the road. Fragments of pottery vessels were found in the eastern sounding, dating to the first-fourth centuries CE, including a bowl (Fig. 4:1) and jars (Fig. 4:2-8).
Site 2 (Fig. 5)
A winepress hewn in a bedrock surface on the slope was partly excavated. The winepress consisted of a treading floor (L111; $4.2 \times 4.3 \mathrm{~m}$ ) and a settling pit (L112; c. $0.9 \times 0.9 \mathrm{~m}$; visible depth 0.5 m ) that were connected by way of a channel (width 0.15 m ). A wall built of a single row of fieldstones and preserved a single course high ( W 1 ; length 1.6 m , height 0.25 m ) was exposed south of and adjacent to the winepress. An agricultural wall (W2; length 3.3 m ) was at a higher level, west of the winepress. Close to the surface of the treading floor was a jug fragment from Iron II (Fig. 4:9) and in its southeastern corner, in a calcified deposit near bedrock, was a jar fragment that dated to the Herodian period (Fig. 4:10). Site 3 (Figs. 6, 7)
A winepress, which included a treading floor (L99; $1.5 \times 2.1 \mathrm{~m}$ ), a settling pit ( $0.3 \times 0.4 \mathrm{~m}$, depth 0.3 m ) and a collecting vat (L102; $1.15 \times 1.20 \mathrm{~m}$, depth 0.7 m ) in the southwestern corner, was excavated. At the bottom of the collecting vat was a hewn depression (diam. 0.4 m ).
Site 4 (Fig. 8)
A natural cave (c. $10 \times 10 \mathrm{~m}$ ), c. 10 m east of Site 3 and 5 m below it, was excavated. A path across the slope led to its opening (width 2.1 m , height 1.6 m ) on the eastern side. The excavation in the middle of the cave and adjacent to the opening revealed three strata.
Stratum 3 was soil fill and potsherds on the floor of the cave (height 0.25-0.50 m; Loci 108, 109, 110). The potsherds from the Roman period included a cooking pot lid (Fig. 4:14) and a jar (Fig. 4:15), and those from the Byzantine period consisted of a jug (Fig. 4:13) and a lamp (Fig. 4:16).
Stratum 2 consisted of an ash layer (L109; height 7-14 cm) that was exposed in the middle and inner parts of the cave, sealing Stratum 3. No datable finds were recovered from this layer.
Stratum 1 comprised a floor of crushed chalk (Loci 105A, 105B; thickness 0.1 m ) that was spread out in all the area and abutted a wall (W3), which blocked the cave's opening and was preserved three courses high ( 1.1 m ). Several ash concentrations were noted on the floor, which was overlaid with a fill that contained a jar fragment from the Byzantine period (Fig. 4:12) and a bowl from the Mamluk period (Fig. 4:11).

The excavated sites were probably part of an agricultural system that operated in the Herodian and Byzantine periods. Based on the late potsherds recovered from the roadbed it was dated to the Byzantine period, not prior to the fourth century $C E$. The preparation of the road in this period points to an extensive agricultural activity that is also apparent from the finds on the floor of the cave, which may have been used to store wine jars. The Mamluk pottery on its floor probably attests to the temporary use of the cave in this period.




1-1

2. Plan and sections.

3. Site 1, ancient road, looking southeast.


5. Site 2, winepress, plan and section.


1-1
6. Site 3 , winepress, plan and section.



1-1

8. Site 4, cave, plan and sections.

9. Site 4, cave, looking northeast.
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Durar Masarwa
8/1/2008


1. Section.

2. The trench, looking east.

During March 2006, a probe trench was documented west of et-Taiyiba (Permit No. A-4756*; map ref. NIG 20155-7/68708-10; OIG 15155-7/18708-10; ESI 13:44, 19:33*-34*; HA-ESI 113:43*), when the area was being prepared for construction. The documentation, carried out on behalf of the Antiquities Authority and financed by the landowner, 'A. 'Aadal, was performed by D. Masarwa, assisted by N. Zak (drafting).
The trench (length 14 m , width 1.22 m ; Figs. 1, 2) was located along a steep slope on the northeastern fringes of Khirbat Fardisya. A white plaster floor (L200) above fieldstone bedding was recorded on the northern side of the section. A fieldstone-built wall (W201) that was set on bedrock was discerned near the floor. Another fieldstone-built wall (W202) was placed on top of a limestone rock (thickness $0.4-0.8 \mathrm{~m}$ ). Stone collapse (L203) in the middle of the southern side of the section was cleaned. A modern concrete wall whose construction damaged the ancient remains was built above the trench. Potsherds ranging in date from the Iron Age to the Mamluk period were discovered in the trench.


1. Section.

2. The trench, looking east.

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1. Map of the survey sites.

2. Site 14 , burial cave with large courtyard, looking west

3. Site 2, rock-hewn installation, looking south.

4. Site 24 , round well. looking southwest.

5. Site 1, columbarium. looking southwest.

During May 2004, a survey was conducted in Ramat Bet Shemesh (Permit No. A-4167*; map ref. NIG 1988-95/6256-62; OIG 1488-95/1256-62), prior to development work. The survey, carried out on behalf of the Antiquities Authority and financed by the Real Estate Appraisal Company, was directed by A. Nagorsky, A. Nagar and H. Stark, with the assistance of L. Barda (GPS).

The survey (Fig. 1) was conducted within the precincts of Kh. Fattir where a number of excavations had been conducted in the past, revealing settlement remains from the Roman and Byzantine periods, including a church with mosaic floors, olive presses and rock-hewn tombs (HA-ESI 119). Building remains, burial complexes, rock-hewn agricultural installations, stone clearance heaps and terrace walls were found in the 43 sites identified within the surveyed area (Fig. 1). The nature of the finds indicates that the area was used for agricultural and burial activities.

Winepresses (Sites 2-5, 10, 11, 13, 20, 30)
Site 3 included two winepresses that were hewn adjacent to one another. The northern one had an irregular-shaped treading floor $(1.0-1.5 \times 2.0 \mathrm{~m})$ with a rectangular collecting vat $(0.8 \times 1.0 \mathrm{~m})$ on its western side; a shallow hewn channel that extended from the middle of the treading floor linked it to the collecting vat. The southern winepress had a large treading floor $(3.5 \times 3.8 \mathrm{~m})$ and two collecting vats, one on its southern side $(0.5 \times 1.0 \mathrm{~m})$ and the other $(0.2 \times 0.8$ $\mathrm{m})$ on its western side. Three other winepresses situated within the boundaries of the survey (4, 5, 10) were characterized by small treading floors $(1.0 \times 1.2 \mathrm{~m})$ and rectangular or elliptical rock-hewn collecting vats. The southern side of the winepress at Site 5 had a hewn niche for a screw beam. Site 10 contained four elements. In its center was a winepress with a rectangular treading floor with rounded corners $(2.0 \times 2.5 \mathrm{~m}$, depth 0.3 m$)$; situated around the treading floor were three elliptical and leveled bedrock surfaces ( $0.7 \times 0.9 \mathrm{~m}$, depth 0.15 m ). The winepress at Site 11 had a treading floor $(2.0 \times 2.5 \mathrm{~m})$ and a collecting vat $(1.0 \times 1.3 \mathrm{~m}$, depth 0.5 m$)$. Site 13 included two winepresses hewn adjacent to each other; they had small treading floors (northern: $0.7 \times 1.1 \mathrm{~m}$; southern: $0.9 \times 1.0 \mathrm{~m}$ ). Site 30 included a winepress and a cave. The winepress consisted of a rectangular treading floor ( $1 \times 2 \mathrm{~m}$ ) and a shallow channel (length 0.8 m ) that led to a cupmark (diam. 0.4 m ). To the west of the winepress an opening to a soil-filled cave was discovered.

Burial Caves (Sites 14-16, 21, 22)
The cave in Site 14 (Fig. 2) had a large rectangular courtyard ( $4 \times 8 \mathrm{~m}$ ) and an opening ( $0.5 \times 0.5 \mathrm{~m}$ ) facing east that was set within a hewn frame. The cave in Site 15 had a rectangular opening (width 0.6 m ) that was covered with vegetation. The cave in Site 16 had two openings and a courtyard $(3 \times 7 \mathrm{~m})$. The northern opening was square $(0.5 \times 0.5 \mathrm{~m})$ and was delimited within a double frame; the southern was round (diam. 1.0 m ) and was inside a double rectangular frame. The openings led to a burial chamber that had three standing pits and three arcosolia. Rock-cuttings were discovered next to the cave and in its vicinity. The cave in Site 21 had a rectangular courtyard that was overlain with stone collapse and soil. The cave in Site 22 had a hewn façade (height 1.6 m ) and a rectangular opening ( $0.4 \times 0.7 \mathrm{~m}$ ) that was set in a double frame.

Basins, Cupmarks (Sites 7, 29, 34)
Site 29 (Fig. 3) included two conical basins (diam. 0.6 m ) surrounded by shallow frames that were hewn next to each other. Next to the southern side of the eastern basin was a rectangular surface. Site 34 was composed of a round vat (diam. 0.8 , depth 0.4 m ) hewn in the center of a large bedrock surface; around it were four cupmarks of different diameters $(0.15-0.40 \mathrm{~m})$ that were connected to the main vat by hewn channels. The other cupmarks discovered in the survey were also conical. Site 7 included three adjacent cupmarks (diam. 0.15 m ) and two others (diam. 0.4 m ).

Well (Site 24)
The well was round (diam. 3 m ; Fig. 4) and its sides were built of roughly hewn stones surrounded by a frame of square walls $(4 \times 4 \mathrm{~m})$ built of roughly hewn stones and fieldstones.

Quarries (Sites 23, 42)
These two quarries had two levels of rock-cuttings (each c. $30 \mathrm{sq} . \mathrm{m}$ ) from which large stones ( $1.0 \times 1.5 \mathrm{~m}$ ) were detached. Shallow cupmarks were located around the quarries.

Buildings (Site 28, 31; Fig. 5)
The remains of two structures that were built of dressed stones and fieldstones were discovered at the top of the hill. The northern building (Site 28; $6 \times 12 \mathrm{~m}$ ) included three elongated rooms. The walls of the building, which were preserved seven courses high ( 2.2 m ), were built of two rows of limestone and a fill that consisted of small fieldstones and lime. The inside of the walls in the building were plastered. Another structure (Site $31 ; 12 \times 24 \mathrm{~m}$ ), found 15 m south of the first building, consisted of four rooms that were built in a similar manner.

## Double Pool (Site 25)

The pool is located alongside a copious spring. It was rectangular ( $4 \times 8 \mathrm{~m}$ ) and divided by a partition into two smaller pools, connected by a pipe, whose walls were covered with cement. A wall (Site 26) built of medium and large fieldstones, which delimited an area of c. 150 sq m , was discovered around the spring complex.

Columbarium (Sites 1, 8, 17, 19, 33)
One installation (Site 1) was severely damaged by mechanical equipment operating in the area; it was discovered without its ceiling (Fig. 6). Thirteen rectangular niches $(0.15 \times 0.20 \mathrm{~m})$ ran the length of its northern wall, whereas only two niches survived along its southern side. From the other sites, only scanty remains were preserved.
Terrace walls, retaining walls and walls that delineated cultivation plots were discerned on the slopes of the hills (Sites 6 , $9,12,18,26,27,35-43)$. Potsherds that were found on the surface of the terraces dated to the Late Roman and Byzantine periods.


1. Map of the survey sites.

2. Site 14, burial cave with large courtyard, looking west.

3. Site 2, rock-hewn installation, looking south.

4. Site 24 , round well, looking southwest.

5. Sites 28 and 31, buildings on the hilltop, looking north.

6. Site 1, columbarium, looking southwest.
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Khirbat Janba (A) Final Report

Ilan Peretz


1. Plan and sections.

During May 2006, an excavation was conducted at Khirbat Janba (Permit No. A-4792*; map ref. NIG 21330-85/58500-35; OIG 16330-85/08500-35), prior to the construction of the separation fence from Mezadot Yehuda to Mizpe Shalem. The excavation carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Peretz and Y. Drayyer, with the assistance of H. Lavi (administration), A. Hajian (surveying), M. Haiman (photography), I. Berin (drafting), N.S. Paran, F Sonntag and Y. Baumgarten.
The site is located on the southern slope of a hill, above a dirt road leading to Nahal Tov. Other areas were excavated at the top of the hill (Permit Nos. A-4793, A-4795). Two squares, A, at the bottom of the slope and B, 10 m to its north, were opened in the excavation area. Stone circles (Fig. 1) that apparently served as shelters or bases for shepherd's tents in recent generations were exposed.
Square A. Three large stones arranged in a bow were discerned on surface before the excavation. The northernmost stone was large and embedded in the ground (length 1.1 m , width 0.37 m , height 1.3 m ), whereas the other two stones were smaller and placed on their long side. The sounding excavated in the square exposed an ash layer (L105; thickness $0.15-0.20 \mathrm{~m}$ ) between the three stones. Four stones in a circle were discovered in the ash. It seems that the place was used as a shelter by shepherds. The finds recovered from surface included a few worn potsherds, ex situ, that dated to the Byzantine-Early Islamic periods.

Square B. Prior to the excavation, five large stones were discerned on surface. The westernmost stone was set in the ground and its particularly large size resembled a mazzeva (length 1.9 m , width 1.1 m , height 1.2 m ). Small fieldstones (average dimensions $0.2 \times 0.2 \mathrm{~m}$ ) were placed between the large stones and together they formed a circle (W1) that opened to the east. An ash layer (Loci 107, 109; thickness 0.2 m ) was exposed in the sounding excavated inside the circle; the ash extended beneath the small fieldstones. The ash layer was also discovered west of W1 (L113). It seems that the stone circle was used as a shelter or a base for a tent. The finds on surface and from the excavation consisted of flint items of uncertain date, such as blades, including a sickle blade and a piece of modern tin (inside the ash). It seems that the flint implements were swept here from a site at the top of the hill.

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## Khirbat Janba (B)

## Final Report



1. General plan.

2. F1, Plan and sections.

3. F1, looking west.

4. Pottery and glass vessels

5. F2, looking south.

During May 2006, an excavation was conducted at Khirbat Janba (Permit No. A-4793*; map ref. NIG 21379-82/58520-23; OIG 16379-82/08520-23), prior to the construction of the separation fence from Mezadot Yehuda to Mizpe Shalem. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Peretz, with the assistance of H. Lavi (administration), A. Hajian, V. Essman and V. Pirsky (surveying and drafting), M. Haiman (photography), I. Berin (final plans), C. Hersch (pottery drawing), E. Aladjem and H. Khalaily (flint implements) and Y. Gorin-Rosen and N. Katsnelson (glass). Additional assistance was provided by N.S. Paran, F. Sonntag and Y. Baumgarten.
The site is situated 3.5 km southeast of Mezadot Yehuda and Samoa' in the southern part of the Hebron Highlands. The ruin is occupied today by residents of the village of Yatah. J. Ori visited the site in 1928 and reported the presence of ruins, roughly hewn masonry stones in secondary use, water cisterns and caves (IAA Archive/Mandate Folder 76). Part of a Natufian site had previously been excavated to the south and east of the current excavation (Permit No. A-4795). Two areas (A, B; Fig. 1) were opened. Area A, where seven features were excavated (F1-7), extended across a flat tract to the eastern bank of Nahal Tov; seven other features (F814; some are not marked in plan) were excavated in Area B, which extended across a rocky hill. Water cisterns, stone walls, rock-cuttings and cupmarks were discovered and several soundings that were devoid of antiquities were excavated.

## Area A

F1, F7 (Figs. 2, 3). A water cistern (F1) hewn in limestone bedrock and coated with gray plaster. The cistern had two apertures and was filled with alluvium. The southern circular aperture (diam. 0.6 m ), blocked by a large stone, was used for drawing water. The northern irregular aperture (max. width $1.1 . \mathrm{m}$ ) was used for collecting rain water. Building additions were noted in the northern and western walls of the cistern. A curved wall (W4; length 1.1. m, max. width 0.6 m , height 0.37 m ) of one or two rows of medium-sized limestone ( $0.35 \times 0.37 \times 0.40 \mathrm{~m}$ ), some were roughly hewn, was built near the northern aperture of the cistern; the eastern side of the stones was bonded with gray cement. Wall 4 abutted another wall on its west (W3; length 1.5 m , width $0.5-0.7 \mathrm{~m}$, height 0.71 m ). The dry construction of W3 utilized mostly medium-size fieldstones $(0.13 \times 0.28 \times 0.40 \mathrm{~m})$, except for the section that abutted W4. A fill of soil and stones (L102) near the southern side of W3 contained mixed body fragments of jars and jugs from the Early Roman period. West of the cistern and Walls 3 and 4, another wall (W1; preserved length 20 m , width 0.35 m , height 0.31 m ) that was built of one row of different-sized fieldstones, without bonding material, was discovered. West of W1 was a large heap of stones (Loci 103,110 ) that may be the debris removed from the cistern when it was originally quarried or cleaned.

A sounding (F7), conducted in the southeastern extension of W1, ascertained that the wall was founded on grayish brown soil, like that which covered Walls 3 and 4 and therefore, it probably post-dated the cistern. The finds in the excavation included flint implements of the Natufian culture that were swept over from the adjacent prehistoric site, rims of a jar and a jug from the Early Roman period (Fig. 4:1, 2) and a fragment of a molded glass bowl, decorated with horizontal engravings on the interior and dating to the Hellenistic-Early Roman periods (first century BCE; Fig. 4:3).

F2 (Figs. 5, 6). A cave hewn in limestone bedrock that was adapted for use as a water cistern ( $7 \times 7 \mathrm{~m}$, depth 3 m ), in which two apertures were installed. The southern one was elliptical (width 0.7 m ) and used for drawing water and the northern aperture $(0.9 \times 2.0 \mathrm{~m})$ was used to collect rain water. Ribbed jar fragments, dating to the Roman and Byzantine periods, were mixed in the gray plaster that coated the cistern. Fragments of plaster and potsherds were discovered on the bedrock floor of the cistern (L114), which was adapted for use as a shelter for shepherds once it no longer served for storing water. A wall (W2; preserved length 4.7 m , width $0.45-0.70 \mathrm{~m}$, height $0.16-0.32 \mathrm{~m}$ ) that was built of a single row of different-sized fieldstones was exposed west of the cistern.

F3. Two curb walls, which delimited the eastern and western sides of a road that led to the adjacent Arab village. Another wall (fence? stone heap?) was exposed west of the curb walls and abutted the western curb wall of the road. The curb walls resemble modern walls that delimit the continuation of the road near the village; hence, their date may be the same. It is also possible that another wall, which abutted one of the curb walls, dated to the same time as well.

F4. A heap of soil surrounded by stones; the remains do not appear to be ancient. Several flint items, swept from the adjacent prehistoric site, were discovered.

F5 (Fig. 7). A rock-hewn installation that consisted of a rectangular pit (L120; $0.27 \times 1.35 \mathrm{~m}$ ) and a shallow channel (length 4.5 m , width 0.2 m , depth 6 cm ) to its south. The installation was located to the east of and at a higher level than Cistern F2 and it can therefore be assumed that the channel and the pit, which served as a settling pit, were meant to convey rainwater to Cistern F2.

F6. Pebbles and flint items, which dated to the Late Natufian period and were swept from the nearby prehistoric site, were discovered on surface.

## Area B

F8. Two clusters, each consisting of five small cupmarks (diam. 5-10 cm) and single cupmarks nearby, were excavated.
F9 (Fig. 8). A large cupmark (L136; upper diam. 0.77 m , lower diam. 0.45 m , depth 0.58 m ) and a hewn shaft (opening of a hiding complex? L141; diam. 0.9 m , depth of excavation 0.51 m ) to its west. Tiny cupmarks (max. diam. 5 cm ) were discerned close by. The finds included flint items that dated to the Late Natufian period and worn body fragments of pottery vessels.

F10 (Fig. 9). A circular rock-hewn installation (L137; diam. 0.92 m , depth 0.51 m ), in the center of whose floor a settling pit (diam. 0.1 m ) was hewn. Two, apparently natural depressions, cut in bedrock (L138-depth 0.51 m ; L147-depth 0.77 m) were exposed west of the installation. The finds included mostly non-diagnostic flint items and a body fragment of a jar or a holemouth jar from the Chalcolithic period or Early Bronze I.
F11. Modern building remains (a watchman's hut?) on a hilltop; it was apparently used by the residents of the nearby village.

F12. Two openings of a rock-hewn cave or hiding refuge were located 10 m west of F 9 .
F13. A stone wall set on the western slope of the hill.
F14 (Fig. 10). Three medium-sized rock-hewn cupmarks (L144-diam. 0.7 m , depth 0.52 m ; L145—diam. 0.5 m , depth 0.42 m ; L146-diam. 0.32 m , depth 0.3 m ). A shallow channel connected Cupmarks 145 and 146. Numerous small cupmarks were hewn in the vicinity. The finds on surface included a few flint items and several potsherds, mostly worn, except for a Terra Sigilatta bowl fragment that is dated to the Late Hellenistic and Early Roman periods.

It is possible that all or part of the cupmarks in the excavation were connected to the adjacent site that dated to the Natufian period. Some 50 m north of the excavation, a hewn pit that was not excavated contained numerous potsherds from the Chalcolithic or Early Bronze I. It seems that the water cisterns at the site were in use as of the Late HellenisticEarly Roman periods (first century BCE-first half of the second century CE) until recent generations. Modifications to some of the cisterns were made over the years. Hiding complexes that dated to either one of the Jewish revolts against Rome existed, in all likelihood, at the site.
(Area B nuw


4. Pottery and glass vessels.


6. F2, looking south.


1-1
7. F5, plan and section.


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8. F9, plan.






1. Area $A$, general view

2. Cupmarks, looking north.

3. Area C, Ramonian-period pit, looking north.

4. Area C, Ramonian-period pit, looking south.

## Emil Aladjem

During May 2006, a salvage excavation was conducted at Kh. Janba (Permit No. A-4795; map ref. NIG 58525/400-21375; OIG 16375-400/08525), in the wake of a survey along the route of the separation fence that exposed a concentration of flint and stone artifacts. The excavation, carried out on behalf of the Israel Antiquities Authority and financed by the Ministry of Defense, was directed by E. Aladjem (photography), with the assistance of K. Golan and S. Gendler (area supervision) and V. Esmann and V. Pirsky (surveying and drafting).

The site is located southeast of Kh. Janba, on the southern slope of a hill. The artifacts, discovered to the southeast of the hill' top together with earthen pockets and several cupmarks, were washed over the natural rock surface. Flat plains, damaged by modern agricultural plowing, were to the east and south of the slope, as well as a dense concentration of flint artifacts.
Three areas were opened in the excavation: Area A, on the southern slope of the hill; Area B, on a flat plain at the southern foot of the hill and Area C, on a flat plain at the top of the hill to the east. The earth from the excavation was sieved and all flint artifacts were collected. The finds included flakes, retouched bladelets, cores and lunates, dating to the Ramonian ( 13,500 BCE) and Natufian ( $14,000-12,000$ BCE) periods.
Area A
Area A is characterized by exposed rock surfaces and earth pockets between them (Fig. 1). A large quantity of cupmarks was discovered at the top of the hill, north of Area A (Fig. 2). Therefore, it seems that the flint artifacts were not in situ, but rather washed over. Apart from two soundings (max. depth 0.3 m ), the depth of the excavation ranged from 0.1 to 0.5 m . The most common tools within the flint artifacts, which indicated the existence of a microlithic industry, were retouched flakes and bladelets. Microburin technique was used at the site, mostly for the production of Ramon points and long lunates with abrupt back retouch.

## Area B

The excavation in this area ( 12 sq m ) revealed the lowest concentration of flint artifacts, indicating this area may have been at the outskirts of the site. Preliminary processing of the material showed the same characteristics as exhibited in Area A and likewise, the finds were washed over from the top of the hill.

## Area C

Area C contained a large concentration of flint artifacts, as well as several basalt and limestone pestles. The prehistoric living surface appears to have been at the same elevation as the modern-day surface. A pit, related to the prehistoric surface and not disturbed by recent activity, was excavated (Figs. 3, 4). An ash layer in the pit (diam. 0.5 m , depth 0.2 m ) contained translucent flint chips and three Ramon points. The flint tools from Area C were indicative of a flake and bladelet industry. The most common types were bladelets, blades, microburins, retouched flakes and long lunates modified by abrupt retouch.

The numerous flint implements evidence the existence of a large Natufian and Ramonian-Mushabian sites in the environs of Kh. Janba. The flint assemblage included elongated lunates that point to the Natufian period.In addition, the Ramon points in Area C could indicate an occupation of the site, whose scope is unknown, during the RamonianMushabian period.

A number of Natufian sites to the north of Kh. Janba were surveyed by F. Valla, O. Bar-Yossef and Y. Gilead during the early 1970s. Those sites (Sansana 1, Ira 15 and Lehavim 2), found washed out from their original location, contained rock-cut cupmarks, similar to the ones in our site. Of the known Natufian and possibly Ramonian sites in this area, our site represents the southernmost settlement during this period.


1. Area $A$, general view

2. Cupmarks, looking north.

3. Area C, Ramonian-period pit, looking north.

4. Area C, Ramonian-period pit, looking south.
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5. Plan and section.

6. General view, looking northwest.

7. The ramp, looking south.

8. Wall 4 abutting W6. looking east.

Rina Avner
During July 2002 a salvage excavation was conducted c. 300 m east of the Bet Shemesh train station (Permit No. A-3676*; map ref. NIG 2000-10/6290-300; OIG 1500-10/1290-300), in the wake of track work on the railroad line between Jerusalem and the Shephelah. The excavation, carried out on behalf of the Antiquities Authority and financed by the Bren Corporation, was directed by R. Avner, with the assistance of V. Essman and V. Pirsky (surveying) and C. Amit (field photography).

A circular building and a ramp between it and the railroad track (Figs. 1, 2), which were probably built during the Ottoman period or the British Mandate era, were discovered. At least two construction phases, evidenced by the raising of the floor, were discerned and it seems that the building, whose function and purpose remain unclear, was used during both periods.
The wall of the building (W6; diam. 5.15 m , preserved height 4.65 m ) was built of large fieldstones with earth and medium-sized fieldstones between them. Nineteen courses of stonework survived and each consisted of two rows of stones with a soil fill in-between. The interior face of the wall was probably plastered. The northern face of the building's wall, which was made thicker in a later phase (W7), was preserved six courses high ( 1.2 m ). Its construction method was identical to W6.
Two cement floors, one atop the other, whose elevation difference was 2.5 m , were discovered in the building. The early floor (L4) was partly preserved in the northern part of the building and the later floor (L3) was preserved in its entirety.

A cement floor (L2; $1.25 \times 3.00 \mathrm{~m}$ ) that abutted W6 was exposed south of the building. The floor could not be ascribed to a specific time, although rifle cartridges produced during 1938-1944 were found on it. Farther along the floor to the north were four steps (average height c. 0.23 m , total height 1.2 m ) that led to a broad ramp (W4; Fig. 3). This was an especially wide wall ( 2.3 m ) at whose top was a cement floor indicative of its use. The ramp ascended from south to north toward the circular building. It probably continued south beyond the limits of the excavation area so that it actually reached the railroad track. Based on the exterior surface of the wall it appears to have been built in the same manner as Walls 6 and 7. The ramp abutted Wall 6 (Fig. 4) along a distinct seam that indicated it was built in a later phase, probably a later technical phase. Since W7 was higher than the ramp, it seems the ramp predated it. If the ramp belonged to a later period than W6, then three building phases can be counted.
No ceramic finds were recovered.


2. General view, looking northwest.



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Kareem Sa'id


1. Location map.

2. Plan and section.

3. Room 3, looking east.

4. Northern room, looking southwest.

5. Pottery.

In June-July 2006 a trial excavation was conducted in the village of Meisar (Permit No. A-4829*; map ref. NIG 204189-285/704220-280; OIG 154189-285/204220-280), along the route of a planned sewage line, following the discovery of ancient remains. The excavation, on behalf of the Antiquities Authority and with the financial support of the Menashe Regional Council, was directed by K. Sa'id, with the participation of S. Ya'aqov-Jam (administration), A. Hajian (surveying), T. Sagiv (photography) and M. Shuiskaya (pottery drawing).
The excavation was conducted in the center of the village (Fig. 1) which spreads across an area of c. 5 dunams where the Yabed Hills meet the Sharon Plain. Some of the houses of the Arab village (Kh. Hamamah - the Ruin of the Doves as it is referred to by the local residents) are constructed on top of the foundations of ancient buildings. The village does not appear in historical sources or in the Ottoman census of 1596, and it seems that it was erected in the eighteenth-nineteenth centuries CE. The name of the village is derived from the tomb of Sheikh Meisar which dates to the Early Islamic period. In the past a number of excavations were conducted nearby in which the remains of buildings, agricultural installations and a bathhouse from the Roman-Byzantine periods were exposed (HA-ESI 113:39*-40*; A-3602; A3925; A-4787).

Six squares were opened in which two strata were discovered (Fig. 2).

## Stratum I

Four rooms of a residential structure were uncovered in this stratum. The walls of the eastern room (W106, W107, W123) were built of large fieldstones, and its floor consisted of plaster and tamped earth (L117). An opening (width 0.5 m ) in Wall 107 led to the second room. A plaster floor (L115) that was founded on a bedding of large fieldstones abutted the walls (W107, W111) of that room. Plaster floor L121 continued to the third room whose walls (W111, W112, W114) were built of fieldstones and faced with gray plaster. West of Wall 112 and parallel to it, another wall (W120) was exposed that formed a room that was paved with medium-sized fieldstones (L132; Fig. 3). A massive wall (W113) built of three rows of fieldstones and abutted by a stone pavement (L129; Fig. 4) was exposed c. 5.5 m west of the building. Fragments of glazed bowls (Fig. 6:1-5), kraters (Fig. 6:6) and jugs (Fig. 6:7-9) from the Abbasid period (ninth-tenth centuries CE) were found in the fill of the walls and in the floor beddings.

## Stratum II

After dismantling part of the floor of Stratum I (L115), a round pit (L130) was exposed that was hewn in nari bedrock. It seems that the quarrying of the pit was halted at the point where bedrock became friable (Fig. 5). Part of a second hewn pit (L128) was exposed after another floor (L117) was removed. Fragments of bowls (Fig. 6:10) and jars (Fig. 6:11-17) dating to the Byzantine period (seventh century CE) were found in the fill of both pits.

A residential building consisting of four rooms was exposed in the excavation. While it dates to the Abbasid period, certain hewn stones and columns from earlier periods were reused in its walls. It seems that cisterns and stone quarries were hewn in earlier periods as well. Despite the limited scope of the excavation it sheds light on the settlement history of the region in the Early Islamic period.


1. Location map.


2. Room 3, looking east.

3. Northern room, looking southwest.



TVI WWI $/ 3$

6. Pottery.
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Khirbat Nina
Final Report
Eli Yannai


1. Pottery and metal finds.

During September 2007, a salvage excavation was conducted at Khirbat Nina, north of Nahal Soreq (Permit No. A-4894*; map ref NIG 184642-65/635557-96; OIG 134642-65/135557-96), in the wake of damage to the site when a gas pipeline was installed. The excavation, carried out on behalf of the Israel Antiquities Authority and financed by the Natural Gas Lines Ltd., was directed by E. Yannai, with the assistance of E. Bachar (administration) and C. Hersch (pottery drawing).

The site is located in an alluvial area that was plowed to a shallow depth and exposed. Three bones were found on the surface in the northern part of the excavation and a trial square was opened in the southern part. Two skeletons were found in situ and part of the left hip bone of a third skeleton was discovered ex situ in the square. The skeletons were not accompanied by any funerary offerings; their heads were in the west, facing south. Based on their position and the absence of any finds it can be assumed that these were Muslim graves, even though no datable artifacts were recovered. The trial square also contained dark brown mud-brick material with no remains of walls, stone foundations or floors, yet with a few potsherds from Middle Bronze IIA-B. These included three bowls (Fig. 1:1-3), a krater (Fig. 1:4), a cooking pot (Fig. 1:5) and two jars (Fig. 1:6, 7). It seems that this was part of a room or a pit whose eastern section was cut by the trench for the gas pipe and its outline was incomplete.

On the surface were two bronze daggers (Fig. 1:13, 14) and scattered potsherds from the Late Bronze Age, including bowls (Fig. 1:8, 9), kraters (Fig. 1:10, 11) and a jar (Fig. 1:12).

The remains exposed in the excavation and those discovered on the surface indicate that Khirbat Nina was a settlement and not a cemetery. It was first occupied during the transition phase between Middle Bronze IIA and IIB and reoccupied in the Late Bronze Age. The small-scale excavation was insufficient to determine whether the excavated area was part of an extensive site or just several refuse pits of a nearby settlement. Nevertheless, the finds from Khirbat Nina are consistent with the settlement picture in the Nahal Soreq basin, where Tel Gezer was the main site and around it a number of smaller settlements flourished. To the north of Khirbat Nina is Tel Malot and to the east is Tel Bet Shemesh. Small open settlements were located at Yesodot and Tel Batash. It can reasonably be suggested that Khirbat Nina was a similar open settlement, which is covered today with deep alluvium and only a small sample of it was exposed in the current excavation.


# (Volume No. HA-ESI 120 (2008 Khirbat Rafeidiya Final Report 

27/3/2008


1. Water cistern, plan and section.

2. Water cistern, looking east.

3. Pottery.

During May-June 2004, a salvage excavation was conducted south of the Qatannâ village (Khirbat Rafeidiya; Permit No. A-4170*; map ref. NIG 21065/63678; OIG 16065/13678), along the route of the separation fence. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Zilberbod, with the assistance of R. Abu Halaf (administration), A. Hajian (surveying), A. Nagorski (photography), R. Louis (antiquities inspection) and C. Hersch (pottery drawing).
A backhoe-dug probe in a rock-hewn water cistern, which was recorded during a development survey on the slope of the southern bank of Nahal Kefira, was manually examined and documented (Figs. 1, 2).
The elliptical cistern had a bell-shaped cross-section (3.5-4.0 $\times 4.0 \mathrm{~m}$ ). Its sides and floor were coated with a layer of hydraulic plaster (thickness 14 mm ) and a rectangular opening (L1; $0.8 \times 1.0 \mathrm{~m}$, height 0.6 m ) was hewn in its ceiling. The fill inside the cistern included a layer of gray soil mixed with a collapse of large stones (L2; $0.8 \times 1.0 \mathrm{~m}$, height 1-2 m ) and a burnt layer (L3; thickness 0.1 m ) below it. A layer of soil (L4; thickness 0.5 m ) on the floor of the cistern contained fragments of jugs from the first century BCE (Fig. 3:1-7) and was probably dated to the period of its use. Fragments of a FBW-type jug (Fig. 3:8) that dated to the seventh-eighth centuries CE were recovered from the upper fill, below the opening of the cistern. The surface around the cistern was enclosed within a terrace wall, 2.5 m to the west, oriented north-south; perpendicular to it was a stone fence that delimited cultivation plots.



# (Volume No. HA-ESI 120 (2008 <br> Khirbat Umm el-Baqar (Nahal Adorayim) 



1. Location map.

2. Building 1, with Kh. Umm el-Baqar in the background. looking west.

3. Building 2. plan and section.

From November 2004 to the beginning of January 2005 an excavation was conducted at Kh. Umm el-Baqar (Permit No. A-4291; map ref. NIG 18018/60420; OIG 13018/10420), in preparation for the construction of Section 20 of the Cross-Israel Highway. The excavation, carried out on behalf of the Antiquities Authority and financed by the Cross-Israel Highway Company, was directed by P. Nahshoni and S. Talis, with the assistance of E. Aladjem, H. Lavi (administration), A. Hajian (surveying), C. Amit (studio photography), J. Bukengolts (pottery restoration) and I. Lidski-Reznikov (drawing).
Kh. Umm el-Baqar (Fig. 1) is a tell located north of Nahal Adorayim where remains that dated to the Late Bronze and Iron Ages and the Persian, Hellenistic, Roman, Byzantine, Early Islamic and Ottoman periods (Y. Dagan 1992, Map of Lakhish [98]:90, Site 249) were surveyed.

The excavation was conducted along the edge of the eastern slope of the tell that descends on the western side of a short tributary of Nahal Adorayim. Throughout most of the area bedrock was close to surface and partially exposed.
Two excavation areas were opened, Area A in the north and Area B in the south. No building remains were located in Area A, whereas in Area B remains of buildings and floors that dated to the Iron Age were discovered. The remains, discovered at a depth of several centimeters below surface, were poorly preserved as a result of cultivation and erosion. Scant remains from the Early Bronze Age were found in the southern part of the area.

In Area A two rows of three squares each were opened along an east-west axis. One row was located in the stream channel and the other was to the north of it. Two natural caves whose openings faced east, on the other side of the tributary that surrounds the tell, were also examined. A hewn cupmark was discerned in the bedrock near one of the caves. No building remains were found in the caves, nor was there any evidence that they were used.

In Area B, located at the southeastern end of the site, twenty-five excavation squares were opened. In eight of them a thin layer of soft, dark brown plowed soil was found overlying bedrock, without any architectural remains. Building remains were discovered in fifteen of the squares; at least two buildings dated to the end of Iron I-beginning of Iron II (Buildings 1, 2). Building 1 was exposed in the center of the area and Building 2 was located in its northern part. A pit that contained remains from the Early Bronze Age was uncovered in another square in the south of the area.

## Iron Age

A section of Building 1 (Fig. 2) that included one room $(2.3 \times 3.2 \mathrm{~m})$ delimited by Walls in the east, the west and the south was exposed; its entrance was not discovered. The walls of the room, preserved a single course high ( $0.10-0.26 \mathrm{~m}$ ), were erected partly on bedrock and partly on soil fill mixed with small stones. They were built of two rows of fieldstones and a fill of small stones. A beaten-earth floor that was set on bedrock was exposed in the room, beneath a stone collapse. Meager building remains were discovered north of Building 1. South and east of the building were sections of a beaten-earth floor that was laid on bedrock; soil fill was used to level the bedrock depressions.

Building $2(10 \times 20 \mathrm{~m}$; Fig. 3), to the north of Building 1, included a paved courtyard (10) and three rooms (11, 12, 13). The walls of the building were built of two rows of fieldstones and a fill of small stones. Most of the walls were preserved one course high, except for two walls (W29, W32) that survived to a height of two courses. The building's beaten-earth floors were set on bedrock, and in those places where bedrock was high, it was leveled and apparently used as part of the floor.

Courtyard $10(5 \times 7 \mathrm{~m})$ was delimited in the west by Wall 29 (height 0.4 m ) and in the north by Wall 26 (height 0.15 m ). There was probably an opening in the western wall of the courtyard leading to Room 11 that was blocked for some reason by Wall 32 (height 0.36 m ). The contour of the opening was slightly curved and it abutted Wall 25 in the south and Wall 29 in the north. Sections of a pebble floor, partly covered by stone collapse, were preserved in the courtyard.

West of the courtyard was Room 11, of which only its southeastern corner ( $2.5 \times 2.5 \mathrm{~m}$ ) was preserved. It was enclosed on the south by W25 (height $0.10-0.20 \mathrm{~m}$ ) and on the east by W29 and W32. The floor of the room consisted of beaten earth and leveled bedrock. A tabun was found on the floor in the corner of the room (W25 and W32); below the floor was a habitation level that predated the building.

North of Courtyard 10 was another room (12; $2.1 \times 5.0 \mathrm{~m}$ ) that was delimited on the south by Wall 26, on the east by Wall 28 (height $0.10-0.17 \mathrm{~m}$ ) and on the north by Wall 30 (height 0.15 m ). Inside the room was a beaten-earth floor and three flagstones that were not in situ; therefore it is unclear if the room was originally paved. There was probably an opening in W28 that connected Rooms 12 and 13

East of Room 12 was another room 13, of which only its southwestern part was preserved ( $1.70 \times 2.10 \mathrm{~m}$ ). It was delimited on the south and west by Walls 26 and 28 respectively.

A section of another wall (W31; height 0.24 m ), built on soil fill in bedrock depressions, was discovered 7 m north of Building 2. West of W31 was a beaten-earth floor next to leveled bedrock.

Pottery vessels characteristic of the end of the 11th century and beginning of the 10th century BCE-that is to say the end of Iron I or the beginning of Iron II-were found on the floors of the buildings. The assemblage included an abundance of chalices and goblets, which may be indicative of (domestic?) cultic activity. Many storage jars characteristic of the period were also present.

Stone objects included grinding and pounding tools. Some of these objects, such as basalt, were imported to the site from a considerable distance.

## Early Bronze Age

Remains from this period were found in an irregular-shaped pit that was hewn in the friable bedrock ( $1.3 \times 2.5 \times 2.0 \mathrm{~m}$ ). The finds included potsherds and a Canaanean blade./p

To summarize, limited activity of an undefined nature occurred at the site during the Early Bronze Age. In the Iron Age a settlement that included buildings and courtyards was established. It seems that the meager architectural finds and their poor state of preservation stem from cultivation and erosion and the fact that the excavated area was located along the fringes of the settlement.


1. Location map.

2. Building 1, with Kh. Umm el-Baqar in the background, looking west.


3. General plan of excavation.

4. A dam in the wadi channel.

5. The system of dams in the wadi channel, south of Road 30.

6. Rock-hewn steps, looking southeast.

7. Quarry 17, plan.

Oren Shmueli Orit Segal and Uzi 'Ad

18/3/2008
During January-February and July 2003, salvage excavations and a survey were conducted in Modi'in (Permit No. A-3816; map ref. NIG 1998-2024/6426-6433; OIG 1498-1524/1426-33), prior to the paving of the southern routes of Highways 11 and 12. The excavations, carried out on behalf of the Antiquities Authority and financed by the Netive Ayyalon Company, were directed by O. Shmueli and O. Segal, with the assistance of U. 'Ad (area supervision), Y. Dangur (administration), V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (photography), A. Glick and L. Barda (GPS system), M. Shuiskaya (pottery drawing) and G. Hillel, I. Korenfeld and T. Kanias

The excavations and survey were undertaken along the southern bank of a wadi channel (length 2 km ; Areas AC; Fig. 1), from the northeastern fringes of Horbat Hadat in the east to the Modi'in-Latrun road (Highway 2) in the west. The ancient remains included roads, burial caves, winepresses, a rock-hewn staircase, quarries, cupmarks, a crushing stone of an oil press, dams built to exploit rainwater for agricultural purposes (Figs. 2, 3), farming terraces, stone clearance heaps and natural caves. It seems that some of the finds were associated with the settlement whose remains were exposed nearby and dated to the Chalcolithic, Roman and Byzantine periods.
The western part of the area bordered on the southern edge of Khirbat Umm el-‘Umdan (HA-ESI 114:64*-68*; HA-ESI 118) and its eastern part bordered on the fringes of Horbat Hadat (HA 4:15, 5:18; 6:17 [Hebrew]; HA-ESI 119). The area was surveyed in 2002 (HA-ESI 117, HA-ESI 118).

Roads. Sections of two roads $(22,30)$ were excavated and another road $(38)$ was documented. Two half squares were opened in Road 30, which extended along the wadi channel. Two building phases were discerned in the construction of the road, which was enclosed on both sides by walls of roughly hewn stones, preserved two-three courses high. The roadbed, exposed on the northern side of the road, consisted of small and medium-sized stones. Two excavation squares were opened along the edge of the northern slope of Horbat Hadat (Area B), where levels of small and medium stones that were probably the continuation of the roadbed, were exposed. This was probably a local road. Road 22 branched off of Road 30 and ascended to the southeast, toward Horbat Be'erit and Horbat Qanuba. The sides of the road were delimited by walls of dressed stones that were preserved three courses high ( 0.5 m ). The roadbed was not discovered, yet soil fill used to level surface was exposed. Road 38 (width 10 m ), oriented north-south, was built on a bedrock terrace and delineated by large boulders.

Burial Caves. Six rock-hewn burial caves (36, 71, 82, 84a, 84b, 85) were located in the wadi channel. Another tomb was hewn in the collecting vat of a winepress (83) after the latter was no longer in use. The tombs were not completely cleared; only the courtyards of the burial caves were excavated because of constraints imposed by the Ministry of Religious Affairs. Burial Caves 36, 71, 82 and 85 were hewn close to the channel and their entrances faced Road 30. Burial Cave 84a was hewn on a bedrock terrace, slightly higher up and its entrance did not face Road 30. All the burial caves had a square courtyard and a façade that included a doorway surrounded by a stepped frame. The ceramic finds from the courtyards dated to the Early Roman period, save those recovered from the courtyard of Cave 71, which dated to the Roman and Byzantine periods, indicating this cave was in use for a longer period. The fact that some of the caves' entrances faced Road 30 indicates they were contemporary.

Winepresses. Eight rock-hewn winepresses were excavated (9, 14, 15a, 15b, 45, 61, 69, 83). Four of the winepresses ( $9,14,15 \mathrm{a}, 15 \mathrm{~b}$ ) included a treading floor and a circular collecting vat. Three of the winepresses $(45,61,69)$ included a treading floor and a square collecting vat. Winepress 83 was more complex and consisted of a treading floor and two plastered collecting vats.

Hewn Bedrock Steps. On the northeastern slope of Horbat Hadat, a rock-cut staircase that consisted of ten-twelve steps ( 69 ; width 0.6 m , height of 0.45 m ; Fig. 4), was exposed. The steps may have led to a winepress. A deep cupmark (diam. 0.25 m ) was discerned above the fifth step from the bottom of the staircase.

Quarries. Five quarries, cut in the nari bedrock, were exposed (17, 67, 68, 70, 72). Medium-sized stones ( $0.15-0.25 \times$ $0.40-0.60 \mathrm{~m})$ were hewn in Quarry $17(4 \times 14 \mathrm{~m}$; Fig. 5). Lower down from this quarry a burial cave (84a) that dated to the Early Roman period was documented; the quarry may also be ascribed to this period. Quarry $67(3 \times 4 \mathrm{~m})$, which was located on a low terrace above the wadi channel, consisted of two steps where stones were cut ( $0.25 \times 0.40 \times 0.90 \mathrm{~m}$ ). The quarry was severed by an ancient road that dated to the Byzantine period and ascended to Horbat Hadat. It therefore seems that the quarry predated the ancient road and was from the Early Roman period. The large, L-shaped Quarry 68 (length of each side 8.5 m , max. quarried depth 2.5 m ; Fig. 6) had six hewn steps (height $0.15-0.35 \mathrm{~m}$ ) and circular shallow depressions (diam. 0.12-0.14 m, depth 5 cm ), the likes of which (diam. $0.10-0.30 \mathrm{~m}$ ) were noted in Quarry $70(2.8 \times 3.9 \mathrm{~m}$, average depth of rock-cutting 0.25 m ; Figs. 7, 8). A curved meager fieldstone wall (preserved length 1.6 m ) was constructed atop the quarry in a later phase. A deep rectangular rock-cutting, which may be a tomb whose quarrying was incomplete, was revealed in Quarry 72 ( $2 \times 3 \mathrm{~m}$; Figs. 9, 10).

Clusters of Cupmarks. Two clusters of cupmarks hewn in bedrock surfaces (62, 70) were exposed. Thirty-one elongated and shallow cupmarks ( $0.28 \times 0.38-0.58 \mathrm{~m}$, depth $0.11-0.35 \mathrm{~m}$ ) that were arranged in two-three rows were found in Cluster 62. The width of the cupmarks was uniform and it therefore seems they were hewn by the same chisel. Twenty elongated and shallow cupmarks ( $0.2-0.3 \times 0.3-0.4 \mathrm{~m}$ ) were found in Cluster 70. Based on excavations that were conducted west and north of Horbat Hadat (HA-ESI 117, HA-ESI119) the elongated cupmarks can be dated to the Chalcolithic period and ascribed to a settlement of this period that was exposed in those excavations.

Crushing Stone of an Oil Press. On the northeastern slope of Horbat Hadat, the bedrock-hewn crushing stone of an oil press ( 75 ; diam. 1.8 m , thickness 0.5 m ) was cleaned. The quarrying of the stone was incomplete and it was not detached from bedrock, possibly because it had broken.


1. General plan of excavation.

2. A dam in the wadi channel.

3. The system of dams in the wadi channel, south of Road 30 .

4. Rock-hewn steps, looking southeast.


5. Quarry 68, plan and section.

6. Quarry 70, looking southwest.

7. Quarry 70, looking west.



## (Volume No. HA-ESI 120 (2008

## Kinneret, the Berenice Aqueduct to Tiberias <br> Final Report



1. Plan and sections.

2. General view of aqueduct remains, looking north.

3. Southern square, side view of channel segment, looking east.

4. Northern square, section of channel segment, looking north

5. Northern square, plaster floor of channel.

Yardenna Alexandre
10/9/2008
During February-March 2008, a small-scale salvage excavation was conducted in a private building plot, located on the mid-slope between the houses of the Moshava Kinneret (Permit No. A-5387*; map ref. NIG 25315/73655; OIG 18315/23655).

The excavation, on behalf of the Antiquities Authority, was directed by Y. Alexandre, with the assistance of Y. Ya'aqoby (administration), T. Meltsen and R. Mishayev (surveying), H. Smithline (field photography) and H. Tahan (pottery drawing).
The ancient aqueduct that transported spring water from the vicinity of upper Nahal Yavne'el to the Roman city of Tiberias is well-known and segments of the channel are still visible on surface to date. Remains of this aqueduct, which is popularly although inaccurately called the Berenice aqueduct, were observed and investigated by early travelers to the Holy Land, as well as by local researchers (Vinogradov Z. 1989. The Berenice Aqueduct - The Ancient Aqueduct of Tiberias. In D. Amit, J. Patrich and Y. Hirschfeld eds. The Aqueducts of Ancient Palestine. Jerusalem. Pp. 123-132 [Hebrew]).

The ancient aqueduct trapped water from the 'En Ran spring at the top of the Yavne'el basalt ridge and transported them, for a distance of over 11 km , with a shallow gradient, all the way to the large municipal pool, popularly but inaccurately known as the Dona Gracia pool, which is located at the northern extent of the Roman town of Tiberias. The aqueduct crossed the area, which is now the Moshava Kinneret, from south to north and here the current excavation was undertaken. It was initiated due to the exposure of several basalt stones in the course of mechanical earthworks, which the local inspector, B. Hana thought to have belonged to the aqueduct. Two excavation squares (each $2.5 \times 5.0 \mathrm{~m}$ ), along the line of stones, were opened.
The limited remains of the water channel were exposed for a length of 13 m , including the 3 m balk between the squares (Figs. 1, 2). The channel was built of local basalt stone throughout. Only the base of its stone walls was preserved, directly overlying the extant foundation courses, as well as a small segment of the plastered channel floor. A section was cut through the channel in both squares, exposing the various layers of the channel infrastructure. It became evident that some variation existed in the makeup of the different channel segments. The components of the channel as visible in each of the sections are described from the base upward.

The bottom stone course in the southern square was of large elongated and roughly worked basalt stones (average size $0.50 \times 0.75$, height 0.4 m ), laid in a widthwise row on top of the hizriya, which is the natural basalt gravel layer (Fig. 3). The earth around these stones was a fine, dense yellowish-colored hawwar sterile soil, which must have been brought here to provide a well-packed water absorbing base for the stones. Above these large stones were about three courses of medium-sized field stones (height c. 0.55 m ), partially bordered on both sides by larger stones, which were certainly the base of the channel walls, although most of them were absent. Above the medium-sized stone layer was a single course of small rounded stones, rather like smoothed cobbles, bonded together with mortar (height c. 0.25 m ). The smoothed rounded stones had a fairly equal size and were probably brought from a nearby stream bed. This was the top surviving layer of the channel ( CH 109 ; max. external width 1.5 m , internal width 0.8 m ) in the southern square, as no remains of the channel floor itself, which must have directly overlain the small stone layer, survived. The earth fill on both sides of the channel contained several burnt patches that may have been the remains of the floor plaster, which was applied to the top of the stones.

A somewhat different picture of the channel (CH110) was revealed in the northern square, as was the state of its preservation. The large rectangular stones at the base of the channel were missing. Rather, a thicker but uneven layer of yellowish, densely packed hawwar soil (depth c. 0.5 m ) without any large stones was evident, overlaid with a haphazard layer of medium-sized stones (Fig. 4). On either side of this layer were the larger base stones of the channel walls. The eastern wall (width 1.5 m ) was rather well preserved, unlike the western wall, whose stones in the southern part were missing and in the northern part it extended into the balk, beyond the excavation limits. The plastered (thickness c. 4 mm ) floor of the channel and its curved margins were preserved (internal width 0.6 m ; Fig. 5). Based on these measurements the overall external width of the channel may have reached 3.6 m . A small segment of a lower plaster floor was observed in the section cut in the northern square. This seems to indicate two phases of construction and subsequent repairs of the channel.
The elevation of the plaster floor in the northern channel segment (CH110) was - 155.60 below sea level. Undoubtedly, a very slight slope from south to north was extant, but this could not be verified, since the plaster floor in the southern channel segment (CH109) was missing.

A rather small quantity of potsherds was recovered from the excavation, predominantly in the channel itself and some in the fill on either side of the channel. Most of the small potsherds were non-diagnostic but the fabric was visibly Kefar Hananya ware of the Roman period. The illustrated potsherds include bowls of Kefar Hananya Type 1D (Fig. 6:1-5), cooking pots of Kefar Hananya Type 4C (Fig. 6:6, 7) and a Shikhin type store jar (Fig. 6:8). These pottery types date to the late third century CE and point to the construction of the channel in the late third or early fourth century CE, namely during the Late Roman period, which was a time of significant development in Tiberias and it is very likely that the construction of the aqueduct was undertaken at that time.

This small-scale archaeological excavation has thrown some light on the construction techniques of the ancient Berenice aqueduct to Tiberias. It likewise provided some evidence, supporting the undertaking of this large-scale municipal project in the late third or early fourth century CE.


1. Plan and sections.

2. General view of aqueduct remains, looking north.

3. Southern square, side view of channel segment, looking east.


4. Northern square, plaster floor of channel.

(Volume No. HA-ESI 120 (2008
Korazim Junction, Survey Final Report

Oren Zingboym


1. Location map.

2. Dolmen.

During April 2006 a survey was conducted at the Korazim Junction (Permit No. A-4766*; map ref. NIG 2518-21/7565-8; OIG 2018-21/2565-8; Fig. 1) prior to development work. The survey, carried out on behalf of the Antiquities Authority and financed by the Mevo'ot Hermon Regional Council, was directed by O. Zingboym.
South of Moshav Korazim, a number of ancient sites were discerned, including a dolmen field, enclosure sites, $\underline{H}$ orbat Berekh, which dates to the Bronze Age and $\underline{H}$ orbat Sur, which dates to the Byzantine period.

Three dolmens and a number of roofing stones from others were documented. They are part of a larger dolmen field destroyed during construction activities. Other dolmens from this field had previously been documented (cf. 'En 'Adaya, HA-ESI 117).
At one dolmen a roof-stone ( $3 \times 4 \mathrm{~m}$ ) that belonged to a robbed chamber (Fig. 2) was found. Next to it was another, in situ roof-stone $(2 \times 3 \mathrm{~m})$. Another dolmen was probably located at the site, but could not be documented due to mechanical equipment working in the area. It is possible that these two or three dolmens identified in the area represent only a small portion of what was once an extensive dolmen field.


1. Location map.

2. Dolmen.

# (Volume No. HA-ESI 120 (2008 <br> Lod 

## Elie Haddad

## 21/8/2008



1. Location map.

2. Areas A and B; plan.

3. Lower pavement, looking north.

4.Foundation of robbed wall, looking west

4. Upper pavement (left), looking north.

In January-February and April-May 2004 a trial excavation was conducted in the northern part of Lod (Permit No. A-4079; map ref. NIG 190789-849/652077-127, OIG 140789-849/152077-127; Fig. 1), prior to construction activity. The excavation, on behalf of the Antiquities Authority and with the financial support of the Africa-Israel Company, Ltd., was directed by E. Haddad, with the participation of Y. Arbel, H. Torge and U. 'Ad (area supervision), S. Ya'aqov-Jam and E. Bachar (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), Y. Nagar (physical anthropology), C. Amit (studio photography), Y. Bukengolts (pottery restoration) and M. Avissar (preliminary ceramic analysis).
The excavation area was situated in a parking lot east of Abba Hillel Silver Street, c. 100 m west of Nahal Ayyalon and c. 350 m north of the ancient Tel Lod. A number of excavations were conducted there in the past (A-2224, A-3552, G-82/1998).

Twelve squares (Fig. 2) were opened, ten of them in the northern part in a wide strip aligned in an east-west direction (Areas A and B), and two in the southeastern part (Area S). Five strata that date from the Late Roman to the Abbasid period were identified.

Stratum V: Late Roman-Byzantine period (third-fourth centuries CE).
Stratum IV: Byzantine period (fourth-sixth centuries CE).
Between Strata IV and III a homogenous soil fill (thickness 0.7 m ) was found in Square R2 which contained mostly zir jar fragments that date to the end of the sixth-seventh/eighth centuries CE.
Stratum III: Abbasid period (eighth-tenth centuries CE).
Stratum II: Late Abbasid period.
Stratum I: Approximately eight pit graves oriented in an east-west direction were exposed below the modern bedding of the asphalt parking lot, cutting the fill layer of Stratum III. These graves are either late Abbasid or later in date.

## Stratum V

In Squares R2 and R3 (Fig. 2), a section of a flagstone pavement ( $2 \times 3 \mathrm{~m}$; Fig. 3) was exposed that is almost certainly indicative of a large public building that existed there. A probe that was conducted below the pavement dated it to the Late Roman-Byzantine period (third-fourth centuries CE). West of the pavement and below it (c. 0.2 m ) was a bedding of large fieldstones that abutted the plastered side of a wall (W128; preserved height c. 0.8 m ) from the west (Fig. 4). In the east the bedding reached a pavement and did not continue beneath it. It is quite possible that a robbed-out wall oriented in a north-south direction was built above this bedding. It seems that the plastered western face of the wall reinforced it and prevented water from percolating into its foundation.

East of the pavement the bedding (L139) of a flagstone pavement was exposed which included tightly-laid fieldstones; this bedding was not found in the western part of the pavement and below it. Below L139 a soil fill was excavated that was mixed with ash (L144; thickness 1 m ) that contained potsherds from the second-first centuries BCE, among them a Hasmonean jar, and additional jar fragments that postdate the year 70 CE.

## Stratum IV

Above the upper part of the stone pavement was a fill layer (L142; thickness 0.2 m ; Fig. 2). This was overlain by a pavement made of medium-sized fieldstones (Fig. 5) that was partially preserved; flagstones from the lower pavement appear to have been incorporated into it. The pottery from L142 dates to the Byzantine period. North of the upper pavement was a worn column base that was incorporated into the pavement. It seems that a small column stood on this base (as alluded to by a robber trench above the base). Above the upper pavement was a homogenous soil fill (thickness 0.7 m ) that yielded fragments of zir jars and baggy-shaped storage jars that date to the end of the sixth-seventh/eighth centuries CE. Above the fill layer was the foundation of a wall (W109) built of small to medium-sized fieldstones that dates to the eighth-tenth centuries CE. The wall was part of a compound that was partly excavated (Stratum III).

A poorly-preserved plastered water channel (length 8.5 m ) was exposed below the eastern room of Stratum III and to the north and south of it. Very little of it survived; its floor, which was fragmentary, indicated it sloped from south to north. A probe that was cut in the channel revealed that its western side was deeper than its eastern one, which was built on the floor of the channel (Fig. 6).

## Stratum III

This stratum was the principal one exposed at the site (Fig. 2). The foundations of the southern part of a large residential compound from the Abbasid period were exposed. The compound was divided into at least three units: a square eastern room ( $3.0 \times 3.5 \mathrm{~m}$ ); a narrow corridor $(1.2 \times 4.0 \mathrm{~m})$ oriented north-south; and a square western room $(3.5 \times 4.0 \mathrm{~m})$ with a stone threshold $(0.40 \times 1.35 \mathrm{~m})$ set in the middle of its northern wall. The southern walls of these units were bonded into a single wall (L519) that was aligned in an east-west direction. The eastern wall (W509) continued north past the northeastern corner of the eastern room, beyond which there was a blocked opening in it. The foundations of the northern wall (W634) were deeper and it seems they were built on an earlier wall. In the southern part of the corridor a pit grave (L614) was discovered but was not excavated. The burial was oriented in an east-west direction, typical of Muslim interments.

The bottom of a lime pit (L541; diam. 1.2 m ) that was poorly preserved was exposed to the east of the channel. A pavement consisting of medium sized fieldstones (L626) was exposed west of the southern section of the channel from Stratum IV. Above the pavement was an in situ baggy-shaped storage jar (fifth-seventh centuries CE); adjacent to it was an undecorated bronze vessel that may have been used as a lid (Fig. 7). In its center was a hole in which a nail had been driven that was used as a handle.

East of the wall (W509) a cobble bedding (L510; Fig. 8) was exposed that did not abut a wall; it appeared to have been covered by a white plaster floor, remains of which were discerned in the section. A probe (L550) beneath the foundation uncovered potsherds of orange baggy-shaped storage jars that date to the Byzantine period.

North of the eastern room three large fieldstones (L654) were exposed that were oriented along a north-south axis; around them were wadi cobbles and undiag

## Stratum II

Three walls were exposed in this Late Abbasid period stratum, constituting a phase of repairs and additions. One can see that the builders of Walls 609A and 646 were familiar with the walls of Stratum III because Wall 609A was built as the northern continuation of Wall 609, with a slight deviation in its direction. A wall foundation (W646; length c. 3.5 m ) was discovered that was aligned in an east-west direction; it was only preserved to a height of one course. Finally, W104 was erected west of the building, also oriented east-west.

## Stratum I

Remains of human skeletons were found in pit graves. Four graves with no covering were dug while four had a stone covering; scattered bones indicate that other tombs were most likely damaged. The bones that were found were poorly
preserved; they were examined in situ and were not removed. In most cases the bones were found in an articulated position indicative of primary burial, and aligned in an east-west direction with the head in the west according to Muslim tradition. In some cases it was not possible to determine the original burial position.

Square S1 (Figs. 9, 10)
A probe ( $2.5 \times 3.0 \mathrm{~m}$ ) was excavated in the northeastern part of the square. A fieldstone collapse was identified in the southern part. To the north of the collapse was a fieldstone level with numerous fragments of storage jars, mainly of the pale-orange sandy baggy-shaped variety that date to the Byzantine period, and a few rims of Gaza storage jars from the same period. Below the level of the fieldstones a sun-dried mudbrick construction was found of which four courses were discerned in the western section and at least three courses in the eastern section

The large quantity of jars from the Byzantine period attests to commercial activity that most likely involved the storage of agricultural produce such as oil and wine. The existence of a nearby wine industry is evidenced by a Byzantine period winepress that was exposed c. 100 m west of the site (A-3552).

The presence of a substantial pavement from the end of the Roman period in northern Lod almost certainly alludes to the existence of a public or private building of some importance. Even though only a small part of it was exposed, it attests to the intensity of construction in the vicinity after the city was granted the status of polis by Septimus Severus at the end of the second century CE. It seems that the pavement continued eastward and that its stones were later robbed. The upper pavement, which was only found above the western part of the lower pavement, was laid in order to raise the building's floor, a repair that was performed during the Byzantine period, in the fourth-sixth centuries CE. The upper pavement was overlain by a fill layer from the end of the sixth-seventh/eighth centuries CE which was sealed by a wall foundation that dates to the Abbasid period. It seems that this fill was intentional in order to level the area. The pottery vessels found in the fill layer date to the seventh century CE. In the Abbasid period construction was renewed with the leveling and filling in of the area. In some places the walls of the Abbasid period were built directly on remains from the end of the Byzantine period, as revealed from the exposure of the water channel, whereas in other cases where the level of the remains was lower, a fill layer was deposited as is evident in Square R2. It is quite conceivable that the suite of rooms constructed in the Abbasid period was part of an agricultural complex that operated in the region. When the Abbasid complex was no longer in use the area was turned into a burial grounds. The interments were partly laid out on the walls of the building that were still visible; only later, when the area was covered with alluvium, were pit graves from the late Abbasid period or later dug into it.


1. Location map.


2. Lower pavement, looking north.

4.Foundation of robbed wall, looking west.

3. Upper pavement (left), looking north.

4. Section of water channel, looking south.

5. Cobble foundation, looking north

6. Area S; plan and sections.

7. Square S1, looking south

## (Volume No. HA-ESI 120 (2008 Lod, Khan el-Hilu - 2007



1. Aerial photograph of Lod from British Mandate times, khan is marked with circle.

2. Plan.

3. Modern debris inside courtyard.

4. Southern wing after cleaning. looking southwest.

5. Square C1, concrete surface and layer of kurkar stones, looking north.

## Yuval Gadot, Katia Cytryn-Silverman and Tawfik De‘adle

During May 2007 an excavation was conducted in Khan el-Hilu, in the Old City of Lod (License No. G-49/2007; map ref. NIG 19065-80/65120-35; OIG 14065-80/15120-35; Fig. 1, IAA Archive, file:Lod/town/general, Neg.6D.7709v). The excavation was undertaken within the framework of a public archaeological project, intended to explore and uncover the city's past, while serving as an incentive for bringing together Lod's multi-cultural community. The conservation and rehabilitation project is directed by the company 'Israel Institute for Archaeology', on behalf of Tel Aviv University, headed by A. Shavit, with financing provided by the Ministry of Tourism, the Government Tourism Corporation and with assistance rendered by the various departments of the Municipality of Lod and the Economic Corporation for the Development of Lod. The excavation, on behalf of the Nelson Glueck School of Archaeology of the Hebrew Union College, was directed by Y. Gadot, K. Cytryn-Silverman and T. De'adle, with the assistance of R. Lavi (area supervision), M. Lition and V. Miskevitz (area supervision assistance), G. Rozens (administration and community relations) and S. Pavel (photography). Participating in the excavation were pupils from the Ort School in Lod, the Newe Yarak Junior High School, the Eliyashiv Religious High School and the 'Amal 1 School, as well as trainees in courses organized by the Nature Preservation Society.

The khan consists of three wings (Fig. 2). A large hall ( $7.5 \times 24.0 \mathrm{~m}$ ) in the northern wing was covered with cross-vaults and reinforced by supporting pilasters on the outside. A row of small rooms in the eastern wing (c. $12.0 \times 33.5 \mathrm{~m}$ ) opened onto a portico that faced the courtyard. Larger rooms were located at the southern and northern ends of this wing. The southern wing comprised two units, separated by a partition wall (width c. 1 m ); the western part of the wing was partly destroyed. One unit faced the courtyard (c. $5.5 \times 23.0 \mathrm{~m}$ ) and had a row of small rooms, as in the eastern wing. The second unit faced outward and included seven cells (each c. 4 m deep) and a second story with rooms, which were accessed via the roof of the first unit that served as a gallery, facing the courtyard. No visible surface remains of a building or walls appeared in the west, which was the presumed location of the western wing.
The first excavation season was devoted to the understanding of the khan's courtyard complex and the examination of the area located west of the khan. The courtyard was filled with modern debris (depth over 2 m ) above the level of the last phase of the courtyard's use (Fig. 3). Soundings dug by mechanical equipment were designated the following excavation areas: Areas C1, C4 and C5 alongside the northern hall, Area C2 next to one of the entries to the rooms in the southern wing and Area C3 in the southwestern corner of the courtyard. Much of the modern debris was cleaned from the rooms of the building and vegetation was removed from the facades and roof of the structure (Fig. 4).
The excavation in Areas C3 and C4 was suspended in its early stages.
Area C1. A level (L101a) composed of different sized kurkar stones and yellowish soil was exposed. A similar soil level of various thicknesses (below) was discovered in the rest of the excavation squares and apparently, it was a bedding for leveling the surface of the courtyard. A cement surface (width 0.4 m ) was uncovered between two supporting pilasters next to the wall of the northern hall (Fig. 5). The southern end of the surface was severed, possibly when the modern debris was compacted in the middle of the twentieth century. It is unclear therefore if this was a paved surface of the courtyard or a kind of step built next to the wall. The cement surface and the bedding (L101a) should be dated to the last phase of the building's use. The difference in elevation between the threshold stone of the northern hall ( 47.7 m ) and that of the cement surface ( 47.82 m ), if it is a remnant of the courtyard floor, suggests that the surface was added in a later phase, since in most of the Islamic-period courtyard buildings, the level of the rooms was higher than that of the open area. It should be noted that the interior of the hall was not examined and care was taken not to dismantle the threshold of the hall; hence, it could not be determined if this was the original entrance threshold and what was its date
After exposing the kurkar layer, the excavation focused on a narrow strip (width 1.5 m ) from the wall of the hall, near its opening. A pavement of small flagstones (L109; elevation c. 47.25 m ; Fig. 6), which was discovered in a sounding excavated parallel to the hall's opening, continued westward, parallel to the line of the wall and the pilaster. Opposite the opening of the northern hall, the pavement was only preserved in a small area (width c. 0.4 m ); however, from the pilaster westward, almost the entire floor was exposed. Remains of the pavement were also visible in a sounding opened in Sq C2 (elevation 47.18 m ) and therefore, it is likely that the pavement continued throughout the whole area of the courtyard. A layer (L108) of different sized round stones and an abundance of potsherds was discovered on top of the pavement; this was probably a tamped fill or an occupation layer that accumulated above the pavement.
The foundation of the hall's wall and the threshold of its entrance were exposed. The foundation consisted of stones mixed with bonding material (debesh) and it was spread across an area wider than the wall itself. Beneath the threshold, several stones arranged in an arch (top elevation of arch 46.61 m ) were probably part of the building's foundation rather than a basement room. South of the wall's foundation other deposits of soil were found, yet the limited exposure made it very difficult to understand their nature and the stratigraphic connection between them and the foundation of the entrance to the hall.

Area C5. Along the western side of the hall in the northern wing, the northern and eastern walls of another vaulted building, anchored to the end pilaster of the khan's northern hall, were exposed (Fig. 7). Remains of ultramarine-colored plaster, which was first used in the second half of the nineteenth century CE, were noted on the eastern wall. The exposure of the top of the structure's cross-vault (elevation c. 45.5 m ) indicated that the level of the building's floor was situated below ground level. The presence of the building in this location clarifies the scenery in the aerial photographs. At least in the last phase of the khan's use, no built wing closed off the building from the western side. The closure of the courtyard, not before the Late Ottoman period, was accomplished by a series of buildings next to the khan, but not connected to it.

Area C2. A yellow-colored level (L102; elevation c. 47.6 m ; Fig. 8) was exposed throughout the entire area of the square after the removal of modern refuse layers (thickness c. 2 m ). The level, similar to the one in Sq C1, L101 (above), seems to have been a deposit intended as fill and foundation for the leveled floor of the courtyard in its last phase of use. Nonetheless, relative differences occur in the elevation of the entrances to the rooms of the wings to the south and north The entrance to the room at the southern end of Sq C 2 was $\mathrm{c} .0 .5 \mathrm{~m}(48.23 \mathrm{~m})$ higher than the entrance to the northern hall (Sq C1).

Adjacent to the room's wall, below the bedding layer, the wall's foundation and the foundation of the opening to the room (Fig. 9) were exposed at a higher elevation ( $0.5-0.8 \mathrm{~m}$ ) than those of the northern hall. Like the foundation of the wall in the northern wing, the foundation here was composed of stones and bonding material that was wider than the width of the wall. Beneath the opening of the room were stones arranged in an arch, similar to the arch exposed in the opening to the northern hall. It is clear from the plan of the building that the northern and southern wings were not parallel. Crossvaults, having a broad span and supported by well-built pilasters, were used in the construction of the northern wing, whereas the southern wing was built of narrow cross-vaults, without pilasters. It therefore seems that despite the similarity in the construction technique of the two wings' foundations, it is apparent that they were built at different times. Furthermore, it seems that the southern wing was a later addition to the building and that during its construction a large amount of earth was added to the courtyard in order to level the area between the northern part and the new southern part.

Ottoman period. Potsherds from the Mamluk and the Early Islamic periods, as well as earlier potsherds were also found. However, based on the large quantity of potsherds from the nineteenth century, the earlier potsherds were probably brought to the site along with soil fills from the vicinity of the building and were not necessarily connected to the khan structure.
Several clay pipes from the eighteenth and nineteenth centuries were also found, as well as a gold coin dated to the thirtieth year of Mahmoud II rule (1808-1839; Fig. 10), which came from a fill mixed with modern finds in the area of the opening to the northern hall.

The excavation revealed two distinct pavement layers in the courtyard: the kurkar level (L101a) that may be related to the cement surface in Area C1 and the stone pavement (L109), both dating to the Ottoman period. It was ascertained that the courtyard was paved with tamped earth surfaces and stones, as seen in sections of Floor 109 in Areas C1 and C2. The plan of the building, the asymmetry between the northern and southern wings and the difference in the depth of the foundations between the courtyard's southern and northern parts indicate that the northern wing predated the other wings and the southern wing was added in a later phase. To add this wing and prepare the courtyard, artificial fill was probably needed and the southern wing was built into it. The western side of the courtyard was delimited, at least in the last phase of the khan's use, by a group of buildings whose rear wall simultaneously served as the enclosure wall of the courtyard. These buildings were visible in a 1936 aerial photograph of the city and one of them was exposed in the excavation.

The continuation of fieldwork in the coming seasons, below the exposed courtyard levels and inside the building's halls will allow us to explore the strata that predated the Ottoman period and to understand the construction process of the wings, which were added one after the other over the course of years, as this season clarified.


1. Aerial photograph of Lod from British Mandate times; khan is marked with circle.

2. Modern debris inside courtyard.

3. Southern wing after cleaning, looking southwest.

4. Square C1, concrete surface and layer of kurkar stones, looking north.

5. Square C1, stone pavement (L109) in front and around pilaster, looking west.

6. Area C5, vaulted building, looking north.

7. Area C 2 , yellow kurkar surface, looking east.

8. Area C2, foundation level below southern hall, looking southeast.

9. Gold coin (photography: David Silverman).

## (Volume No. HA-ESI 120 (2008 Maresha, Subterranean Complex 89



1. Plan.

2. E1, altar and steps.

3. E1, northern channel and niche.

4. E1, blocked stairway.

5. Relief of standing figure.

During July 2006, an archaeological excavation was conducted in Subterranean Complex 89 (hereafter, SC89), located 150 m southeast of Tel Maresha and 55 m south of SC61(Permit No. A-4687; map ref. NIG 190680/611086; OIG 140680/111086). The excavation, carried out on behalf of the Antiquities Authority and financed by funds of the Archaeological Seminars, was directed by I. Stern and B. Alpert, with the assistance of S. Shaharit and L.Yaborsky (registration, organization and pottery restoration) and S. Neuman (surveying, drafting photography and drawing). Participants from the Archaeological Seminars all around the globe took part in the excavation, as well as youth-group volunteers, with the cooperation of T. Tsuk and the staff of the Bet Guvrin National Park.
The necessity to excavate SC89 was prompted by repetitive robbing of this complex, the latest occurring a few weeks before the excavation began. Many of the connecting passages were cut by later secondary usage or, by robbers. The initial stage of the excavation was devoted to removing the fill, which the robbers' trenching created and where evidence of their presence (food packaging and tins) was found, as well as graffiti on the walls.
The onset of the Second Lebanon War and the accompanying drastic decline of foreign volunteers resulted in a 2-week excavation, which was focused on identifying the cultic use of Rooms 26-29 and 31-33 during the second century BCE (Fig. 1). Architectural remains, including the large domed ceiling, a carved relief of a man, other embossed and carved decorations and what appears to be a large altar, make this complex unique in Maresha
A survey of the complex prior to the excavation indicated that it included over fifty rooms, many of which were never used or destroyed before the complex was completed.
To facilitate the excavation of this complex, a wooden staircase was constructed in E1 over the 'altar' area. This area appears to have been first used as an access to the cluster of rooms, via a stone staircase that was no longer in use at a later time, when the altar was built. No indication of an arched roof or a covering was discerned, suggesting the area was open to the elements.
The lower part of the altar (width 0.75 m ; Fig. 2) was hewn in qirton bedrock and its upper courses ( 1.7 m ) were survived by four building stones. A ledge extended over the third step. The altar was half the width of the area, with three steps extending to the top of the platform. The stairs were in poor condition due to damage, exposure or heavy use. Drainage channels could be seen on the north and south sides of the staircase. The southern channel extended from surface and apparently flowed into Room 33, which was a water cistern. The northern channel flowed into the cistern between the stairs and a small quarried oblong niche in the northern wall (Fig. 3).
The floor at the bottom of the staircase led north into Room 32 or south into Room 31. Directly west of the staircase was a large portal blocked by four courses of building stones (Fig. 4). It was originally intended for the staircase that ran from the eastern wall of E 1 to Room 33. Remnants of the stairway could be seen on the northern wall of Room 31. It appears that the staircase was removed, the eastern wall of E1 was sealed with large stones and the altar was then constructed. No sign of another entrance was discerned in this complex.
Room 32 was a small, oval-shaped chamber $(2 \times 3 \mathrm{~m})$ that had cultic niches in both the southern and northern walls. The original entrance was from E1 and a second opening on the northern side led to Room 27.
Room $27(5.0 \times 8.6 \mathrm{~m})$, the largest room in this cluster, was finely hewn and had a lightly arched ceiling. On the eastern wall, in the corner next to the primary entrance that led to Room 26, a figure of a man, carved in the qirton bedrock (width 0.4 m , height 1.1 m ; Fig. 5), was somewhat damaged, perhaps from robbers. It could not be identified according to the representation and it also seemed to have never been completed. This was the only operating entrance when the area was in use. Another entry in the northern corner was not cut as such, but broken through at a later time (wall thickness 0.6 m ). It was filled with piled building stones, probably by the robbers. Room 27 contained mainly robber's backfill of large boulders and stones, as well as quarry chips and some pockets of anthropogenic soil. The inconsistency of the fill made it difficult to determine how it was deposited. Bedrock was not reached and it is assumed that at least 1 m of fill still remained. Several potsherds, all from the Hellenistic period, including oil lamps, bowls, plates and several profiles, were found.
Although the use of this room is undetermined, its proximity to Room 32 with its cultic niches and Room 26 with its unique domed ceiling, as well as the incised figure near the entrance to Room 26, makes it an integral part of this system.
Room 26 had a circular shape (diam. 5.3 m ) and was probably the central core for the rooms that radiated from it. Its ceiling was constructed from qirton building blocks, arched in a north-south direction (Fig. 6). A break in the center of the arch showed the architectural skill required to create it, as well as the work technique, which seems to have been implemented by building the arch in an area that was previously exposed to surface and later covered over to be part of the subterranean complex. Dentils were placed on bedrock as a foundation for the ceiling. Two entrances on the eastern and southern sides of the room were visible when it was first entered; however, the excavation revealed three more openings that led to other rooms. Robbers dug a trench (depth c. 1.4 m ) around the wall of the western half of this room and dumped the fill from the trench on top of the earlier fill in the middle of the room. At the end of this season, 0.8 m of primarily robbers' residue fill, which comprised anthropogenic gray soil, was removed from the middle of this room.
Room $31(2.4 \times 3.0 \mathrm{~m})$ could be entered via a small staircase of eight steps. A small corridor ( $1.3 \times 2.3 \mathrm{~m}$ ) led to Room 28. A bottle-shaped storage bin area was at the north end of Room 28 and a second one was c .1 m above and 0.7 m to the north of the first. To the west was an unexcavated staircase that led to a large water cistern (Room 33), which appears to have been used extensively, as the lower level of its walls was entirely plastered.
Rooms 28 and 29, filled with collapsed walls and ceilings, were entered through a portal from Room 26. A small probe was excavated, revealing anthropogenic gray soil at 0.6 m below the present level. Continued excavation is necessary to gain more information about the uses and interrelationship of these rooms.


3. E1, northern channel and niche.

4. E1, blocked stairway.

5. Relief of standing figure.


Mavqi'im Final Report


1. Plan and section.

2. The winepress, looking west.

3. The paved vat, looking west.

4. The plastered vat, looking west.

During August 2001, a salvage excavation was conducted at the site of Mavqi'im (Permit No. A- 3476*; map ref. NIG 158249-809/613750-4220; OIG 108249-809/113750-4220), after a millstone was found during the installation of a water pipe in a desalinization plant of the Elat-Ashqelon Pipeline Company. The excavation, on behalf of the Antiquities Authority, was directed by Y. Haimi, with the assistance of H. Lavi (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (photography) and I. Lidsky (drawing).
Five squares were opened along the planned trench of the pipe, revealing a Byzantine winepress (Figs. 1, 2). Remains of plaster were discerned on the treading floor $(5 \times 6 \mathrm{~m})$ of the winepress and two flagstones survived in its southwestern corner, whereas the rest of the stones were probably robbed some time later. A millstone in secondary use was in the middle of the treading floor and below it, a ceramic pipe that conveyed liquid to a paved vat (L18; Fig. 3) and to another plastered vat (L21; Fig. 4). A pipe in one of the walls (W106) conveyed liquid to a large storage vat (L19; depth 2 m ; Fig. 5). A room with a plaster floor (L13) that probably served as a storehouse was discovered south of the treading floor. It contained numerous fragments of kraters (Fig. 6:1, 2), Gaza jars (Fig. 6:3, 4) and a lamp characteristic of the Byzantine period (Fig. 6:5).
An opening was installed in a wall (W107), through which the wine from broken jars could drain back into an intermediate vat (L21).
Based on the remains of the plaster floor (L22; Fig. 7) and the remains of a corner formed by two walls (W110, W111), other rooms were probably located around the treading floor.

1.1

2.2

1. Plan and section.

2. The winepress, looking west.

3. The paved vat, looking west.

4. The plastered vat, looking west.

5. The storage vat, looking west.


6. Plaster floor, looking west.
(Volume No. HA-ESI 120 (2008

## Mazor, East

Final Report
Tzach Kanias
2/4/2008


1. Plan and section.

2. The kiln, looking east.

3. The lower ash layer (L101).

During April 2004, a trial excavation was conducted at Mazor East, within the limits of the town of El'ad (Permit No. A-4151*; map ref. NIG 19630-35/66310-16; OIG 14630-35/16310-16), in the wake of earthmoving work that exposed the ground. The excavation, on behalf of the Antiquities Authority and financed by the Henson Company, was directed by T. Kanias, with the assistance of E. Bachar (administration), A. Hajian (surveying), T. Sagiv (photography) and L. Yihye (GPS).
The excavation was conducted along the southern fringes of the Nahshonim Quarry. A built, elliptical limekiln was found and a water cistern was documented.

The kiln was in a very poor state of preservation. Its northern side that stood one-two courses high was the only surviving part (Fig. 1). The kiln utilized a natural bedrock depression and was built of undressed medium-sized indigenous fieldstones (length 2.5 m , width 1.2 m ). Two layers of collapse were exposed in the kiln; the upper contained the stones used in the kiln's construction (L100) and the lower contained a layer of ash mixed with lime (L101). Most of the ceramic finds came from the collapse layers and dated to the Hellenistic period. An ash layer, which was the only one exposed inside the kiln, indicated the installation was no longer in use after the first time it was operated. The kiln is part of a complex of installations located south of Horbat Mazor.


## 1-1

1. Plan and section.

2. The lower ash layer (L101).

3. Bedrock surface where the installation was located (L100).

# (Volume No. HA-ESI 120 (2008 

El'ad (Mazor)
Final Report


1. Plan and section

2. Niche below Wall 370 .

3. Winepress and the three rooms to the west, looking north.

4. Floor and the overlying burnt layer (L9), looking north.

5. Pottery.

Uzi 'Ad
5/10/2008
In July 2006 a salvage excavation was conducted in the center of the town of El'ad (Permit No. A-4859*; map ref. NIG 19547/66173; OIG 14547/16173), west of a winepress that was previously exposed by D. Amit (ESI 18:59-60, Fig. 114), after mechanical equipment caused damage to the western side of the press. The excavation, on behalf of the Israel Antiquities Authority and with the financial support of the El'ad Local Council, was directed by U. 'Ad, with the participation of E. Bachar (administration), A. Hajian (surveying and drafting), M. Shuiskaya (pottery drawing) and M. Avissar (pottery reading) and with the assistance of D. Amit.

In the excavation (50 sq m), parts of a Byzantine winepress (Amit, Area M2) were exposed as well as three rooms dating to the Ottoman period located to the west of the winepress.

The Amit excavation yielded a complex winepress that included a primary and secondary system arranged at right angles to each other (Fig. 1). The primary system consisted of an almost square treading floor (L268; $5.4 \times 6.0 \mathrm{~m}$ ) in the center of which was a stone base for anchoring the wooden screw of a press (L269), and a square collecting vat (L272) to its east. North and south of the floor, on a higher level, were five upper surfaces, three in the north (Loci 279, 701, 702) and two in the south (L262). These were connected by means of an aperture to four semicircular receptacles with vaulted ceilings that were built beneath them. The secondary system was similar to the primary system but smaller; it included a treading floor (L707; $3.7 \times 4.0 \mathrm{~m}$ ) and a collecting vat (L275). All of the parts of the winepress, including the vats and the receptacles, were paved with a white mosaic floor.

In the northern part of the excavation the wall that delineated the northern side of the winepress and its upper surfaces were discovered (W6; Fig. 1). The remains of a mosaic floor foundation of two additional upper surfaces (L10) were exposed south of the western part of Wall 6, abutting the wall from the south. These surfaces were separated by a partition (W7), of which only its foundation was preserved. The foundation of a semicircular niche (L12; Fig. 2) was discovered south of and below a later wall (W370). All that survived of this niche was the bedding of a mosaic floor and the bottom part of its sides which were treated with a reddish plaster. The opening of the niche faced east, to a bedrock surface (L7). Above the surface was a fill layer that dated to the Byzantine period. The stones to the north and south of the niche were bonded with light colored lime-based mortar identical to the bonding material used in the other walls in the winepress. We can therefore assume that these stones were part of the wall that delimited the eastern side of the upper western surfaces of the winepress.

In the Ottoman period three rooms (Loci 1-3; Fig. 3) were built on top of the western part of the winepress. Two usephases were exposed in the two western rooms (Loci 1, 3). The first phase in the southern room, which was delineated by Walls 3, 4, 5, included a floor made of bedrock and flagstones to the east (L13) and a light colored plaster floor (thickness $5-10 \mathrm{~cm}$ ) to the south (L6). In the northwestern room, which was delimited by Walls 2 and 3, a light color plaster floor (L9) was exposed with an overlying burnt layer (thickness 20 cm ; Fig. 4) that contained a few fragments of pottery vessels and much charcoal. A step located in an entrance that was exposed in the middle of W2 led up from the room to Room L8 (=L705 from Amit's excavation). The floor of this room (Fig. 5), which abutted Walls 1, 2 and 3, was made of crushed limestone (thickness 5 cm ) and was founded on reddish material mixed with small stones. The wall (W3) that separated the northern rooms (Loci 2, 3) from the southern room (L1) continued to be used in the later phase. A floor that consisted of a thin layer of very smooth cement poured on top of small to medium-sized fieldstones (length $10-15 \mathrm{~cm}$ ) and a layer of friable limestone (thickness $5-10 \mathrm{~cm}$; Loci 4,5 ) was laid in the rooms. In this phase the walls of the rooms were covered with $2-3$ thick layers of white plaster, the outer one of which was painted turquoise. The southern room (L1) was enlarged to the east by the construction of Wall 370, built on top of the winepress's treading floor and Wall 5 . Square pilasters $(0.8 \times 0.8 \mathrm{~m})$ which protruded into the room and constituted the base of a groined vault were exposed in the corners of the room. Due to the poor preservation of this phase in the northern room (L3) it was not possible to ascertain if the opening in Wall 2 also continued to be used in this phase.

The pottery vessels recovered from the floors of the rooms in the early phases (Loci 6, 9), including a bowl (Fig. 6:1) and a storage jar (Fig. 6:4) and the late phases (Loci 1, 2), including a storage jar (Fig. 6:6) from the eastern room (L8) and a bowl (Fig. 6:3) from later floors (L4), indicate that the building, while having undergone changes, was also used in the nineteenth and the beginning of the twentieth centuries.

The excavation revealed that in the northwestern corner of the winerpress was an upper surface (L10) west of the three that were previously exposed, and of Partition Wall W2. It was ascertained from the remains of this surface that there were also upper surfaces in the western part of the winepress, and another surface (L7) in the south that was entirely destroyed from which the must flowed to the niche (L12) that was uncovered below Wall 370. It should be mentioned that this niche, like the others exposed to the south (Loci 262, 700), did not drain towards the treading floor like the niches that were exposed below the upper northern work surfaces. In the Ottoman period the western part of a building was erected on top of the winepress. The construction utilized some of the winepress's walls and destroyed its upper western surfaces down to their foundation.


1. Plan and section.

2. Niche below Wall 370.

3. Winepress and the three rooms to the west, looking north.

4. Floor and the overlying burnt layer (L9), looking north.

5. Ottoman floor in the east and the upper surfaces, looking north.

$0 \quad 10$

6. Pottery.

# (Volume No. HA-ESI 120 (2008 <br> Mazor (El'ad) <br> Final Report 

Gili Hillel
4/12/2008
During September 2003, a trial excavation was conducted at Horbat Mazor (Permit No. A-4001*; map ref. NIG 1957/6618; OIG 1457/1618), prior to the construction of a synagogue. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Bet Midrash Yeshiva and the Yafo young men kolel, was directed by G. Hillel, with the assistance of Y . Dangor (administration), A. Hajian (surveying) and T. Sagiv (field photography).

Remains of buildings, oriented north-south and east-west, were exposed on top of bedrock in the northwestern part of Horbat Mazor. The walls were built of roughly hewn stones with a core of small fieldstones. The buildings appear to be connected to the Arab village of al-Muzeiri'a that was located there until 1948. Previous excavations nearby had uncovered similar buildings that overlaid structures from the Hellenistic period (ES/ 18:64, Area H7).

# (Volume No. HA-ESI 120 (2008 <br> Me'arot Deruzim (Aqueduct to Tel Hazor) Final Report 

Yosef Stepansky
24/8/2008


1. Plan and sections.

2. Western segment (L120), looking east.

3. Eastern segment (L240L310), looking west.

4. Bend in the channel (L260), looking east.

5. Eastern segment (Loci 270, 280, 290), looking east.

During May 2003 a salvage excavation was conducted along a section of the aqueduct to Tel Hazor, within the precincts of Me'arot Deruzim (Permit No. A-3904*; map ref. NIG 2526/7692; OIG 2026/2692), prior to paving the Tel Hazor bypass road. The excavation, carried out on behalf of the Antiquities Authority and financed by the Department of Public Works, was directed by M. Abu Ayyub and Y. Stepansky (field photography), with the assistance of Y. Ya'aqoby (administration), V. Essman, V. Pirsky and T. Kornfeld (surveying and drafting) and H. Tahan (pottery drawing).
The aqueduct course, oriented east-west, was exposed for a length of 110 m long. The length of the entire aqueduct, extending from midway up the northern slope of the spur of Me'arot Ha-Deruzim, is 1.1 km . Two sections of the aqueduct course were exposed for a total distance of c. $45 \mathrm{~m}, 7 \mathrm{~m}$ in the western section and 37 $m$ in the eastern section (Fig. 1). The aqueduct's channel was hewn in soft limestone bedrock that is characteristic of the spur.

The western section (L120; central map ref. NIG 252557/769202, OIG 202557/269202) consisted of a shallow curving channel (depth $0.3-0.4 \mathrm{~m}$; Fig. 2) of uniform elevation (241.22-241.23 m above sea level), part of which had been exposed in the past ('Atiqot $28: 1^{*}-7^{*}$, Fig. 2:III [Hebrew]).

The eastern section (map ref. NIG 252615-55/769200-5, OIG 202615-55/269200-5) contained a well-preserved, narrow (bottom width $0.1-0.3 \mathrm{~m}$, upper width $0.5-0.6 \mathrm{~m}$ ) and deep (average depth 1 m ; Figs. 1: Sections $1-3$; 3) channel, whose quarrying was both calculated and arduous. In the western part of the section (Loci 240, 250, 260) the channel curved gently on its way east (Fig. 4). Point IV ('Atiqot 28: Figs. 2, 6) close to the western end of the segment (L250) and Point V ('Atiqot 28: Fig. 2) at the eastern end of the segment (L310) were re-exposed. The excavation of the aqueduct's course between these two points was completed; although no signs of the channel were visible on surface prior to the excavation, it was ascertained that this was a continuous and well-preserved channel. The channel becomes narrower and very deep (depth 1.7 m ) for a length of 15 m in the middle of the segment (from map ref. NIG 252625/769201; OIG 202625/269201 eastward; Loci 270, 280, 290), where it appears as a large deep fissure in bedrock, resembling a canyon. It is feasible that the quarrymen exploited a natural crevice in bedrock, widened it and integrated it in the course of the channel (Fig. 5). Three cupmarks, cut in bedrock surface above the southern side of the channel, were discovered; two were perpendicular to the channel (L291; diam. 0.3 m , depth 0.15 and 0.2 m ; Figs. 1: Section 1; 6). The bottom elevation of the channel in the eastern segment ( $240.84-241.03 \mathrm{~m}$ asl) was $0.2-0.4 \mathrm{~m}$ lower than the western segment $(241.23 \mathrm{~m}$ asl $)$, indicating a $0.2 \%$ gradient. For the 110 m long section the gradient was gentler than the average overall gradient measured in the past ( $0.5 \%$ for a 1.1 km distance from west to east; 'Atiqot $28: 2^{*}$ ). In the last 80 m of the channel, before it disappears to the east, the bottom elevations of the channel were measured at the points where it was visible along the surface ( $241.02,240.87,240.70,240.35 \mathrm{~m}$ asl, from west to east), showing a steeper gradient close to $1 \%$ in this section.
Along this aqueduct section (Loci 260, 270, 280, 290) sixty-three potsherds were collected from the soil fill that had accumulated in the channel, mostly in the higher elevations of the soil fill, c. 0.1 m or more above the channel's bottom. Most of the potsherds dated to Middle Bronze II and included a bowl (Fig. 7:1), kraters (Fig. 7:2, 3), a jar (Fig. 7:4) and a handle (Fig. 7:5), as well as four potsherds from the Roman-Byzantine periods and the Middle Ages. Fourteen body fragments, ascribed to the Middle Bronze Age, were discovered on the bottom of the channel (L270), with no other later finds. Between the eastern and western segments of the channel only the bedrock surface was discovered. The eastern end of the western segment (Fig. 8) and the western end of the eastern segment (Fig. 9) were not cut abruptly but rather disappeared gradually. Bedrock surface between the segments had no obvious upright rock protrusions and in most cases, it was no higher than the vicinity of the sections where the channel was preserved (Fig. 10). It therefore seems that in the past the channel had existed uninterrupted but over time it eroded away and was not preserved in this area. Notwithstanding, the possibility that the channel was not hewn at all in this region cannot be negated. Based on this option, which has yet to be proven, the aqueduct project was never completed, probably because of engineering problems. At the western end of the eastern segment (L240) and close to the eastern end of the eastern segment (L300), signs of a calcium deposit (travertine?; Fig. 11) were detected on bedrock surface. This, however, could have been deposited after the channel was filled with soil and does not necessarily attest to a continuous flow of water over a prolonged period.

Based on the ceramic finds recovered from the fill in the channel, particularly the relatively numerous Middle Bronze potsherds, compared to the small number of later potsherds that were found while outside the channel the later sherds are the majority of the surface finds, it seems that the channel filled up with soil in Middle Bronze II and its quarrying can confidently be ascribed to no later than this period. This determination is in keeping with the supposition that had been raised in the past ('Atiqot 28:5-6) and has further been corroborated as a result of excavating a winepress on the slope north of the channel (Permit No. A-3739). The winepress was dated to Middle Bronze II based on ceramic finds. It appears that during Middle Bronze II, which was the golden age of Hazor, the limestone hills around the city were utilized for agricultural activities, the quarrying of masonry stones, burials, as well as for providing a constant supply of water to the city, conveyed, or at least attempted to, via a rock-hewn channel.




5

1. Plan and sections.

2. Western segment (L120), looking east.

3. Eastern segment (L240-L310), looking west.

4. Eastern segment (Loci 270, 280, 290), looking east.

5. Two cupmarks (L291), looking north.


6. Eastern end of western segment (L130), looking east.

7. Western end of the eastern segment (Loci $220,230,240$ ), looking east.

8. Bedrock surface between the western and eastern segments, looking east.


## (Volume No. HA-ESI 120 (2008 <br> Midrakh 'Oz-Khirbat el Khishash



1. Ancillary building, looking southwest.

2. Drainage channels around the ancillary building, looking southeast.

3. Olynthus-type millstone. looking north.

4. Tower (left) and winepress (right).

5. Building from the
beginning of the twentieth century, looking northwest.

In September-December 2006 a salvage excavation was conducted at Khirbat el Khishash, north of Midrakh 'Oz, in an area slated for the construction of a residential neighborhood (Permit No. A-4905; map ref. NIG 2150-4/7228-34; OIG 1650-4/2228-34), following a development survey that was conducted by Y. Tepper. The excavation, undertaken on behalf of the Israel Antiquities Authority with the financial support of the Megiddo Regional Council, was directed by N. Getzov, Y. Tepper and I. Ktalav, with the participation of S. Golan, F. Abu Zeidan, W. Atrash, A. Shapira and B. Hana (area supervision), Y. Lavan and Y. Ya'aqoby (administration), A. Hajian and T. Kornfeld (surveying), F. Fartush (aerial photography), A. Grishna (finds registration), L. Porat (processing of finds) and Y. Nagar (physical anthropology).
The excavation was conducted on the slope of a hill, at the foot of the Menashe Hill Country, on the border of the Jezreel Valley. The 'En Midrakh spring flows nearby. The site was surveyed in the past (A. Raban. 1999. Map of Mishmar Ha-'Emeq [32]: Site 121). Remains were uncovered there that are characteristic of the ancient rural landscape.

## Building Remains

In the survey the remains of a farmstead (not excavated) were found towards the top of the hill. Based on the potsherds that were scattered among them, they can be dated to the Byzantine period. Two farmhouses were exposed next to the remains. The first structure was a large ancillary building with only sections of its walls surviving. However, it was stil apparent that this was a well-constructed building made of large boulders (Fig. 1) surrounded by channels cut in bedrock to protect it from rain (Fig. 2). On the bedrock floor of the building was an upper stone of an Olynthus-type millstone (Fig. 3) and numerous potsherds that date to the Byzantine period. The second building was a tower with thick walls ( $3.2 \times 3.2$ m ; Fig. 4). The ceramic finds are also from the Byzantine period.
Meager building remains that date to the beginning of the twentieth century were found on the slopes of the hill. An excavation was conducted in one of the buildings (Fig. 5).

## Caves

In the survey caves were documented that were used as dwellings and for storage. Excavations were conducted in two of them in which no significant finds were uncovered. In the third cave isolated potsherds were found that date to the end of the Persian period.

## Quarries

A few quarries were exposed in the excavation. Ashlar stones, which were the most common find in the area, were produced in them

## Winepresses

Thirteen winepresses were uncovered, six of which were Ta'anakh-type winepresses. These included a sloping treading floor that had two rock-hewn holes at its base which led to a small collecting vat (Figs. 6, 7 left). An identical winepress was exposed beneath the Middle Bronze Age rampart at Tel Ta'anakh (BASOR 195, p. 12).

Four complex winepresses (Figs. 4 right; 7) were exposed that had a broad, slightly sloped treading floor from which a narrow channel led to a large collecting vat. A mortar was found in the floor of three of the winepresses. The collecting vat in one of the winepresses was paved with mosaic (Fig. 8). Two of these winepresses should be dated to the Middle Roman period and two to the Byzantine period.

## Crushing Installations

Two round installations were exposed that resembled a stone crushing basin (yam) that was usually present in ancient olive presses (Fig. 9). No pressing installations were found in the excavation that was conducted there.

## Tethering Installations

Tethering installations were hewn (diam. 10 cm ; Fig. 10) on rocky surfaces and the sides of quarries. In one place fourteen such installations were exposed close to each other on a bedrock surface.

## Other rock-cut Installations

Two types of rock-cut installations were identified. Type A consisted of a long channel with short perpendicular secondary channels that were often arranged in pairs opposite each other (Fig. 11). Dozens of similar installations were found around Qibbuz Mishmar Ha-'Emeq. Researchers who studied the nearby site of Geva believe that similar installations there were used for soaking flax stalks, but in our opinion the absence of water sources next to the installations casts doubt on this explanation.

Rock-cut installations of Type B consisted of a shorter and broader channel than those of Type A. Perpendicular to the primary channel were one or two channels that were narrower and shorter than the secondary channels of Type A (Fig. 12: right installation 5 m long, left installation 3.5 m long). The size of the installations was not uniform and in one instance a Type B installation was found that in place of a primary channel was a long natural hollow in the bedrock with a secondary channel hewn in its rim (Fig. 13).

## Tombs

A number of tombs were discovered. An excavation was conducted in one tomb where the bones of more than thirty individuals from two different periods were found. The cave was first used in the Chalcolithic period which is represented by fragments of ossuaries and several clay vessels (Fig. 14). In the Early Bronze Age IB the area inside the cave was leveled and other deceased were placed in it together with numerous pottery vessels, flint knives and a few beads (Fig 15). A long narrow tombstone (c. 70 cm ) was found on a bedrock ledge at the edge of the cave; near it was a carefully polished pinkish limestone slab (Fig. 16).


1. Ancillary building, looking southwest.

2. Drainage channels around the ancillary building, looking southeast.

3. Olynthus-type millstone, looking north.

4. Tower (left) and winepress (right).

5. Building from the beginning of the twentieth century, looking northwest.

6. Winepress, Ta'anakh type, looking east.

. Winepress, complex type, looking west

7. Winepress, collecting vat, looking west

8. Crushing installation.

9. Tethering installation, looking west.

10. Rock-cut installation, Type A.

11. Rock-cut installation, Type B.

12. Rock-cut installation of Type B on a natural hollow, looking east.

13. Ossuary fragment.

14. Burial layer from the Early Bronze Age IB, looking west.

15. Tombstone and slab on a bedrock ledge at the edge of the cave, looking west.

16. Location map.

17. Squares 3 and 4, looking southeast.

18. Bovine head, probably from a kernos.
(Volume No. HA-ESI 120 (2008 Mi íliya Final Report
Howard Smithline
During August 2007, a trial excavation was conducted on the upper portion of the steep southeastern slope of Mi'ilya in the western Galilee (Permit No. A-5215*; map ref. NIG 224771-94/769854-68; OIG 174771-94/269854-68), prior to the construction of a new approach road and entrance to the village. The excavation, undertaken on behalf of the Israel Antiquities Authority and partly financed by the Ministry of Transportation, was directed by H. Smithline (photography), with the assistance of V. Essman and V. Pirsky (surveying) and workers from Kafr Manda.
The village of Mi'ilya (Fig. 1) is strategically situated on a tell, commanding the valley to its south and east and the important road leading from the sea to the mountains. The northern and western sides of the tell slope down much more gradually. A partially preserved Crusader castle, Chateau de Roi, dating to the twelfth century CE, is on top of the tell, which had been surveyed in the past (IAA Reports 14). Ceramic finds from Middle Bronze II, the Late Bronze Age, Iron I and the Persian, Hellenistic, Roman, Byzantine, Crusader/Mamluk and Ottoman periods were registered in the survey.
A number of small excavations had been carried out on the site, yielding finds from several periods. A burial cave to the north (HA-ESI 117) revealed the earliest finds, dating to the IBA. A Byzantine-period mosaic floor (ESI 7-8:133) was uncovered and a recent excavation (Permit No. A-5202) exposed strata from the Late Bronze Age, Iron I and II and the Crusader period.
The present excavation was carried out after severe damage was caused to the site by operating bulldozers and building an 11 m high concrete wall that supported the upper portion of the village and the underlying tell. Four squares were excavated along a narrow strip that skirted the edge of the tell. The squares (western [1, 2] - $4.0 \times 4.5 \mathrm{~m}$; eastern [3, 4] $3.0 \times 3.5 \mathrm{~m}$ ) were bounded on the north by the support wall and on the south by a drainage channel, thereby limiting the size of the excavated area.

The western squares yielded no in situ antiquities. Excavation of Square 1 ended upon reaching bedrock, $2.0-2.5 \mathrm{~m}$ below surface. Square 2 was closed at 2.5 m below surface with the uncovering of a thick cement platform that appears to be a supporting anchor for the cement wall. Fill material recently spilled down the slope after the construction of the support wall was found in the two squares. The fill contained stones, boulders and potsherds dating to Iron I and II and the Persian, Hellenistic, Byzantine, Early Islamic, Crusader, Mamluk and Ottoman periods, along with modern finds, such as rubber, plastic and glass.
Squares 3 and 4 (Fig. 2) yielded similar material. The excavation was suspended at a depth of 2.5 m due to the precarious and unstable nature of the excavation balks and the topography that precluded any possibility of widening the excavated area. At this depth the matrix was still that of recently spilled fill. A small probe was undertaken by a backhoe, revealing bedrock at 4 m below surface. It would appear that in situ Iron Age material was present adjacent to bedrock.
The sole noteworthy find from the fill was the molded head of a bovine that apparently belonged to an Iron I kernos. The hollow neck and the well-formed head end with a perforated muzzle. The two horns and ears are broken but their scars are clearly evident. The eyes are unusually carved unlike the more common portrayal of the eyes as small clay pellets. The presence of bull heads as elements of Iron Age kernoi is not rare ('Atiqot 22:121-124).

Although nearly all the finds from the excavation originated from recently spilled material, the majority of potsherds may be dated to Iron I and II and the Hellenistic and the Byzantine periods. This possibly reflects periods of increased activity in the northeast quadrant of the site, but certainly does not suggest that the occupation of the site in general was less intensive during other periods. An excavation in a more stable and expansive area of the site would greatly enhance our knowledge and fill in many of the lacunae.


1. Location map.

2. Bovine head, probably from a kernos.

# (Volume No. HA-ESI 120 (2008 <br> Mizpe Golany <br> Final Report 

Oren Zingboym
8/9/2008


1. Plan and sections.

2. The excavation square, looking south.

3. Tabun, looking south.

4. Pottery.

During March 2005, a salvage excavation was conducted at Mizpe Golany in the northern Golan Heights (Permit No. A-4404*; map ref. NIG 26477/79229; OIG 21477/29229), prior to developing the site. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Golan Regional Council, was directed by O. Zingboym, with the assistance of Y. Ya'aqoby (administration), A. Hajian (surveying and drafting), N. Getzov (guidance), Y. Alexandre and Y. Stepansky (pottery reading), H. Tahan (pottery drawings) and M. Sadeh (archaeozoology).
A single excavation square was opened at the top of a basalt hill, revealing a settlement layer on bedrock that dated to Iron II. Several springs located to the northwest of the hill constituted a source of water for the settlement. Most of the site was damaged in the 1960s during the construction of a Syrian military outpost; the excavation, however, was conducted in an undisturbed area. Potsherds that dated to the Iron Age and the Byzantine and Mamluk periods were collected in a survey that had previously been performed at the site (M. Hartal, 1989, The Northern Golan Heights, The Archaeological Survey as a Source of Regional History, p. 79).

The area of the square was leveled with soil and large stones to the height of the top of a large boulder that was exposed in its middle. The remains of walls, floors and a tabun were discovered on top of the leveled surface. Part of a wall (W1) was discovered in the northwestern corner of the square. It was apparently the outer eastern wall of a building that was not excavated. A wall (W4) was exposed in the south of the square and next to it was a stone pavement (F1); both probably belonged to another building, which was mostly situated south of the square. Three stones in the northeastern corner of the square were probably part of another wall (W3) that extended beyond the excavation area. Floor bedding (L104) was discovered in the center of the square, which may have been used as a covered courtyard, as well as a few remains of a flagstone pavement with small stones between them. Several fragments of pottery vessels were discovered on the bedding and the pavement remains. A tabun (L106; Fig. 3) was exposed on the floor bedding in the center of the square, with sheep and goat bones gathered nearby.

A large number of ceramic finds was collected in the excavation, mostly dating to Iron II (1000-750 BCE) and including bowls (Fig. 4:1-4), cooking pots (Fig. 4:6-9) and jars (Fig. 4:11-17). A few of the ceramic finds dated to other periods, including a cooking pot from the Late Bronze Age (1500-1200 BCE; Fig. 4:10), a cooking pot from Iron I (1200-1000 BCE; Fig. 4:5), a mortarium from the Persian or Hellenistic periods (Fig. 4:18), as well as potsherds from the Roman and Byzantine periods.

The time period of the exposed settlement layer in the excavation—Iron II—and the archaeozoological finds discovered near the tabun, which included bones of ritually pure animals, show that the settlement may have been associated with the nearby city of Dan. During this period, Dan had prospered, probably following the establishment of the administrative center of the Kingdom of Israel in the north of the country. Based on the ceramic finds, it seems that a settlement was located on the hill, as of Iron I, and perhaps even from the Late Bronze Age, until the Persian period. After a hiatus the settlement was re-established in the Roman and Byzantine periods, possibly in connection with the city of Banias.


1-1


2-2

1. Plan and sections.

2. The excavation square, looking south.

3. Tabun, looking south.


## (Volume No. HA-ESI 120 (2008 Modi'in, Horbat Be'erit



1. The cave after breaching its eastern wall, looking west.

2. Burial cave, looking west.


Edwin C.M. van den Brink
During January 2008, a trial excavation was conducted in Modiin (Permit No. A-5352; map ref. NIG 201060-71/642960-68; OIG 151060-71/142960-68), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Building and Construction, was directed by E.C.M. van den Brink, with the assistance of E. Bachar (administration), T. Sagiv (field photography), Y. Nagar (physical anthropology) and B. Ajami (safety and security).

The activity of mechanical equipment in preparing the area for construction breached an unknown karstic cave (Fig. 1). Before sealing the breach, the IAA inspector in the area retrieved three pottery vessels, dating to Middle Bronze IIB.

The cave (length 6 m , depth 5 m , height c .2 m ) was cleaned of the soil and debris that had sealed the breach in the eastern wall. Stone collapse that partially derived from a natural opening in the roof was in the east of the cave and an east-west alignment of roof stone collapse was in the center (Fig. 2). The soft bedrock floor of the cave was reached after excavating c. 0.3 m layer of soft brownish limey soil. All the seven pottery vessels from the cave were found in its rear end. These consisted of the three pottery vessels, a bowl with handles (Fig. 3), a jug (Fig. 4) and a dipper juglet (Fig. 5), collected by the antiquities inspector, as well as four more vessels, including a carinated bowl with continuous incisions around its rim (Fig. 6), a nearly-complete medium-sized jar, a red-slipped juglet with a two-strand handle, found upside-down and an oil lamp.
The original entrance shaft (width $0.5-0.8 \mathrm{~m}$, depth 1.15 m ) was natural and led into the northeastern part of the cave, close by to the breach in the cave's eastern wall (Fig. 7). This was the only place in the cave where the brownish limey soil had accumulated all the way to the cave's ceiling.
Toward the end of the excavation, after the stone debris was cleared from the cave, a depression in the middle of the bedrock floor was noted. It contained osteological remains, in situ, including two human skulls of an adult and a child, found upside-down together with several long bones not in articulation. Since the excavation of the depression was not completed due to interference of Ultra-Orthodox factions, it was difficult to determine whether the bones were originally interred as primary burial, or were disturbed by post-burial activities.

The human bone remains and the various pottery vessels indicate that this cave was a small (family?) mortuary, dating to the end of MB IIB. The very presence of this incompletely excavated burial cave is of some interest because intense survey and excavation activities in the Modi'in area over recent years (HA-ESI 117; HA-ES/119), exposed no remains from MB IIB, except for another burial cave at the top of nearby Horbat Tittora (ESI20:72*).
3. Large handled bowl.

4. Jug.

7. Original entrance shaft, view from surface.


1. The cave after breaching its eastern wall, looking west.

2. Burial cave, looking west.

3. Large handled bowl.



4. Original entrance shaft, view from surface.

5. Area 5, cupmarks and probes, looking southeast.

6. Area 6, limekiln, plan and section.

7. Area 6, field clearance stones and boulders above limekiln pit, looking southeast.

8. Area 6 , the kiln pit and Trenches 609/611, looking north.

9. Area 6 , the lining of limestone, lime and ashes in kiln pit, looking east.

## (Volume No. HA-ESI 120 (2008 <br> Modi in <br> Final Report

Gerald Finkielsztejn
20/11/2008
During November-December 2007, a salvage excavation was conducted in the Zipor compound in Modi'in (Permit No. A-5304*; map ref. NIG 201190-363/646698-874; OIG 151190-363/146698-874), prior to construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by G. Finkielsztejn (photography), with the assistance of M. Kunin (surveying), I. LidskiReznikov (drawing) and I. Katlev (mollusks).
Three areas (4-6) were opened on bedrock outcrops, which were isolated by quarrying activities. Area 4 was a bedrock section with unclear hollowed elements; Area 5 included rock-hewn cupmarks and Area 6 consisted of a limekiln filled with field clearance stones.

## Area 4

All the elements uncovered after removing the black earth that overlaid bedrock were natural, either crevices or circular holes due to erosion. No ancient finds were found.

## Area 5

The area consisted of an elongated, roughly triangular bedrock outcrop, oriented northwest-southeast, with two, possibly three cupmarks on the northwestern edge, not covered with earth (Fig. 1; top elevation 285.40-285.48 m). Signs of erosion and breakage were noted along the bedrock sides.
The largest cupmark (L5001; Fig. 2) was circular (diam c. 0.57 m ), shallow (depth c. 0.04 m ) and connected to what looked like an irregularly cut shallow channel (length 0.75 m ) that apparently conveyed liquid from the cupmark southward, to the edge of bedrock. Another irregularly cut, small and shallow cupmark (L5003; $0.12 \times 0.17 \mathrm{~m}$ ) to the west of L5001, was also connected to a short, irregularly cut channel that led to the same bedrock edge, 0.4 m to the west. The edge had a straight angle, suggesting it may have been the remains of a square or rectilinear vat (preserved length 0.33 m to the east, 0.4 m to the north) that was partly cracked and eroded away (Fig. 3). A third circular, round and shallow cupmark (L5002; diam. c. 0.16 m , depth 0.03 m ) was located to the northeast of L5001. It was also connected to an apparently irregularly cut and shallow channel, leading to bedrock edge in the northwest, in opposite direction to both previous channels. This could suggest that L5002 was used separately from the other two cupmarks. However, the channels, as well as L5003 appear to be the result of erosion, rather than man-made (E.C.M. van den Brink, pers. comm.). This may explain why each channel was directed toward the bedrock edge, following the slope. The cupmarks could not be dated due to the absence of archaeological finds.
Probing the soil that surrounded the bedrock yielded no ancient finds.

## Area 6

A large depression on surface, covered with field clearance stones, some small and some huge boulders in which many modern gun bullets were mixed (L603; 286.00-285.13 m; Figs. 4, 5), was found. It was suggested that this may have been a limekiln, on the basis of a similar feature, recently excavated in the area of Modi'in (Permit No. A-5297). Removing most of the stones revealed the top of the limekiln's pit; it was excavated together with three probe trenches to its south (L604, L605, L607), north (L609, L611) and west (L610).
The trench to the south (elevation $286.19-284.78 \mathrm{~m}$; Fig. 6) revealed huge boulders above the edge of the pit and some smaller stones, lime and red burnt earth, deeper all around. The wall of the limekiln pit was not well defined here. The trench to the north was longer and displayed the link between the surrounding surface and the quarried pit, in which part of the limekiln wall was uncovered (elevation $286.64-285.38 \mathrm{~m}$; Fig. 7). At the edge of the pit, the earth and a group of small rounded stones were red, attesting to the high temperature during the firing in the kiln. At the top of the pit's wall was a lining of lime, overlaid with some big rounded lime stones. Half a handle of a bag-shaped jar, roughly dating to the Hellenistic-Roman periods, was found in the upper fill of L609 (Fig. 8).
An additional trench ( $0.7 \times 4.3$ ), oriented northwest-southeast, was dug to the east of the pit, in an attempt to find out if some aligned boulders visible on surface could be part of a built wall. The stones turned out to be protruding bedrock blocks.
Within the limekiln, below the field clearance stones, was a lining of rounded lime stones that covered the upper southeastern half of the pit (L608; 285.13-284.54; Fig. 9), which was also found in the trench to the north. A large quantity of lime was found in the pit, at a lower level. A narrow probe was cut at the bottom of the lime in search of wood for the fuel (L612). Ashes and charcoal were found (elevation 284.54-283.33), as well as some branches that had retained their shape.
To the west of the pit, another shallow depression was visible on surface and partly explored. A mixture of earth and lime with some bigger stones (L610) was below the field clearance stones. The location of the depression can not be explained, although it could have been some ventilation venue that was annexed to the pit.


1. Area 5, plan and section.

2. Area 5, cupmarks and probes, looking southeast.

3. Area 5, cupmark L5001 and Cupmark L5003, looking north.

4. Area 6, limekiln, plan and section.

5. Area 6, field clearance stones and boulders above limekiln pit, looking southeast.

6. Area 6, the kiln pit and Trenches 604/607 and 610, looking west.

7. Area 6, the kiln pit and Trenches 609/611, looking north.

8. Area 6. Half of a bag-shaped jar handle.

9. Area 6 , the lining of limestone, lime and ashes in kiln pit, looking east.

## (Volume No. HA-ESI 120 (2008 The Montfort Castle, a New Survey



1. Damage caused by vegetation in the guesthouse below the castle.

2. General view of the centra range of the upper castle ward.

The first two of three projected survey seasons at the Montfort Castle in the Western Galilee were conducted in 2006 and 2007 (License Nos. G-78/2006, G-78/2007; map ref. NIG 22130-70/7720-24; OIG 17130-70/2720-24). The survey, carried out on behalf of the Haifa University's Zinman Institute of Archaeology and funded by the Israel Science Foundation (Grant no. 1161/06), was directed by A. Boas, assisted by a team that included R. Khamissy, R. Lewis, V. Shotten-Hallel and D. Porotsky (surveying).

The principal aim of the first survey season was to produce a complete and detailed plan of the upper castle ward, which was excavated by a team from the Metropolitan Museum of New York in 1926. No detailed plans of those excavations were produced or published. Secondary aims of the first season were to carry out an extensive photographic survey of the entire castle, including the lower fortifications and the mill/guesthouse below the castle in Nahal Keziv to the north and to examine and record masonry techniques and masons' marks. During the 2007 season, aerial photogrammetry was carried out, followed by a ground survey and in addition, a 3-D laser scanning was employed in the western part of the upper ward as the first stage of a proposed full-scale laser-scanning of the castle. Furthermore, the team began recording elements in the structures that require conservation treatment, with the aim of preparing over the three-year project period a detailed paper dealing with conservation issues.
The 2007 ground survey (Figs. 1,2) has covered a large part of the upper ward, extending from the western curtain wall, the northwest gate tower, the double vaults, the western hall and the central range to the keep and moats on the east. Those parts of the upper ward not yet recorded will be completed in the 2008 season, when the survey will extend down to the northern and western slopes, including the outer ward and fortifications.


1. Damage caused by vegetation in the guesthouse below the castle.

2. General view of the central range of the upper castle ward.

## Moza 'lllit

Final Report


1. Map of the survey.

2. Opening of the water cistern (Site 12), looking north.

3. Farming terrace retaining walls, looking south.

Michal Birkenfeld
During January 2007, a survey prior to development was conducted in the Arza compound, in Moza 'Illit (Permit No. A-5015*; map ref. NIG 2144-55/6333-8; OIG 1644-55/1333-8). The survey, on behalf of the Israel Antiquities Authority and financed by the Mishkenot Moza Company, Ltd., was performed by M. Birkenfeld and D. En-Mor (photography).
The General Federation of Labor in Palestine established in 1923 a convalescent home in the Arza compound and in 1930 an administration building was erected there, both of which have been designated for preservation. The compound was abandoned and fenced off with the privatization of the federation's assets in the 1990s and the sale of the Israel Land Development Company which was responsible for the compound. Twelve sites with antiquities were documented in the survey, among them the remains of a building, a water cistern and farming terrace walls (Fig. 1). Numerous rock-hewn installations had previously been documented in the vicinity, among them winepresses, olive presses, water reservoirs and water cisterns from different periods, as well as burial caves from
the Intermediate Bronze Age (D. Bahat, 1975, Eretz Israel 12:18-23 [Hebrew]) and Middle Bronze II (V. Sussman, 1966, 'Atiqot 3 [HS]:40-43 [Hebrew]).
Building Remains (Site 1). A heap (diam. 4 m ) of medium-sized masonry stones was covered with thick vegetation. The wall of a farming terrace abutted the eastern side of the heap.

Water Cistern (Site 12). The southern part of the cistern was hewn, whereas its northern part was built of fieldstones (height of construction 2 m ). At present, the poured concrete capstone of the cistern is surrounded by a cement surface (Fig. 2). A hewn channel led to the cistern from the south and part of it was covered by the cement surface. Various rockcuttings that predated the modern construction were discerned around the cistern.

Farming terraces were the main elements noted in the survey (Sites 2-11). The terraces' retaining walls (length 10-20 m ), mostly oriented east-west, were built of fieldstones and roughly hewn medium-sized stones and preserved five to eight courses high (Fig. 3). The walls of two terraces were aligned north-south (Sites 9, 10). The wall of one of the retaining walls (Site 5; Fig. 4) was built of two rows of large dressed stones in a northwest-southeast direction.
The ceramic finds collected in the survey were meager and included mostly worn, non-diagnostic potsherds. The survey was conducted in an area that was mostly built-up and therefore, it was impossible to obtain a complete picture of how the area was utilized in antiquity. That notwithstanding, it seems that the region was used primarily for agriculture.

4. A farming terrace wall (Site 5), looking west.


1. Map of the survey.

2. Opening of the water cistern (Site 12), looking north.

3. Farming terrace retaining walls, looking south.

4. A farming terrace wall (Site 5), looking west.
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5. Location map.

6. Squares A1, A2.

7. Square A3, looking south.

8. Square A4, looking south.

Shireen Mahajna
During November 2005 a trial excavation was conducted at the "Ostrich Ranch" in Nahal 'Ada North (Permit No. A-4639*; map ref. NIG 20280-90/71555; OIG 15280-90/21555). The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Cross-Israel Highway Company, was directed by S. Mahajna, with the assistance of S. Ya'aqov-Jam (administration), T. Kornfeld (surveying and drafting), T. Sagiv (photography), P. Gendelman (pottery), M. Shuiskaya-Arnov (pottery drawing) and K. Sari (Haifa District).
Four squares were opened at the site, which is located in the fields of Qibbuz Regavim, along the route of Section 18 of Highway 6 (Fig. 1). To the east of the excavation site two portions of the Caesarea-Legio Roman road had previously been uncovered (HA-ESI 118).
In Squares A1 and A2 a section of a road ( $5 \times 10 \mathrm{~m}$; Fig. 2) that was paved with small fieldstones was exposed. Curbstones were preserved a single course high on the western side of the road. A deviation along the western side of the southern section of the road was discerned; this was probably a result of erosion or some other reason that is not apparent.
In Square A3 a section of a road ( $5 \times 7 \mathrm{~m}$; Fig. 3) whose curbstones were preserved on both sides to a height of two courses was exposed. Here too the pavement consisted of small fieldstones.
Another section ( $5 \times 6 \mathrm{~m}$; Fig. 4) was exposed in Square A4 where the curbstones were preserved on both sides to a height of two courses, separated by a pavement of small fieldstones.
A number of probe trenches (Loci 101, 201, 303; Fig. 2) were excavated next to the shoulder of the road in order to determine its construction date. The finds from these sections included worn rims of bag-shaped storage jars (Fig. 5) from the second-fourth centuries CE.

In the excavation, portions of a Roman road $(23 \mathrm{~m})$, consisting of a fieldstone pavement founded on a tamped-soil roadbed that was set on bedrock, were exposed. The pavement was delineated on either side by curbstones. The road is dated to the second-fourth centuries CE, based on ceramic finds. It seems that the road, which runs in a southeast northwest direction, intersected the Roman Caesarea-Legio road, which was previously exposed in two different excavations; however, it is unclear where it led.


1. Location map


2. Square A3, looking south.

3. Square A4, looking south.

(Volume No. HA-ESI 120 (2008
Nahal 'Amud Survey
Archive Report- Final Report
Moshe Hartal
2/6/2008
A survey prior to development was conducted for the purpose of examining the route of a pipeline from a well drilling in Nahal ‘Amud (Permit No. A-4718*; map ref. 24445-535/75655-770; OIG 19445-535/25655-770). The survey was directed by M. Hartal, with the participation of A. Shapiro. No antiquities were found.
(Volume No. HA-ESI 120 (2008
Nahal 'Aneva, Survey of Highway 431

## Final Report



1. Map of survey.

Mordechai Haiman , Oren Shmueli and Leticia Barda
29/5/2008
During March 2003, a survey preceding development was conducted (Permit No. A-3864*; map ref. NIG 177060-194482/645185653973; OIG 127060-144482/145185-153973; Fig. 1), prior to paving a section of Highway 431 from the 'Aneva Interchange to the Rishon Le-Ziyyon sand dunes. The survey, on behalf of the Antiquities Authority, was performed by M. Haiman, O. Shmueli, L. Barda and M. Ajami.
Section 1 ('Aneva Interchange; map ref. NIG 194080/645341; OIG 144080/145341).
A rock-hewn water cistern that had a circular opening (3); a farming terrace; a concentration of potsherds and small stones and a round open bedrock-hewn quarry (circumference 100 m , depth 3 m ; [8]). A similar but smaller quarry (circumference 5 m ) was nearby. A wall built of two rows of fieldstones with a core of small stones (11) and next to it, a meager potsherd scattering (diam. c. 100 m ) and a circular cupmark (12).

Surveyed between Sections 1 and 2 were:
A meager scattering of flint tools (14).
A meager scattering of tesserae, fragments of glass vessels and potsherds that dated to the Roman, Mamluk and Ottoman periods (16-18).
A scattering of potsherds and flint implements in a wadi channel (19).
A ruin, which had previously been surveyed, included a concentration of masonry stones, rock-hewn installations and potsherds from the Byzantine, Early Islamic, Crusader, Mamluk and Ottoman periods (41).

Section 2 (Moshav Yashresh-Juwarish; map ref. NIG 186966/647256; OIG 136966/147256).
Remains of the Gezer-Ramla aqueduct (Qanat Bint el Kafir), oriented north-south, on a dirt mound (length 250 m , width 2 m , height $0.3 \mathrm{~m} ;[22,23])$. A concentration of small fieldstones on surface $(0.2 \times 0.2 \mathrm{~m})$ was covered with gray bonding material and remains of plaster. Potsherds dating to the Early Islamic period were scattered near the aqueduct (20).

Section 3 (Netzer-Juwarish; map ref. NIG 18512/64760; OIG 13512/14760).
Antiquities at the top of a hill included dressed masonry stones, scattered potsherds and large tesserae from the Late Roman or Byzantine period (28).
The remains of a structure ( $5 \times 5 \mathrm{~m}$ ) from the Ottoman period were built of dressed stones and preserved to a height of the ceiling (33). The entrance to the building faced east and in the three other walls were elongated openings. The inner and outer walls were coated with plaster. Near the southern wall was a plastered courtyard in which a square opening led to an underground water reservoir. Potsherds that dated to the Early Islamic (?) and the Mamluk-Ottoman periods were scattered around the building $(30,31)$.

Section 4 (Be'er Ya‘aqov-Palmahim; map ref. NIG 18370/648678; OIG 13370/148678).
A scattering of potsherds and flint flakes, next to Be'er Ya'aqov (37, 38).
Nearby was a potsherd scattering from the Byzantine and Early Islamic periods (36).

(Volume No. HA-ESI 120 (2008
Nahal Eshtamo‘a
Final Report
Emil Aladjem
4/12/2008
During May 2005, a salvage excavation was conducted along the banks of Nahal Eshtamo'a in the region of the Yattir Forest (Permit No. A- 4481*; map ref. NIG 1982-7/5844-5; OIG 1482-7/0844-5), prior to the construction of the separation fence. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Ministry of Defense, was directed by E. Aladjem, with the assistance of H. Lavi (administration).

Two farming terraces, 500 m apart, were excavated on the northern and southern banks of Nahal Eshtamo'a.

The northern terrace (length 30 m , width 1 m , height 0.3 m ), preserved a single course high, was parallel to the wadi channel. The terrace, excavated for a distance of 6 m , was built of large fieldstones placed on a bed of alluvium.
The southern terrace (length 10 m , width 1.5 m , height 1.2 m ), preserved five courses high, was oriented eastwest. A large part of the terrace was destroyed when a scenery route in the Yattir Forest, which was adjacent to the southern face of the terrace, was constructed. The terrace, excavated for a distance of 2 m , was built of large fieldstones placed on a bed of alluvium.
The two farming terraces are the remains of ancient agricultural activity. No archaeological artifacts were discovered.

# (Volume No. HA-ESI 120 (2008 <br> Nahal Govrin, Highway 353 



1. Location map.

2. Area A, the western part, plan.

## Pirhiya Nahshoni

10/8/2008
During March-April 2003, a trial excavation was conducted at the site of Nahal Govrin (Permit No. A-3840; map ref. NIG 18280/61545; OIG 13280/11545), prior to paving a detour of Highway 353, within Section 19 of the Cross-Israel Highway. The excavation, carried out on behalf of the Antiquities Authority and funded by the Cross-Israel Highway Ltd., was directed by P. Nahshoni, with the assistance of A. Feder (Area A supervision), A. Freiberg (Area B supervision), Y. Dangor, R. Abu Halaf and H. Lavi (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (field photography), E. Belashov (drafting), C. Amit (studio photography), O. Shorr (pottery restoration), C. Hersch (pottery drawing), and H. Khalaily (processing of flint implements). Laborers from Qiryat Mal'akhy and Sederot participated in the excavation.
The site of Nahal Govrin is located on the northern slopes of a low hill between Qibbuz Gat and Qibbuz Gal'on, c. 1 km west of Tel Zayit and c. 150 m south of Nahal Govrin (Fig. 1). The site was surveyed within the Map of Gat (94; License No. G-13/1990). It is mentioned by Gophna and Beck in their discussion of the rural settlement pattern in the Middle Bronze Age (Tel Aviv 8: Site No. 12 'Gat-Galon'). The site was severely damaged when Highway 353, which crosses it, was paved, as well as by the installation of electricity and water lines. Further damage to the site was caused by the preparation of the ground for cultivation more than 20 years ago.
Two areas were opened in the excavation (Fig. 2). Area A was on the northern slope of a hill, south of Highway 353 and included seven squares in a row and another three squares, 45 m west of them. Area B, further along the slope and north of the road, consisted of six squares in two sections.
Two settlement strata were identified: Stratum I of Middle Bronze II was exposed in two areas and Stratum II of the Chalcolithic period was only exposed in Area A.

## Area A

Building remains and two phases of habitation levels from the Chalcolithic period (Strata II) were discovered. Above them were settlement remains from Middle Bronze II (Stratum I), which displayed the raising of floors and additions to buildings.
Stratum II. Two activity phases from the Chalcolithic period (Figs. 3, 4) were exposed in the eastern part. An earthen floor with a round surface of wadi pebbles and small stones (L146; diam. 1.3 m ) was ascribed to the early phase. Attributed to the later phase were a similar surface (L132) and a floor that was overlaid with small round installations, bedrock-hewn or built of small wadi pebbles (Loci 168-171; diam. $0.20-0.25 \mathrm{~m}$ ). To their west were openings of two rock-shelters or caves with building additions (L145, W9; L154, W14), which were located beyond the limits of the excavation and their use could not ascertained
A corner of a building and a floor (L159; Fig. 5) were exposed in the western squares. The walls (W10, W11), built of fieldstones, were preserved a single course high. To the west, a fieldstone collapse (L151) overlaid an earthen floor (L161).
Stratum I. A room and an adjacent courtyard to its south were exposed in the eastern part of the southern section (see Fig. 3). The walls of the room (W1, W2, W12), preserved two-three courses high, were built of fieldstones with small stones and soil in between. The tamped-earth floor of the room (Loci 147, 155) was applied to the surface of a previous floor (L165).
A bench (W13) south and next to W1 was built in the later phase. In the courtyard, a crushed chalk floor (Loci 118, 119, 164) that abutted on the southern and western sides of natural bedrock was exposed. Several flagstones in the western part were used as a pavement (L133), which overlaid a tamped-earth floor (Loci 124, 127), evidence of its prolonged use. To the west, four wall stumps built of fieldstones (W4-W7), which apparently belonged to another building, were exposed. A rock-hewn threshold in W5 marked the entrance to the building located in the north, which was beyond the limits of the excavation. A courtyard (L140) to the south, next to the building, was partly delimited by natural bedrock. Very close to the surface was a circular installation built of fieldstones (L152) whose date is unclear.

## Area B

Building remains and floors that belonged to two settlement phases of Middle Bronze II (Stratum I) were found. These were uncovered in two building complexes: in the west (Fig. 6) and c. 70 m to the east (Fig. 7). Walls and floors of buildings, whose general plan could not be clarified due to the limited excavation area, were found in the two complexes. The western building comprised five walls. Two parallel walls (W55, W57; height 0.25 m ), which apparently belonged to a single building, were oriented northeast-southwest; tamped-earth floors (Loci 337, 340) abutted the walls. Three other walls (W51, W54, W56), discovered 6 m to the east, were preserved a single course high and probably belonged to the same building. A single floor (L335) abutted W51 and W54 and two floors (Loci 339, 343) abutted W51 and W56. A small section of a floor (Loci 347, 350) that predated the construction of the building was ascribed to the early phase in this area.
Two sections of walls (W50, W52; preserved height of $0.2-0.4 \mathrm{~m}$ ) were discovered in the eastern building complex (Fig. 7), as well as floors (Loci 307, 310, 311) that abutted them. The construction style of the walls was similar to that of the rest of the buildings at the site and based on their alignment, it seems that they belonged to two buildings.
The limited excavation area and the state of the remains did not enable to ascertain the nature of the Chalcolithic-period settlement. During the Middle Bronze Age, a village seems to have existed on the northern slope of the site, descending toward Nahal Govrin, whose residents were engaged in agriculture. The settlement extended across 7-10 dunams and despite the fragmentary architecture and poor preservation, one can discern the similarity between the buildings and possibly even a preliminary planning.


3. Area A, the eastern part, plan.




7. Area B, the eastern part, plan.
(Volume No. HA-ESI 120 (2008
Nahal Hevron
Archive report- Final Report
Alexander Krokhmalnik
18/8/2008
During July 2005, a trial excavation was conducted in Nahal Hevron (Permit No. A-4526*; map ref. NIG 19552-8/584050; OIG 14552-8/0840-50). The excavation, carried out on behalf of the Antiquities Authority and funded by the Ministry of Defense, was directed by A. Krokhmalnik, assisted by T. Sagiv (photography).

Two squares were opened, revealing a cavity in bedrock, which contained a few body fragments of jars and cooking pots that dated to the Roman period.

# (Volume No. HA-ESI 120 (2008 <br> Nahal Kefira <br> Final Report 

Irina Zilberbod
18/1/2008


1. Winepress and quarries, plan and sections.

2. Winepress and quarries, looking east.

3. Pottery.

4. Ancient road, plan and section.

5. Ancient road, looking northwest.

During August 2005, a salvage excavation was conducted at Nahal Kefira (Permit No. A-4583*; map ref. NIG 2094/6377; OIG 1594/1377). The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by I. Zilberbod, with the assistance of R. Abu-Halaf (administration), T. Kornfeld (surveying), T. Sagiv (photography), E. Belashov (drafting) and I. Lidski (pottery drawing) .
Two areas, c. 300 m apart, were opened at the bottom of the ridge slope, to the north of the channel.

## Area A

A winepress hewn in hard limestone bedrock was exposed (Figs. 1, 2). The treading floor (L2; $2.0 \times 3.5 \mathrm{~m}$ ) was rectangular and the height of its walls varied according to the gradient of the slope (northern wall 1.5 m ; southern wall c . 0.05 m ). On the floor near the northern wall was an elliptical depression (length 0.4 m , max. width 0.2 m , depth 0.2 m ), which seems to have been a natural karstic hollow that may have functioned as a 'tapuah' where the grape skins were collected during the pressing process. No plaster was traced on the surface of the treading floor. Three niches, $0.2-0.3 \mathrm{~m}$ apart (Loci 3-5; width $0.35-0.40$, height $0.55-0.60 \mathrm{~m}$, depth $0.10-0.15 \mathrm{~m}$ ), were hewn c. 0.5 above the floor in the middle of the northern wall. The middle niche was cut deeper (L4; depth 0.4 m ) in a later phase. A cupmark (L9; diam. 0.15 m , depth 0.06 m ) that may also be a karstic depression was located outside of and adjacent to the southwestern corner of the treading floor. It is not certain if the cupmark was used for setting a jar. A shallow channel (L11; length c. 0.25 m , width c. 0.15 m , depth c. 0.1 m ) conveyed the must from the southwestern corner of the treading floor to a rectangular settling vat that had rounded corners (L8; $0.9 \times 1.3 \mathrm{~m}$, depth 1 m ). An oval settling pit (L14; $0.55 \times 0.90 \mathrm{~m}$, depth 0.25 m ) was hewn in the western side of the vat's floor. The must flowed from the settling vat to the collecting vat (L16) via a perforation (diam. 7 cm , length 15 cm ) that was hewn 0.4 m below the top of the settling vat's northern wall. The two vats were also linked by way of an open channel (L10; length c. 0.1 m , width c. 0.1 m , depth c. 0.15 m ). It is impossible to know whether the perforation and the channel belonged to different phases or were operated at the same time on an alternating basis. A shallow round depression that joined the settling vat by a gutter (L13; diam. 0.25 m , depth 0.15 m ) was hewn in bedrock surface above the northwestern corner of the vat. The depression was probably intended for placing a jar. A narrow shallow channel (L12; length c. 0.2 m , width c. 0.1 m , depth 0.1 m ) was used to convey the must from the treading floor directly to the collecting vat. It is presumed that this process occurred during the pressing stage, following the treading, when the grape skins were wrapped in sheets of cloth that filtered the must and thus, it was unnecessary to pass it through the settling vat.
The collecting vat, which was hewn north of the settling vat, had a bell-shaped outline (L16; $1.2 \times 1.4 \mathrm{~m}$, depth 2 m ) Sections of yellowish white plaster were traced on its walls and floor and an elliptical settling pit (L18; $0.30 \times 0.75 \mathrm{~m}$ depth 0.2 m ) was hewn in the southern part of its floor.
The bottom of the vat was reached by way of an arched recess, where one could place one's foot (L22; width 0.3 , height 0.2 m , depth 0.15 m ) and a column that stood 0.6 m below it in the western half of the vat (L23; trapezoidal cross-section $0.25 \times 0.40 \mathrm{~m}$, height 0.6 m$)$. One could also stand on the column while drawing the must from the vat below.
Potsherds from the Early Roman period were discovered in the fill that had accumulated in the collecting vat, including cooking pots (Fig. 3:1-3) and jugs (Fig. 3:4-9); several body fragments that may date to Iron II were found in the lower part of the vat, close to the floor.
Due to typological considerations, it is suggested that during Iron II, the winepress was originally part of the agricultural activity that was practiced in the environs of the biblical city of Kefira whose tell is located east of the excavation. It seems that the winepress was preserved in its entirety and was reused during the Second Temple period, as indicated by the ceramic finds.
A small quarry, c. 7 m east of the winepress ( $\mathrm{L} 1 ; 1.5 \times 4.0 \mathrm{~m}$ ), was cleaned. Remains of rock-cut channels and the negative of a row of six rectangular stones were discerned. Part of another quarry (L6; c. $3 \times 4 \mathrm{~m}$ ), which had remains of quarrying channels and the negatives of stones that had been detached (depth c. 0.25 m ), was exposed close to the northwestern side of the winepress. It is impossible to know whether the winepress predated the quarries or visa versa and it is also likely that the installations were contemporary.

## Area B

A road, aligned east-west and a c. 25 m long section of it (width 2.5-5.0 m; Figs. 4, 5) that was preserved along the surface, were discovered. A probe trench (Loci 19-21; $1.5 \times 6.5 \mathrm{~m}$ ) excavated across the road exposed the road bedding, which consisted of tamped-soil fill (max. thickness 1.2 m ) that was deposited on a natural bedrock terrace. The fill was supported by a southern (W1) and a northern (W2) walls that were built of large fieldstones with small stones among them and together, formed a terrace. The tops of the retaining walls served as curbstones and protruded c. $0.5-$ 0.9 m above surface. Worn potsherds from the Early Roman period were recovered from the fill in the probe trench.



4. Ancient road, plan and section.

5. Ancient road, looking northwest.

# (Volume No. HA-ESI 120 (2008 <br> Nahal Kefira, Survey <br> Final Report 



1. Map of the surveyed sites.

2. Site 34 , burial cave, looking north.

3. Site 35 , cave opening, looking north.

Alla Nagorsky 15/4/2008
During March 2004 a survey prior to development was conducted in Nahal Kefira (Permit No. A-4146*; map ref. NIG 2090-600/6380-90; OIG 1590-600/1380-90), along the security route of the separation fence. The survey, carried out on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by A. Nagorsky, H. Stark and D. Weiss, with the assistance of L. Barda (GPS).
The surveyed region extends within the sites of Kh. Abu Lahm, Kh. Rafidiya, Ma'ale Ha-Hamisha and Nahal Kefira, as well as in undeclared sites. Burial caves and cave dwellings, rock-hewn and built agricultural installations, cisterns, watchtowers, terrace walls and ancient roads were identified among the 37 different sites that were located in the survey (Fig. 1).
The caves (Sites 7, 24, 25) have broad openings and inner chambers in which no signs of quarrying were noted. No finds were discovered in the caves and they are used today for various purposes. Site 32 includes two adjacent caves. The western one has a hewn façade and a rectangular opening ( $1.0 \times 1.1 \mathrm{~m}$ ), which is set in a frame, and a small chamber $(2.0 \times 2.5 \mathrm{~m})$ that was devoid of artifacts. The eastern wall of the cave was breached, which made it possible to access the eastern cave $(2.5 \times 3.4 \mathrm{~m})$ that has a wide, irregular opening. Signs of rock-cutting were noted on the doorjambs of the opening. It seems that the western cave was used at first as a burial cave, and later, by joining the adjacent cavet, it was probably adapted for other purposes.
The burial cave (Site 18) has a hewn façade and a rectangular opening (width 0.65 m ) that is blocked by a heap of soil and stones. A concentration of potsherds that date to the Late Roman and Byzantine periods was discovered near the opening. Site 31 includes two adjacent caves at the bottom of the southern slope of Nahal Kefira; they have a common façade and probably also share an open courtyard situated to the north. The caves' openings are covered with earth and vegetation. Another burial cave (Site 33) has an elliptical opening ( $0.58 \times 0.85 \mathrm{~m}$ ) that is hewn in friable bedrock. Signs of quarrying on the front of the cave to the east of the opening indicate the probable existence of an entrance or courtyard. The burial chamber is filled with friable limestone chunks that collapsed from the ceiling. Two hewn niches could be discerned in the western wall. Potsherds that date to the Second Temple and the Byzantine periods were discovered around the opening. Another cave (Site 34; Fig. 2) has a small staircase ( $1.00 \times 1.65 \mathrm{~m}$ ) that leads to a hewn opening set into an arched frame (width 0.73 m ). The interior of the cave was filled with soil and stones. Another cave (Site 35; Fig. 3) has a rectangular opening $(0.90 \times 1.0 \mathrm{~m})$ set in a broad frame; it is the easternmost in a series of caves that was surveyed along the length of the bedrock cliff on the northern slope of Nahal Kefira. Eight other burial caves west of Cave 35 are located outside the boundary of the current survey but they clearly belong to the necropolis of Tel Kefira. All of the surveyed burial caves were breached and plundered in the past.

The ancient road (Site 22), which is oriented southwest-northeast, was discovered on the southern slope. The northern side of the road is built of medium-sized fieldstones while the southern side consists of natural bedrock. The remains of the road (width 2.0 m ) are preserved in sections along the slope. Another section of a road (Site 36) was discovered at the bottom of the northern slope of Nahal Kefira. Here also, the northern side of the road is built of a row of medium to large-sized fieldstones, while the southern side is cut into bedrock. One can assume that the two sections are parts of the same ancient road that was paved along the length of Nahal Kefira.

An agricultural installation (Site 8) consisting of a rectangular surface ( $3.00 \times 3.90 \mathrm{~m}$ ) and a cistern. The sides of the surface are built of medium-sized fieldstones preserved 0.5 m high, and its floor is paved with gray plaster. Next to its southwestern corner is a channel built of small fieldstones that led outside the installation. In its southeastern corner is the square opening $(0.7 \times 0.7 \mathrm{~m})$ of a cistern that is currently filled with water. The opening is built of small fieldstones and is closed with an iron cover. Another cistern (Fig. 13) with a square opening ( $1.10 \times 1.10 \mathrm{~m}$ ) and rounded corners was found filled with alluvium.
The remains of three quarries (Sites $6,9,27$ ) were discovered. They extend across small areas where usually $2-3$ hewn corners are visible. Site 9 is probably a cave. The winepress (Site 37) has a rectangular treading floor ( $2.2 \times 2.4 \mathrm{~m}$ ). Bedrock, cut high and straight with two niches, serves as the southern wall of the treading floor. The collecting vat was not preserved.

A cupmark (Site 26) is hewn in a bedrock outcrop ( $1.0 \times 2.0 \mathrm{~m}$; diam. 0.5 m , depth 0.24 m ). Next to it is a terrace wall oriented east-west. The wall is built of small fieldstones and preserved 1 m high.

Other terrace walls (Sites $1-3,5,10-12,14,19-21,23,28-30$ ) were observed on the southern slope above Nahal Kefira and include a system of farming terraces that are retained by walls; these are probably cultivation plots of similar area (10-15 $\times 40-45 \mathrm{~m}$ ) for growing olive trees. The terrace walls are of uniform construction, made of two rows of roughly-hewn fieldstones, a fill of small stones, and corners that are conspicuous due to their especially large stones. An excavation in a cistern (Site 13) in the middle of the terrace complex indicated that they were used in earlier periods.

Sites 15-17 were identified as cave openings that are in all likelihood natural. Site 4 consists of a sherd concentration from the Late Roman period and a cluster of ancient building stones.


2. Site 34 , burial cave, looking north.

3. Site 35 , cave opening, looking north.
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## Nahal Narbeta

Final Report


1. Plan and sections.

2. Room 103, looking southeast.

During November 2004, a salvage excavation was conducted within the site of Dhuhur el Khardal, at the bank of Nahal Narbeta (Permit No. A-4286*; map ref. NIG 20625-35/62069-70; OIG 15625-35/12069-70), prior to paving the Barta'a bypass road. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Department of Public Works, was directed by A Shadman, with the assistance of A. Hajian (surveying and drafting), T. Sagiv (field photography), E. Yannai (scientific consultation), P. Gendelman (pottery reading) and E. Oren.
The site is located on a spur east of Harish and south of the Nahal 'Iron settlement. To the south of the site is Horbat Mahu, which has a commanding view over the entire region. This is an area of hills and ridges (110-150 m above sea level) whose soil consists of terra rossa and clay; the only source of water in the vicinity is 'Ein Barta'a. The region seems to have been covered with a dense Mediterranean forest in the past.
A circular structure (diam. 7 m ) and an elliptical courtyard (diam. 14 m ) that fronted it on the northwestern side were exposed; the construction of both was tremendous and well- preserved (Fig. 1). The complex was dated to the Roman period, based on scant ceramic finds.
The entrance (width 1 m ) to the building was set in the western side and led east to a narrow corridor (width 1 m ) that accessed a small elliptical chamber (L103) and the courtyard to the northwest. The walls of the building, partly preserved 2.2 m high, were constructed from large fieldstones. The entrance to Room 103 consisted of two lintels, over which stone slabs were placed. Room 103 was enclosed by two circular walls (W20, W21). Wall 20, the outer wall, was built of two rows of stones; the springing of a vault, which apparently covered the room, was preserved along the wall's inner face. A narrow space between W20 and W21 was connected to Room 103 by way of a narrow opening (width c. 0.5 m ) in the western side of the room. A floor of small fieldstones (L50) that was set on bedrock abutted Walls 20 and 21. Several worn ribbed potsherds, probably of the Roman period, were discovered in the vicinity of the floor.
The wall enclosing the courtyard (W23; length 35 m , max. width 1.2 m ) comprised medium and large fieldstones that were set on bedrock. A floor of small fieldstones, set on a soil fill and large stones (L106), was exposed in the northwestern corner of the courtyard.
Based on the massive construction and the courtyard it can be assumed that the excavated complex was a farmstead. The entrance, common to the building and the courtyard, indicates that both elements were built and used contemporaneously. The building was most likely intended to ensure the protection of the residents and their produce; it was probably used as a field tower. Animals, possibly cattle, were perhaps kept in the courtyard.
Y. Ne'eman suggested that buildings like the one excavated were mausoleums or tombs (Map of Ma'anit [54], Sites 7-9); however, the results of the excavation do not corroborate this proposal, due to the absence of bones and funerary offerings. The excavated complex is characteristic of the Roman period and similar complexes were discovered in the nearby vicinity, for example at Umm Reihan (S. Dar, Y. Tepper and Z. Safrai, 1986. Umm Reihan, A Village of the Mishnah. Nature Protection Society, Tower 63, Fig. 17; Complex 204, Fig. 29) and in Nahal Samtar (without an adjacent courtyard; Map of Ma'anit [54], Sites 5, 7, 8; 'Atiqot 46:1-3).


1. Plan and sections.

2. Room 103, looking southeast.
(Volume No. HA-ESI 120 (2008

## Nahal Shoval

 Final ReportNir Shimshon Paran
12/2/2008


1. Plan and section.

2. Pottery.

During March 2004, a salvage excavation was conducted at the Nahal Shoval site (Permit No. A-4129*; map ref. NIG 17995/59100; OIG 12995/09100; HA-ES/ 117), in the wake of damage caused to ancient remains. The excavation, on behalf of the Antiquities Authority and funded by the Department of Public Works, was directed by N.S. Paran, with the assistance of H. Lavi (administration), A. Hajian (surveying), E. Belashov (drafting) and I. Lidski-Reznikov (drawing of finds).
The site is located on a low hill, c. 1 km south of the Devira junction. The excavation was c. 100 m northwest of the former excavation at the site (ESI 10:154). A natural pit, whose eastern side had been damaged during work on Highway 40 that crosses the site, was excavated. The pit had an irregular shape (c. $3 \times 3 \mathrm{~m}$, depth 1.6 m ; Fig. 1) and its ceiling was collapsed. Following the collapse, the pit was used for refuse. A conical heap of reddish brown soil that had mostly accumulated after the collapse of the ceiling was discovered at the bottom of the pit. The heap was overlain with sloping layers of black and gray soil. A wall (W1; exposed length 1.5 m , width $0.50-0.55 \mathrm{~m}$ ) built of medium and large fieldstones on top of the soil layers and preserved three-six courses high ( $0.5-0.6 \mathrm{~m}$ ) was exposed. Digging the foundation trench for the wall was probably the cause for the collapse of the pit's ceiling.
The soil layers contained chalk measuring vessels together with ceramic finds that dated to the Early Roman period (Herodian period; first century BCE-first century CE) and included small spherical bowls (Fig. 2:1), bowls and small bowls with a curved-in rim (Fig. 2:2-6), shallow bowls (Fig. 2:7), cooking pots with an external gutter below the rim (Fig. 2:8-11), bag-shaped store jars (Fig. 2:12-16), jugs (Fig. 2:14), juglets with a cup-like rim (Fig. 18, 19) and Herodian lamps (Fig. 2:20).



## (Volume No. HA-ESI 120 (2008

Nahal Timna
Final Report
Gideon Solimany and Harley Stark


1. Map of excavation areas.

2. Area A, looking east.

3. Area B, plan.

4. Entrance shaft to cave, looking west.

5. Pottery from cave.

During May and September 2005, a salvage excavation was conducted adjacent to the Israel Military Industries' compound in Nahal Timna (Permit No. A-4459*; map ref. NIG 191/630, OIG 141/130; HA-ES/ 118), prior to construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by G. Solimany and H. Stark, with the assistance of O. Barzilay and B.A. Artzi (Area C supervision), R. Abu Halaf (administration), T. Kornfeld (surveying and drafting), T. Sagiv (field photography), R. Gat and E. Kamaisky (pottery restoration), C. Hersch (artifacts drawing) and A. Nagorsky.

Four excavation areas (A-D; Fig. 1) were opened in a region of low hills, east and south of Horbat Pered. A burial cave that was adapted for use as a cistern and subsequently converted into a dwelling was exposed in Area A. A cave, used as a quarry and surrounded by various rock-cuttings, was uncovered in Area B. The remains of a building, farming terraces and various rock-cuttings were excavated in Area $C$ and quarries were discovered in Area D. The cistern and the cave that was used as a quarry were dated to the Byzantine period, based on ceramic finds.

Area A (Figs. 2-5). The excavation was conducted along the surface (Loci 100, 102; $8 \times 12 \mathrm{~m}$ ), above the cave's ceiling, as well as inside it (Loci 101, 103; $3 \times 5 \mathrm{~m}$ ). In the first phase, a burial cave $(4 \times 4 \mathrm{~m})$ whose opening was set in the western side was hewn. Hewn niches that may have been used as troughs were located in the northern and southern sides of the cave. The adaptation of the cave for use as a cistern in the second phase was achieved by quarrying eastward and plastering (L103; $5 \times 6 \times 6 \mathrm{~m}$ ). A plastered pool (L102; $0.8 \times 2.2 \times 2.2 \mathrm{~m}$ ), into which rainwater was conveyed from the ceiling of the cave, was built near the cave's entrance on the outside. A channel (width 0.1 m ) that conveyed water from the pool to the cistern was installed in the pool's eastern wall (W50). Another aperture for drawing water was breached in the northern side of the cistern's ceiling. The cistern's capstone was preserved near the aperture. Potsherds dating to the Byzantine period were discovered in the cistern and the pool, including bowls (Fig. 6:1, 2), a cooking pot (Fig. 6:3) and jugs (Fig. 6:4-6). In the third phase, the cistern was converted into a dwelling (L101). The aperture for drawing water was sealed by construction, the cistern's capstone was removed from its place and the pool was blocked. The later collapse of the cave's ceiling on the eastern side served as an entrance into the cave, which was used as a dwelling probably during the last hundred years, based on modern objects found in it, including rifle bullets.

Area B (Fig. 7). The southern part of a cave that was used as a quarry was excavated (Loci 250, 251; depth 5 m; Figs. 8-10). A hewn shaft entrance (diam. 0.8 m , depth 0.7 m ) led to the cave on whose bottom (L253), sloping from north to south, were signs of quarrying and quarried stones that were not entirely detached from bedrock. At some point the cave was filled to c .3 m high with a homogeneous fill of small stones (L252), which were either cleared from the surrounding area or were quarry debris. In a later phase, the western part of the cave's ceiling collapsed, causing the cave to be filled up to the ceiling with alluvium and eroded stones. The potsherds found on the bottom of the cave and in the fill included mortaria (Fig. 11:1) from the Persian period, jars (Fig. 11:2-4) from the Hellenistic period and bowls (Fig. 11:5, 6), cooking pots (Fig. 11:7, 8) and a jar (Fig. 11:9) from the Byzantine period. Based on the ceramic finds, it seems that the quarry should be dated to the Byzantine period.
A small rock-hewn winepress (L200) was exposed west of the cave. The winepress consisted of a treading floor (diam. c. 1 m ) and a collecting vat (diam. 0.5 m ). South of the cave was a round rock-cutting (Loci 202, 203; diam. 3 m , depth 1.2 m ), which was possibly an installation whose hewing had never been completed. Two cupmarks were discovered on a bedrock surface that was higher than the rock-cutting. A shallow quarry (L204; $4 \times 8 \mathrm{~m}$ ) was exposed slightly to the west of the round rock-cutting.

Area C (Figs. 12, 13). The western part of a rectangular structure (L109; $2.5 \times 3.0 \mathrm{~m}$ ) whose walls (width 0.9 m ) were built of two rows of medium and large fieldstones was exposed. The structure was preserved two courses high. The fill inside the building consisted of small stones and soil. Two farming terrace walls (W350, W352), built of large fieldstones and preserved a single course height, were discovered. Wall 350 (exposed length 7 m ) comprised a single row of stones, whereas Wall 352 (exposed length 6 m ) consisted of two rows of stones. Other ancient features at the site included a shallow quarry (L312; $2 \times 8 \mathrm{~m}$ ), a small rock-hewn winepress (L310) that consisted of a treading floor (diam. 1 m ) and a collecting vat (diam. 0.5 m ), five cupmarks hewn in the same bedrock surface (L300) and another-hewn separately (L306; diam. 0.3 m).

Area D. Two shallow quarries were excavated (L501-7 $\times 8 \mathrm{~m}$; L502-5 $\times 5 \mathrm{~m}$; Fig. 14).
The remains exposed in the excavation mostly relate to agricultural activity and to construction that took place along a settlement's periphery. The ceramic finds indicate that most of the activity at the site occurred during the Byzantine period, although some activity had already taken place during the Persian and Hellenistic periods.


1. Map of excavation areas.

2. Area A, plan.


3. Area A, looking east.

4. Plastered pool, looking north.


3





9. Entrance shaft to cave, looking west.



E $\quad$.

11. Pottery from cave.


13. Area C (south), plan.

14. Area D, plan.
(Volume No. HA-ESI 120 (2008

## Nahal Yattir

Final Report
Mordechai Haiman


1. Plan.

2. Pottery.

During December 2003, an excavation was conducted within the precincts of the Hura township, next to a tributary of Nahal Yattir (Permit No. A-4050*; map ref. NIG 19495/57835; OIG 14495/07835). The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Israel Land Administration, was directed by M. Haiman, with the assistance of V. Essman (surveying and drafting), A. Pikovsky (pottery drawing) and laborers from Yeruham.
The site had been surveyed within the Emergency Survey of the Negev at the beginning of the 1990s (Map of Nahal Yattir [139], Site 39). The excavation was conducted in a watchman's hut ( $4.35 \times 4.50 \mathrm{~m}$; Fig. 1), located on the northwestern slope, overlooking a gentle valley where cultivation plots exist. The watchman's hut was built atop an artificial terrace that consisted of a retaining wall, which stood one-three courses high (length 1 m ) on natural bedrock and a fill of firmly tamped loess (thickness $0.2-0.5 \mathrm{~m}$ ). The walls of the hut (width $0.65-0.90$ m , height 0.6 m ) were constructed from two rows of roughly hewn stones (length 1 m ) with a fill core, which were preserved one-three courses high. The entrance to the hut (width 0.7 m ) was installed in the northern wall. It included a stone threshold (length 1.2 m , width 0.4 m ) and was flanked on either side by heavy stone doorjambs. Two floor levels were exposed.

The Lower Level (L102) was c. 0.2 m below the upper level and consisted of tamped loess mixed with crushed limestone (thickness of limestone 5 cm ). The fill above the floor contained loess mixed with ash and numerous potsherds. A stone (length 0.8 m ) found below the elevation of the threshold served as a step when descending into the watchman's hut.
Seven tiny coins (nummi) below the floor level were found embedded in the tamped loess at the elevation of the base of the hut's walls; six were close to the entrance, below the stone step, where it seems they were placed on purpose. They were poorly preserved and disintegrated upon removal.

The Upper Level (L101) was at the same elevation as the threshold stone in the entrance. A stone $(0.4 \times 0.4 \mathrm{~m})$ that may have been used as a table was set in the northeastern corner of the structure. Loess fill mixed with ash and numerous potsherds was on the floor.
To the right of the entrance was the lower part of a jar (diam. 15 cm ), embedded in the floor and filled with loess mixed with ash, indicating it may have been used as a hearth.

The rich pottery assemblage from both floor levels was diverse and contained North African Red Slip bowls (Fig. 2:1-3), dating to the sixth century CE, a cooking pot with an everted rim (Fig. 2:4), jugs and amphoriskoi (Fig. 2:5-8), dating to the fourth-sixth century CE and a stirrup jug (Fig. 2:9), dating to the sixth-beginning of the seventh century CE. The similarity between the ceramic assemblages of the two floor levels indicates they were contemporary; the upper floor (L101) was raised while the watchman's hut was still in use. The ceramic assemblages and the date of the nummi, which did not precede the end of the fifth century CE, suggest that the watchman's hut was used in the fifth-sixth centuries CE.

The structure is a typical watchman's hut, characteristic of the Byzantine-period agricultural settlements in the Negev. It is known from similar structures excavated near Be'er Sheva' (HA-ESI 110:85*; 111:91*-92*) that watchman's huts served agricultural activities performed by residents of urban settlements. The present watchman's hut is c. 1.5 km northeast of Khirbat Hura from the Byzantine period and close to other watchman's huts in the vicinity (Map of Nahal Yattir [139], Sites 36, 38, 63).



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1. Aerial photograph of the excavation.

2. A deep trench showing the exposed strata, looking northeast.

3. An Egyptian situla.

4. Upright stone (mazzeva).

During June-July 2005, a trial excavation was conducted at Balfour Street in Nahariyya (Permit No. A-4519; map ref. NIG 2088/7677; OIG 1588/2677), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the Qoral Bonē Ha-Galil Company, was directed by N. Getzov (photography) and Y. Lerer, with the assistance of Y. Ya'aqoby (administration), A. Hajian and T. Kornfeld (surveying and drafting), P. Fartosh and D. Gahali (aerial photography, Sky Balloons), A. Shapiro (GPS), D. Syon (metal detection), L. Kupershmidt (metallurgical laboratory), D.T. Ariel (numismatics), B. Brandl (preliminary examination of a scarab and a situla) and R. Frankel (scientific consultation).
The excavation area (c. 110 sq m ) was located on the western slope of Tel Nahariyya. Eight strata were exposed, among them five occupation layers that dated to the Persian period (Figs. 1, 2). Previous excavations at the tell revealed settlement remains from the Middle Bronze Age and the Persian period; a few of the remains were from the Late Bronze Age and the Hellenistic period (HA 74-75:8 [Hebrew]; ESI 2:75; 19:7*-8*).

Stratum VIII. A dark gray layer of clay (3.0-3.5 m above sea level) was discovered at the bottom of the excavation. No ancient artifacts were found and the excavation was suspended at this level due to flooding (probably not from the water table).

Stratum VII. This stratum consisted of a layer of coarse sand (zifzif; 3.5-4.6 m above sea level).
Stratum VI. A stone wall whose foundation was built into the layer of zifzif (Stratum VII) was exposed; it was preserved over 2 m high. This wall continued to be used until Stratum II. A refuse pit and an accumulation of soil that was mixed with numerous potsherds and animal bones were discovered next to the wall. A preliminary examination of the pottery fragments indicated that the stratum is dated to the fifth century BCE.

Stratum V. Sections of walls, whose foundations were built of two courses of kurkar and their upper parts apparently consisted of mud bricks, were discovered. Among the finds in this stratum was an Egyptian situla (height 10 cm ; Fig. 3) and fragments of a grotesque clay mask. A standing stone (mazzeva), carved out of a kurkar slab (height 1.3 m ; Fig 4), was incorporated in a wall of a building from Stratum IV, which seems to have originated in Stratum V. These finds may attest to the presence of a cultic center.

Strata IV-II. Building remains that were constructed in a similar manner from narrow mud-brick walls (width 0.5-0.6 m) with stone foundations were discovered in each of these three strata. A silver coin from Stratum IV minted in Tyre dated it to the fourth century BCE.

Stratum I. This stratum consisted of a sterile zifzif layer that covered the settlement remains from the Persian period. This accumulation was part of the sand dunes that covered the region of the site, which was not reoccupied until the city of Nahariyya was established in the 1930s.

The finds from the excavation were numerous and included ceramic artifacts, most of which dated to the Persian period, among them locally produced vessels, wine jars from various Mediterranean ports and black-glazed Attic vessels, as well as a few potsherds that dated to the Iron Age. Metal objects included arrowheads, lead weights for fishing nets, large needles that were apparently used to repair nets and toggle pins. An especially interesting find was a lens-shaped, Phoenician basalt millstone, used for milling flour and equipped with a pair of notches for grasping it. A scarab that dated to the Iron Age was also found.
The excavation illustrates the importance of the settlement in the Persian period. The meager finds from the Iron Age indicate that a small settlement was situated at the site. The complete absence of finds from the Middle Bronze Age shows that the remains of fortifications, which had previously been exposed in the north of the tell, were part of a citadel rather than an urban settlement. The lack of finds from the Hellenistic period probably indicates that the settlement remains from this period, uncovered at the site in the past, were part of a small settlement that remained at the site.


1. Aerial photograph of the excavation.

2. A deep trench showing the exposed strata, looking northeast.

3. An Egyptian situla.


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1. Plan and sections.

2. Stratum III, Wall 7 below Wall 2, looking north.

3. Pottery.

4. Stratum II, the southwestern corner of the room, looking west.

5. Stratum I, stone collapse on both sides of Wall 3 . looking east.

Edna Amos
25/1/2008
During September 2003 a salvage excavation was conducted along the northeastern slope of the village of Nein (Permit No. A3977*; map ref. NIG 2331/7261; OIG 1831/2261), following the exposure of ancient remains during preparations for construction. The excavation, on the behalf of the Antiquities Authority, was directed by E . Amos (photography), with the assistance of V . Essman and V. Pirsky (surveying), I. Berin (drafting), H. Tahan (pottery drawing) and E.J. Stern (ceramic consultation).
A square was opened, revealing three architectural layers that dated to the Crusader, Mamluk and Ottoman periods (Fig. 1).

Stratum III. A north-south aligned wall (W7; length 1.9 m , width 1 m ), built of large stones with small fieldstones among them and preserved a single course high, was exposed (Fig. 2). A tabun (L12) was found to its east. The area was covered with burnt soil that contained potsherds from the Crusader period (twelfth century-beginning of the thirteenth century CE), including a glazed bowl imported from the Aegean Sea (Fig. 3:1), a krater (Fig. 3:2), a cooking pot (Fig. 3:3) and a jar (Fig. 3:4).

Stratum II. The southwestern corner of a room that had a storage pit in its floor and the wall of another building to the southwest were exposed in this level. Two construction phases were discerned.

Phase llb. Walls 2 and 5 formed the southwestern corner of a room. Wall 2 (length 4.3 m ) was oriented north-south; its southern part was built on top of W7 (Stratum III), slightly deviating to the east and its southern end did not survive. It was preserved three courses high and built of medium-sized masonry stones, which surmounted a foundation of small stones. Wall 5 (length 1.3 m ), closing the room from the south, was preserved two courses high and built of medium-sized fieldstones
A pit of small fieldstones was dug into the floor of the room (L20). The pit (bottom diam. 2.5 m , depth 2 m ) was lined with built fieldstone circles that tapered toward its top. Two large stones were placed around the opening. The pit was not plastered and seems to have been used for storing dry goods. Potsherds dating to the Mamluk period (thirteenthfourteenth centuries CE) were found above the floor.
Southwest of the room's corner was another wall (W6), oriented north-south. Only its eastern side survived (length 1 m ); its western part was beneath the stone collapse of Wall 3 from Stratum I (L15). It was probably abutted by another wall, oriented east-west, which was discerned amongst the stone collapse (L5) and probably formed the northeastern corner of another building, west of W2.
A thick burnt layer (L21), overlain with a small-fieldstone layer (L19) that contained numerous animal bones (camel, donkey and goat) was discerned in the area south of the room, above W7 and east of W6. The ceramic finds, similar to those recovered from the floor of the room (L20), included a glazed bowl decorated with a slipped stripe (Fig. 3:5), green and yellow gouged ware bowls (Fig. 3:6), monochrome glazed bowls decorated with splashes of paint (Fig. 3:7) and the fragment of a mold-made and slipped bowl (Fig. 3:8).

Phase lla. Alterations were undertaken in the room. Wall 5 was cancelled and all that survived of it were two courses of its northern face. Above its southern face was a new wall ( W 1 ; width 1 m ), built of medium fieldstones with smal fieldstones among them and preserved three courses high (Fig. 4). The storage pit below Floor L20 was blocked by a heap of fieldstones that reached the second course of W5, which survived c. 0.7 m high above the floor. The rest of the room's area was filled with soil fill to the height of the pit's fill and paved with small fieldstones (L18) that covered the room and the remains of W5. The ceramic finds in the fill layer beneath Floor L18 and in the heap of stones that blocked the pit consisted of an incised green glazed bowl, imported from northern Italy (Fig. 3:9), a jug fragment decorated with incising (Fig. 3:10) and an amphoriskos (Fig. 3:11), dating to the Mamluk period. The layer of fill above Floor L18 also included potsherds from the Mamluk period.
The passageway between the corner of Walls 2 and 5 and W6 was blocked by a wall (W4; Fig. 5), built of medium-sized, disarrayed fieldstones. The blockage was built on a foundation of small fieldstones (L19) from Phase IIb, which contained animal bones and potsherds from the Mamluk period, including a bowl (Fig. 3:12), a jar (Fig. 3:13) and a glazed green and yellow gouged ware bowl (Fig. 3:14)

Stratum I. A wall (W3; width 0.6 m ) in the western half of the square, oriented east-west, was built of dressed masonry stones and medium-sized fieldstones and preserved a single course high. The eastern end of W3 overlaid the top of W6 from Phase llb and extended as far as W4 from Phase Ila. The area south (L15) and north (L17) of W3 was covered with stone collapse (Fig. 6), which was not excavated and therefore cannot be unequivocally ascribed to W3. The ceramic finds gathered from the stone collapse are dated to the end of the Mamluk period and include a frit-ware amphoriskos (Fig. 3:15), fragments of painted glass bracelets and two bronze rings. The soil fill that accumulated above the stone collapse contained burnt material, animal bones and potsherds from the Mamluk and Ottoman periods. Inside the room from Phase Ilb, above the fill layer from the Mamluk period, another fill layer reached the top of Walls 1 and 2 and contained animal bones and potsherds from the Mamluk and Ottoman periods, including a Rashaya el-Fukhar bowl (Fig. $3: 16$ ) and pipes (Fig. 3:17), dating to the nineteenth century CE.

The entire area of the excavation and up to surface was covered with a layer of modern fill, which contained animal bones and potsherds from the Mamluk and Ottoman periods, including a glazed bowl decorated with a slipped stripe from the nineteenth century CE (Fig. 3:18), as well as modern artifacts. The excavation was suspended due to safety precautions when the Crusader wall (W7) and the adjacent tabun were exposed. The excavation reached neither bedrock nor virgin soil and it is assumed that layers from earlier periods exist below the Crusader stratum. The architectural finds from the Crusader to the Ottoman periods (twelfth-nineteenth centuries CE) show that the northeastern area of the Nein village was situated within the domain of the ancient tell.



4. Stratum II, the southwestern corner of the room, looking west.

5. Stratum II, Wall 4 between the southwestern corner of the room and Wall 6, looking south.

6. Stratum I, stone collapse on both sides of Wall 3, looking east.
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Nein (B)
Final Report
Edna Amos


1. Plan and section.

2. The void below the bedrock outcrop (L3), looking south.

3. The pit (L1), looking west.

During January 2004, a salvage excavation was conducted along the northwestern slope of the village of Nein (Permit No. A-4090*; map ref. NIG 2330/7260; OIG 1830/2260), after ancient remains were revealed while digging foundations. The excavation, on behalf of the Antiquities Authority, was directed by E. Amos, assisted by V. Essman and V. Pirsky (surveying).

A hewn pit and a staircase were exposed in the soft limestone bedrock beyond the limits of the ancient village.
The pit (L3) was hewn in the high western part of a bedrock outcrop (depth c. 2 m , thickness of ceiling c. 0.4 m ; Figs. 1, 2). Its square opening (L1) was sealed with medium and large fieldstones (Fig. 3). A few potsherds, including body fragments of vessels that dated to the Roman period, were found in the upper part of the pit.
East of the pit were three hewn steps that led to its opening (L2; Fig. 4). The staircase probably led to a burial cave with a shaft in an earlier phase, which was later adapted for use as a pit with the shaft as its opening.


## 1-1

1. Plan and section.

2. The void below the bedrock outcrop (L3), looking south.

3. The pit (L1), looking west.

4. The staircase (L2), looking south.
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Dor Golan

5. Plan.

6. Foundation wall of main channel, looking southwest.

7. Channel 147, looking northeast.

8. Channel 143, looking southwest.

9. Pottery.

During February and June 2007, two salvage excavations were conducted in Nes Ziyyona (Permit No. A-5031*; map ref. NIG 18002-9/64848-58; OIG 13002-9/14848-58), prior to construction. The excavations, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Shikun Dayyarim Company Ltd., were directed by D. Golan, with the assistance of S. Ya'aqovJam and E. Bahar (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), R. Vinitzky (metallurgica laboratory),M. Shuiskaya (pottery drawing), R. Kool (numismatics) and also M. Avissar and E. Ayalon.
The excavation was conducted in an area of abandoned orchards in the western part of Nes Ziyyona. Eleven squares were excavated for a distance of c. 70 m from north to south, revealing water channels that dated to the Early Islamic period and an old road from the Ottoman period (Fig. 1). A previous excavation in 2001, adjacent to and northeast of the current excavation, exposed building remains from the Byzantine and Early Islamic periods and the British mandate time (HA-ESI 118).

The foundation wall of a main water channel (W148; length c .20 m , width $0.6-0.8 \mathrm{~m}$; Fig. 2) was exposed in the middle of the excavation area. Wall 148 was built of five rows of small kurkar fieldstones, aligned northeast-southwest and preserved two courses high. It was fragmented and another section of it was detected in the southwestern part of the excavation area (W113, L152). Collapse of a plastered channel was discovered near W148. A wall (W118; length 1.13 m ), oriented east-west and preserved two courses high, was connected to W148 at a lower level. It seems that a channel was built on top of
W118. A water channel (L147; length 2.5 m , width 0.5 m ; Fig. 3) abutted W118 perpendicularly from the south. It consisted of a foundation of small fieldstones atop which was a channel whose cross-section was square (width of the channel 0.18 m ). It can be assumed that the channel was plastered in the past, similar to other channels revealed in the excavation. It appears that the water flowed from the main channel (W148) to Channel W118 and then, to Channel L147. Parallel to and east of the main channel was another channel (L143; length 6 m , width 0.6 m ; Fig. 4), which was built of a foundation wall of small fieldstones. Above it was a plastered channel whose cross-section was rectangular (width 0.25 $\mathrm{m})$. This conduit was probably also connected to the main channel. At the southern end of the excavation, a northeastsouthwest channel, plastered on the inside and outside, was exposed (L141; length 3.4 m , width 1.1 m , width of channel 0.18 m ). It seems that Channel 141 was intentionally blocked with stones and plaster, possibly to raise it or to increase its slope. East of Channel 141 and at a lower level, was a layer of small stones (L133; length 1.32 m , width 0.71 m ), whose function is unclear. At the northern end of the excavation the poorly preserved remains of a water channel (L128) was exposed. While excavating the channels, a few potsherds that dated to the Early Islamic period were discovered, including mostly saqiye vessels (Fig. 5:1-4) and several jars (Fig. 5:5, 6), as well as a bronze fals, dated to the Early Islamic period (seventh-eighth centuries CE). It seems that the channels exposed in the excavation were part of an Early Islamic irrigation system that was used in farming. The channels were built on a slope that descended to the southwest. Based on the ceramic finds, it seems that a saqiye well was located nearby.
South of Channel 143, remains of a road that was built of tamped soil and kurkar (L112) and was flanked on either side by two kurkar-built curbs (W111, W112), were discovered. Fragments of Marseilles roof tiles were found in the excavation of the road and therefore it was dated to the Ottoman period. A few fragments of Gaza ware from the Ottoman period were collected along the surface.


1. Plan

2. Foundation wall of main channel, looking southwest.

3. Channel 147, looking northeast.

4. Channel 143, looking southwest.


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1. Plan.

2. Area A, Square A1, looking south.

3. Area B, Squares B1 and B2, looking south.

4. Area C. Square C1. looking east.

5. Area C. Square C2. looking north.

Aviva Buchennino
During 2005 a trial excavation was conducted in Netanya (Permit No. A-4651*; map ref. NIG 1873-6/6889-91; OIG 1373-6/188991), prior to the construction of a stadium. The excavation, carried out on behalf of the Antiquities Authority and sponsored by Eli Dallal, was directed by A. Bouchenino, with the assistance of A. Hajian (surveying and drafting), T. Sagiv (photography), A. Dagot (GPS), E. Ayalon of the Eretz Israel Museum (scientific consultation) and E. Belashov (drafting and plans).
The site is located in the western 'gutter', east of the middle kurkar ridge (c. 20 m above sea level).
The Hanun family arrived at the site from Tulkarem in the nineteenth century, establishing a farmstead that was part of the settlement process of western Samaria villages on the fertile alluvial soil of the Sharon Plain. Three areas (A-C; Fig. 1) were opened north of the farmhouse and a farm building.

Area A. One and a half squares (A1 and A2) were opened. In Square A1 (L101; Fig. 2) the scant remains of two parallel walls (W20: length 1.50 m , width 0.75 m ; W21:length 2.00 m , width $0.30-0.60 \mathrm{~m}$ ) were discovered close to modern surface. The walls, founded on hamra, were built of various size fieldstones without bonding material and were aligned northwest-southeast. They were preserved one course high ( 0.16 and 0.32 m respectively) and did not form a clear architectural plan. In the half square (A2) a burnt layer (L111; thickness 0.09 m ) that did not yield any datable finds was exposed.
Area B. Two squares (B1, B2; Fig. 3) were opened in which a wall (W10, length 35 m , width 0.85 m ) was uncovered just below surface. It was built of different size fieldstones without bonding material and was founded on hamra; the wall was oriented north-south. The wall continued south of Square B1 and north of Square B2 and was preserved one course high ( $0.11-0.15 \mathrm{~m}$ ). It was abutted from the east by a floor (F11; thickness 0.11 m ) that consisted of a bedding of small to medium-sized fieldstones and a layer of cement. A few small body fragments of black Gaza Ware jars were found in between the stones of the wall and on the floor.
Area C. In Area C, which was severely damaged as a result of agricultural activity, five half-squares were opened (C1C5) where levels of different size fieldstones without bonding material were exposed; their use was not ascertained. Pieces of cement between fieldstones were found in Squares C1-C3 (L302, 311, 321; Figs. 4-6). These were probably the remains of a floor of another farm building which together with the building in Area B and the aqueduct to the west formed a closed compound around a large courtyard.
A few undecorated body fragments of black Gaza Ware jars and pieces of Marseilles roof tiles that dated to the end of the Ottoman period were found.
The exposed architectural remains provide additional information about the farmstead ('Biaret Hanun'). Until now only four main building complexes were known: the farmhouse, which was preserved in its entirety; a farm building to the south; a farm building to the east; and a building to the south of the house that was not preserved but was joined to the southern farm building by means of a wall or another building. (It appears on the cadastral map from 1928.) The buildings formed a closed compound around a courtyard, as was customary in compounds from the nineteenth century.
The area of the Hanun farmstead was apparently larger than previously thought. Complexes of this kind (see the khan at Hadera and Horbat 'Eleq between Binyamina and Zikhron Ya'akov) were mostly built at the end of the nineteenth century. It should be mentioned that the pool ('Birqat Hanun') appears on a map of the Survey of Western Palestine from 1878, whereas the farmstead itself does not appear on the map or in the survey report. In light of this it seems that the Hanun farmstead should be dated to the end of the Ottoman period.


[^1]

1. Plan.

2. Area A, Square A1, looking south.

3. Area B, Squares B1 and B2, looking south.

4. Area C, Square C1, looking east.

5. Area C, Square C2, looking north.

6. Area C, Square C3, looking south.
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## Newē Shalom

Final Report


1. Plan and section.

2. Wall 1, looking northwest.

3. Pottery.

Annette Nagar

11/10/2008
During the end of January and beginning of February 2007, a salvage excavation was conducted at Newē Shalom (Permit No. A5003*; map ref. NIG 19805/63605; OIG 14805/13605), prior to the installation of an electric line. The excavation, on behalf of the Israel Antiquities Authority, was directed by A. Nagar, with the assistance of Y. Ohayon (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), E. Belashov (final plans) and C. Hersch (pottery drawing).
A half square was opened and remains of a building wall were exposed. The western part of the square was disturbed by infrastructures of electric line pipes. The wall (W1; length 3.5 m , width 0.6 m ; Figs. 1-3), preserved two courses high ( $0.60-0.75 \mathrm{~m}$ ), was built of large roughly hewn limestone blocks, with small and medium-sized lime stones between them. An intentional fill that comprised numerous small fieldstones was exposed above and on either side of the wall (Loci 101, 102). The ceramic finds dated to the Early Roman period and included a cooking pot (Fig. 4:1) and jars (Fig. 4:2-10).
The construction of the wall resembled that of the walls of rooms that were exposed c. 80 west of the excavation and dated to the Early Roman period (HA-ESI 115:47*-48*). Wall 1 was probably part of this complex of rooms, which indicated the scope of the settlement at the site during the Roman period.


2. Wall 1, looking east.

3. Wall 1, looking northwest.

4. Pottery.


1. The excavation areas, plan.

2. Squares I-III, plan and section.

3. Concentration of potsherds in Pit 110.

4. Pottery.

5. Glass vessels (photo).
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Nir Gallim
Final Report
Angelina Dagot
During April 2005, a trial excavation was conducted at Moshav Nir Gallim (Permit No. A-4412*; map ref. NIG 16994-7004/63654-8; OIG 11994-2004/13654-8), in a region slated for construction. The excavation, on behalf of the Antiquities Authority, was directed by A. Dagot, with the assistance of S. Ya'aqov-Jam (administration), V. Pirsky and V. Essman (surveying), T. Sagiv (field photography), A. Buchennino (antiquities inspection), I. Berin (final plans), C. Amit (studio photography), P. Gendelman (ceramic consultation), M. Shuiskaya (pottery drawing), N. Katsnelson (glass), O. Shorr (glass restoration), C. Hersch (glass drawing), R. Kool (numismatics) and O. Shmueli.

An excavation (ESI 19:55*) was conducted in 1995 in Moshav Nir Gallim, c. 2 km northeast of Ashdod, in which remains of a church that dated to the Byzantine period were uncovered. The current excavation was carried out c. 300 m south of this church. Probe trenches, conducted by O. Segal in March 1998 south of the present excavation area, exposed remains of mosaic floors and a complex of kilns from the Roman and Byzantine period (O. Segal, pers. comm.).

Six squares (I-VI; Fig. 1) were opened.
Squares I, II. A pit (Loci 110, 120; diam. 8 m , depth 1.2 m ; Fig. 2) that was dug into clay soil was exposed. It contained debris of a pottery workshop that consisted of a large quantity of deformed vessel fragments and potsherds that dated to the first century CE (Fig. 3), including a jug (Fig. 4:3), baggy-shaped jars (Fig. 4:4, 6), a cooking pot (Fig. 4:8) and a lid (Fig. 4:10), as well as a small bronze coin that dated to the time of the Roman procurator Valerius Gratus (15-24 CE; IAA No. 108867).
Outside the pit, fragments of more pottery vessels from the Roman period were found, including a jug (Fig. 4:2), a baggyshaped jar (Fig. 4:5) and a coin of the Roman procurator Antonius Felix ( 54 CE; IAA No. 108868).
Square III (Fig. 2). A meager wall (W10), built of two rows of medium-sized fieldstones, was discovered in the southwestern corner of the square. All that survived of the north-south oriented wall was one course (length 1.4 m , width $0.3 \mathrm{~m})$. In the northeastern corner of the square was a concentration of broken pottery vessels that dated to the Roman period (L112) and included a juglet (Fig. 4:1) and a few potsherds of Gaza jars (Fig. 4:9) from the Byzantine period.
Square IV. A layer of stone collapse and potsherds, which dated to the Roman period and included an amphora (Fig. 4:7) and fragments of glass vessels (Figs. 5, 6; see Katsnelson below), was discovered in the northern part of the square. Square V. A half square that had some stone collapse in its center was excavated.
Square VI. Stone collapse was discovered c. 100 m east of Squares I-V.

## The Glass Vessels

Natalia Katsnelson
Twenty-three glass fragments were discovered. A single fragment came from Square I, L110 and belongs to the most common type of cast ribbed bowls that are dated to the late first century BCE-early first century CE (not illustrated). The other 22 fragments that belong to free-blown vessels were found in Square IV (Fig. 5). At least three of the vessel types could be restored, while the other surviving fragments were too small to be identified. The vessels include a bowl (Fig. $6: 1$ ) and two bottles (Fig. 6:2, 3) made of similar greenish-blue glass. Some of the fragments were quite deformed by fire. The deformed fragments of the bowl in Fig. 6:1 include a low hollow ring-base and a rim that is decorated with two crimped-trails. Similar bowls were widespread throughout the country at the end of the first-early second centuries CE. They are often found in assemblages from the Bar-Kokhba period in Judea, e.g., in Jerusalem and in the Judean Desert, e.g., the Cave of Horror and the Cave of Letters. Bowls adorned with crimped-trails are also known from the north of the country, e.g., from the Hellenistic-Roman cemetery at Berit Ahim (north of 'Akko) and from Roman tombs at Horbat Castra and Samaria. The bowl from Nir Gallim is one of the rare examples from the southern coastal plain. The deformed fragment in Fig. 6:2 represents a typical rim of a bottle or jug used for storage or shipping (small fragments of a short ribbed handle that could not be restored were found). The rim flares out, down and up, forming a collar. A cylindrical jug with a similar rim, short ribbed handle and grooved body was found in the Cave of Letters. The funnel mouth of the bottle in Fig. 6:3 is atypical; therefore, the fragment may probably be attributed to the Early Roman period.
The group of glass vessels from Nir Gallim is small but interesting. They belong to an assemblage from an industrial pit that is dated to the years 11-65 CE, or slightly later, based on the coins. The deformity of the vessels, a result of high temperature, like that which occurred to the pottery vessels, could have been from destruction or it may be a sign of a glass workshop that was located nearby; nevertheless, the glass vessels from the site are too few in number to propose any hypothesis.

2. Squares I-III, plan and section.

3. Concentration of potsherds in Pit 110.

4. Pottery.

5. Glass vessels (photo).



1. Location of Peqiif and nearby excavations.

2. The excavation area, looking west.

3. Square 1, W3 and Tabun L108.

4. Squares 2 and 3. looking east.

5. Glass production debris.
(Volume No. HA-ESI 120 (2008

## Peqi'in (West)

## Final Report

Samuel Wolff
13/1/2008
During September 2005 a brief salvage excavation was conducted in the heart of the modern village of Peqiin in the Upper Galilee (Permit No. A-4607*; map ref. NIG 23150-53/76445-48; OIG 18150-53/26445-48; Fig. 1). The excavation, on behalf of the Antiquities Authority, was directed by S. Wolff, with the assistance of Y. Ya'aqoby and Y. Lerer (administration), R. Vinitsky (metallurgical laboratory), D. Adan-Bayewitz (pottery identification), I. Lidski-Reznikov (pottery drawing), I. Milevski (stone vessels), Y. Gorin-Rosen (glass) and N. Getzov, who graciously put the finds from the survey at my disposal (HA-ESI 119).

The site is located in the immediate vicinity of the tomb of Rabbi Yossi (Fig. 2), a pilgrimage site. The area is planned for development to accommodate Jewish pilgrims who still come to worship at this tomb, which is situated c. 100 m below (west of) 'Ein el-Balad, the most plentiful of the many springs of Peqii'in. The remains of several nearby ruined flour mills indicate a significant stream of water that once flowed from the spring to our site. Such a situation would have been conducive for occupation throughout the millennia, as the pottery and other objects from our excavation demonstrate, dating from the Paleolithic (Mousterian), Chalcolithic, Early Bronze II, Iron Age, Early Roman, Late Byzantine and Islamic periods. Architectural remains from the Byzantine period were exposed in the excavation, but earlier remains lie below, as seen in the section visible below Rabbi Yossi's tomb. Unfortunately, the suspension of fieldwork precluded the exposure of these earlier remains.

Three squares, one on a higher terrace and two on a lower one, were opened; all three were set above the tomb of Rabbi Yossi. A cement floor (width c. 0.9 m ), whose both sides lipped up, ran the length of Square 1 (Fig. 3), immediately under the modern surface and outside of a modern sewer pipe. If this was a walkway, as the current residents claim, it was a narrow one. Below a modern fill layer was a wall (W103) that ran diagonally across the square and was abutted on the east by a well-preserved tabun (L108). The date of these features was not determined, but it seems reasonable to suggest that they, like those described below, should be ascribed to the Byzantine period.

Remains of walls in Squares 2 and 3 (Fig. 4), located northwest of the tomb, were also revealed immediately below a fill layer whose latest pottery dated to the Islamic period. The walls were oriented northeast-southwest and northwestsoutheast. Walls discerned in the section, cut prior to the excavation, just to the north of Squares 2 and 3, probably connected with the excavated walls, but time prevented us from making the link. If this is so, one can project at least a single room (width c. 3.5 m ). Only the initial stages of these walls were revealed; further excavation is necessary to determine their details and associations. Pottery associated with a cobble floor that related to Walls 1 and 2 in Square 3 dated to the Late Byzantine period (sixth century CE).
Two fragments of threshold stones were found ex situ in a pile of debris between Square 2 and Rabbi Yossi's tomb (Fig. 5).

The earliest pottery from the excavations included an EB II platter rim (Fig. 6:1) and several kraters from Iron IIA (Fig. 6:2-4). The majority of the pottery dated to the Roman period and included much Kefar Hananya Ware. The earliest was a cooking pot of Form 4B, dating to the late first-second centuries CE (Fig. 6:11). Pottery from the third and fourth centuries CE included bowls of Form 1D (Fig. 6:5, 6) and 1E (Fig. 6:7-10), cooking pot Forms 1B (Fig. 6:12), 3B (Fig. $6: 13$ ) and 4C (Fig. 6:14, 15) and storage jars (Fig. 6:16-18). The Byzantine period was well-represented, especially imported bowls LRC 3 and a stamped LRC base (Fig. 7:1-4), CRS 2 (Fig. 7:5, 6) and CRS 9 (Fig. 7:7), a cooking pot lid (Fig. $7: 8$ ) and storage jars (Fig. $7: 9,10$ ). Similar pottery was revealed at nearby Horbat 'Eved. A Turkish pipe fragment (Fig. 7:11) represents Ottoman-period occupation in the area. Non-ceramic finds from the excavation included two basalt stone fragments, an open bowl (Fig. 7:12) and a small mortar (Fig. 7:13), both should probably be dated to the Chalcolithic period. For the glass finds, see Gorin-Rosen below.

Finds from the survey that preceded the excavation included a nicely fashioned basalt bowl fragment dating to the Chalcolithic period (Fig. 8:1); rim of a platter, a jar, a storage jar base and an almost complete juglet, all of metallic ware from EB II (Fig. 8:2-5), as well as bowls, cooking pots and storage jars of Kefar Hananya Ware from the third-fourth centuries CE (Fig. 8:6-9).

Despite the limited excavation, several important results were achieved. First, pottery and stone vessels from the Chalcolithic, Early Bronze II, Iron II, Roman, Byzantine and Islamic periods were found, as well as a significant accumulation of occupational debris, suggesting that the excavated site be identified as the ancient hub or tell of Peqiin, not far from the main water source. Second, domestic architecture, most likely dating to the Byzantine period (sixth century CE), was revealed. Third, evidence for substantial public architecture, probably also Byzantine in date, was found, ex situ (two threshold stones). This structure probably stood not far from our excavation area. Fourth, a significant amount of raw glass debris testifies to the existence of a Late Roman/Byzantine glass workshop in the general vicinity. Should the opportunity arise to continue this excavation, which was unmercifully cut off almost as soon as it had begun, it will allow us to better understand and date the exposed architecture and to characterize the remains from earlier unexcavated periods.

## The Glass Finds

Yael Gorin-Rosen
The glass finds from this excavation included glass production debris (Fig. 9) and a few vessel fragments, including a small bowl dated to the Late Roman or Byzantine periods and a conical hollow stem of a bowl-shaped oil lamp, characteristic of the Byzantine period.

The glass production debris included fifty-five chunks and three drops of hot glass. Among the chunks were flakes or chunks of clean raw glass with no debris, probably intended for melting in the glass-blower's furnace. In addition, a rather large amount of debris from glass furnaces, identified by layers of glass on top of a limestone layer, was found. The chunks of stone with glass layers may have originated in furnace walls, where melted hot glass flowed into the stone cracks.
The fabric and quality of the glass and the debris probably suggest that they originated from a glass furnace of the secondary stage, where chunks of raw glass were melted for the production of vessels, rather than in a primary stage furnace used for making raw glass. Nevertheless, the most characteristic evidence of glass vessel making-the blowing debris-is missing. It is possible that the waste found in this excavation was dumped after being dismantled from a glass furnace located farther away. Hence, the waste does not necessarily indicate the location of the furnace itself. Peqi'in thus joins numerous sites where glass vessels were produced in antiquity; this salvage excavation contributes to the study of the history of glass production in Israel during the Late Roman and Byzantine periods.


1. Location of Peqi'in and nearby excavations.

2. The excavation area, looking west.

3. Square 1, W3 and Tabun L108.

4. Squares 2 and 3 , looking east.

5. Threshold stone.

6. Pottery from EB II, Iron II and the Roman period.


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7. Pottery from the Byzantine and Ottoman periods; basalt vessels from the Chalcolithic period.


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8. Survey finds.

(Volume No. HA-ESI 120 (2008
Petah Tiqwa
Final Report
Anan 'Azab


1. Square E1, plan and section.

2. Collecting vat, looking east.

3. Square A1, plan.

4. Squares C1, C2, plan.

In February 2006 a salvage excavation was conducted in the Lev Savionim neighborhood of Petah Tiqwa, (Permit No. A-4713*; map ref. NIG 188834-89/667409-67; OIG 138834-89/167409-67), in an area slated for the construction of a park. The excavation, on behalf of the Israel Antiquities Authority and with the financial backing of the Africa-Israel Company and Dankner Investments Ltd, was directed by A. 'Azab, with the participation of E. Bachar and S. Ya'aqov-Jam (administration), A. Hajian (surveying) and M. Peilstöker and A. Re'em (Central District).
The excavation (c. 250 sq m ) was conducted on top of an artificial hill that had been cut by modern activity on both its northern and southern sides. Some 30 m south of it excavations were conducted in the past (Permit Nos. A-3359, A-3434, A-3672, A-3760; HA-ESI 117) where remains were discovered that date to the Byzantine and Early Islamic periods, including walls, mosaic floors, installations and winepresses.
Four squares (A1, C1, C2, E1) were opened where remains from two periods were uncovered.

## Stratum I

In Square E1 (Fig. 1) remains of a round collecting vat (L108; diam. 1.2 m , depth 0.4 m ) were exposed that was most likely part of a winepress. Its walls were built of small fieldstones that were plastered, and the bottom of the vat was paved with a mosaic of white tesserae $(2 \times 2 \mathrm{~cm})$ that were set in a bedding of small fieldstones and bonding material (Fig. 2). A plastered channel was connected to the vat from the east; the former was visible in the section but is not depicted on the plan. Fragments of ribbed jars from the Byzantine period were found in the collecting vat.

## Stratum II

In Squares A1, C1, C2 and E1 (Loci 104, 103, 105, 102; Figs. 1, 3, 4) collapse was exposed that consisted of different size fieldstones and partly dressed ashlars. It was mixed with black soil fill that included potsherds that date to the Mamluk period.

It seems that the collecting vat was part of a winepress which is similar to Byzantine period winepresses that were previously excavated nearby, and the collapse belonged to destroyed buildings from the Mamluk period.


2. Collecting vat, looking east.

3. Square A1, plan.

(Volume No. HA-ESI 120 (2008 Poriyya, Development Survey Final Report
Yotam Tepper


1. Location map.

2. General view of the main site, looking southeast.

During June 2005, a survey prior to development was conducted east of Poriyya (the work village; Permit No. A-4476*; map ref. NIG 25175-212/73575-662, OIG 20175-212/23575-662). The survey, undertaken on behalf of the Israel Antiquities Authority and underwritten by the 'Arim Company, was directed by Y. Tepper (photography), with the assistance of A. Mokary, B. Hana and Z. Horowitz (surveying), E. Bron (GPS) and A. Shapiro (location map).
The survey (c. 3 sq km ; Fig. 1) was conducted along the slopes west of the Moshava Kinneret and east of Poriyya. The high western part of survey area, as well as the low eastern part, are rocky and steep, while the middle of the area has moderate slopes, flat areas and cultivated fields. One main site (Points 10-19) and three concentrations of sites with finds (Points 2-6 in the north; Points 7-9 in the northeast; Points 1, 20 in the south) were recorded in the survey and a few potsherds dating to the Bronze and Iron Ages and the Roman and Mamluk periods were collected.

The main site (c. 4 dunams) is located on a high hill (Fig. 2). A circular building (diam. c. 10 m ) was documented at the top of the hill. It was constructed from large indigenous basalt stones and preserved one-two courses high. Remains of walls that may have been internal partitions were visible inside the building. Three hewn cupmarks were located nearby The opening of an underground complex (cistern?) was documented on the northern slope of the hill. On a saddle west of the building was a channel (length 35 m , width 8 m ), both dug and rock-hewn. Stone walls and stone clearance heaps were built on either side of it. Elongated stone clearance heaps, below which stone walls may be hidden, were noted on the western moderate part of the site. A wall built two courses high of large basalt stones was surveyed on the steep slope of the hill northeast of the building. The wall extended up to the edge of the channel. The site is located at a strategic point that controls the nearby area and has a commanding view of the surroundings farther away. It is reasonable to assume that this site was associated with the large settlements nearby, among them Horbat Qedesh to the north, Tel Bet Yerah to the east and Tel 'Eli and Horbat Kush to the south.
The three concentrations of finds in the north, northeast and south of the survey area consisted of stone piles (max. diam. 5 m ) and walls, which were probably used to delimit fields


1. Location map.

2. General view of the main site, looking southeast.

# (Volume No. HA-ESI 120 (2008 <br> <br> Qanat Bint el-Kafir 

 <br> <br> Qanat Bint el-Kafir}


1. Graves 105, 107, 108, plan.

2. Graves 111,112 plan.

3. Graves 111, 112, looking west.

4. A deceased lying on its right side, facing south.

5. Southwestern part of aqueduct, looking southwest.

## Amir Gorzalczany

29/5/2008
During July-August 2006, a trial excavation was conducted south of Ramla and north-east of Moshav Yashresh (Permit No. A4858; map ref. NIG 18650-66/64729-42; OIG 13650-66/14729-42), prior to the paving of Highway 431. The excavation, carried out on behalf of the Antiquities Authority and funded by the Department of Public Works, was directed by A. Gorzalczany, with the assistance of O. Segal (area supervision), S. Ya'aqov-Jam and E. Bachar (administration), A. Hajian (surveying), T. Sagiv (photography), the Sky Balloon Company (aerial photography), Y. Nagar (physical anthropology), A. Buchennino and V. Moyel (antiquities inspection), Y. Peleg (hydrological calculations), N. Zak (drafting), L. Kupershmidt (metallurgical laboratory) and R. Kool (numismatics). Additional assistance was provided by A. 'Asav, T. Kanias, R. Lupo, A. Re'em and A. Feldstein.
Cist graves that were part of a Muslim cemetery and a section of an aqueduct (Qanat Bint el-Kafir) were excavated. Prior to the excavation, probes were cut in the area under the inspection of Y. Zelinger, followed by a trial excavation (Permit No. 4674). The tombs are scattered in an olive grove near the aqueduct (Area A). A distance of c .100 m was excavated of the aqueduct in a cultivation plot and two tombs that severed it were excavated nearby (Area B). Historical sources claim that the aqueduct was built in the Umayyad period by the caliph Suleiman Ibn 'Abd al-Malik, founder of the city of Ramla (716 CE). It seems to have conveyed water from the Abu Shushe springs near Tel Gezer to the city of Ramla. Other sections of the aqueduct had been excavated in the past near Qibbuz Na'an and near Moshav Yashresh (HA-ESI 111:58*; 113:123*-124*; HAESI 117, HA-ES/ 117). Several hundred meters to the east of the excavation an irrigation channel and agricultural installations were excavated (Permit No. A-4142). Excavations were also conducted to the northeast of the current area, at a site near Moshav Matzliah (HA-ESI 118).

Area A. Eight cist graves (Loci 101, 105, 107, 108, 109, 110, 111, 112) were excavated, out of dozens that were discovered during the antiquities inspection, preceding the excavation. The eight graves were simple pits dug into the ground (depth 1.4-1.6 m), without any lining and devoid of funerary offerings. The interred were placed on their right side in an anatomically articulated position, indicative of primary burial. They were lying in an east-west direction, the head in the west and the face looking south (Figs. 1-4). These graves were similar to four other graves exposed during the trial excavation (Permit No. 4674). Adults of both sexes and children were among the deceased, whose position in the grave is characteristic of burials in Muslim cemeteries and is known from numerous sites in the country, for example Kefar Sava (HA-ESI 117), Nes Ziyyona (ESI 18:73-74; 'Atiqot 46:37-47 [Hebrew]), Herzliyya (HA-ESI 110:100*) and Kerem Maharal (HA-ES/ 118).

Area B. The aqueduct was well preserved (Fig. 5), except for three places where it was damaged by olive trees and a section that was severed by a cement wall, which delimited the olive grove (Fig. 6). The aqueduct, generally oriented southwest-northeast, was exposed to a depth of 1 m below surface. The aqueduct was excavated into layers of hamra that overlaid a tamped dark clay layer of varying thickness. It was built of two parallel walls the consisted o fieldstones and bonding material (width $0.35-0.40 \mathrm{~m}$ ) and a plastered channel between them. The channel was covered with limestone slabs (average dimensions $0.6 \times 0.7 \mathrm{~m}$ ), except for the last 20 m in the southwest where the capstones were probably looted in antiquity (Fig. 7). The aqueduct was damaged on its southwestern side, due to the ground having shifted, especially where it was clayey soil (Fig. 8). The lack of covering slabs had probably also contributed to the instability of the aqueduct; a similar phenomenon was discerned in excavation near Qibbuz Na‘an (HA-ESI 117). The aqueduct and the channel were excavated in three squares. In the northern square the aqueduct was exposed for a distance of 0.9 m (overall width 1 m , width of channel 0.35 m , depth of channel 0.8 m ); in this section the covering slabs of the channel were not preserved. In the middle square, two layers of plaster were discovered in the channel; the second layer was probably a later repair. In the southern square, the aqueduct was excavated for a distance of 1.8 m . It was determined that the aqueduct and channel were narrower in this square than in the other two squares (width of aqueduct 0.9 m , width of channel 0.3 m ). Two manholes were located along the aqueduct (Figs. 9, 10). The dimensions of the channel and the shafts precluded a person's entry through them for the cleaning and repair. This is contrary to the manhole shafts in the aqueduct section near Na'an and it is possible that the shafts flooded the channel with water to locate blockages in it. Checking the elevations at the two ends of the aqueduct ascertained that it was built with a $5 \%$ gradient, as Vitruvius suggested regarding the construction of aqueducts.
Two tombs (Loci 209, 210), which had cut through the foundation channel of the aqueduct and hence, postdated the conduit, were exposed in the northeastern part of the aqueduct. The interred were laid in an east-west direction, facing south. The individual in Tomb 210 was laid in anatomic articulation, indicating a primary burial (Figs. 11, 12). Tomb 209 yielded only the upper half of the skeleton and fragments of the cranium.

The section of the aqueduct exposed in the excavation is the northernmost segment revealed to date. The aqueduct entered the city of Ramla at this point and the current section is narrower than others uncovered in the past. It is probably a secondary branch of the aqueduct, which was possibly split into several branches before it entered the city, whereby each branch conveyed water to a different part of the city. After the aqueduct was no longer in use, or perhaps when it still functioned, the area north of it was converted into a Muslim cemetery. The cemetery can be ascribed to the AyyubidMamluk period, based on a copper coin (fals) that was found next to Tomb 210. The coin was from the latter days of the Mamluk ruler Barqūq (1389-1398 CE; IAA 112746).

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1. Graves 105, 107, 108, plan.

2. Graves 111, 112 plan.

3. Graves 111, 112, looking west.

4. A deceased lying on its right side, facing south.

5. Aqueduct, plan.

6. Aerial photograph of aqueduct and cement wall across it.

7. Southwestern part of aqueduct, looking southwest.

8. Section of aqueduct that collapsed.

9. Manhole shaft in aqueduct, looking east.

10. Aerial photograph of manhole shaft.



11. Caves $1-6$, plans and sections.

12. The front of Caves 1-6, looking southeast.

13. Cave 7, plan and section.

14. The water cistern, plan and section.

15. Caves 1 and 2, pottery.
(Volume No. HA-ESI 120 (2008

## Qasr el-Bustan

## Final Report

Ofer Sion
30/3/2008
During February-March 2003, a salvage excavation was conducted along Highway 9, parallel to Highway 1 (Permit No. A-3842*; map ref. NIG 21714/63428; OIG 16714/13428). The excavation, on behalf of the Antiquities Authority, was directed by O. Sion, with the assistance of V. Essman and V. Pirsky (surveying), C. Amit (photography), E. Belashov (drafting), R. Bar-Natan (pottery reading) and I. Lidski (pottery drawing).
Seven caves were excavated; a burial cave (6) and a water cistern were documented (Figs. 1, 2). The caves were hewn in a layer of soft limestone. Caves 1-5 were located on the same level. The ceilings of the caves had collapsed, except for Cave 5. Numerous large rock chunks were found in front of the caves.

Cave 1 (length 6.3 m , width $2.85-3.60 \mathrm{~m}$, height 1.7 m ). Two hewn niches ( $0.15 \times 0.15 \mathrm{~m}$, height 0.2 m ) in the northern wall of the cave contained lamps.
Cave 2 (length 3.8 m , width 3.7 m , height 2.2 m ).
Cave 3 (length 4.5 m , width 2.6 m , height 3.1 m ).
Cave 4 (length 5.6 m , width 2.4 m , height 2.25 m ).
Cave 5 (length 6.3 m , width 4.4 m , height 2.5 m ).
Cave 6, to the northeast of Cave 3, was surveyed and documented. The cave's entrance ( $0.4 \times 0.6 \mathrm{~m}$ ) led to a narrow passage and a step and then, to a square chamber $(2.4 \times 2.5 \mathrm{~m})$ and a rock-hewn corridor (length 2.4 m , width 0.6 m , height 1.3 m ). Three hewn kokhim with arched ceilings were cut in the southern and western walls of the cave: Kokh 1 (length 1.1 m , width 0.6 m ), Kokh 2 (length 2.0 m , width 0.65 m ) and Kokh 3 (length 1.2 m , width 0.5 m ). The facades of the kokhim (height 0.65 m ) were decorated with rock-hewn rectangular frames. An opening (width 0.6 m ) in the eastern wall of the cave led to a circular chamber (diam. 2.1 m , height 1.2 m ).
Cave 7 (Fig. 3) was located in the center of a precipitous slope, 25 m west of Caves 1-6. The cave was discovered filled with soil; three hewn steps led from its entrance (L10) to a chamber ( $3.0 \times 3.5 \mathrm{~m}$ ). A natural niche that tapered inward was in the northern wall of the cave. The longitudinal probe (Loci 11, 12; width 1 m ) excavated in the cave revealed a soil fill that had been piled up arbitrarily on the floor of the cave.
The Water Cistern (Fig. 4) was located on the slope, 65 m north of Caves 1-6. The cistern was bell-shaped (diam. 4.6 m , depth 3.6 m ), its ceiling had collapsed inward and its walls were coated with a single layer of light brown plaster.

Fragments of pottery vessels from the Hellenistic period, including bowls (Fig. 5:1, 2), jugs (Fig. 5:3-5) and flasks (Fig. $5: 6,7$ ), were found in front of Caves 1 and 2. The fill in Cave 7 contained pottery fragments from the Hellenistic period, including bowls (Fig. 6:1-6), jars (Fig. 6:7-14) and from the Early Roman period until the first century CE-jars (Fig. 6:15-17) and a jug (Fig. 6:18).



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1. Caves 1-6, plans and sections.


2. Cave 7, plan and section.




## 1








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6. Cave 7, pottery.


1. Survey map.

2. Dolmen 19, looking north.
(Volume No. HA-ESI 120 (2008

## Qazrin

Final Report
Oren Zingboym
10/8/2008
During August 2005, a survey prior to development was conducted in Qazrin (Permit No. A-4561*; map ref. NIG 2633-40/7661-8; OIG 2133-40/2661-8), prior to enlarging one of the city's quarters (10). The survey, carried out on behalf of the Antiquities Authority and financed by the Ministry of Housing and Construction, was directed by O. Zingboym, assisted by A. Shapiro.
The region of Qazrin is known to be a large field of dolmens and tumuli that extends southward to the foot of the Golan Heights at the Sea of Galilee. C. Epstein had excavated many of the dolmens ('Atiqot 17:20-58*) and many others were documented in dolmen and tumuli surveys (HA-ESI 106:5-8). The current survey was conducted in the south and southwestern parts of the neighborhood. Twenty-two sites were documented; most of them consisted of stone heaps, which were either dolmens or stone clearance heaps. Several were clearly dolmens and one was a large unique dolmen.

1. A ruinous dolmen; stone circle (?); a capstone found in situ.
2. A stone heap (diam. 7 m ); nearby, a smaller stone heap, possibly a clearance heap.
3. A stone pile or clearance heap.
4. A stone pile or circle of stones.
5. A small stone pile or clearance heap.
6. A large stone heap, dolmen?
7. An elongated stone pile, possibly a clearance heap.
8. A large stone heap (diam. 9 m ).
9. A large stone heap.
10. A large stone heap, dolmen (?; diam. 10 m ); an oak tree is growing in the center of the heap.
11. A large dolmen, a capstone in situ $(1.0 \times 2.5 \mathrm{~m})$; a stone circle around the dolmen and apparently, new stone terraces.
12. A stone heap with a circle of stones, dolmen (?).
13. A stone heap with a circle of stones (diam. 8 m ).
14. A large stone heap.
15. A very large stone heap (diam. 12-14 m), possibly a dolmen.
16. A ruinous dolmen (?), stone heap with a circle of stones.
17. A stone heap with a built circle (?).
18. A large dolmen built of large stones with circumferential walls and a large capstone in situ; a large stone heap (diam. c. 25 m ).
19. A complete dolmen with a capstone in situ; the stone heap was robbed.
20. A complete dolmen with a capstone in situ; the stone heap was robbed.
21. An open dolmen with a rectangular burial cell ( $0.8 \times 2.0 \mathrm{~m}$, depth 1.2 m ); capstones are resting on the side; a circumferential stone wall.
22. A stone heap, probably a clearance heap.

Numerous stone heaps that are clearance heaps were found. Some of the stone circles are probably dolmens; the large dolmen is exceptional (map ref. NIG 263914/766311; OIG 213914/266311).


1. Survey map.

2. Dolmen 21, looking west.

(Volume No. HA-ESI 120 (2008
Qiryat Ye'arim Final Report
Yonathan Mizrachi
27/3/2008

3. Plan and sections.

4. The kiln, looking southwest.

During November 2004, a salvage excavation was conducted at Qiryat Ye'arim—Telstone (Permit No. A-4290*; map ref. NIG 203885/637584; OIG 153885/137584). The excavation, on behalf of the Antiquities Authority, was directed by Y. Mizrahi, with the assistance of V. Pirsky (surveying and drafting) and T. Sagiv (photography).
$\times \times \mathrm{A}$ circular limekiln (Figs. 1, 2), preserved in its entirety, except for the ceiling that had collapsed inward, was exposed. The installation had a curved wall (W1; outer diam. 6 m , inner diam. 4 m ) built of fieldstones and cement, which was preserved nine courses high (height 5 m ). Two openings (upper $0.7 \times 1.5 \mathrm{~m}$, lower $0.5 \times 0.5 \mathrm{~m}$ ) in the western side, were built one atop the other (Fig. 1: Section 2-2). With the exception of the western part of the wall that was pale red, most of kiln's interior wall was a lustrous white color that resulted from burning lime. The installation, founded on hewn bedrock (height 1.0-1.5 m), was discovered filled with fieldstones that had apparently collapsed from its ceiling. Two parallel walls $(W 2-0.30 \times 0.55 \times 0.80 \mathrm{~m} ; \mathrm{W} 3-0.30 \times 0.50 \times 0.65 \mathrm{~m})$, preserved two courses high, were exposed on either side of the lower opening of the combustion chamber. Numerous lumps of white lime, burnt stones and a layer of ash and black soot, which were exposed in the layer of fill above the floor, below the fieldstone collapse, evinced the limekiln use of the installation (Fig. 1: Section 3-3).
Neither potsherds nor other artifacts, which could assist in dating the construction of the kiln or determining how long it was in use, were found. Kilns of this kind are known from the Ottoman period and the British Mandate era and this installation should probably be dated to these periods.


1. Plan and sections.


## (Volume No. HA-ESI 120 (2008 <br> Ramat Rahel



1. Site map.

During December 2000, November 2001 and August 2002 salvage excavations were conducted at the antiquities site of Ramat Rahel (Permit Nos. A-3340, A-3703; map ref. NIG 2203/6278; OIG 1703/1278; HA-ESI 118), as part of a joint project, involving the Ministry of Tourism, the Antiquities Authority, the Jewish National Fund and Qibbuz Ramat Rahel, to prepare the site for public visits. The excavation, on behalf of the Antiquities Authority, was directed by G. Solimany, with the assistance of V. Barzel, R. Abu Halaf (administration), V. Essman and V. Pirsky (surveying), R. Morin (surveying Area W), R. Elberger and A. Tsagai (conservation), C. Amit (studio photography), R. Vinitsky (metallurgical laboratory), R. Gat (pottery restoration), I. Lidski-Reznikov (pottery drawing), N. Katsnelson (glass), O. Shorr (glass restoration), C. Hersch (glass drawing), D.T. Ariel (numismatics), R. Kletter (figurines) and G. Barkay (stamped handles).
Three excavation areas (C, P, W; Fig. 1) were opened. Two squares were excavated in Area C, the first ( $\mathrm{C} / \mathrm{N}$; $2.5 \times 4.5 \mathrm{~m}$ ) in the courtyard of the fortress, next to the Byzantine-period building and the second (C/S; $4 \times 6 \mathrm{~m}$ ) adjacent to the southern casemate wall of the fortress. Two squares (each $3.5 \times 3.5 \mathrm{~m}$ ) were excavated in Area $P$, near the southern side of the pool. Three squares were excavated in Area W along the route of the wall on the western slope of the tell. Five occupation strata were revealed in the excavation: Stratum I, the upper layer, is dated to the Early Islamic period; Stratum II-the Byzantine period; Stratum III-the Hellenistic and Early Roman periods; Stratum IV-the end of the Iron Age (seventh-sixth centuries BCE) and Stratum V, which could not be dated as very little of it was excavated. The results of the excavations seem to be consistent with those of Y. Aharoni's excavations at the site (Y. Aharoni. 1962. Excavations at Ramat Rachel I, Seasons 1959 and 1960; 1964. Excavations at Ramat Rachel II, Seasons 1961 and 1962).

Stratum V. The excavation in Square C/N ascertained that the southern wall of the building from the Byzantine period had cut the white chalk floor of the fortress' courtyard that dated to the end of the Iron Age. The wall was founded on an earlier wall that was oriented east-west. Below the white chalk floor was another wall (width 0.8 m ), built of fieldstones and aligned southeast-northwest. Due to time constraints, the date of the walls and the relations between them could be determined. Nevertheless, the walls had definitely predated the chalk floor of the fortress' courtyard.

Stratum IV. Square C/S was excavated for the first time; modern soil fill was found on surface. A room $(2 \times 2 \mathrm{~m})$ in the casemate wall of the fortress was revealed below an occupation layer that dated to the Hellenistic period. The walls of the room (width 0.5 m ) abutted the southern wall of the fortress. The inner northern wall of the room was missing as a result of later stone robbery and only the robber trench survived. The floor of the room was not preserved due to the later occupation of Stratum III. A section of the white chalk floor of the courtyard was excavated. The finds on the floor included jars from the end of the Iron Age and a stone gutter.
The white chalk floor of the fortress was removed in Square C/N. While dismantling the floor several artifacts were discovered, including a YHD stamp on a jar handle (another YHD stamp was found on surface in Area P), a head of a horse figurine, a fragment of another figurine and ceramic vessels that included bowls, a cooking pot and jars from the end of the Iron Age. The YHD stamp shows that the floor was also used in the Persian period.

Stratum III. A repair that had been made to the outer southern wall of the casemate wall was detected in Square C/S. Burnt layers of collapse were discovered on the compact earth floor in the room inside the casemate wall and on the chalk floor of the fortress' courtyard. Fragments of jar rims, stone vessels, stone weights and three coins, two of Alexander Jannaeus (first century BCE) and one of Pontius Pilate (first century CE) were found on the earth floor, which overlaid the tops of the walls of the casemate wall. A circular installation built of small fieldstones was discovered on the earth floor; it penetrated one of the casemate walls and contained a complete jar. A pit ( $1 \times 1 \mathrm{~m}$ ), dug into the white chalk floor of the courtyard, contained a complete cooking pot. It stands out that the residents of this stratum destroyed previous walls and floors, disregarding the plan of the ancient fortress and bringing about a complete transformation of the site.

Stratum II. A settlement layer from the Byzantine period was exposed in the eastern square of Area P. A corner of two fieldstone walls and a room's compact earth floor that was set on bedrock were discovered. A rock-hewn threshold was found in the eastern side of the room, whose plan was not exposed due to the limited scope of the excavation.

Stratum I. Building remains of the Early Islamic period were exposed in Area P. The walls were built above the walls of Stratum II, having a slightly deviated orientation. Three walls, constructed from medium-sized fieldstones and a floor of partially preserved thin flagstones, were exposed in the eastern of the two squares. The floor was set on a bedding of tamped soil mixed with plaster. Fragments of capitals, stones with dressed decorations, pieces of marble and a stone basin were discovered in the square. It seems that these elements were dismantled from the Byzantine-period church that had previously been exposed at the site. Remains of a room that included a wall built of ashlar stones and a flagstone-paved floor were exposed in the western square. The inward leaning of the ashlar-built wall could indicate the springing of a vault or the outcome of collapse. Stone collapse and the remains of a mighty conflagration (thickness 0.1 $\mathrm{m})$ were discovered on the flagstone floor and throughout the entire square. A sounding below the flagstone floor ascertained that the pavers were placed on soil fill (thickness 0.1 m ), which overlaid a layer of soft chalk, devoid of finds. In the eastern part of the sounding, a north-south oriented bedrock-hewn wall was probably part of a quarry that had been abandoned and covered over by later construction and whose date is unknown. Architectural elements that originated in Stratum II were also recorded in the square.

Area W. Three squares were excavated along the route of the city wall. The middle square ( $4 \times 4 \mathrm{~m}$ ), which was opened south of the city-wall section that had previously been excavated by $Y$. Aharoni, included the continuation of the city wall (length 4 m , width 2.8 m ), which was built of medium-sized fieldstones and preserved a single course high. The eastern and western faces of the city wall were preserved, whereas the core of the wall was missing. The city wall was covered with a brown soil fill (thickness 0.1 m ), which was mixed with potsherds from various periods. A large quarry was exposed in the southern square $(6 \times 8 \mathrm{~m})$, where large stone blocks that had not been detached from bedrock (depth of quarry $c$. $1 \mathrm{~m})$ were visible. Another quarry $(5 \times 5 \mathrm{~m})$ was exposed in the northern square. It seems that the quarries were later than the city wall; the quarrymen probably dismantled the stones from the city wall for secondary use and quarried stones in bedrock beneath the city wall.



1. Plan and section.
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## Ramat Yishay

Final Report
Leea Porat
3/4/2008
During August 2005 a salvage excavation was conducted in Ramat Yishay (West), at the intersection of Ha-Oren and HaNarkissim Streets (Permit No. A-4574*; map ref. NIG 21560/73422; OIG 16560/23422), in the wake of damage caused to the ceiling of a burial cave. The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Israel Electric Corporation, was directed by L. Porat, with the assistance of A. Shapiro (surveying) and H. Smithline (photography).
The current excavation is at the top of the hill upon which the settlement was built. Previous excavations at the site yielded remains from the Roman, Byzantine, Early Islamic and Crusader periods (ESI 18:30-31; 20:25*-26*; HA-ESI 117; HA-ESI 119).
Part of a cave and a small quarry to its southwest were exposed (Fig. 1). An elliptical shaft (L102; $0.9 \times 1.3 \mathrm{~m}$ ) led to a burial chamber that was partially excavated (L101; $2.6 \times 2.9 \mathrm{~m}$; height 0.9 m ). Part of its ceiling was preserved. The cave contained dark soil and fragments of pottery vessels that dated to the Intermediate Bronze Age.
Southwest of the cave was a quarry (L100; $0.5 \times 1.7 \mathrm{~m}$ ) in which the negatives of ashlar stones and their severance channels were discerned. Potsherds from the Roman period were found above the quarry.

The burial cave provided the first evidence from the Intermediate Bronze Age at the site, which previously yielded only later period remains.

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Ramla, Smolenskin Street
Final Report


1. Plan and section.

2. Pottery.

Varda Shlomi
27/3/2008
During November-December 2003, a salvage excavation was conducted in a private lot on Smolenskin Street in Ramla (Permit No. A- 4019*; map ref. NIG 187634/648923; OIG 137634/148923). The excavation, on behalf of the Antiquities Authority, was directed by V. Shlomi, with the assistance of V. Essman and V. Pirsky (surveying) and M. Shuiskaya (pottery drawing).
The excavation ( 25 sq m ) was conducted several hundred meters west of the Pool of the Arches and near a previous excavation in the area (HA-ESI 111:104*). Remains from the Early Islamic period were exposed (Fig. 1).

The upper layer that contained both ancient and later material was removed by means of mechanical equipment. A wall (W2) was discovered at the base of the layer. Three ashlar stones ( $0.35 \times 0.45 \mathrm{~m}$ ) were preserved along its southern face, which was abutted on the north by a broad foundation of small fieldstones and bonding material.
To the west of W2 was another wall ( W 1 ; length 4.3 m , width 0.3 m ) at a lower level. It was built of different-sized fieldstones and preserved three courses high (height 0.5 m ). Its southern end was damaged by later collapse. A channel to the west of W1 contained pale yellow soil and probably served as a foundation of a wall. The channel was dug into an occupation level (L110) that contained fragments of pottery vessels and animal bones within light colored soil mixed with lumps of chalk and plaster. A rectangular installation (L104; $0.6 \times 1.9 \mathrm{~m}$ ), divided into two cells and built of small fieldstones, was embedded into this level.
A pit (L107) lined with medium-sized fieldstones was discovered west of W2 and east of W1. The pit was dug into an earlier layer that contained levels of hamra, sand and chalky sediment (thickness 0.5 m ) and extended above the natural sand level. It seems that the pit postdated W1, based on its shape that clearly related to the line of the wall. With the exception of W2, the building remains demonstrate simple, temporary fieldstone construction.
The pottery vessels recovered from the excavation included a variety of types characteristic of the indigenous material culture in the Early Islamic period (ninth-tenth centuries CE), namely bowls, some of which were painted and glazed (Fig. 2:1-9, 11), kraters (Fig. 2:10, 12), jars (Fig. 2:13-15), jugs (Fig. 2:16, 17), a cup (Fig. 2:18) and a lamp (Fig. 2:19).


1. Plan and section.

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## Ramla, Beit Abu al-Hada

## Final Report

Aviva Buchennino


1. Location map.

2. The early phase, plan.

3. The intermediate phase,
plan.

4. The late phase, plan.

5. A storage jar, in situ.

During April 2005, a trial excavation was conducted on Ha-Hagana Street in Ramla, at Beit Abu al-Hada (Permit No. A-4442*; map ref. NIG 1882-3/6483-4; OIG 1382-3/1483-4), after antiquities were uncovered during an archaeological inspection. The excavation, carried out on behalf of the Antiquities Authority and sponsored by the Municipality of Ramla, was directed by A. Buchennino, with the assistance of T. Kornfeld (surveying), T. Sagiv (field photography), E. Hadad (archaeological inspection), E. Belashov and N. Zak (drafting), C. Amit (studio photography), O. Shorr (pottery restoration), M. Shuiskaya (drawing of finds), Y. Barshak (photographic archive), and E. Ayalon of the Eretz Israel Museum (consultation).
Two archaeological excavations were conducted in 2005 next to the current excavation (HA-ESI 118; Permit No. A-4356; Fig. 1).
Two squares (A, B; $3 \times 5 \mathrm{~m}$ ) were opened c. 200 m east of the Pool of the Arches. The exposed building remains, dated to the Early Islamic period (eighth-tenth centuries CE), were severely damaged by infrastructure work.

Square A
A floor section of a plastered installation (L106; Fig. 2) was ascribed to the early phase. The installation was destroyed during development work and therefore, its purpose could not be discerned.
A layer of small fieldstones (L105; Fig. 3), which separated the plastered installation from Wall 12, was ascribed to the intermediate phase. It seems the installation had been intentionally filled with small fieldstones.
The late phase consisted of a northeast-southwest oriented wall segment (W12; length 0.7 m , width 0.8 m ), which was built of debesh and poorly preserved (Fig. 4). Wall 12 probably belonged to a building from the Ottoman period. A small ceramic water-pipe fragment (diam. 0.1 m , length 0.5 m ) that served as a gutter was affixed to the upper part of W12 by means of lime mortar mixed with ash.

## Square B

A floor section of a plastered installation (L206; Fig. 2), poorly preserved due to development work, was ascribed to the early phase. Embedded into the floor, which had been repaired several times, was a large storage jar (Figs. 5:18; 7) probably used as a gutter or pipe for conveying liquids. The extensive destruction in this square made it difficult to assess the purpose of the installation.
A layer of small fieldstones (L204; Fig. 3) that separated the floor of the plastered installation from Wall 11 was ascribed to the intermediate phase. It seems that the installation was intentionally filled with small fieldstones. Two courses of small fieldstones, possibly part of a wall (W10; length 0.7 m , width 0.5 m ) that was oriented southeast-northwest, were revealed in the southwestern corner of the square.
Several dressed stones (W11; length 1.4 m , width 0.7 m ; Fig. 4), oriented northeast-southwest, were ascribed to the late phase. The wall probably belonged to a building from the Ottoman period that was severely damaged by the development work.

The ceramic finds from both squares included bowls (Fig. 5:1-6), glazed bowls (Fig. 5:7), a deep bowl (Fig. 5:9), a platter (Fig. 5:8) that imitates a hammered metal platter, cooking pots (Fig. 5:10-14), jars (Fig. 5:15-18), a jar stopper (Fig. $5: 19$ ), jugs of buff-colored fabric (Fig. 6:20, 21), an amphoriskos (Fig. 6:22) and fragments of kiln bars that were used as spacers during the firing of pottery (Fig 6:23-26; F. Vitto, Ramla, HA-ESI 117; Stern E.J. 1995. An Early Islamic Kiln in Tiberias. 'Atiqot 26:57-59). The finds dated the building remains to the Early Islamic period (eighth-tenth centuries CE).

The extensive damage to the exposed architectural remains made it difficult to understand their purpose. The two principal features were the floors of two plastered installations whose function is unclear. They could have been vats for storing water, needed for the pottery production process that was carried out nearby. The presence of a potter's kiln in the vicinity is indicated by the large number of kiln bars that were used in the firing chamber of the kiln.


1. Location map.

ריבוע Square



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7. A storage jar, in situ.

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 <br> <br> Ramla}


1. Location map and the excavation areas.

2. The northern excavation area, looking south.

3. Area C1, mosaic floor. looking west.

4. Area C2, mosaic floor, looking east.

5. Area B3, decorated glass vessel.

From December 2002 to June 2003, a salvage excavation was conducted south of the White Mosque in Ramla (Permit No. A-3772; map ref. NIG 1873/6480; OIG 1373/1480), prior to construction. The excavation, on behalf of the Antiquities Authority, was directed by G. Avni, Y. Baruch and G. Parnos (Areas A, D, E), H. Torge (Area C) and M. Avissar, with the assistance of F. Vito (Areas B, F), Y. Arbel (Area C5), G. Kotovsky, A. Re'em, R. Toueg , V. Shlomi, B.A. Artzi, T. Awwadalla (assistant area supervisors), S. Ya'aqovJam and R. Abu Halaf (administration), A. Hajian, D. Porozky, V. Pirsky and T. Kornfeld (surveying), T. Sagiv (photography) and Y. Gorin-Rosen and N. Katsnelson (glass).

The excavations were conducted over an extensive area $(300 \times 500 \mathrm{~m})$, south of the White Mosque and west of the municipal stadium (Fig. 1). Five areas (a total of $c .4,400 \mathrm{sq} \mathrm{m}$ ) were excavated, revealing an urban sequence from the eighth to the eleventh centuries CE. Three main construction phases from the Umayyad Abbasid and Fatimid periods, as well as several sub-phases were discerned.
Evidence of a complex urban array of residential buildings that were partly of an opulent character, industrial installations, cisterns and water conduits was discovered in all the excavation areas.
Areas of dense residential construction were adjacent to vacant areas that consisted of fills and numerous potsherds without architectural remains. None of the excavation areas yielded any evidence that indicated continued activity after the middle of the eleventh century CE. It seems that this part of the city of Ramla was abandoned in the wake of the earthquakes that struck in 1033 and 1068 CE and was not reoccupied until the modern era. Remains of installations and sections of poor walls, dating to the Mamluk period, were discovered in isolated sections of the excavation areas.
A massive robbing of masonry stones occurred after the abandonment of the area and the remains are therefore in a degrading state of preservation. The course of the walls could only be traced via the robber trenches which served for removal of masonry stones.

The largest excavated contiguous area (C1-C3) in the northwest part and c. 80 m south of the White Mosque (Fig. 2) comprised the remains of massive construction ( $55 \times 65 \mathrm{~m}$ ) of private residences and public buildings. Three main building phases were discerned
Phase I, the earliest, dated to the eighth-ninth centuries CE. It comprised parts of a large building that included a hall (8 $\times 20 \mathrm{~m}$ ), oriented north-south. A small section of a fine quality polychrome mosaic pavement of small tesserae, arranged in a continuous pattern of floral and geometric motifs, was found in the hall (Fig. 3). Only the mosaic bedding had survived in most of the hall's area. Repairs and layers of plaster that covered the mosaic pavement were discerned in several places, evincing the prolonged usage of the building. The mosaic floor followed in the mosaic tradition of the Byzantine period.
The walls of the hall in the east and west (width $0.7-0.8 \mathrm{~m}$ ) were built of dressed limestone, but only a few masonry stones survived in situ. Smaller rooms, which may have been living quarters that were poorly preserved due to destruction in later periods, were apparently located north and south of the hall,
Phase II exposed remains of small residential buildings on top of the large building. These remains dated to the ninth century CE and included installations and water cisterns. Fragmentary remains of a small building with a central courtyard were discovered in the east of the area; it was surrounded with small rooms and a water cistern. North of the building were installations and elongated rectangular pits that probably served as cesspits.
Phase III comprised the remains of a large public building, dating to the tenth-eleventh centuries CE, which extended across most of the excavated area and even beyond it to the north and included several inner courtyards with living quarters around them. A section of a carelessly made polychrome mosaic pavement of large tesserae (Fig. 4), in whose southern part floral patterns could be discerned, was exposed in one of the courtyards. Water cisterns, small pools and channels for conveying water were noted between the rooms and the courtyards.

In the northwestern part of the area (C4), remains of residential buildings that had two construction phases, dating to the eighth-ninth centuries $C E$, with installations near them, were discovered. Some of the buildings' walls were preserved c . 1.5 m high. Although the walls were built of ashlar stones, their course was irregular and sometimes, the adaptation of a later building phase to earlier phases was apparent. Ceramic pipes were found incorporated in numerous spots in the walls of the buildings, evincing a developed system of draining and conveying water from the roofs to collecting cisterns. A large firing kiln was discovered and nearby was a mold for lamps, as well as fragments of lamps that had been cast in this mold. In the southern part of the area were two straight parallel walls, which formed a kind of long corridor. It should be mentioned that the large building excavated in Areas C1-C3 did not continue into Area C4 and no remains that dated to the tenth-eleventh centuries CE were discovered. It is possible that a garden or an open space without construction was between the two areas.

The excavation area in the southern part (C5) contained a large, north-south oriented building from the Fatimid period that consisted of water systems, including pipes, channels, pools and probably an ornamental fountain. One of its walls (length 15 m , average height 1.5 m ) was built of dressed stones on the exterior and the fieldstones on the interior were coated with plaster and decorated with herringbone patterns. Adjacent to the wall on the west was a row of rooms, of which five square ones were exposed. The building was accessed from the south and the entrance, whose eastern doorjamb was exposed, was well built. Flat square mud bricks, set close to each other, formed the floor of the building, which survived in small sections in one of the rooms. A channel built of stones and plaster and covered with mud bricks was found below the floor. A section of a courtyard, which contained a water system that included pools and channels, was exposed north of the building. An octagonal pool in the center of the courtyard contained an installation that was fed by ceramic pipes and was probably an ornamental fountain (Fig. 5). The floors of the pools were coated with red plaster. It seems that the entire building was destroyed by an earthquake in the eleventh century CE. Two rectangula installations from the Mamluk period that were discovered above the building were the only significant remain in all the excavation areas that post-dated the eleventh century CE.

Area $\mathbf{D}(20 \times 30 \mathrm{~m})$ in the west was excavated in continuation of another area to its west, which had been excavated in 2001 (Permit No. A-3459). A series of residential buildings from the Fatimid period that included square rooms built around central courtyards was exposed. The north-south direction of the buildings' walls had a slight deviation to the west. A large residential building that comprised a system of rooms built around a courtyard was discovered in the northern part of the area. The masonry stones were all robbed and the course of the walls was traced according to lines of robber trenches. A large water cistern, whose top was built like a dome and several conduits that conveyed water to it was found in the courtyard. One of the building's rooms had remains of plaster on its inner walls, decorated with bluepainted ornamentations. The floor of the room was meticulously plastered. The building probably bordered on another residential structure that extended south, beyond the limits of the excavation area. The construction method of the buildings' walls is noteworthy. A foundation trench was dug in the ground and a layer of sand was deposited on its bottom; the building's foundation was set on top of the sand.

The southwestern corner of Area E ( $15 \times 35 \mathrm{~m}$ ) was excavated. Fragmentary remains of a large building from the Fatimid period were discovered in the southern part of the area. It was survived by the foundations of the walls, several installations dug in the ground and a fragment of a polychrome mosaic floor decorated with geometric patterns. A
courtyard or rectangular entrance area in the center of the building was paved with a white mosaic. Incorporated in the center of the mosaic, which was probably opposite the entrance of the building, was a colorful geometric pattern composed of two interlaced squares, in whose center was a bowl and a floral pattern within a shaped frame (Fig. 6). The remains of the building's residential quarters were fragmentary. South of the courtyard or the entrance area were elements that belonged to a series of square rooms, whose floors were plastered.
A water cistern with a dome-like top and channels approaching it from various directions was discovered to the north of the building. This was, apparently, an outer courtyard that connected between the building and another structure to its north that was survived only by sections of walls and remains of installations.
It should be noted that the remains from the Fatimid period in this area were built directly on layers of natural sand. Fragmentary remains from earlier periods, including installations and several large jars that were buried in the sand, were found.

Four areas (A1-A4; 10-15 $\times 15 \mathrm{~m}$ ) were excavated in the southeast; a sequence of residential buildings from the tentheleventh centuries CE, built on top of the meager remains from the eighth and ninth centuries CE, were discovered.
Area A1 in the south, revealed part of a large building that had two distinct phases. The early phase from the eighthninth centuries CE included two square rooms with plastered floors and fieldstone-built walls. The inside surface of the walls was meticulously plastered. A round pit, whose use is unclear, was installed in the floor of the eastern room. A large storage jar was imbedded in the floor of the western room (Fig. 7).
The later phase from the Fatimid period revealed a large building that was erected atop the former building and its walls were sometimes incorporated in the walls of the earlier building. Only part of the late building was excavated; however, it seems to have consisted of a system of rooms, which opened onto an open courtyard to the east that included a large water cistern. The floors of the building, 0.7 m higher than those of the earlier building, were carefully plastered, as was the inner surface of the building's walls, which had partially survived to c. 0.5 m high.
Areas A2 and A3, to the north of Area 1, contained remains of installations and mud-brick walls from the eighth-ninth centuries CE and sections of walls from the Fatimid period above them.
A complete water cistern was excavated in Area A4. A cluster of masonry stones at its bottom contained some ashlars, including voussoirs that had been discarded into the cistern.

Two areas (each $10 \times 15 \mathrm{~m}$ ) were excavated in the north and east.
Area B3 in the north, c. 50 m south of the White Mosque compound, revealed a section of a large building that was probably constructed in the eighth century CE. The building's walls, founded on sand, were built of massive ashlar stones and preserved three courses high in several sections. At one end of the walls was a large pilaster built of ashlar stones that may have been part of a gate.
Below the crushed-chalk floor of the building was an arched room ( $1.5 \times 2.5 \mathrm{~m}$ ) built of dressed stones, which was used as a cellar or a cesspit. During the Abbasid period, the room was turned into a refuse pit and contained pottery vessels and numerous glass vessels that dated to the Umayyad and Abbasid periods, including vessels that bore inscriptions in Arabic, as well as several Luster Glass-type vessels that were decorated with animals and floral patterns (Fig. 8); a few bore Arabic inscriptions. The quality of the finds indicates that they originated from a villa, or even a palace.

Area F1 in the east, within the precincts of the municipal stadium, yielded a large building, whose preservation at surface level enabled solely to discern sections of walls and floors. A large square room ( $5 \times 5 \mathrm{~m}$ ), as well as other smaller rooms that were all paved with a white mosaic and marble slabs were exposed. West of the building was a water cistern, probably situated in the middle of an open courtyard, with a system of channels and pipes that conveyed water to it. It seems that the building was founded in the Abbasid period. Based on the finds recovered from the fill in the water cisterns, the building continued in use during the Fatimid period.

The extensive excavations conducted south of the White Mosque make enabled the reconstruction of settlement sequence in this area during the Early Islamic period. It seems that the beginning of massive construction in this part of ancient Ramla was in the eighth-ninth centuries CE. At this stage of research, it is impossible to clearly define the buildings founded in the Umayyad period, except perhaps for the large public structure in the northern part of Area B3, adjacent to the White Mosque. In all other areas, finds from the Umayyad period included dug installations and buried jars in the sand. Nevertheless, the residential buildings of the Abbasid period probably have their beginnings in the latter part of the Umayyad period.
During the Abbasid period, mostly private residences were constructed in the area, among them at least one spacious structure that was decorated with mosaic floors (Area C1-C2).
The massive construction throughout the southwestern region of Ramla and in the area took place during the Fatimid period, when opulent residential buildings were erected around central courtyards that contained sophisticated systems for the conveyance and collection of water. Decorated mosaic floors were found in several of the buildings. This period seems to have been the apex point in the settlement of this area. It should be noted that the construction did not cover the whole area, but occurred in clusters of buildings, separated by open areas, courtyards and gardens. The absence of remains from the Fatimid period in several of the excavation areas implies a sparse built-up.
The end of the settlement in the southwestern region of Ramla was in the middle of the eleventh century CE, probably after a strong earthquake. During this century two mighty earthquakes struck the city in the years 1033 and 1068 . It seems that following the second earthquake, which destroyed most of the residential buildings in the city, the entire area was abandoned and not resettled until the modern era.


1. Location map and the excavation areas.

2. The northern excavation area, looking south.
3. Area C1, mosaic floor, looking west.

4. Area C2, mosaic floor, looking east.

5. Area C5, a section of an octagonal pool, looking west.

6. Area E, a decorated mosaic floor, looking east.

7. Area A1, in situ storage jar, looking north.


8. Grave 10 , looking west.

9. Grave 11, looking north.
10. Grave 12, looking west.
11. Grave 13, looking west.

(Volume No. HA-ESI 120 (2008
Ramla
Final Report
Alexander Onn
During September 2005 an excavation was conducted along Highway 431, between Moshav Yashresh and the Juwarish neighborhood in Ramla (Permit No. A-4588*; map ref. NIG 18650-66/64729-42; OIG 13650-66/14729-42). The excavation, on behalf of the Antiquities Authority, was directed by A. Onn (photography), with the assistance of Y. Nagar (physical anthropology).
Four pit graves (10-13; Figs. 1-4) were exposed in two opened squares, at a depth of 1.2-1.9 m below surface. The graves were shallow elliptical pits, oriented east-west (max. length 1.8 m , width $0.3-0.8 \mathrm{~m}$ ). Only the opening to Grave 11, dug from surface, was discerned; the lower part of the grave tapered toward the bottom (width of upper part 0.8 m , width at bottom 0.3 m ). A single interment in anatomic articulation was discovered in each of the graves, indicating a primary burial. The heads of the deceased were placed in the west. Three of the interred (Loci 11-13) were observed lying on their right side and a single one (L10) was in a supine position. No funerary offerings were discovered in the graves. The anthropological examination of the skeletons was undertaken in the field, without removing the bones. It showed that the four deceased were a child 9-11 years of age (L10), a woman 17-25 years of age (L13) and two adults whose age and gender could not be determined (Loci 11, 12).

The burial at the site is characteristic of a Muslim population and it is very common in this region of the Land of Israel, particularly at the end of the Mamluk (?) period and throughout the Ottoman period. Cemeteries with similar pit graves were discovered at Yad Benyamin (HA-ESI 112:98*-100*; Stratum I), and at Bet Dagan (Permit No. A-4243). Of the seventy pits in the cemetery at Bet Dagan only three of the interred were in a supine position and the rest were laid on their right side.


1. Grave 10, looking west.

2. Grave 11, looking north.

3. Grave 12, looking west.

4. Grave 13 , looking west.
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Ramla
Final Report
Amit Re'em and Avivit Lego
During January 2005, a trial excavation was conducted at 9 Katznelson Street, Ramla (Permit No. A-4356*; map ref. NIG 187700 800/649375-425; OIG 137700-800/149375-425), prior to construction activities. The excavation, on behalf of the Antiquities Authority, was directed by A. Lego, with assistance from E. Bachar (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (field photography), M. Shuiskaya (pottery drawing) and A. Re'em (publication)
An excavation square was opened in which two phases of building remains that dated to the eighth-ninth centuries CE were exposed (Figs. 1, 2).

The later phase included sections of crushed and tamped chalk floors with charcoal inclusions that abutted both sides (Loci 106, 106A) of a wall (W107). Wall $107(0.5 \times 1.8 \mathrm{~m}$; height 0.2 m$)$ was founded on sand and oriented along eastwest. All that remained of the wall was its core, made of small fieldstones and light gray bonding material, and its robber trench.

Some 30 cm below the floors of the late phase an earlier gray-plaster floor level (L108, L108A) was exposed; here also sections of floors abutted either side of W107. The excavation was not continued below these floor levels.
The excavation of the fill between the two floor levels on the northern side of W107 (L104) yielded pottery vessels that dated to the end of the eighth-beginning of the ninth centuries CE, among them a green-glazed bowl (Fig. 3:1), a plain bowl (Fig. 3:2), a krater decorated with a combed pattern (Fig. 3:3) and a fragment of a soft limestone vessel (Fig. 3:4). According to these finds, the upper floor (L106) did not predate the beginning of the ninth century CE, and the lower floor (L108) was slightly earlier than the upper one.

It should be noted that building remains from the eighth-ninth centuries CE had previously been exposed nearby (HAESI 109:66*) and remains from the Abbasid period were found adjacent to the railroad tracks (Permit Nos. A-4672, A4768). Thus the findings of the current excavation complement those discovered in another section of Ramla in the Abbasid period.


1-1

1. Plan and section.

2. Floors that abut Wall 107, looking northeast.


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1. Area B, Stratum II, a section of ashlar-built wall, looking west.

2. Area B. Stratum II, the plastered courtyard floor. looking west.

3. Area B, Stratum II, in situ pithos in the courtyard.

4. Area B, Stratum II, a water channel in the courtyard. looking northwest.

Naomi Sidi , Shlomo Gudovitch and Yehuda Dagan
18/6/2008
During August-September 2000 a salvage excavation was conducted on Vilnay and Shabazi Streets in Ramla (Permit No. A3280), following the discovery of ancient remains in trenches, dug prior to the commencement of development work. The excavation, carried out on behalf of the Antiquities Authority and financed by the Municipality of Ramla, was directed by S. Gudovitch (Area A), Y. Dagan (Area B) and N. Sidi (Area C), with the assistance of H. Lavi (administration), A. Hajian and V. Pirsky (surveying), T. Sagiv (photography), O. Shmueli and municipal laborers.

The strip slated for excavation ( $2.5 \times 1,600 \mathrm{~m}$ ) was divided into three areas (A-C); the distance of c .400 m between the areas precluded the linkage of the finds. Each of the areas was directed and excavated independently of the others. Several phases of building remains, floors and installations, dating from the eighth to the tenth centuries CE, were discovered in all three areas.

Area A (map ref. NIG 187005/648810; OIG 137005/148810)
Six half squares were opened, revealing sections of walls that belonged to three north-south oriented buildings. A floor overlaid with ceramic artifacts was discovered in each building. One of the buildings was constructed from ashlar stones and nearby, a water cistern was cut into the sandy ground. The cistern was built of dressed stones and its opening was completely exposed. Adjacent to it was a structure in the shape of a truncated cone, whose purpose is unclear. East of the water cistern the foundations (height 1.5 m ) of another structure, which was built of large fieldstones with bonding material, were discovered. Alongside the building was a pit that contained artifacts dating to the Umayyad period. Abundant and varied finds, dating from the beginning of the Umayyad period until the tenth century CE, were discovered. The ancient remains were difficult to understand because of damage caused to them by infrastructure trenching. Two trial excavations (Permit Nos. A-2799, A-2877), which had previously been conducted near this area, revealed building remains and a wealth of finds that dated from the latter part of the Umayyad period until the tenth century CE.

Area B (map ref. NIG 18704/64875; OIG 13704/14875)
Five half squares were opened east of Area A, revealing three strata.
The upper stratum (I) consisted of ex situ ashlar stones and sections of walls, built of kurkar stones, which formed parts of buildings that had been severely damaged by development work. A structure built of ashlar stones (Fig. 1) was discovered in Stratum II. Its courtyard had a crushed chalk floor (Fig. 2), in which two jars coated with green glaze (Fig. 3) were embedded. A channel that drained water into a cistern (length 1.65 m ; Fig. 4) was exposed next to the jars. A robber trench, which was excavated in antiquity for the purpose of removing the masonry stones for secondary usage, was also discerned. Remains of two buildings (east and west) were discovered in Stratum III. The buildings were se directly on the sand dunes that characterize the region. A wall (length 2 m ) belonging to the eastern building was discovered. A wall of the western building, which was a large structure that contained an abundance of finds, including pottery vessels, lamps and fragments of glass vessels that dated the remains of the three strata to the eighth-tenth centuries CE, was exposed. Various architectural elements were found, among them a marble column fragment, fragments of marble slabs and roof tiles, ashlar stones and a column base. Some of these elements were in secondary use and had probably been brought to the site from elsewhere (Lod?). Several fragments of pottery vessels from the Chalcolithic period and Iron II were uncovered at a depth of 0.5 m , near the western building.

Area C (map ref. NIG 18711/64875; OIG 13711/14875)
Five half squares were opened, revealing sections of four walls, ceramic finds, glass vessels, metal artifacts, bone objects and animal bones. Three walls belonged to a single structure and one wall was a fence. The walls were oriented north-south or east-west. Alterations to the walls, manifested in repairs or blocked openings, indicate that the walls had several phases of construction. Three phases were discerned in the room delineated by three walls. Two walls and two floors of earth mixed with lime and small stones were ascribed to Phase 1. An installation that had cut the floors and was built next to one of the walls was attributed to Phase 2. The installation, plastered on both sides and bottom, probably contained liquids. A third wall, built on top the installation that was no longer in use, was ascribed to Phase 3. A floor of earth and lime can be associated with this phase. The finds from all of the construction phases dated to the eighth-tenth centuries CE


1. Area B, Stratum II, a section of ashlar-built wall, looking west.

2. Area B, Stratum II, the plastered courtyard floor, looking west.

3. Area B, Stratum II, in situ pithos in the courtyard.

4. Area B, Stratum II, a water channel in the courtyard, looking northwest.

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1. Location map.

2. Map of excavation areas.

3. Plastered industrial installation, looking east.

4. Opening of bell-shaped water installation, tesserae on top of fill.

5. Glass tesserae.

During October-November 2007, a trial excavation was conducted in two areas in Ramla (south; Permit No. A-4910; map ref. Area A1: NIG 18756-75/64697-706; OIG 13756-75/14697-706; Area B1: NIG 18811-34/64672-700; OIG 13811-34/14672-700), prior to development. The excavation, carried out on behalf of the Antiquities Authority and financed by the Ministry of Construction and Housing, was directed by A. Gorzalczany, with the assistance of P. Spivak (Area A1 supervision), E. Yehuda (Area B1 supervision), R. Haim and R. Asis (assistant area supervisors), E. Ashkenazi (registration), E. Bachar (administration), V. Essman, V. Pirsky and T. Kornfeld (surveying and drafting), T. Sagiv (photography), O. Marder and H. Khalaily (prehistoric consultation) and Y. GorinRosen (glass). Prior to the excavation, I. Kornfeld conducted preliminary inspections and R. Lupo and T. Kanias performed a preliminary prehistoric survey.
Two areas (A1, B1; Fig. 1) located c. 400 m apart, were excavated north of Moshav Matzliah. A military base (Camp Oded) was situated within the area of the site and its construction during the time of the British Mandate caused severe damage to some of the ancient remains; part of the base' infrastructure is still scattered about the area and below the surface. The accelerated development of the site area brought about several excavations that were conducted in recent years on behalf of the Antiquities Authority (HA-ES/ 118; Permit Nos. A-4454, A4739), as well as Tel Aviv (License Nos. B-298/2005, B-306/2006) and Bar-llan (License no. B-299/2005) Universities. These previous excavations at the site exposed remains of an industrial zone that were dated to the Early Islamic period (Abbasid period) and included installations for the processing of liquids, water channels, cesspits and pottery kilns, as well as remains of floors and buildings that dated to the Middle Bronze Age (Area A) and remains of floors and walls from the Mamluk period. Another excavation in the vicinity of the site revealed segments of an aqueduct that dated to the Umayyad period and conveyed water from the region of Gezer to Ramla, as well as a Muslim cemetery (HA-ESI 117; HA-ESI 120: Permit No. 4858).

Surveys (Area A1) and soundings (Area B1; Fig. 2) were conducted at the site prior to the excavation. Numerous prehistoric finds, mostly swept over as a result of agricultural activity and erosion in the wadi channels, were discovered in Area A1. It seems that the prehistoric site was situated on the hamra outcrops in the higher part of the area, c. 400 m east of the excavation. The great importance of the site lies in the fact that little is known about the prehistoric period in Ramla. The continuation of the industrial region, dating to the Early Islamic period, was uncovered in Area B1. The remains in the area were of average preservation and some had been looted in antiquity.

## Area A1

Prior to the excavation, several concentrations of flint artifacts in black clayey soil, along the southern bank of a shallow channel that ran east-west, were found. Four rounded concentrations (A1-A4) of flint artifacts (diam. 0.3-0.5 m, max. depth 5 cm ) were discovered in the excavation. The concentrations consisted of flakes and flint chunks, partially burnt, which included two small irregular flake cores, fully exploited and characteristic of the Lower Paleolithic period, a heated blade core characteristic of later periods, flakes (length of complete ones $1.7-2.1 \mathrm{~cm}$ ) that are mostly lateral and knapped with a hard hammer, as well as a retouched blade that cannot be easily ascribed to any particular period and a bladele from the Epipalaeolithic period. The size of the flint items in each of the concentrations does not exceed 4 cm and most are broken. One of the concentrations (A1) was especially well preserved and included flakes and flint chunks of an unknown period, potsherds dating to the Middle Bronze Age and a limestone hammer.
Other flint items (Fig. 3) were picked up while surveying a hamra hill and its environs to the south of Area A1, within the framework of the excavation. These items, which were fifty percent more in size and quantity than those discovered in Area A1, consisted of flint flakes (average length 3.3. cm ; the largest over 5 cm long), including Levallois flakes, large Levallois cores, cleavers and bi-facial tools that dated to the Early Acheulean culture. Most of the flint items from the hill and its environs originated in the flint outcrops from the Mishash and Menucha Formations in the area of Oligocene rock reserve, 1.5 km east of the site. An increase in the number of items toward the top of the hamra hill, the technotypological and chronological uniformity of the flint items and the homogeneity of the raw material indicate an Acheulean and Mousterian habitation in the region.
Area A1 was severely damaged when the ground had been prepared for cultivation. The hamra hill was shaved and leveled. It seems that the size of the prehistoric sites in the hamra outcrops was more extensive in the past.

## Area B1

Twelve squares, comprising industrial installations, water channels and building remains, ascribed to four phases, were excavated. Remains in close proximity to surface were exposed in some squares and in others, a thick hamra soil fill that superposed the military base remains, was discovered. The area was extremely disturbed by construction and roots of eucalyptus trees.

Phase I. Square industrial installations were ascribed to this latest phase. The installations, built of stone and coated with grayish white plaster (max. height 0.5 m ), were best preserved in the northern part of the excavation (Fig. 4). Toward the end of the installations' use they were made smaller by constructing inner partition walls. The installations in two of the squares $(1,5)$ were abutted by tamped earthen floors, plaster and gray bonding material. A storage jar embedded in the floor was discovered in Sq 5 . The best preservation of this phase occurred in Sq 9 , wherein two built installations whose walls were thick and coated with hydraulic plaster on the interior and exterior, were exposed. Several phases of use were discerned in both installations. Exposed in Square 9 was also a hewn and plastered bell-shaped water cistern, at the top of which four ashlar stones were placed (Fig. 5). A plastered and tamped earth floor abutted the top of the cistern. The water cistern contained soil fill and a large quantity of black, red, yellow and white tesserae, mostly made of stone (average size $1.2 \times 1.2 \mathrm{~cm}$ ) and a few tesserae made of green, turquoise and blue glass (Fig. 6). It seems that the tesserae originated from an imposing building (church? bathhouse?) that stood nearby. Above the water cistern was a rectangular, built installation whose walls (height 0.5 m ) and foundations were founded within the collapse of stones that covered the fill with the tesserae.

Phase II. An extensive network of channels, mostly exposed in Squares 1 and 3, was assigned to this phase. All the channels were built beneath the floor levels and may have been connected to the installations of Phase I. One of the channels (width 0.6 m , height 0.4 m ), oriented north-south and built of stones, was well preserved; having flat rectangular covering stones placed on top of it. Another channel, discerned in the balk, formed a right angle with the first channel and was connected to it. Another channel was partly exposed.

Phase III. A level of potsherds that probably dated to the transition between the Byzantine and Umayyad periods was attributed to this phase. The ribbed potsherds belonged to large store jars. This phase, discovered in Sq 3 , was deeper in Sq 4 and probably formed part of a large refuse pit. However, the potsherds may have also been placed intentionally to ensure a dry environ.

Phase IV. Ascribed to this phase were building remains that included a partly robbed wall, whose foundation trench was severed by a foundation trench of a water channel from Phase II. Below the Phase III potsherd horizon was another wal built of two rows of stones and oriented east-west. Next to this wall were the poorly preserved remains of a tabun that was built of bright red clay.

Early Islamic period, six coins, a bronze ring and a barrel-shaped bronze weight that is characteristic of the Early Islamic period (Fig. 7). The weight may perhaps point to commerce that was conducted at the site. The debris of ceramic kilns and glass furnaces could possibly indicate the presence of these industries at the site. The industrial region in Area B1 seems to have existed for a short time during the Early Islamic period and was not reoccupied after its abandonment.


1. Location map.

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2. Map of excavation areas.

3. Flint tools on surface.

4. Plastered industrial installation, looking east.

5. Opening of bell-shaped water installation, tesserae on top of fill.

6. Glass tesserae.

Ramla
Final Report


1. Plan and sections.

2. The storage pool (L110), looking northeast.

3. Remains of a tabun, looking north.

4. Pottery, bowls.

5. Pottery, kraters, cooking pots and jars.

During December 2003 and January 2004 a trial excavation was conducted 300 m south of the White Mosque in Ramla (Permit No. A-4066*; map ref. NIG 18730-45/64783-90; OIG 13730-45/14783-90), prior to enlarging a school. The excavation, on behalf of the Antiquities Authority, was directed by H. Torge, with the assistance of A. Hajian (surveying), T. Sagiv (photography), N. Zak (drafting), M. Avissar (ceramics consultation) and M. Shuiskaya (drawing of artifacts).
The region had previously been excavated to the north (HA-ESI 120) and the northeast (Permit No. A-3459).
Four squares were opened; the three in the east were oriented north-south and consisted of a single stratum from the Abbasid period. Three levels, one atop the other, were exposed in the fourth square, located in the northwest. The upper level dated to the Fatimid period and the two levels below it were dated to the Abbasid period.

The two western corners of a storage pool (Loci 105, 110; $6 \times 6 \mathrm{~m}$, wall thickness 1 m , depth 1.6 m ; Figs. 1, 2) were exposed in the northeast. The walls of the pool were built of smoothed small and medium-sized stones with gray bonding material and small stones between them. Light gray plaster was applied to the walls and the bottom of the pool. Two levels of fill that contained fragments of pottery vessels were found inside the pool. The upper level was light gray (L105) and yielded a few potsherds that dated to the Abbasid period, namely a bowl (Fig. 4:6), a cup (Fig. 7:4) and a lamp (Fig. 6:18). The lower level (L110) was pale white and contained numerous potsherds that were arranged in levels, separated by crumbled plaster and facing south: bowls (Fig. 4:2, 3, 7, 10), a fry pan (Fig. 5:1), a cooking pot (Fig. 5:7), jar (Fig. 5:9), jugs (Fig. 6:7, 9, 10, 21), flasks (Fig. 7:6, 7) and lids (Fig. 7:8, 9). It seems that the pool was used at a later stage as a refuse pit into which vessel fragments were discarded. The first use of the installation was dated to the Abbasid period, based on a bowl (Fig. 4:11) that was found on the eastern edge of the storage pool (L109).

A gray plaster surface (L102) was exposed south of the pool. It was neither leveled nor smooth and above it were vessels that dated to the Abbasid period, including an amphoriskos (Fig. 6:8). A heap of light green clay that was probably used to produce pottery vessels (L106) was found between the surface and the side of the pool. A jug fragment (Fig. 6:2) that was found on top of the pile of clay is dated to the Abbasid period. Part of a septic pit (L107) that was dug into the natural sand was exposed south of the surface. The few potsherds recovered from the vicinity included a jar/jug (Fig. 5:11) and an amphoriskos (Fig. 6:11), dating to the Abbasid period.

A light gray plaster floor (L103), dating to the Abbasid period, was discovered in the southern square. It was overlain with a bowl (Fig. 4:19), cooking pot (Fig. 5:5) and an amphoriskos (Fig. 6:4). The pottery fragments beneath the floor (L108) also dated to this period and included a bowl (Fig. 4:13) and a jug (Fig. 6:12).
Three superposed levels were exposed in the square located in the northwestern part of the area. The upper level was an oval-shaped, light gray plaster surface, not leveled; it was pit-like and slightly sunken in the center. The numerous pottery fragments found above it point to its usage as a refuse pit. Among the vessels were bowls (Fig. 4:4, 5, 8, 9, 1418, 20), jars (Fig. 5:2-4, 6, 8, 10, 12-14), jugs (Fig. 6:1, 3, 13), lamps (Fig. 6:14-17, 19, 20), cups (Fig. 7:2, 3), a flask (Fig. 7:5) and handles (Fig. 7: 10, 11), as well as a fragment of a bar that was used in a pottery kiln (Fig. 7:13), which indicates the debris comes from a workshop. The assemblage is dated to the Fatimid period based on the jug in Fig. 6:1, which is characteristic of the period.
A plaster floor (L111) and the meager remains of a tabun were found below surface (L104) in its southeastern corner. Above the floor were a few vessels, including a jug (Fig. 6:5) and a cup (Fig. 7:1) that dated the assemblage to the Abbasid period. Below the floor was another floor (L112) with remains of a tabun above it (Fig. 3). It seems that these two floors were phases of the same layer. A few potsherds that dated to the Abbasid period were found around the tabun, including a krater (Fig. 4:1), a bowl (Fig. 4:12), jug (Fig. 6:6) and a handle (Fig. 7:12).

The Abbasid-period pottery workshop, of which a storage pool and heap of clay used in the production of pottery vessels were exposed, was located a short distance from the excavation area. The pottery vessels recovered from the storage pool were not indicative of the production in the workshop, since the pool was later used as a refuse pit. The remains of plaster floors and ovens in the courtyard in the northwestern square also dated to the Abbasid period.

2. The storage pool (L110), looking northeast.

3. Remains of a tabun, looking north.

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4. Pottery, bowls.


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## Ramla, Bialik Street

Final Report
Giora Parnos
19/8/2008


1. Map of excavation areas.

2. Area A, plan.

3. Area A, looking west.

4. Area $A$, an infant burial (L109), looking south.

5. Area $B$, burial of a pair of children (L128), looking west

During October and December 2003, salvage excavations were conducted on Bialik Street in Ramla (Permit No. A-4016*; map ref NIG 187755-75/64750-75; OIG 137755-75/14750-75), prior to the installation of a sewer line. The excavation, carried out on behalf of the Antiquities Authority and funded by the Ramla Municipality, was directed by G. Parnos, with the assistance of Y. Dangor and E. Bachar (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (field photography), Y. Nagar (physical anthropology), I. Berin (drafting), Y. Kupershmidt (metallurgical laboratory), C. Hersch (drawing of artifacts) and A. Berman (numismatics).

The excavation area was located along the southern outskirts of the city, on the southern part of Bialik Street, between Zachariah and Yehezkel Streets. The excavation was undertaken in the wake of discovering human bones and clusters of Early Islamic and Mamluk potsherds during trenching that was overseen by Y. Elisha. Three excavation areas were opened along the street (Fig. 1): one square in Area A $(2.5 \times 2.5 \mathrm{~m})$, at the southern end of the street; a row of squares in Area B, c. 30 m south of Area A, spread over a distance of c. 40 m (width c. 2 m ) and another row of separate squares in Area C (overall length c. 30 m , width c. 2.5 m ), c. 100 m north of Area A. Remains of a cemetery, ascribed to the Early Islamic period, were discovered in Areas A and B. Pits from this period that contained fill rich with potsherds and the remains of an installation that dated to the Mamluk period were uncovered in Area C.

## Areas A and B

Twenty simple pit graves were discovered, mostly unlined and dug into dark brown soil and sometimes into virgin hamra. The layer of soil that covered the graves did not survive and thus, it is unclear if tombstones or covering stones were originally placed on the graves. The deceased were laid to rest on their right side in an east-west direction, with their heads in the west, facing south, as is the custom in Muslim burials. In most instances a single individual was found in each grave, with a single exception of a grave that contained the remains of two children (L128).

Area A. Four graves (Loci 109, 111, 112, 115; depth c. 0.5 m ; Figs. 2, 3), c. 0.5 m apart and c. 1.3 m below street level, were exposed. Grave L109 (Fig. 4) contained an infant burial, 1.0-2.5 years of age, and had a depression in the soi above the head of the deceased, which could have been the base for a tombstone. Grave 111 contained an interment of an adult male, 25-40 years of age (Fig. 5).

Area B. The remains of fourteen graves (Fig. 6), c. 0.4 m below street level, were exposed. Their proximity to surface caused the state of preservation to be worse than that of the graves in Area A and some of them were found damaged. Eight graves (Loci 114, 116, 119, 120, 122, 123, 128, 131) were excavated in their entirety. Some of the graves were situated one atop the other. The bones of two individuals (Loci 105, 106) were found c. 0.3 m above a pair of graves: L114 was a burial of an adult individual of undetermined gender, 40-50 years of age and L116 was a female burial, 3040 years of age (Fig. 7). Grave 120 contained an infant burial, c. 1 year of age (Fig. 8). The skeleton of an adult male (L122), 20-25 years of age was found moved aside, relative to the rest of the graves, possibly because of a later interment (Fig. 9). Another burial of an infant c. 2 years of age was in L123 (Fig. 10) and L131 was a burial of a child, 3 years of age (Fig. 11). Other graves severed each other; a grave that contained a pair of children, 1 and 3 years of age, placed next to each other (L128; Fig. 12), had cut through the western part of an adult's grave (L129). All these features suggest that the cemetery was used over a prolonged period.

Most of the bones were in a good state of preservation and it was possible to reconstruct anthropological data, such as age and gender, as well as conduct a visual inspection for pathologies in the bone. However, some of the adults' skulls were only partly preserved, precluding a morphometric study. The bones were examined in the field and were later turned over to a representative of the local waqf for reburial. An estimation of the individuals' age was based on development phases and the eruption of teeth (in children) and degree of wear (in adult), using appropriate comparative data. The estimation of the adult individuals' gender was based on the morphology of the skull and on measuring the vertical diameter of the proximal head of the femur bone. The bones represented at least 25 individuals, composed of seven infants, two children, one adolescent and fifteen adults, ranging from 20 to less than 60 years of age. This age distribution is common in the population of a historic cemetery.
Due to the fragmentary condition no pathologies were observed in the long bones of the deceased. The cranial vaults (porotic hyperostosis) and the roof of eye orbits (cribra orbitalia) were examined to identify anemia or damage caused by infectious diseases; however, the frequency of these injuries to the bones did not exceed that of the known average.

Area C. Right below the level of the modern street was sterile hamra soil (Fig. 13), in which depressions replete with fill that yielded an abundance of pottery vessels were found. Numerous pottery vessels that dated to the Abbasid period were uncovered in a large depression in the north of the area (L134; depth c. 0.6 m ). A smaller depression (L132) was c. 7 m to the south and farther south was dark brown soil (L136) heaped together with fieldstones. The finds included fragments of pottery vessels from the Mamluk period. The southern side of an installation (L139; Fig. 14) that was dug into the layer of sterile hamra was exposed at the southern end of the area. The installation included an ashlar stone that was standing on end, like a column, with fieldstones above and alongside it. East of the ashlar stone was collapse that consisted of fieldstones and a large amount of ash.

The artifacts in the area of the cemetery were quite meager and included isolated fragments of pottery vessels, among them bowls (Fig. 15:1, 2) and jugs (Fig. 15:3, 4) that were made of buff-colored clay and dated to the Abbasid period. An assemblage of pottery vessels from the Abbasid period in Area C (L134) included glazed bowls (Fig. 15:5-8), kraters (Fig. 15:9), cooking pots (Fig. 15:10, 11), jars (Fig. 15:12), jugs of buff- colored clay (Fig. 15:13, 14) and an animal figurine (Fig. 15:15). The installation in the southern part of Area C (L139) contained pottery vessels that dated to the Mamluk period, including a complete bowl (Fig. 15:16), a cooking pot (Fig. 15:17) and a glazed jug (Fig. 15:18).
The infant's grave in Area A (L109) yielded a bronze earring (Fig. 16:1) next to the right side of the skull and a buckle (Fig. 16:2) was discovered in the fill that covered this grave. Two kohl sticks (Fig. 16:3) were found in Area C, L134 and in the southern part of the area, in the fill (L136) next to the installation (L139), two coins were retrieved. The first is Ayyubid, dating to the twelfth-thirteenth centuries CE (IAA 75821) and the second is Mamluk from the end of the fourteenth century CE (IAA 75822).

A section of a large Muslim cemetery that extended across the southern part of the city of Ramla was revealed in the excavation. The cemetery's northern boundary passed between Areas A and C. The pottery vessels from the Abbasic period that came from the graves and the fill, into which the graves were dug, indicate that the cemetery was used at tha period or thereafter. The absence of refuse pits from the Abbasid period within the area of the cemetery, like the pit in the northern part of Area C (L134), implies that the cemetery had already existed in this period. The absence of installations from the Mamluk period in the cemetery area, like the installation in the southern part of Area C, alludes to the fact tha the presence of the cemetery was acknowledged in the Mamluk period and no activities were conducted within its precincts. Even though the anthropological data is scant, it joins extensive data that has been accumulated in recen years from Muslim cemeteries excavated in Kefar Sava (HA-ESI 117), Jaffa, Bet Dagan (HA-ESI 120) and Ramla (HA


4. Area A, an infant burial (L109), looking south.

5. Area A, adult male burial (L111), looking north.

6. Area B, plan.

7. Area B, L114 on right, L116 on left, looking west.

8. Area B, burial of an infant (L120), looking west.

9. Area B, burial of a male (L122), looking southwest.

10. Area B, infant burial (L123), looking west.

11. Area B, a child burial (L131), looking north.

12. Area B, burial of a pair of children (L128), looking west.

13. Area C, plan and section.

14. Area C, installation, looking south.

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1. Distribution of squares.

2. Squares B, F, plans and sections.

3. Square B, L106, a jar embedded in floor, looking west.

4. Square F, looking north.

5. Pottery.

## Ron Toueg

24/8/2008
During January-February 2005, a salvage excavation was conducted on Mordechai Ha-Yehudi Street in Ramla, c. 300 m east of the Pool of Arches (Permit No. A-4366*; map ref. NIG 1880-4/64885-900; OIG 1380-4/14885-900), prior to the construction of a second track on the Lod-Na'an railroad line. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Railroad Authority, was directed by R. Toueg, with the assistance of A. Hajian (surveying and drafting), T. Sagiv (photography), E. Yannai, Y.D. Arnon (pottery reading) and M. Shuiskaya (pottery drawing).
Numerous other excavations were undertaken in close proximity to the current excavation. At the corner of HaHagana and Ha-Gedud Ha-Ivri Streets, c. 60 m southwest of Square N (Fig. 1), remains of installations that dated to the ninth century CE were excavated and on Ha-Gedud Ha-'Ivri Street a plastered installation and water cistern from the ninth century CE were exposed. On the other side of Ha-Gedud Ha-'Ivri Street other ninth century installations were exposed (HA-ESI 118). Some 500 m southwest, on Marcus Street, a complex of buildings and installations, as well as a street intersection from the ninth-eleventh centuries CE were excavated (HA-ESI 118; R. Toueg, Excavations in Marcus Street, Ramla, Recanati Institute for Maritime Studies, University of Haifa, 2006:12-38).
Probe trenches, conducted at the site by O. Segal, revealed antiquities that the current excavation examined. Four squares ( $3 \times 5 \mathrm{~m}$ ) were opened, spread out along the planned railroad track (see Fig. 1). Two settlement layers from the Early Islamic period that included remains of walls, floors and installations were discovered.

## Square B

The northern corner of a building was exposed along the western side of the square. Its eastern (W1) and northern (W8; Fig. 2) walls were preserved to the height of the foundation courses, except for one ashlar stone from the upper courses, preserved in W8. Part of the foundation courses of W1, built of small fieldstones and bonded with gray mortar, were excavated; the rest of the wall extended south beyond the square limits. A foundation trench (L122) was dug into the sand to a depth of c. 1 m along W1. Potsherds recovered from this trench included a basin from the eighth-ninth centuries CE (Fig. 5:7) and a sandal lamp from the second half of the eighth century-first half of the ninth century CE (Fig. 5:17). Wall 7, which was built parallel to and 1 m east of W1, curved to the west and abutted the latter. Wall 7, built to a depth of 1 m into the sand, was only survived by its foundation courses that were built of small fieldstones bonded with gray mortar. Natural sand was exposed east and north of W7 and it seems that this wall served as a retaining wall to prevent the sand from collapsing into the foundation trench of W1. Neither the sand north of W7 nor the foundation courses of continuation of W1 were excavated. A plaster floor (L110) abutted Walls 1 and 8 from the west; only a small section of the floor was exposed. The excavation of the floor yielded potsherds that dated to the ninth century CE. Reddish fill (L117) that overlaid the sand and covered most of the area of the square was excavated east of W1. The fill contained fragments of pottery vessels, among them a bowl from the eighth-ninth centuries CE (Fig. 5:6). Small fieldstones that were part of collapse (Loci 124, 125) jutted into the square from the eastern and northern balks. A large jar whose upper part was broken (L106) was found in the northwestern corner of the square, placed on top of hamra bedding (L116; Fig. 3). Jars of this type, used for storage, were embedded below the floor with their opening sticking up slightly above the floor. The hamra bedding was deposited on top of the sand and included potsherds, such as a bowl from the eighth-ninth centuries CE (Fig. 5:2). Remains of a plaster floor (L109) that abutted both sides of the jar were discerned in the northern and western sections. The fill (L115) below the floor yielded potsherds, whose latest specimens were from the tenth century CE. While excavating the fill that covered the building remains (L103), an intact saqiye jar (Fig. 5:13) and a jar lid (Fig. $5: 14$ ) that dated to the ninth century CE, were found.

## Square D

While excavating the fill that covered large parts of the square, potsherds dating to the eighth-tenth centuries CE were found, among them a bowl (Fig. 5:5). A wall that probably enclosed a round installation, which was mostly located beyond the square area, was excavated in the eastern corner of the square. The wall was preserved a single course high and was founded directly atop the sand. A thin bedding of hamra, which yielded potsherds from the ninth-tenth centuries CE, including a basin (Fig. 5:1), was excavated on the sand. The preparation of the area for excavation revealed a bowl from the eighth-ninth centuries (Fig. 5:4) and a sphero-conical vessel ('grenade'; Fig. 5:16) in the fill above surface.

## Square F

The excavation of surface fill yielded potsherds that dated to the ninth-tenth centuries CE, among them a jar from the ninth century CE (Fig. 5:9). A square installation (L111; $0.5 \times 1.7 \times 1.7 \mathrm{~m}$ ), built of stone and coated with a thick layer of gray plaster, whose bottom consisted of flagstones and its upper part was robbed, was exposed in the northwestern corner of the square. Remains of plaster were discovered on the interior of the installation, which seems to have been used for storing liquids. The installation was found blocked with stones that were dismantled from its walls and discarded inside it. Among the stones were several potsherds from the ninth-tenth centuries CE, including a jug (Fig. 5:10) and a buff-ware jug (Fig. 5:11).
The installation was abutted on the south by a wall (W6) whose construction was similar to that of the installation, which survived by two of its courses. A stone floor (L120) abutted the wall on the west; only a small section of the floor was excavated. The excavation of the fill below the floor (L118) yielded potsherds that included a bowl (Fig. 5:3) and a lid (Fig. 5:15) from the eighth-ninth centuries CE and a flask (Fig. 5:12) from ninth-tenth centuries CE.
Wall 6 and Floor 120 were covered with a mosaic floor (L114), which was survived by a small section. The mosaic consisted of two kinds of white tesserae: small tesserae (c. $1 \times 1 \mathrm{~cm}$ ) that constituted most of the pavement and coarser tesserae (c. $2 \times 2 \mathrm{~cm}$ ). Several colored tesserae arranged in a semicircle were also used. It can be clearly seen that the circle, which was meant to adorn the floor, was never completed. The floor overlaid a bedding of gray mortar that was preserved in a large area (Fig. 4) and seems to have continued beyond the limits of the square. The bedding contained potsherds that dated to the tenth century CE.

## Square N

No archaeological remains were found in a square that was located in the eastern part of the area. The fill that covered the square contained potsherds, which ranged in date from the ninth century CE until the modern era, among them a pithos from the ninth-tenth century CE (Fig. 5:8). It seems that at the end of the tenth or the beginning of the eleventh centuries CE the buildings were dismantled and their stones were plundered.

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## Square D

Square F (1)

3. Square B, L106, a jar embedded in floor, looking west.


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5. Pottery.


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## Ramla South

Amir Gorzalczany
4/9/2008
During March 2006 a salvage excavation was conducted in Area C at the Mazliah antiquities site (Ramla South; permit No. A-4739; map ref. NIG 187396-407/647014-27; OIG 137396-407/147014-27), to examine a water cistern, whose excavation was not completed. The excavation, on behalf of the Antiquities Authority, was directed by A. Gorzalczany (photography), with the assistance of V. Pirsky (surveying) and A. Onn.

A square was opened in Area C, the westernmost of the three excavation areas from 2005 (HA-ESI 118). Salvage excavations in Area C were conducted in 2005 on behalf of Bar llan University (License No.B299/2005). Salvage excavations in Area A were conducted on behalf of Tel Aviv University (License Nos. B306/2006 B-298/2005). Another extensive salvage excavation (Permit No. A-4454) and other excavations (HAESI 120; Permit Nos. A-4910, A-5118, A-5168, A-5311, A-5331) were carried out on behalf of the IAA.

A vaulted water cistern in an excellent state of preservation that was ascribed to the Abbasid period was examined in the current excavation.
The finds included fragments of pottery and glass vessels and a well-preserved bronze pestle.
A rectangular water cistern, covered with a barrel vault and known from previous excavations, was explored. The ceiling of the cistern was breached to allow its examination inside. The cistern was exposed for 3 m along a north-south axis and 1.7 m wide in an east-west direction. Traces of plaster on the interior walls were discerned.
The cistern was built of different size fieldstones that were bonded with gray material; it was excavated to a depth of 1.9 m in a fill of light brown-colored soil.
Three channels that descended to the cistern at a sharp angle were noted in its eastern side. The southern channel had a rectangular cross-section ( $0.4 \times 0.3 \times 0.4 \mathrm{~m}$; width of upper outer part 0.3 m , width of inner part 0.15 m ) and was coated with gray-white plaster (thickness $0.5-1.0 \mathrm{~cm}$ ). On its way to the cistern the channel became wider and funnel shaped. The middle and northern channels were not plastered and their inner crosssections were square $(0.25 \times 0.25 \mathrm{~m})$.
At a depth of 1.9 m from the top of the vault was a layer of large stones and dark gray fill mixed with plaster. Overlying this level were fragments of pottery vessels that included bowls, juglets and fragments of small vessels, dating to the Abbasid period, as well as fragments of glass vessels and a well-preserved bronze pestle.

The plastered cistern was probably used for storing water. Several similar installations were exposed during excavations in this area (HA-ESI 118). Based on the ceramic finds, the cistern ceased to be used in the ninth century CE.
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## Ramla

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1. Plan and section.

2. Locus 100, pottery.

3. The deeper excavated, looking north.

4. Loci 102, 109, pottery.

5. Locus 109, animal bones.

Elie Haddad
During March 2006, a salvage excavation was conducted in the eastern part of Ramla (Permit No. A-4752*; map ref. NIG 18894/64829; OIG 13894/14829), prior to construction. The excavation, undertaken on behalf of the Israel Antiquities Authority and financed by the Ta'avoura Company, was directed by E. Haddad, with the assistance of E. Bachar (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), Y. Nagar (physical anthropology), M. Shuiskaya (drawing) and M. Sadeh (archaeozoology).
Two adjacent excavation squares, aligned north-south, were opened (T1, T2; $4 \times 8 \mathrm{~m}$; Figs. 1, 2). The area was initially dug with the aid of a backhoe that had a toothless bucket. The upper layer of the manual excavation was a dark brown clay soil (thickness c. 1 m ; Loci 100, 101), which contained potsherds dating to the Early Islamic period (eighth-tenth centuries CE), including a lamp fragment (Fig. 3:1) and a fragment of a zoomorphic vessel (Fig. 3:2). Below this layer was a light brown sandy soil layer that descended gently to the north (Loci 103, 104). It contained numerous scattered animal bones that belonged to at least four horses, two cattle and another animal that could not be identified with certainty, as well as potsherds from the Early Islamic period (eighth-tenth centuries CE), including bases of several glazed bowls (Fig. 4:1, 2), a rim of a bag-shaped jar (Fig. 4:3), a jar base fragment (Fig 4:4) and jug bases (Figs. 4:5-7). A very thin layer of extremely small stones (L107), similar to gravel, was exposed near the center of the excavation's eastern side. It consisted of mixed potsherds from the Early Islamic period, including a glazed bowl (Fig. 5:1), the base of a jug (Fig 5:2) and a buff-ware handle fragment decorated with a plastic band (Fig. 5:3). A northeast-southwest trench, which had apparently been dug in the past by means of mechanical equipment, had cut through the western side of L107. Dark brown soil fill was discovered in the trench.
A small rectangular area in the southeastern part of the excavated squares (Loci 102, 106, 109; Figs. 1, 6) was dug deeper than the rest of the area. Potsherds dating to the Early Islamic period were discovered in this area, including a bowl rim (Fig 7:1), kraters (Fig. 7:2-4), a jug base (Fig. 7:5) and another base of jug or amphora, made of buff-colored clay (Fig. 7:6). Animal bones (Fig. 8.) were found on top of a small-stone layer and in-between the stones. A thin layer of beach sand was uncovered below the stone and bone level. Brown sterile virgin soil was revealed below the layer of beach in the southeastern part of the excavation.

The discovery of a habitation layer from the Early Islamic period, which contained a large number of animal bones, may indicate that this area was part of an open region located outside the urban area of ancient Ramla. It is feasible that the site was situated in the vicinity of an ancient road; c. 100 m to the north an ancient roadbed had previously been excavated (Permit No. A-4740).


2. Excavation area, looking north.

3. Locus 100, pottery.


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4. Loci 103, 104, pottery.


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5. Locus 107, pottery.

6. The deeper excavated, looking north.

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7. Loci 102, 109, pottery.

8. Locus 109, animal bones.
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## Ramot Menashe

Final Report
Hamudi Khalaily, Sigal Golan and Ofer Marder
11/9/2008
During August 2006, a survey prior to development was conducted in the expansion area of Qibbuz Ramot Menashe (Permit No. A-4874*; map ref. NIG 2059-62/7224-7; OIG 1559-62/2224-7), intended for the construction of a new neighborhood. The survey, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Housing and Construction, was conducted by H. Khalaily, O. Marder, S. Golan and L. Barda.

Two areas were surveyed within two locations of a declared prehistoric site near Qibbuz Ramot Menashe (Trig Point R-974 and Trig Point N-569). The area was cleared of stones and prepared for cultivation; it was used as a fruit-tree orchard in recent years. The aim of the survey was to locate the boundaries of the site and determine the scope of its antiquities. The ground in the region of Ramot Menashe is rocky gray rendzina, mixed with lumps of dark gray flint.

Meager concentrations of flint, mostly fragments of natural lumps, were located in the two areas slated for development. A few flaked flint items were found. Their distribution pattern shows that they were not in situ and probably originated from a prehistoric site located nearby.
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## Rekhes Nafha

## Final Report

Mordechai Haiman


1. Plan.

At the end of December 2003 and the beginning of January 2004 a salvage excavation was conducted at Rekhes Nafha ((Permit No. A-4068*; map ref. NIG 1790/5118; OIG 1290/0118; HA-ESI 115:66*-67*), following damage to antiquities caused while preparing a dirt road for the erection of an electric pole. The excavation, carried out on behalf of the Antiquities Authority and funded by the Electric Company, was directed by M. Haiman, with the assistance of A. Hajian (surveying and drafting) and K. Vardi of Ben-Gurion University (dating of the flint implements).
The site ( $50 \times 200 \mathrm{~m}$; Fig. 1) was located on a gentle slope that descends to the north, toward a wadi channel. Ten rounded buildings were documented and two of them (1,2) were excavated. The site was dated to Early Bronze II, based on the meager quantity of flint implements that were collected on surface. This site had been surveyed in the past within the Negev Emergency Survey (Map of Har Nafha [196], Sites 443, 447).
The two structures (No. 1-diam. 4 m ; No. $2-2 \times 4 \mathrm{~m}$ ) were built on leveled bedrock. The walls of Building 1 (width 0.6 m ) consisted of two rows of fieldstones (max. length 0.4 m ) and were preserved to a maximum of three courses high ( 0.5 $\mathrm{m})$. An oval-shaped, stone-built installation ( $0.7 \times 1.0 \mathrm{~m}$, height c .0 .4 m ) was found inside the building. Attached to its western side was another building, of which a round room was preserved (diam. c. 1.5 m ). The walls of Building 2 consisted of a single row of fieldstones (max. length 0.5 m ) that was preserved a single course height. No habitation level was discovered in either of the buildings.
The other buildings documented at the site included a single very spacious structure (c. $20 \times 40 \mathrm{~m}$ ) that had a large central courtyard surrounded by six circular rooms (diam. 2-3 m), a rounded animal pen ( $6 \times 13 \mathrm{~m}$ ) next to the cliff and six rounded single-room buildings (diam. 2-3 m).
During the excavation, scant remains of a flint industry were collected on surface, including several cores, unretouched blades and industrial debitage that dated to Early Bronze II. This site is part of a large group of EB II sites that was surveyed in the Negev Highlands. The finds from the site are similar to those from contemporary sites in the region, among them a site located c. 500 m to the south (B. Saidel 2002. The Excavations at Rekhes Nafha 396 in the Negev Highlands, Israel. BASOR 325:37-63). A fan scraper, characteristic of EB II in the Negev and Sinai, was found on surface in a survey that had been conducted at the site in the past (Map of Har Nafha [196], pp. 188-189, Site 447).

Judging by the animal pen at the site, it seems that shepherds had settled there, most probably on a temporary basis and for short periods of time, due to its distance from a source of water. The absence of an occupation level in the two excavated buildings together with the scant finds on surface indicate that the site may have been abandoned close to the time it was established. A similar phenomenon of buildings without an occupation level was discerned in the excavations of the Early Bronze Age sites on the Qadesh Barne'a spur, c. 30 km west of the site, as well as in southern Sinai (ESI 1:104-105). These sites were dated to EB II based on the scant flint implements and potsherds gathered on surface.

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Rishpon
Final Report
Anan 'Azab
During August-September 2006, a survey prior to development was conducted between Rishpon and the Ra'ananaKefar Sava Junction (Permit No. A-4855*; map ref. NIG 18390-9088/674333-8653; OIG 13390-4088/174333-8653), prior to the paving of Highway 531. The survey, carried out on behalf of the Antiquities Authority and financed by the Department of Public Works, was directed by A. 'Azab, with the assistance of A. Dagot (GPS), M. Peilstöker and E. Ayalon.
The survey was performed along the route of the highway for a distance of c .5 km . The area was surveyed back and forth and locations were recorded by GPS. The difficult terrain consisted of heaps of refuse, dense vegetation and cultivated fields, which hindered the ability to survey. A single archaeological site (map ref. NIG 18415/67800; OIG 13415/17800), which had a meager scattering of Byzantine-period potsherds mixed with small fieldstones that covered a large area of c. $150 \times 150 \mathrm{~m}$, was found.

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## Rogelit, survey to the south

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2. Remains of Building 90 with a courtyard, looking southwest.

3. Winepress 112 in Ruin 108, looking west.

4. Winepress 119 , looking southeast.

7. Cupmark 71, looking southeast.

During December 2002-January 2003 a survey was conducted along the hills south of Moshav Rogelit (Permit No. A-3795*; map ref. NIG 20120-275/61886-980; OIG 15120-275/11886-980). The survey, carried out on behalf of the Antiquities Authority and funded by the Eden Hills Association, was performed by A. Nagorsky and H. Stark, with the assistance of L. Barda (GPS).

The surveyed area included four main sites: $\underline{H}$ orbat Buz, $\underline{H}$ orbat 'Illit, Horbat 'Orva and Khirbat al-Maq'ura. One hundred and forty seven sites (Fig. 1) represented a variety of finds, which included ruins, caves, rock-hewn agricultural installations, water cisterns, watchman's towers, stone clearance heaps, farming terraces and the remains of ancient roads.
Ruin (No. 108). Remains of at least five buildings were found, each consisting of three-four rooms arranged around courtyards. The walls were built of fieldstones and coarsely dressed ashlars (preserved height $1.5-2.0 \mathrm{~m}$ ). The ruin was enclosed within a wall of medium and large fieldstones. In the wake of illicit digging, it was ascertained that the soil fill in the rooms included numerous collapsed stones, potsherds from the Iron Age and the Hellenistic period, grinding stones and glass fragments. Between the ruin and the main site at Horbat 'Orva was an ancient road (No. 105; width 1.8-2.0 m), delimited by medium-sized fieldstones, which were founded on bedrock.

Building Remains (Nos. 66, 90, 139, 147)
Site 66, located in a wadi between Horbat 'llit and Horbat 'Orva, included the remains of a large building with four-five rooms ( $10 \times 15 \mathrm{~m}$ ). The walls of the structure were built of especially large fieldstones and roughly hewn stones, founded on top of bedrock and preserved two-three courses high. A large bedrock outcrop that had remains of rock-cuttings protruded in the center of the main room. The building's southern wall was a retaining wall of the ancient road (No. 67; width $1.8-2.0 \mathrm{~m}$ ) that linked the two main ruins. The road's curb consisted of medium and large fieldstones. Other sections of this road (Nos. 77, 78) were located close to the top of the hill on which Horbat 'Orva is situated. Next to the western side of the building was a hewn water cistern with a circular opening (diam. 0.8 m ).
Site 90 (Fig. 2), along the southern fringes of Khirbet al-Maq'ura, included a building that had at least five rooms surrounding a central courtyard. The walls of the structure were built of coarsely dressed stones, standing at least threefour courses high. Near the walls were piles of soil replete with Roman-period potsherds that alluded to illicit digging. Site 139 was located on a flat hill above Nahal Gedor where the remains of two buildings, preserved $1.0-1.5 \mathrm{~m}$ high, were discovered. The walls of the structures were built in a manner similar to the walls of the building at Site 90 . Remains of plundering were also noted in this building, which was dated to the Roman period, based on the potsherds.
Building remains at Site 147 could belong to a watchman's tower, with a curved northern wall. The walls of the structure, founded on bedrock and preserved one-two courses high, were built of medium and large fieldstones.
Watchman's Towers (Nos. 8, 13, 16, 17, 28, 29, 30, 56, 64, 88, 111, 114, 128, 130).
Watchman's Towers $8,16,17,28,30,64,114,128,130(2.5 \times 2.5 \mathrm{~m})$, whose walls were founded on top of bedrock, were built of dry construction utilizing medium and large stones. The interior of the towers was found clean of soil. The walls of Tower 13 were preserved one-three courses high. It was found full of stones and may have been used as a stone clearance heap. Near Tower $29(2.0 \times 2.5 \mathrm{~m})$ was a rectangular, bedrock-hewn installation $(1.8 \times 2.0 \mathrm{~m})$, with five small shallow cupmarks around it. Four Watchman's Towers, identical in size ( $2 \times 3 \mathrm{~m}$ ) and $5-10 \mathrm{~m}$ apart, were located in Site 56; their walls, founded above bedrock, were preserved to a maximum of four-five courses high. The towers were practically clean of any soil. Near Tower $88(2.5 \times 3.0 \mathrm{~m})$ was a cupmark (diam. 0.2 m ), similar to the one near Tower 111 ( $3 \times 3 \mathrm{~m}$ ).

Winepresses (Nos. 9, 26, 59, 63, 86, 93, 112, 117, 119, 127, 134, 135, 141). The thirteen exposed winepresses could be divided into four groups, based on the shape of their treading floor. The first group included Winepresses 9, 26, 112 (Fig. 3), 117, 127, 135 that had rectangular treading floors and straight sided collecting vats. Near Winepress 9 was a cupmark (diam. 0.18 m ) and c. 1 m east of the collecting vat were two other cupmarks, hewn in bedrock surface. The second group was represented by Winepress 59 whose treading floor $(3.2 \times 3.4 \mathrm{~m})$ was bedrock hewn (depth 0.3-0.4 $\mathrm{m})$. The floor sloped toward the collecting vat located to the south. A shallow rock-hewn channel extended from nearly the center of the treading floor to the vat, similar to Winepress 86 . Next to the eastern side of the treading floor was another treading floor ( $2.75 \times 2.90 \mathrm{~m}$ ), the location of whose collecting vat was unclear due to the vegetation and earth that covered the site. The third group consisted of Winepresses 63 and 134 that had rectangular treading floors with rounded corners and hewn collecting vats located to their west. Below the treading floor in Winepress 63 was a rockhewn cave with a wide opening. The fourth group comprised three winepresses (93, 119, 141) with treading floors and especially small collecting vats that were found in several regions of the survey. Winepress 93 had a treading floor ( $1.9 \times$ $2.3 \mathrm{~m})$ and a collecting vat with round corners $(0.6 \times 0.6 \mathrm{~m})$. Winepress 119 (Fig. 4) had a treading floor $(1.2 \times 1.3 \mathrm{~m})$ and a hewn collecting vat $(0.5 \times 0.6 \mathrm{~m})$ to its south. Nearby were three bedrock-hewn cupmarks. Winepress 141 had a treading floor $(1.1 \times 1.5 \mathrm{~m})$ and a hewn collecting vat $(0.4 \times 0.4 \mathrm{~m})$, adjacent to its long side.

Bodedot for Extracting Olive Oil (Nos. 11, 22, 55, 61, 94, 97, 98, 131). Installations 11, 22, 55, 94, 98 and 131 had a shallow elliptical press bed and a cupmark for collecting the liquid (diam. $0.18-0.20 \mathrm{~m}$ ). Next to Bodeda 11 were four small cupmarks. Bodedot 61 and 97 had round press beds (diam. 0.8-0.9 m) and a collecting basin (diam. 0.45 m ). Near Bodeda 61 was a stone clearance heap (diam. 5 m ) surrounded by a retaining wall built of medium-sized fieldstones. Around Bodeda 97 was a concentration of rock-hewn cupmarks on bedrock outcrops (Fig. 5).

Cupmarks (Nos. 3, 4, 6, 7,18, 21, 23, 29-1, 36, 46, 52, 57, 65, 70, 71, 82, 82-1,100, 102, 113, 120, 133, 136, 140, 142, 145). Numerous cupmarks, hewn in leveled bedrock outcrops, were found throughout the survey region. Cupmarks 3,6 , 7, 29-1, 52 and 113 were conical (upper diam. up to 0.2 m ). Another group of cupmarks included Nos. 4, 21, 23,120 and 145 (diam. up to 0.4 m ). The largest group (18,57, 65, 70, 102 (Fig. 6), 133, 136, 140, 142) comprised the large cupmarks (diam. $0.5-0.6 \mathrm{~m}$ ). Cupmarks 71 (Fig. 7), 82, $82-1$ and 100 were elliptical ( $0.18 \times 0.30 \mathrm{~m}$, depth $0.12-0.15 \mathrm{~m}$ ) and formed a separate group. At Site 36 were eight cupmarks and a rectangular vat ( $1.5 \times 1.8 \mathrm{~m}$ ). At Site 46, three cupmarks (average diam. 0.2 m ) were hewn in a bedrock surface $(5 \times 6 \mathrm{~m})$ and a rectangular vat ( $0.8 \times 2.0 \mathrm{~m}$ ) next to them may have been a collecting vat of a winepress.

Water Cisterns (Nos. 15, 31, 38, 43, 53, 68, 87, 92, 106, 115, 116, 121, 123, 144). Rock-hewn water cisterns were discovered in the vicinity of the ruins and in the agricultural areas. Most of them had rounded openings (diam. 0.8-1.2 m). A cave with a hewn rectangular opening $(0.8 \times 1.0 \mathrm{~m})$ was near Cistern 106 . Situated on a broad farming terrace, Site 87 had two water cisterns whose sides were coated with gray plaster and a large cave with a wide opening, filled with earth. The opening to Cistern $92(1.0 \times 1.2 \mathrm{~m})$ was blocked by a large stone and near its brim was a hewn cupmark (diam. 0.85 $\mathrm{m})$. Water Cisterns 38 and 116 had elliptical openings ( $0.85-1.10 \mathrm{~m}$ ). Cistern 115 was originally a cave and three hewn terraces led to it. Its interior was coated with gray hydraulic plaster. The opening to Water Cistern or Cave 121 was destroyed and it was filled half way with soil.

Rock-cuttings (Nos. 47, 143). Two small rock-cuttings; each had at least four hewn corners.

Ancient Roads (Nos. 54, 85, 105). Road 54 (1.8-2.2 m) apparently led to Horbat Buz and to cultivation plots (Fig. 8). Its curb consisted of medium and large fieldstones, founded on top of bedrock. Next to the southern end of the road was a cupmark (diam. 0.55 m ). Sections of Ancient Roads 85 and 105 led from Khirbat al-Maq'ura to Horbat 'Orva (width 1.51.8 m ); the curbs were composed of medium-sized fieldstones and founded on bedrock. Several rock-cut installations were situated next to the road.

Stone Clearance Heaps (Nos. 14, 40, 96, 125, 132). All the heaps (diam. 5-6 m) were delimited by walls built of small and medium-sized fieldstones, except for Clearance Heap 96, which was the largest of them ( $4.7 \times 8.0 \mathrm{~m}$ ) and may have covered an ancient building.

Animal Pens (Nos. 10, 33, 69, 95). Four animal pens of various sizes were found in the survey region (Pen $10-7 \times 10$ m ; Pen $33-15 \times 20 \mathrm{~m}$; Pen $69-5 \times 7 \mathrm{~m}$; Pen $95-15 \times 15 \mathrm{~m}$ ). They were enclosed within walls of medium and large fieldstones that were set on bedrock and preserved two-courses high.

Cave Dwellings (Nos. 25, 32, 39, 42, 44, 45, 48, 49, 50, 58, 60, 62, 72, 73, 74, 75, 79, 80, 83, 91, 109, 110, 118, 124, $126,146)$. The caves had usually broad irregular-shaped openings, near which remains of rock-cuttings and cupmarks sometimes occurred. Some of the caves had courtyards built of one row of fieldstones (25, 39, 48, 73, 74, 75). The ceilings of several of the caves had collapsed ( $50,58,60,79,80$ ).

Rock-hewn Installations (Nos. 76, 129). The bedrock-hewn and rectangular Pit 76 ( $0.9 \times 1.7 \mathrm{~m}$; Fig. 9) was discovered filled with soil. It is possible that this was a collecting vat of a winepress. The bedrock-hewn Installation 129 (tomb?) was found covered with stone slabs (length 2 m ).

Crushing Basin (Yam; No. 122). The stone was not found in situ and based on the condition of its surface, it was never used. Next to the stone were several circular rock-cuttings and it is possible that crushing basins were quarried there.
Caves were discerned along the slope of the hills, but the dense vegetation precluded their examination. In addition, numerous farming terraces and retaining walls that separated cultivation plots were recorded and surveyed, using GPS instruments. Many potsherds found on the terraces were dated to the Iron Age and the Early Roman, Late Roman and Byzantine periods. On a broad farming terrace (138), in the northern region of the surveyed area, a dense scattering of potsherds, dating to the Chalcolithic, Early Bronze Age and Hellenistic period, was discovered, as well as a large quantity of flakes and flint tools.


1. Location map.

2. Remains of Building 90 with a courtyard, looking southwest.

3. Winepress 112 in Ruin 108, looking west.

4. Winepress 119 , looking southeast.

5. Bodeda 97 and the cupmarks surrounding it, looking west.

6. Cupmark 102, looking north.

7. Cupmark 71, looking southeast.

8. Ancient Road 54, looking southwest.

9. Installation 76, looking southwest.

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 <br> <br> Rosh Pina}


1. Plan.

2. Area A, W2 of Iron I and W1 of the Hellenistic period. looking southwest.

3. Square 4, Iron II building, looking west.

4. Square 3, Iron II building; Byzantine walls above, looking west.

5. Stone roof-roller.

During July 2002 and March 2003, excavations were conducted within Rosh Pina (Permit Nos. A-3645, A-3836; map ref. NIG 2503/7640; OIG 2003/2640), in the wake of development plans on Bolvar Street. The excavations, carried out on behalf of the Antiquities Authority and financed by the local council, the Government Tourism Corporation and the Jewish National Fund, were directed by Y. Stepansky, with the assistance of Y. Ya'aqoby (administration), A. Hajian, V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (field photography, 2002), N. Getzov and Y. Alexandre (stratigraphic and ceramic consultation), L. Kupershmidt (metallurgical laboratory), L. Boaretto (14C analysis), G. Finkielsztejn (Rhodian handle), D. Syon (numismatics), A. Shapiro (plaster analysis), S. Alexander and N. Keler (technical assistance on behalf of the Association for the Restoration of Rosh Pina), S. Hameiri and M. Schwartz (assistance on behalf of the contractors).
The excavations were carried out in area of c. 100 sq m along Bolvar Street, revealing building remains that dated to Iron I, II and the Hellenistic, Early and Late Roman, Byzantine and Early Islamic periods (Fig. 1). Several potsherds from Early Bronze IB, Early Bronze II, Middle Bronze II, the Persian period and from the Middle Ages to the nineteenth century CE were also found.

## Iron Age

A wall (W2; length 2.5 m , height 1.6 m ; Fig. 2) was exposed in the western part of the area (Area A). It was founded on natural bedrock and dated to Iron I-Iron IIA. Wall 2, aligned southwest-northeast and built of fieldstones, was connected to the remains of a retaining wall and a pit lined with fieldstones. To their north was part of a burnt layer (thickness 0.5 m ) that contained the remains of mud bricks, burnt wood and lumps of painted red plaster (fresco). The analysis of several plaster samples indicated that it was composed of 4-8 layers of paint (thickness 1-9 mm) and was of a high and advanced quality. The ${ }^{14} \mathrm{C}$ analyses on the charcoal from the burnt layer gave a tenth or ninth century BCE date for the destruction of the site (930-800 BCE [93.2\%] calibrated age). The ceramic finds included fragments of Galilean and Tyrian pithoi from the beginning of the Iron Age.

The architectural and ceramic finds attest to an established settlement and a high level of construction. The structure, whose walls were coated with red plaster, was apparently built in Iron I and severely damaged during the course of Iron IIA. This picture, which illustrates the continuity from Iron I to Iron II, resembles other settlements in the mountainous Upper Galilee, such as Sasa, Har Adir and Tel Harashim (D. Ben-Ami, 2004, The Casemate Fort at Tel Harashim in Upper Galilee, Tel Aviv 31:194-208).
A few other building remains in Area A should probably be ascribed to Iron II, post the burnt layer.
Two squares (3, 4), 3 m lower than Area A and c .10 m to its northeast, were excavated. The remains of two rectangular structures (c. $2 \times 3 \mathrm{~m}$ ), built of hard limestone (height 1.5 m ; Figs. 3, 4), were exposed. The fieldstone walls of the buildings were constructed within a thick layer of fill that contained fragments of red plaster. These were similar to the plaster fragments from the destruction layer in Area A, at the top of the site. No floors were found in the buildings. The potsherds recovered from them included fragments of jars, kraters, cooking pots, as well as two whole chalices that probably served as incense burners for cultic use and attest to the buildings' function during Iron IIB (c. ninth century BCE). A relatively rare find of an intact limestone roof-roller came from the building in Square 4 (Fig. 5).
The dating of the two buildings to Iron IIB strengthens the proposed dating of the earlier destruction layer to Iron IIa, c. the tenth century BCE. It should be mentioned that in the eastern Squares 2, 3, and 4, potsherds dating to Iron I were found, but without any building remains that could be ascribed with certainty to this period. Bedrock was not reached and probably more ancient remains lay underneath.

Below the Byzantine wall (W501) in Square 2 was a thick layer of fill (thickness 3 m ) that contained numerous fragments of pottery vessels from Iron I, II and the Persian, Hellenistic and Roman periods. Close to the bottom of the fill layer, part of a three-legged, meticulously shaped basalt bowl was found; it has an almost identical analogy from Rosh Zayit that is dated to the ninth century BCE (IAA Reports 8, 2000, Figs. III.115:8, 9). No architectural finds from the Iron Age were uncovered in this square.

## Hellenistic Period

A wall (W1; length 2 m ), oriented northwest-southeast, was discovered in Area A. It was built of fieldstones and large ashlar stones set as alternating headers-stretchers in Phoenician style, similar to Tel Dor (BASOR 267:21-41). The wall destroyed ancient remains from the Iron Age and was probably part of a large public building that continued to the west, below the houses of the old village of Rosh Pina. The building was dated to the second century BCE based on a Rhodian handle that was found at the bottom of its foundation trench. The stamped impression on the handle had a Greek inscription dating to the years 171-169 BCE (Fig. 6). It is probable that this site was important in the Seleucid government of the region during the second half of the second century BCE, which was subjugated by the Hasmoneans during the conquest of the Galilee at the end of the second century or the beginning of the first century BCE, as alluded to by a coin of Alexander Jannaeus (IAA 106110), which was found in the soil fill of Square 2.

## Roman Period

A shallow sounding in a small area north of the western strip of Bolvar Street (Area B) exposed remains of a plastered installation that was ascribed to the Early Roman period.
A system of walls in Square 1 was dated to the Late Roman period based on fragments of pottery vessels. Outstanding among these walls was Wall 500 (length 4 m ), meticulously built of roughly hewn stones and oriented northwestsoutheast. Other parallel or perpendicular walls (W505, W515) abutted this wall at that time or slightly thereafter. Signs of ancient construction were discovered below the wall system. They were possibly from the Early Roman period and included a wall (W509) that was survived by an incomplete row of stones. A wall (W3; length 4 m ) that dated to the Late Roman period and covered part of the destruction layer of the Iron Age was exposed in Area A. The architectural finds attest to substantial construction activity in the Roman period, which was only partially exposed. In the absence of any destruction signs in the remains of the Roman buildings, it is feasible that these continued to exist in the Byzantine period.

## Byzantine and Early Islamic Periods

Sections of three walls (W501, W503 and W506), found c. 1.0-1.5 m below surface in Squares 2 and 3, were dated to the Byzantine and Early Islamic periods, based on lamps and a few coins, including a coin of Constantine II (351-361 CE; IAA 106111), a Byzantine coin (351-361; IAA 106112) and another Byzantine coin (367-375 CE; 106113). Wall 501, the longest of the walls (length 4.5 m ), had at least two phases of construction: an early Byzantine phase and a later Early Islamic phase


ריבוע 4 Square (2003)


ריבוע 2 Square (2003)

1. Plan.

2. Area A, W2 of Iron I and W1 of the Hellenistic period, looking southwest.


3. Square 3, Iron II building; Byzantine walls above, looking west.

4. Stone roof-roller.
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Rujum Zaki
Final Report
Oren Zingboym

5. The excavation area, looking northwest.

During February 2007, a trial excavation was conducted at the site of Rujum Zaki, next to Qibbuz Geshur in the southern Golan Heights (Permit No. A-4963*; map ref. NIG 267230/746025; OIG 217230/246025), in the wake of installing a cellular telephone antenna. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Mirs Communication Company, Ltd., was directed by O. Zingboym, with the assistance of Y. Ya'aqoby (administration) and laborers from Tiberias.
The site of Rujum Zaki is mentioned in the 1880s survey of Schumacher (The Jaulan, London, 1888, p. 257 [Tell Zakiteh]). It was examined by the emergency survey team, C. Epstein and S. Guttman, in the beginning of the 1970s (Judea, Samaria and the Golan Heights, the 1968 Archaeological Survey, Jerusalem, 1972, p. 286), as well as by a team from the Israel Survey in the 1990s (License G-108/1993). Several cisterns, a well and parts of an olive press were found in the surveys and the collected potsherds dated to the Early and Late Roman, Byzantine, Mamluk and Ottoman periods, as well as the modern era.

The excavation was carried out in the eastern part of the site-a rocky area covered with basalt. One square ( $4 \times 5 \mathrm{~m}$ ) was opened, revealing a layer of stones and a few fragments of pottery vessels. After removing the layer of stones, bedrock was exposed and upon it were pottery vessels that dated from the Roman (third-fifth centuries CE) until the Mamluk (thirteenth-fourteenth centuries CE) periods.

It is apparent that the excavation area is located beyond and east of the settlement area. The survey team that inspected the site in the 1990s found the remains of an olive press some 40 m southeast of the excavation. Other agricultural installations, which are usually found close to settlements of these periods in the Golan, probably occur in the adjacent area.


1. The excavation area, looking northwest.

# (Volume No. HA-ESI 120 (2008 <br> Salim <br> Final Report 

Michael Cohen and Mordechai Haiman
29/5/2008


1. Map of the excavation.

2. Winepress $31 / 3$, plan and section.

3. Winepress $31 / 3$, looking south.

4. Oil lamp from the Roman period.

5. Courtyard of Burial Cave 53/2, looking northeast.

During July 2002, a salvage excavation was conducted along the northern slope of Salim (Permit No. A-3685*; map ref. NIG 2189-201/7159-65; OIG 1689-701/2159-65), prior to the construction of the separation fence. The excavation, carried out on behalf of the Antiquities Authority and funded by the Ministry of Defense, was directed by M. Cohen and M. Haiman, with the assistance of $S$. Ya'aqov-Jam (administration), T. Kornfeld (surveying and drafting), T. Sagiv (field photography), Y. Nagar (physical anthropology), C. Amit (studio photography), L. Kupershmidt (metallurgical laboratory), H. Tahan (drawing), N. Katsnelson (glass) and G. Bijovsky (numismatics). We wish to thank R. Frankel for his assistance in the matter of winepresses.

A preliminary survey had been conducted in the seventeen sites that were excavated. The sites are located on a c. 600 m long strip of land (Fig. 1). Winepresses, burial caves, potsherd clusters, water cisterns and rockcuttings were exposed. Four of the sites (31/1, 4, 7, 10) were devoid of any finds. The area, characterized by outcrops of limestone bedrock and a thin natural grove, was used by the residents of Salim for cultivation of mostly olive trees.

Site 31/3 (Figs. 2, 3). A rock-hewn winepress that consisted of a trapezoid treading floor (L6; length of sides 2.5, 3.6, 3.8 and 3.8 m , depth $3-10 \mathrm{~cm}$ ) and a rectangular collecting vat ( $0.5 \times 1.3 \mathrm{~m}$, depth 0.6 m ).

Site 33/4 (Figs. 4, 5). A rock-hewn winepress that consisted of a treading floor ( $3.2 \times 4.2 \mathrm{~m}$, depth $0.10-0.15 \mathrm{~m}$ ) and a collecting vat ( $0.9 \times 1.4 \mathrm{~m}$, depth 1 m ). Two depressions were hewn on either side of the collecting vat. At a later phase, the treading floor was made smaller ( $2.5 \times 3.2 \mathrm{~m}$ ) and deeper (c. 0.15 m ).

Site 48/1 (Figs. 6, 7). Two adjacent rock-hewn winepresses, each included a shallow, irregular-shaped treading floor ( $2 \times$ 3 m , depth 2-3 cm ) and a rectangular collecting vat ( $0.4 \times 0.7 \mathrm{~m}$, depth 0.2 m ). A cupmark (diam. 0.4 m ) was hewn west of the western winepress' treading floor and drained into its collecting vat.

Site 31/2 (Figs. 8, 9). A rock-hewn burial cave fronted by a courtyard (L18; $2.5 \times 4.5 \mathrm{~m}$ ), on whose southern and western sides benches (height 0.3 m ) were hewn. A corridor (length 1.2 m , width 1 m , height 1.2 m ) led from the entrance to the cave, which was hewn in the western wall of the courtyard, to steps that descended into the burial chamber (Loci 2, 7;4 $\times 4 \mathrm{~m}$, height 2 m ). Three burial benches were hewn in the chamber, two on either side of the entrance and one opposite it. The cave was used until recently as a dwelling or for storage. The finds recovered from the excavation included an intact lamp that dated to the Roman period (second-fourth centuries CE), a few potsherds, three city-coins of the third century CE (see below) and a few fragments of a human skull.

Site $53 / 2$ (Figs. 10-12). A burial cave $(4.8 \times 5.0 \mathrm{~m})$ fronted by a hewn courtyard that was accessed by five rock-hewn steps and had hewn benches (height 0.39 m ) along its northeastern and southwestern walls. Fragments of a column and a lintel were discovered among the stone collapse in the courtyard. Walls and two occupation levels were exposed during the courtyard's excavation. The later level was a soil layer overlaid with potsherds from the Early Islamic period, such as open bowls (Fig. 13:1, 2) and a lamp (Fig. 13:3), while the early level was straightened bedrock that yielded a few potsherds from the Roman period. A corridor (length 1 m ) extended from the entrance $(1.5 \times 1.5 \mathrm{~m}$ ) to the cave, which was hewn in the southwestern wall of the courtyard, to two steps that descended into the burial chamber $(6.0 \times 6.5 \mathrm{~m}$ height 2.4 m ) and contained five hewn arcosolia. Potsherds that ranged in date from the Roman until the Ottoman periods were discovered on the floor of the burial chamber.

Site 53/3 (Figs. 14, 15). A courtyard (Loci 5, 8, 11, 12), an entrance and a corridor were preserved of a rock-hewn cave (for burial?), which was damaged when a water cistern ( $5 \times 6 \mathrm{~m}$, depth 5 m ) that penetrated its ceiling was hewn. The partly hewn courtyard ( $3 \times 4 \mathrm{~m}$ ) made partial use of the vertical bedrock walls. The floor of the courtyard was bedrock hewn and coarsely leveled. The courtyard was shared with Cave $53 / 4$ (below) on the northeastern side. The entrance to the cave ( $1 \times 2 \mathrm{~m}$ ) was hewn next to the southwestern corner of the courtyard and led to a corridor (length 1.5 m ), which probably opened into a chamber that was destroyed (L4). The artifacts in the cave included a painted bowl (Fig. 13:4) and a krater (Fig. 13:5), dating from the Byzantine until the Mamluk periods.

Site 53/4. A rock-hewn burial cave, whose ceiling had collapsed. The entrance to the cave was hewn in the northern side of the courtyard, which was shared with Cave 53/3.

Site 53/5. A rich scattering of potsherds on the ground (depth 0.6 m ), 8 m southeast of Caves $53 / 3$ and $53 / 4$. The potsherds, dating to the Late Roman and Byzantine periods, included bowls (Fig. 13:6, 7), a pan (Fig. 13:8) and jars (Fig. 13:9-11). It seems that the scattering was formed when the nearby caves were cleaned out or plundered. A fragment of a rolling stone that sealed a burial kokh (Fig. 16) was discovered nearby.

Site 13. A rock-hewn water cistern that had a square opening ( $0.5 \times 0.5 \mathrm{~m}$, apparent depth 0.6 m ) and was filled with collapse.

Site 48/3. A hewn bell-shaped water cistern ( $3 \times 6 \mathrm{~m}$, depth 6 m ) that had a rectangular opening ( $1.0 \times 1.5 \mathrm{~m}$ ). The upper part of the cistern caved in. Modern finds were discovered among the collapse in the cistern, indicating it was used until recently. The water cistern had cut through a hewn opening that probably belonged to an ancient burial cave.

Site 33/1. A small rock-cutting ( $1 \times 1 \mathrm{~m}$, depth 0.5 m ).
Site 12. Cupmark (diam. 0.3 m , depth 5 cm ).

Site 17. A quarry (c. $20 \times 20 \mathrm{~m}$ ), in which hewn steps were visible (up to 2 m high). Its southern part caved in, apparently due to a subterranean cavity beneath it that had collapsed.

The winepresses at the site have all a similar simple plan and it seems that they were hewn in the same time period. Dating the winepresses is impossible; however, based on the latest finds discovered on the treading floors, which dated to the end of the Byzantine period, it can be assumed that the winepresses were not used later than this period. Winepresses of a similar plan were documented in a survey that covered the Jenin-Megiddo region (G.W. Ahlstrom 1978. Wine Presses and Cupmarks of the Jenin-Megiddo Survey. BASOR 231). The burial caves were apparently hewn in the eastern fringes of a settlement that dated to the Roman and Byzantine periods and had not yet been exposed. The opulent plan of some of the caves reflects the status of the settlement. Based on the ceramic finds it seems that the caves went out of use during the Byzantine period or immediately thereafter. The caves were used during the Early Islamic period and a building addition of this time was discerned in one of them. Two of the water cisterns at the site were hewn in burial caves, probably after they were no longer in use. The quarry that was excavated and the numerous other rock-cuttings throughout the area are indicative of the intensive quarrying of masonry stones for the settlement.
Among the finds from the excavation were four coins of the third century CE (below), ceramic finds that ranged from the Roman to the Ottoman periods and glass artifacts (192 fragments) that consisted of fragments of common tableware,
including cups, bowls and bottles, most of which dated to the Late Roman and Byzantine periods (fourth-fifth centuries CE) and a few to the Early Islamic period. Based on the excavation findings, it seems that a site, which reached its zenith in the Late Roman and Byzantine periods, was situated nearby. The partial use of the area and the caves continued in the following periods, albeit randomly.

## The Coins

Gabriela Bijovsky
Four bronze coins were discovered in the excavation. Three of the coins were found on bedrock in the burial chamber of Cave 31/2 and the fourth worn coin was found on surface (IAA 99966). The well-preserved coins from the burial cave were struck over a short period of time, during the years 244-251 CE, in the mints of Caesarea and Tyre that provided most of the coins in circulation throughout the region of Salim during the third century CE .

| Period/Ruler | Date | Mint | IAA No. |
| ---: | ---: | ---: | ---: |
| Phillip the Father | $244-249$ CE | Tyre | 99965 |
| Trajan Decius | $249-251 \mathrm{CE}$ | Caesarea | 99964 |
| Estruscilla | $249-251 \mathrm{CE}$ | Caesarea | 99982 |
| Roman provincial | Third century CE | Caesarea | 99966 |



3. Winepress $31 / 3$, looking south.



7. Winepress $48 / 1$ and the cupmark alongside it, looking northeast.


1-1
8. Burial Cave 31/2, plan and section.


10. Burial Cave $53 / 2$, plan and section.

11. Courtyard of Burial Cave 53/2, looking northeast.




P8

13. Pottery.

14. Burial Cave and Water Cistern 53/3, plan and section.

15. Remains of Burial Cave $53 / 3$, looking west.


# (Volume No. HA-ESI 120 (2008 <br> <br> Samakh Caves, Nahal No‘am <br> <br> Samakh Caves, Nahal No‘am <br> Final Report 

## Pirhiya Nahshoni



1. Location map.

2. Limekiln, looking east.

3. Pottery and glass artifacts

4. The opening to the granary, looking northeast.

5. Area B, water cistern, plan and section.

During May 2005, a trial excavation was conducted in Nahal No‘am and the Samakh Caves (Permit No. A-4450*; map ref. NIG 18118/60693; OIG 13118/10693), prior to the paving of Highway 6. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Cross-Israel Highway Ltd., was directed by P. Nahshoni, with the assistance of I. Peretz and L. Shilov (area supervision), H. Lavi (administration), A. Hajian (surveying), D. Varga (photography), I. Berin (drafting) and C. Hersch (drawing).
The site, c. 500 m south of a tributary of Nahal No'am and c. 1 km west of Be'er Samakh, had been surveyed in the past (Map of Lakhish [98]: 99, Site 189; Fig. 1). A farmhouse, water cisterns and remains of buildings from the Ottoman period were documented, as well as a water cistern, on whose top were grooves created by the ropes used in drawing water from it.
Two areas (A, B) were opened in the excavation. Ten squares were excavated down to bedrock in Area A located on the southern slopes of a gentle hill (c. 180 m above sea level). In the northern part of the area, a limekiln was exposed and scattered around it were fragments of pottery vessels (Gaza ware) that dated to the Ottoman period and the British Mandate era. Six squares were excavated to the level of bedrock in Area B, west of the farmhouse that was abandoned in 1948; a granary was exposed.
A few fragments of pottery vessels from the Roman and Byzantine periods and numerous potsherds that dated to the Ottoman period and the British Mandate era were found on surface. The aforementioned water cistern that was recorded in the survey of the Map of Lakhish was excavated c. 100 m northeast of the granary.

## Area A

Limekiln. The kiln was hewn in the shape of an inverted cone (L104; upper diam. 3.5 m , lower diam. 2.5 m , depth 2.5 m ; Fig. 2). A recess (width 1.7 m , depth 0.5 m , height 1.25 m ) hewn in the western side of the installation was probably an attempt to hew a flue that was diverted farther to the southwest. At the bottom of the kiln, a square rock-cutting was discerned, perhaps the result of quarrying masonry stones from the bottom layer of the rock, which formed benches on the eastern and southern sides of the kiln (Fig. 3). The eastern bench was long and wide (length 1.45 m , width 0.7 m , height 0.56 m ) and the southern one was shorter and lower (length 1.1 m , width 0.6 m , height 0.5 m ); at their foot was a kind of step (length 1.1 m , width 0.15 m , height 0.06 m ).
Small pieces of carbonized wood were found within a depression in bedrock at the bottom of the kiln. A hewn channel to the southwest of the kiln (L110; length 2.5 m , width $1.5-2.5 \mathrm{~m}$, max. height 1.3 m ) was used to stoke the installation with fuel. A ventilation conduit, probably situated north of the kiln, was using a natural depression in bedrock (L113) together with stone construction (W115; length 1 m , width 0.2 m , height 0.15 m ). Several sections of a single course of stone construction that belonged to the base of the dome survived along the upper edge of the kiln (W116; overall length 5.6 m , width 0.4 m , height 0.27 m ).
Next to the kiln, partly burnt limestone, ash and numerous fragments of Gaza-type vases that dated to the Ottoman period or the British Mandate era were found, including bowls (Fig. 4:4,5) and a jug (Fig. 4:8). In the vicinity of the flue was the handle of a baggy-shaped jar from the Byzantine period. A cooking pot fragment that has a delicate wall and is dated to the Roman period was found south of the kiln, beneath a stone clearance heap (Fig. 4:2).

## Area B

Granary. This installation consisted of an elongated cave (L226; length 5.5 m , max. width 3.7 m , height 2.2 m ; Fig. 5) and had three openings: a natural, upper opening around which was a stone circle built of two-three courses (L220; 0.3 $\times 0.5 \mathrm{~m}$, diam. 1 m ; Fig. 6); a rectangular opening in the north, from which the rock-cutting had begun ( $0.7 \times 1.2 \mathrm{~m}$ ) and another opening that was formed when part of the ceiling in the northeast collapsed. Signs of crude rock-cuttings were discerned on the walls of the cave. Traces of soot were noted on the lower part of these rock-cuttings, indicating that the cave was "dried" before it was used. A layer of dark gray organic material on the bottom served as covering of the floor. It seems that the granary was filled from the upper narrow opening and the grain was removed via the northern opening. Inside the cave were fragments of black Gaza ware and a piece of a Hebron glass bracelet (Fig. 4:9). Potsherds found near the granary included a bowl (Fig. 4:1) and a cooking pot (Fig. 4:3) from the Roman period and a jug (Fig. 4:6) from the Ottoman period-British Mandate era.
The northern part of the cave was filled with layers of refuse and alluvium and it apparently ceased to be used prior to the abandonment of the farm. Three rock-hewn pits had previously been discovered in the farm's courtyard, east of the excavation, and were identified as water cisterns (Map of Lakhish [98]:99). However, in the absence of rope marks on their openings, it seems they were probably intended for storing grain in place of the granary that went out of use.

Water Cistern (L225; diam. 4.5 m , depth c. 5 m ; Figs. 7, 8). Ancient rope marks could be discerned on the aperture (diam. 0.9 m ) of the cistern. Run-off probably entered the cistern from the east where a feeder channel that was blocked by bedrock collapse was present. The collapse of bedrock crust in the western part of the cistern resulted in the cessation of the cistern's usage and its having been turned into a refuse pit. The cistern contained black Gaza pottery vessels, such as a jar (Fig. 4:7), which dated to the Ottoman period or the time of the British Mandate era.
Most of the remains at the site were modern-from the latter part of the Ottoman period and the British Mandate erawhen the farmhouse was built and the storage facilities were installed. A well located west of the site served as a source of water for its inhabitants. The examined water cistern was probably part of a water collection system from the Byzantine period; however, no other remains from this period were excavated in the area.
The limekiln and the granary were set in the latter part of the Ottoman period and operated mainly during the British Mandate era.




## 


4. Pottery and glass artifacts.

5. Area B, granary, plan and section.

6. The opening to the granary, looking northeast.

7. Area B, water cistern, plan and section.

8. Water cistern, looking northwest.

# (Volume No. HA-ESI 120 (2008 <br> Sandala <br> Final Report 

Abdalla Mokary
During February 2004, an excavation was conducted in the village of Sandala (Permit No. A-4118*; map ref. NIG 2300-10/7140-50; OIG 1800-10/2140-50), prior to construction. The excavation, on behalf of the Israel Antiquities Authority, was directed by A. Mokary, with the participation of laborers provided by the contractor.

The excavation area was located in the nucleus of the ancient village, near the mosque. A square was opened and a layer of fill ( $5-10 \mathrm{~cm}$ ) was excavated down to bedrock. No building remains were found (Fig. 1) and the finds included a few fragments of pottery vessels that dated to the Early Islamic and the Mamluk periods.

1. The excavation, looking east.

2. The excavation, looking east.

# (Volume No. HA-ESI 120 (2008 

## Sha'alvim <br> Final Report



1. Location map.

2. Bodeda (Point 4), looking north.

3. Pressing installation (Point 11), looking north.

4. Winepress (Point 1). looking south.

5. Cupmark with square frame, looking north.

## Yoav Arbel

In August 2006 a trial excavation was conducted in the western part of Qibbuz Sha'alvim (Permit No. A-4879*; map ref. NIG 198117-397/641672-2146, OIG 148117-397/141672-2146), in an area slated for expansion. Ancient agricultural installations were revealed in a previous survey and soundings. The excavation, on behalf of the Israel Antiquities Authority and with the financial backing of the qibbuz, was directed by Y. Arbel, with the participation of L. Talmi (area supervision), E. Bachar (administration), A. Hajian (surveying), H. Khalaily (lithics), L. Zeiger (flint drawing), M. Shuiskaya (pottery drawing) and P. Gendelman (pottery reading).

A number of excavations were conducted at Sha'alvim in the past. Among the antiquities uncovered was a Samaritan synagogue with mosaic inscriptions that dates to the fourth-fifth centuries CE (Louis M. Rabinowitz Fund for the Exploration of Ancient Synagogues Bulletin I [Jerusalem 1949], 26-30). Two Middle Bronze Age II burial caves were excavated yielding numerous pottery vessels, metal, stone and alabaster artifacts (HA 77:29; HA 92:75; 'Atiqot 22:9-14). Two additional burial caves from the same period were exposed along the eastern side of the qibbuz together with building remains and installations from the Late Bronze Age and the Iron Age II (HA-ESI 120). In addition, an animal pen, stone clearance heaps and cisterns were excavated in the area (HAESI 119).

In the current excavation the installations located in the survey were cleaned; other installations were identified during the excavation (Fig. 1). These included olive-oil extraction installations (bodedot), winepresses, cupmarks, a pit, a watchtower and stone clearance heaps. Seventeen locations were excavated for the purpose of locating installations below the alluvium. A survey was also conducted in which flint implements were collected; two trial squares were excavated in order to find the production zone for the flint tools.

## Bodedot

Five olive-oil extraction installations (bodedot) of different sizes were exposed that were hewn in bedrock outcrops. These consisted of a shallow, elliptical press bed (depth 10 cm ) and a round and relatively deep cupmark which were linked by a channel. In some of the collecting basins a small shallow settling depression was found. The finds recovered from inside them are associated with the alluvium and not with the activity of the installations themselves. The bodedot were located in clusters along the same contour line, probably near the cultivation plots or the settlement. The only exception was the installation at Point 11, which had a different shape and location and was probably used for another activity.
Point 4: a pressing surface ( $1.05 \times 1.05 \mathrm{~m}$ ), collecting basin (diam. 0.55 m , depth 0.30 m ) and a settling niche (diam. 0.15 m , depth 0.20 m ; Fig. 2).

Point 5: a pressing surface ( $0.60 \times 0.80 \mathrm{~m}$ ), collecting basin (diam. 0.50 m , depth 0.20 m ) and a settling niche (diam. 0.13 m , depth 0.10 m ). The bodeda was hewn in a large bedrock mass that was moved from its original place under unclear circumstances and is currently located above a cistern (denoted by the same point number).
Point 7: a pressing surface ( $0.90 \times 1.05 \mathrm{~m}$ ), collecting basin (diam. 0.70 m , depth 0.30 m ) and a settling niche (diam. 0.15 m , depth 0.20 m ). A cupmark (diam. 0.45 m , depth 0.25 m ) was found next to the collecting basin; the functional relationship between them is unclear.
Point 10: a pressing surface ( $0.80 \times 1.10 \mathrm{~m}$ ) and collecting basin (diam. 0.55 m , depth 0.30 m ).
Point 11. The installation was irregular in shape and consisted of a pressing surface ( $0.60 \times 1.30 \mathrm{~m}$ ), elliptical collecting basin ( $0.45 \times 100 \mathrm{~m}$, depth 0.23 m ) and a niche (diam. 0.15 m , depth 0.10 m ; Fig. 3).

## Winepresses

Two winepresses were exposed in the northern part where the slopes are steeper, while others were identified farther along the northern slope and were not excavated. The two winepresses included treading floors and rectangular collecting vats, without settling basins or other adjacent installations. The northern winepress (Point 1) had a treading floor $(2.20 \times 2.20 \times 0.40 \mathrm{~m}$; Fig. 4) and a collecting vat $(0.70 \times 1.20 \times 1.00 \mathrm{~m})$ that was used in another phase as a tomb as evidenced by its interior structure and a hewn rectangular frame for a cover that was approximately 10 cm thick. The collecting vat was found partly filled with alluvium that contained a few potsherds which postdate its use-phase.

The second winepress (Point 16) had a relatively wide treading floor (length of sides c. 2.5 m ), an irregular shape and shallow depth ( c .10 cm ). Its style resembles the pressing surfaces of bodedot even though it was wider. The collecting vat was rectangular $(0.95 \times 1.80 \times 0.45 \mathrm{~m})$; its floor was not level and the quarrying of it, like that of the rest of the winepress, was never completed. A round rock-hewn pit (diam. 1.2 m , depth 0.70 m ) that was probably used for storage was found nearby.

## Cupmarks

Three pairs of cupmarks were found (Points 3.1, 3.2 and 17; diam. c. 0.50 m , depth c. 0.30 m ). A pair of cupmarks (Point 3.2) was enclosed by a shallow frame (length per side 0.70 m , width 0.10 m , depth 0.08 m ; Fig. 5). A frame that was less well-preserved and slightly broader survived around another pair of cupmarks (Point 3.1). It seems that the frames were used to secure a wooden installation associated with the production or pressing activity or as a cover to protect some sort of product. Three other cupmarks of similar dimensions were found in the area. Two of them were next to a bodeda (Point 7) and one was near a winepress (Point 1). Small isolated cupmarks were found near a cistern (Point 5), a winepress (Point 16) and another bodeda (Point 4).

Pit
The pit was located in the upper central part of the area (Point 5) and below a bodeda that was hewn in bedrock. It was bell-shaped and consisted of a shaft that was excavated in the hard nari (diam. 0.8 m ) that gradually became wider in the soft chalky layers. Found filled with soil, it was surveyed but not excavated. There were no remains of plaster on its exposed walls. A drainage hole for channels discovered on the surface was located next its eastern wall. The date of the pit and the relationship between it and the rest of the installations in the area are unclear.

## Watchtower and Stone Clearance Heaps

A round structure (diam. c. 3.5 m ) was located in the southern part of the site (Point 8) alongside a concentration of stone clearance heaps (Points 9, 13). The walls of the structure were built of large stones, some of which were dressed. During the course of the excavation half of the structure was removed and the core of its walls was revealed which included field stones in the soil, without any datable finds.

Two stone clearance heaps (Points 14. 15) and smaller concentrations of stone in the vicinity were surveyed. The stone clearance heaps were cleaned and removed but no datable finds were discovered. They were probably modern, related to activities conducted by the Jewish National Fund in the region. Next to the heaps and inside them were large ashlar stones $(0.60 \times 0.65 \times 0.20 \mathrm{~m})$ whose original provenance was unclear.

## Quarry

Remains of a quarry were identified (height c. 2 m ; Point 2) on the northern slope of the site, near a winepress (Point 1) no datable finds were discovered in it. Other signs of rock cuttings were observed farther along the slope, outside the

## Flint Tools

H. Khalaily

Large quantities of flint, some of which were knapped, were discovered throughout the area. A trial excavation conducted where a relatively dense concentration of tools was observed (Point 6) did not reveal any clear-cut activity horizons. A flint collecting survey was conducted throughout the entire site in which 22 tools, 24 blades and over 100 flakes were collected. The flint implements were produced from the Mishesh Formation, characteristic of the Moditin region. The knapping was probably done at the site itself as evidenced by the large amount of debitage found there. The finds include five cores (Fig. 6:1), one of which bearing scars of flakes and blades that were knapped from it. The flint industry was primarily meant for the production of large flakes for use as everyday tools. Among the flint items are five sickle blades and sickle elements (Fig. 6:2-5), six retouched flakes, two scrapers (Fig. 6:6) and four burins (Fig. 6:7). Among the blades is a single Canaanean blade made of Eocene flint (Fig. 6:2) which was probably imported to the site. Three of the other flakes are geometric flakes c .3 cm wide and more than 1 cm thick. The relatively crude sickle blades probably date to the Iron Age or even later.

## Pottery

Potsherds from different periods were found on the surface and next to the installations. At best they provide a general date for activity at the site. Among the potsherds identified are jars from the Persian or Hellenistic periods (Fig. 7:1-2), a pared lamp from the first century CE (Fig. 7:3), many fragments of ribbed jars from the Byzantine period, a glazed bowl (Fig. 7:4) and a jug handle (Fig. 7:5) from the Early Islamic period, and jar fragments from the Ottoman period (Fig. 7:6). Some of the body sherds give the impression that they date to even earlier periods.

The flint tools and pottery are consistent with the settlement picture at the site and its surroundings in the Bronze and Iron Ages as revealed in prior excavations, while the style of the winepresses and the bodedot indicate a possible date in the Roman and Byzantine periods. It should be noted that all of the bodedot were hewn along the same contour line on the high parts of the spur whereas the winepresses all occur on the northern part of the site where the slope is steeper. If we indeed assume that the installations operated simultaneously, then it is possible to understand the functional division of the installations in parallel to the deployment of the growing of olives and grapes.


1. Location map.

2. Bodeda (Point 4), looking north.

3. Pressing installation (Point 11), looking north.

4. Cupmark with square frame, looking north.

(Volume No. HA-ESI 120 (2008
Sha'ar Efrayim

## Final Report

Sigal Golan
During May 2003, a salvage excavation was conducted at Sha'ar Efrayim (Permit No. 3895*; map ref. NIG 200321-89/687811-20; OIG 150321-89/187811-20), in a cave that was discovered while paving the Cross-Israel Highway. The excavation, on behalf of the Israel Antiquities Authority, was directed by S. Golan, with the assistance of S. Ya'aqov-Jam (administration), Y. Nagar (physical anthropology), L. Kupershmidt (metallurgical laboratory), M. Masarwa and K. Sari.
The excavation area is located on a chalk hill, at the foothills of the Samarian Mountains and not far from the city of Taiyiba. Some of the other caves on the hill had been excavated in the past (ES/ 19:32*-33*). The current excavation is a resumption of a previous one (HA-ESI 117), lying next to the excavated cave or its extension. Considerable damage was caused to the cave as a result of paving the road. Its ceiling collapsed inward; its southern, northern and western sides were completely destroyed, creating a steep cliff that precluded excavation, although some visible artifacts protruded from it.
The removal of the stone collapse from the cave exposed a fill that contained numerous fragments of pottery vessels and clay ossuaries from the Chalcolithic period. A pit that contained human interments and artifacts dating to the Late Bronze Age was discovered in the center of the cave. Upon completing the excavation of the pit and the exposure of the in situ Chalcolithic finds, the excavation was suspended due to objections raised by a faction of Ultra Orthodox Jews. All the finds were stolen, save a bracelet.
The remainder of the area in the cave (c. $2.0 \times 7.5 \mathrm{~m}$ ), between the wall remains and the cliff, was excavated.
The artifacts from the Chalcolithic period were found scattered throughout the entire area of the cave, except for the burial pit from the Late Bronze Age. The ceramic finds included fragments of characteristic pottery vessels, such as Vshaped bowls with red painted rims, cornets of light color clay that are decorated with red-painted stripes, coarse cooking pots decorated with a pattern of plastic dots below the rim, as well as many fragments of clay ossuaries and scattered, unarticulated human bones, representing at least ten individuals of different ages, including adults and children.

Burial from the Late Bronze Age. A pit or a pit grave was excavated within the Chalcolithic layer inside the cave. The burial consisted of a cranium vault, teeth and bones of a male, 20-40 years of age, as well as the cranium vault of a child. The location of the bones seems to indicate that the male individual was placed in anatomic articulation. Near the interred were complete pottery vessels of Cypriot origin, mostly Base-Ring jugs and juglets (bilbils), as well as a bronze bracelet (Fig. 1).

Fragments of ossuaries and a scatter of human bones and pottery vessels from the Chalcolithic period indicate that the cave was used for burial during this period. The pit from the Late Bronze Age was dug into the Chalcolithic fill and denotes a single burial phase in the cave.


1. A bronze bracelet.

2. Plan and section.

3. The bedrock-cut probe trench and the shaft, looking south.

4. The first chamber, looking south.

5. The niche, looking west.

6. Intermediate Bronze Age sites in the 'Akko Valley and in the mountains of the Western Galilee.
(Volume No. HA-ESI 120 (2008
Sheikh Danon, Esh-Sheikh Dawud
Final Report
Nimrod Getzov
During August 2005, a salvage excavation was conducted in a burial cave of the Intermediate Bronze Age at the site of Esh-Sheikh Dawud (Permit No. A-4577*; map ref. NIG 2143/7667; OIG 1643/2667), in the wake of damage to the cave caused while installing a road infrastructure. The information on the discovery of the cave, as well as the pottery vessels recovered from it, were handed over to the Antiquities Authority by K. Ngib Halabi and A. Zagir. The excavation, on behalf of the Antiquities Authority and financed by the Ministry of Construction and Housing, was directed by N. Getzov, with the assistance of Y. Nagar (physical anthropology), Y. Lerer (antiquities inspection) and H . Tahan (pottery drawing).
Esh-Sheikh Dawud is an ancient site atop a chalk hill covered with a nari layer, in the northern part of the Sheikh Danon village, along the eastern fringes of the 'Akko Valley. Potsherds dating to the Byzantine and Ottoman periods were collected at the site in the survey of the Western Galilee.
The cave, which was hewn in the northern slope of the site, had a shaft (L2; Fig. 1) that led to two burial chambers arranged in a row. Only the southern side of the shaft had remained after it was damaged by the bulldozer (Fig. 2). The opening that led from the bottom of the shaft to the cave was sealed with a flat, hard limestone block.
The chambers were meticulously hewn and a scale-like pattern from the adze blade that was used in quarrying (width c. 4 cm ) was discerned on the walls.

The First Burial Chamber (L1; Fig. 3) was trapezoidal; in its southern wall, opposite the entrance, was a narrow opening to the second burial chamber and in its western wall, to the right of the opening, was a small hewn niche (L4; Fig. 4) that may indicate the beginning of quarrying another burial chamber, which was never completed. The floor was covered with a layer of soil (thickness 0.5 m ), which contained pottery vessels, including a bowl (Fig. 5:1) and a jug (Fig. 5:4), as well as the bones of two individuals: an adolescent boy or girl and a young man. The tibia of the man was deformed as a result of a fracture or illness.
The Second Burial Chamber (L3), which was not excavated, had a rectangular shape. Its floor, c. 0.4 m higher than that of the first chamber, was covered with a soil accumulation (thickness c. 0.2 m ).
Prior to the excavation, four other pottery vessels were retrieved from the cave, including two cooking pots (Fig. 5:2, 3) and two jugs (Fig. 5:5, 6) whose original location inside the cave is unknown.
The bowl from the first chamber was red slipped and similar to the unslipped bowls that came from the Intermediate Bronze Age strata at Horbat 'Uza. The cooking pots belonged to the type common at most of the contemporary sites in the northern part of the country and the jugs, which have a handle with a round cross-section, are of a type that is unique to the northern part of the Western Galilee, resembling the juglets from Rosh Ha-Niqra (Eretz Israel 11: 288), Hanita (Qadmoniot HaGalil HaMa'aravi:64) and Kabri ('Atiqot 27:4*).
A survey of the slope where the cave was found revealed other caves, some of which may have been used for burial during this period. On the premises of the Western Galilee High School, c. 3 km north of Sheikh Danon, tombs that dated to the Intermediate Bronze Age ('Atiqot $27: 1^{*}-18^{*}$ ) were excavated. No settlement remains from this period were discovered in the area of Esh-Sheikh Dawad and Kabri; however, an examination of a map with the remains from this period in the Western Galilee shows a series of settlements and cemeteries on the hills between the 'Akko Valley and the Galilee mountains (Fig. 6).


## 1-1

1. Plan and section.

2. The bedrock-cut probe trench and the shaft, looking south.

3. The first chamber, looking south.

4. The niche, looking west.

## WNONT


5. Pottery.

(Volume No. HA-ESI 120 (2008
Shilat, Development Survey in the Moshav
Final Report
Oren Shmueli and Leticia Barda
27/3/2008


1. Survey map.

During October 2003, a development survey was conducted in Moshav Shilat (Permit No. A-4008*; map ref. NIG 202058-357/647124-423; OIG 152058-357/147124-423), prior to construction. The survey, carried out on behalf of the Antiquities Authority and sponsored by the moshav, was directed by O. Shmueli and L. Barda in an area identified and demarcated by a certified surveyor, on behalf of the moshav.
At the top of the hill, where remains of the ancient settlement of Khirbat Shilta are visible, heaps of ashlar stones, architectural elements and remains of ruinous buildings of a modern Arab village, were discerned (Fig. 1). Ashlar construction was noted beneath the clusters of stone. Potsherds from the Byzantine, Early Islamic and Mamluk periods were scattered above surface.
The area surveyed east of the ruin was characterized by limestone surfaces into which a dense array of installations was hewn, including thirteen water cisterns, two winepresses and a ritual bath (miqwe) that was built inside a plastered underground cavity. The miqwe had a hewn entrance and was equipped with a reserve pool. Other features included two quarries, a limekiln and several other underground cavities, whose nature could not be determined.

The area surveyed along the eastern and northern slopes included stone walls that delimited cultivation plots and farming terraces built of medium and large fieldstones. A field road (width 3 m ), leading to the ruin on the north and enclosed by stone walls, was exposed and a burial cave (map ref. NIG 202347/747303; OIG 152347/147303) was discerned at the bottom of the slope, with two watchman's huts nearby.


1. Survey map.
(Volume No. HA-ESI 120 (2008
Sulam
Final Report
Butrus Hana
During August 2003 a salvage excavation was conducted in the Sulam village (Permit No. A-3968*; map ref. NIG 231655/723425 OIG 181655/223425). The excavation, carried out on behalf of the Antiquities Authority and financed by Z.A. Yusuf, was directed by B. Hana, with the assistance of V. Essman and V. Pirsky (surveying), L. Porat (pottery restoration) and H. Tahan (drawing).

One square was opened at the southern end of the village.
Remains of a room whose fieldstone-built walls (W10-12; Figs. 1, 2) were founded on bedrock and preserved one-two courses high, were exposed. The eastern and western walls (W10, W12) were lined with small fieldstones on the interior. An entrance in the northern part of W10 was survived by the southern door jamb and threshold, which was a large limestone block. A limestone-built step was set inside the entrance, on the floor of the room. The floor of the original room (L105) was laid on bedrock and abutted the three walls. It consisted of mud-brick material, gravel, soil and potsherds that dated to the Early Islamic period, including a cooking bowl (Fig. 3:3), a jar (Fig. 3:4) and a jug (Fig. 3:6). Another floor (L104, L106), c. 10 cm above Floor L105 was composed of mud-brick material, ash, small stones and potsherds from the Early Islamic period, including a bowl (Fig. 3:1). This floor abutted the walls of the room as well and was overlaid with remains of hearths with ash, as well as a tabun (diam. 0.4 m ) that was embedded in its northwestern corner. A semicircular installation (diam. 0.6 m ) in the southwestern corner of the room consisted of limestone pieces that were also incorporated into the floor. On the later floor was a layer of fill composed of soil, ash, small fieldstones and potsherds from the Early Islamic period, including a cooking bowl (Fig. 3:2), a jar (Fig. 3:5) and jugs (Fig. 3:7-9). The pottery assemblage was noted for the presence of buff-ware jugs and the absence of glazed bowls; hence, the assemblage should be dated to the beginning of the Abbasid period.


1. Plan.


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3. Pottery.

(Volume No. HA-ESI 120 (2008
Sulam
Final Report
Yardenna Alexandre


1. The Mamluk wall, looking south.

During August 2006 a small salvage excavation was conducted in a privately-owned building plot in the village of Sulam, 4 km east of 'Afula (Permit No. 4872*; NIG 231602/723484; OIG 181602/223484). The excavation, on behalf of the Antiquities Authority, was directed by Y. Alexandre, assisted by Y. Laban (administration), L. Barda (GPS) and workers provided by the land owner.

The village of Sulam, which is built over and around an archaeological tell, developed around a spring.
The present excavation ( 25 sq m ) was undertaken in the center of the village, immediately south of the spring, beyond and south of the tell. A 0.5 m thick layer of dumped and accumulated soil was removed with mechanical equipment prior to the excavation, which revealed a wall and a living surface, both dating to the Mamluk period.
The limited archaeological remains consisted of an east-west oriented wall (W104; width 1 m ; Fig. 1), running the length of the excavation square. Wall 104 was preserved a single course high ( 0.3 m ) and set on a layer of earth. It was built of two faces of large, roughly worked and loosely lain stones, including a worn threshold stone and another with a worn hollow in the center, both in secondary use. Between the two faces was a small-stone rubble core. No other wall was associated with W104, although above and around it were large quantities of collapsed stones. W104 may be dated to the Mamluk period on the basis of a few potsherds, mostly body fragments.
Layers of accumulated fill, with a possible packed-earth occupation level were excavated c. $0.2-0.4 \mathrm{~m}$ below the base of W104, containing some Mamluk potsherds.
The area was excavated to a depth of 2.2 m below surface, without reaching bedrock.
This small archaeological excavation indicated that a Mamluk settlement had existed in this part of the site.


1. The Mamluk wall, looking south.

# (Volume No. HA-ESI 120 (2008 

## Tel Afeq

## Final Report

Dor Golan


1. Location map.

2. General view of the cardo, looking north.

3. Section 1 and most of Section 2 of the cardo, plan.

4. The northern part of Section 2 and Section 3 of the cardo, plan.

5. Pottery.

During March-April 200, an excavation was conducted at Tel Afeq-Antipatris (Permit No. A-4761*; map ref. NIG 193596-672/667626-993; OIG 143596-672/167626-993), during the course of development work in the national park. The excavation carried out on behalf of the Israel Antiquities Authority and financed by the Nature and National Parks Authority, was directed by D. Golan, with the assistance of E. Bachar (administration), A. Hajian (surveying), T. Sagiv (field photography), R. Vinitsky (metallurgical laboratory), M. Shuiskaya (pottery drawing), G. Bijovsky (numismatics), C. Amit (coin photography), D. Weinberger, A. Re'em and M. Peilstöker (the Central district of the IAA) and T. Tsuk and A. David (Nature and National Parks Authority).

Excavations at Tel Afeq were conducted from 1972-1985 (Kochavi M. 1989. Aphek-Antipatris: 5000 Years of History, Tel Aviv; Kochavi M., Beck P. and Yadin E. 2000. Aphek-Antipatris I. Excavations of Areas A and B. The 1972-1976 Seasons, Tel Aviv) and in 1999 (HA-ESI 115:40*-41*).

The excavation took place between the theater in the south of the city and the forum in its center (Fig. 1), with the purpose of continuing the exposure of the cardo, which had begun in previous years. Work concentrated only on the cardo's exposure and abstained from checking on the stratigraphy or chronology. Eleven squares ( $5.0 \times 6.5-7.0 \mathrm{~m}$ ) were opened across the length and width of the cardo (Fig. 2) and the relative elevation points from the previous excavations had been used, so as to maintain consistent measurements of the cardo levels for its entire length. In three places the excavation was extended beyond the boundaries of the squares in order to locate the lines of the curbstones on the east and west (Loci 111, 112, 114; Fig. 3). Soil fill that contained small stones, potsherds and large quantities of modern refuse from the twentieth century was excavated. Along parts of the cardo's route, signs of damage and robbery of paving stones were noticeable; those were only preserved in two sections (1, 2), whereas in another section (3) the eastern curb of the cardo had survived.

## Section

A pavement of large lime flagstones ( $0.80 \times 1.00 \mathrm{~m}$ ) was exposed in the southern section (Loci 101, 102; see Fig. 3) along the eastern side of the cardo. These flagstones were similar to those exposed in the past along the northern part of the street. Poorly preserved smaller pavers $(0.30 \times 0.45 \mathrm{~m})$ were uncovered in the center of the road and along its western side; these most likely reflected the maintenance and repairs of the original pavement. The flagstones were placed diagonally across the street, similar to the other sections, as well as to other streets from the Byzantine period, such as at Bet She an (ESI 6; 7-8; 7-8:16).
The eastern curb of the cardo (W107) was built of two rows of ashlar stones and an ashlar stone (L112; $0.60 \times 0.73 \mathrm{~m}$ ) of the outer curb row was exposed. A layer of tamped earth and small stones (L106) was present where the curb's interior face did not survive. The bedding of the western curb's inner face ( $\mathrm{L} 111 ; 0.5 \times 1.9 \mathrm{~m}$ ), which was built of a single course of limestone ashlars, was exposed.
Along the western side of the cardo, no remains of the curbs were found and the cardo's pavement in this section was preserved for a width of 5.3 m

## Section 2

The largest section of the pavement was exposed in the middle part of the excavation (Loci 104, 105, 108; Figs. 3, 4). Its stones, smaller and more worn, were also aligned diagonally. The curb (W110, W115, W116) along the eastern side of the street was built of two rows of ashlar stones $(0.50 \times 10.27 \mathrm{~m})$, a single course high. The inner row of ashlars, partly placed on the outer pavement, was not entirely revealed. The western curb row was not found in this section. The preserved width of the street in this section was 5.3 m and crossing its eastern part widthwise was a drainage channel (L120; $0.37 \times 0.40 \times 2.86 \mathrm{~m}$; Fig. 3). The walls of the channel were built of upright flagstones that bore the covering flagstones, some of which were broken and collapsed. The bottom of the channel was composed of stones with no remains of plaster. It can assumed that this channel was connected to a main drainage conduit, which ran the length of the cardo, most likely along one of its sides, even though the latter was not revealed.

## Section 3

The street's pavement in the northern part of the excavation (Fig. 4) was not preserved, except for several flagstones (L118); however, a relatively long section of the eastern curb (W121, W122, W125; $0.58 \times 1.10 \times 14.90 \mathrm{~m}$ ), built of a single course of ashlar stones, was preserved. The foundation of the wall consisted of small stones and the stones of its outer face were larger and better dressed than those of the inner face.

The fragments of pottery vessels recovered from the layer of fill above the pavement of the cardo represented different periods and included a holemouth jar from Early Bronze I (Fig. 5:1), a krater (Fig. 5:2) and a jar (Fig. 5:3) from Middle Bronze II, a cooking pot from the Iron Age (Fig. 5:4) and bowls (Fig. 5:5-8), a cooking krater (Fig. 5:9) and jars (Fig. 5:10, 11) from the Byzantine period.

Eight coins were found in the excavation, six were identified and three were illegible. One coin, dated to the reign of Constantine I (317 CE; L101; IAA 100471), was struck in the mint of Arles, France (Fig. 6); another coin was from the first half of the fourth century CE (341-346 CE; IAA 100472); three coins were from the second half of the fourth century CE (IAA 100473, 100474, 100475) and the last identified coin (IAA 100476) was from the fourth and beginning of fifth centuries CE.

The excavation exposed the southern part of the cardo whose western side was found destroyed. Unlike Herodian Antipatris, which is located in the northern and middle part of the site, the southern part was dated to the Late Roman period (Kochavi 1989:103). The early part of the cardo in the north and the later part in the south mainly differed in the construction of the street. While the northern part had an arched cross-section that allowed the run-off to drain to the sides of the street, the southern part was flat and had a drainage conduit across it. The cardo at Afeq did not have a stoa and was not opulent.

The excavation contributed to our understanding of the development of southern part the city during the Late Roman period. The fact that most of the coins dated to the second half of the fourth century CE suggests that the cardo may have been abandoned at the beginning of the Byzantine period, which seems to corroborate the excavators' conclusions (Kochavi 1989) that assumed the city was destroyed in the year 363 CE.


1. Location map.



2. The northern part of Section 2 and Section 3 of the cardo, plan.


3. Coin of Constantine I.

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## Tel Ashdod

Final Report
Pirhiya Nahshoni


1. Location map.

2. Plan and sections.

3. Late Bronze Age, Iron Age and Persian period pottery.

4. The cist tombs T5-T9, looking east.

5. Tomb 13, looking south.

During February 2001, a salvage excavation was conducted in the 'Ad Halom Industrial Zone (Permit No. A-3373*; map ref. NIG 16742-54/62956-66; OIG 11742-54/12956-66), prior to the construction of a factory. The excavation, on behalf of the Antiquities Authority, was directed by P. Nahshoni (field photography), with the assistance of H. Lavi and E. Lavi (administration), A. Hajian and V. Pirsky (surveying), S. Lavi (pottery restoration), I. Dudin (find drawing) and D. Varga.
The site is located on the western fringes of Tel Ashdod, along the border of the sand dunes, c. 300 m west of Area G (M. Dothan, The New Encyclopedia of Archaeological Excavations in the Holy Land. Vol. 1:93), c. 100 m southwest of the 'Persian wheel' (saqiye) installation (HA-ESI 110:86) and c. 350 m southwest of the Assyrian palace (HA-ESI 118: Fig. 1).
Nineteen cist tombs were exposed in the area ( 65 sq m ); the tombs were not excavated (Fig. 2). They were dug into a layer of refuse that contained pottery vessels, ranging from the Late Bronze Age: a cooking pot (Fig. 3:1) and a juglet (Fig. 3:2) to the Roman period: a bowl (Fig. 4:2), a cooking pot (Fig. 4:3), an amphora (Fig. 4:4) and the Byzantine period: a krater (Fig. 4:5) and a jar (Fig. 4:6). A bell-shaped bowl dating to Iron I (Fig. 3:3) was found, but most of the potsherds were from Iron II: a bowl (Fig. 3:4), a krater (Fig. 3:5), jars (Fig. 3:6, 7) and a lamp (Fig. 3:8) and the Persian period: a bowl (Fig. 3:9), an Attic krater (Fig. 3:10), jars (Fig. 3:11,12) and an amphora (Fig.3:13), as well as an Hellenistic flask (Fig. 4:1). The date of the tombs was not ascertained; however, it seems they were from the Byzantine period based on the few Byzantine potsherds (Fig. 4:5, 6), which were the latest artifacts in the fill of the tombs.

The refuse layer (thickness $0.8-1.2 \mathrm{~m}$ ) had a dark brown color and contained ash, potsherds and bones. The refuse was piled on top of the kurkar bedrock where no other remains of ancient activity were observed, except for ancient quarrying marks on natural bedrock in the southeastern corner of the area. The pottery from the Late Bronze and Iron Ages denote the beginning of activity at the site, but its use as a refuse site is dated to Iron II and the Persian period until the Hellenistic and Roman periods, based on the potsherds.

## The Tombs

The tombs (length $1.5-2.4 \mathrm{~m}$, width $0.6-0.8 \mathrm{~m}$; Figs. 2,5 ) were dug uniformly in an east-west direction. The rectangular pits were lined with stone slabs, which were covered on top with flat stones, some of which bore traces of plaster, indicating they were masonry stones in secondary use. A section of a marble column that was split lengthwise was used as a covering stone in Tomb 13 (Fig. 6). The absence of some covering stones indicated that the tombs had been plundered in antiquity. One tomb (L109) was completely looted and only its stone lining had survived.
The remains of an infant's bones were discovered south of and next to Tomb 5, in a shallow grave without a stone lining or covering.

The main use of the place as a refuse site occurred in the Iron Age and the Persian period, continuing into the Hellenistic and Roman periods. During the Byzantine period the place was used as a burial site. The location of the site along the edge of the tell, the absence of any architectural remains and its use as a refuse site and later as a cemetery, attests to the fact that throughout all periods, it was situated beyond the limits of the city of Ashdod.


1. Location map.



2. The cist tombs T5-T9, looking east.

3. Tomb 13, looking south.
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Tel Aviv, Ha-Qirya
Final Report
Diego Barkan
23/11/2008

4. Location map.

5. Plan and section.

6. General view of the cave, looking west.

7. Pottery vessels in situ, looking east.

8. Pottery.

In May 2006 a salvage excavation was conducted in Tel Aviv, at the corner of Petah Tiqwa Road and Hasmoneans Street (Permit No. A-4813*; map ref. NIG 180112-18/664239-43; OIG 130112-18/164239-43; Fig. 1), after remains of antiquities were discovered in a preliminary inspection of an area slated for development as a public park. The excavation, on behalf of the Antiquities Authority and with the sponsorship of the Ahuzat Hof Company, was directed by D. Barkan, with the assistance of R. Hayim (area supervision), M. Ajami and P. Volinski (Tel Aviv region), S. Ya'aqov-Jam and E. Bachar (administration), A. Dagot (GPS), T. Sagiv (photography), Y. Bukengolts (pottery restoration) and M. Shuiskaya (pottery drawing).
The site is situated on the second kurkar ridge of the coastal plain. Caves that were excavated in Ha -Qirya in the 1970s (IEJ 29:241) indicated the existence of an ancient cemetery on the eastern slope of the ridge. Other excavations conducted in 2002, c. 250 m north of the present site, (HA-ESI 117) exposed five burial caves that date to the Early Bronze Age, fifty from the Intermediate Bronze Age and one from the Middle Bronze Age. Finally, a number of EB I tombs were excavated that were hewn in the kurkar bedrock (HA-ESI 118).

In the current excavation a single burial cave was excavated that was hewn into the kurkar bedrock whose ceiling collapsed long ago and whose eastern wall was destroyed by the infrastructure work (L104; Figs. 2, 3). The plan of the cave was round (diam. 2.20 m , height 1.20 ). It is dated to the end of the EB I and the beginning of the EB II, and was probably reused in the MB IIA as evidenced by pottery vessels from that period that were recovered from the upper strata in the cave. The unarticulated human skeletal remains in the cave were in such a poor state of preservation that it was impossible to determine their sex and age.

The assemblage of vessels (Figs. 4, 5) from the cave is characteristic of burial assemblages from the EBI-II and is dated by the Aphek-type of carinated bowls (Fig. 4:1, 2; cf. Tel Aviv 12:17-28) that first appeared in assemblages from the end of the EB I and are common in the EB II. Three hemispheric bowls (Fig. 5:3-5), a teapot (Fig. 5:6), a cup with a loop handle that extends above the rim (Fig. 5:7), a jug (Fig. 5:8), an amphoriskos (Fig. 5:9) and a storage jar (Fig. 5:10) are of little help in dating the assemblage more precisely. The presence of MB IIA potsherds, including a storage jar (Fig. $5: 11$ ), in the upper strata of the cave alludes to the possibility that the cave was reused at this time, a phenomenon which was also noted in the 2002 excavation.

It seems that the cave was part of the Early Bronze Age cemetery that was previously excavated. To the best of our knowledge this is the southernmost tomb of this cemetery to be found to date.


1. Location map.


2. General view of the cave, looking west.

3. Pottery vessels in situ, looking east.

4. Pottery.

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## Tel Barom

Final Report


3. Locus 502, plan.

5. Locus 502 , looking south.

8. Locus 503, looking east.

11. Locus 505 , looking east.

13. Unfinished round installation, looking east.

Howard Smithline
28/11/2008
During September 2005 a salvage excavation was conducted in a number of areas southeast of Tel Hāy College, north of Qiryat Shemona (Permit No. A-4598*; map ref. NIG 25445-55/79295-315; OIG 20445-55/29295-315; Fig. 1), in preparation for an additional campus. The excavation, carried out on behalf of the Israel Antiquities Authority and sponsored by the college, was directed by H. Smithline (photography), with the assistance of T. Grayev (area supervision), V. Essman and V. Pirsky (surveying), E. Belashov (drafting), L. Porath (pottery restoration) and H. Tahan (find drawing).

The proposed development area covers portions of two registered antiquities sites, Ras el-Biyad and Tel Barom (North). The area had been surveyed in 2002 (HA-ESI 118) and the main feature was Ras el-Biyad, a small tel with remains dating from the Neolithic through the Early Bronze IA periods. Probe trenches dug by mechanical equipment in 2003 revealed ancient remains only in a very limited area of the site. The results of the survey and the probe trenches prompted the current excavation.
The designated excavation area is a strip of land (length c. 270 m ; Fig. 2) that is bordered on the north by the approach road to the Tel Hāy Industrial Park; the Qiryat Shemona-Metulla road lies to the west. The area consists of three separate topographical features. The prehistoric and proto-historic tell of Ras el-Biyad is in the northeast and the highest point of the site. From this northern extremity, the basalt-strewn surface slopes down to the south, at first steeply, and forms a narrow limestone bedrock-based plateau with a shallow soil cover. The southern extremity is delineated by a sudden drop of the plateau, after which it attains the northern slope of Tel Barom nearly 1 km south of Ras el-Biyad. To the west, the plateau slopes steeply toward the third topographical feature, which is a limestone escarpment that was utilized for hewing burial chambers, quarries and various types of installations. The steep eastern slope is beyond the proposed development area.
Three excavation areas were opened: Area A, at the foot of the western slope of Ras el-Biyad; Area B, 50 m south of Area A, at the foot of the southwestern slope and Area C entailed the southern slope, the plateau and a section of the western escarpment.

## Areas A and B

Four contiguous squares and one additional square, 30 m farther north were opened in Area A; five adjacent squares were laid out in Area B. Only one half of each square was excavated. The position of each square on the slope determined the thickness ( $0.3-0.7 \mathrm{~m}$ ) of an archaeologically sterile soil layer that covered the soft limestone bedrock. The excavation of the ten squares revealed neither ancient activity nor any relevant antiquities. The absence of ancient finds was significant for assessing the development and functioning of the ancient settlements on Ras el-Biyad. At no period did any of the settlements expanded from the strategically positioned tell down the western slope.

## Area C

## Locus 501

An area ( $2.5 \times 5.0 \mathrm{~m}$ ) was excavated toward the bottom of Ras el-Biyad's southern slope. The removal of a shallow soil cover revealed a south-sloping, apparently intentionally smoothed hard bedrock surface. No other human activity was discernible and only a few small and worn potsherds, datable to the Hellenistic, Roman, Byzantine and Mamluk periods, were uncovered.
Locus 502 (Figs. 3-5). On the northern edge of the plateau, c. 35 m south of L501, was a small exposed outcropping of soft limestone bedrock that exhibited evidence of hewing. Eventually, a rectangular swath of worked limestone (11.5 × 12.3 m ) was cleared. Three forms of bedrock utilization were discerned, namely cupmarks, quarries and shafts. In the center of the area, a step slightly higher than the surrounding hewn rock surface and probably at the level of the original bedrock surface displayed two cupmarks (diam. 0.08 and 0.13 m respectively, depth 0.13 m ). Immediately east of the cupmarks was an area that served as a quarry (c. $3 \times 4 \mathrm{~m}$ ). A smaller quarrying area was north of the cupmarks. Partial negatives of hewn stones, severance channels and a single stone whose removal was incomplete were visible. Three shafts, L502D $(1.10 \times 2.55 \mathrm{~m})$, L502E $(0.65 \times 1.78 \mathrm{~m})$ and L511 $(0.90 \times 2.08 \mathrm{~m})$ were joined by a single small cist burial (L502B) and a single burial (L502A). Only one of the shafts (L511) was partially excavated, although the excavation was suspended upon reaching a blockage of large basalt stones. The northernmost burial, L502A $(0.80 \times 1.45 \mathrm{~m})$ was found sealed with three large stone slabs. It is not clear whether it served as a cist grave or as a shaft leading into a burial chamber. The small cist, L502B ( $0.47 \times 0.90$; Fig. 6), was equipped with a ledge (width 0.08 m ) for cover emplacement. No datable material could be associated with the shafts or the burials that were not excavated. It appears that the burials postdated the quarry as the small cist was hewn into the quarried section of the outcropping. Similar shafts and cists are commonly found in the Roman and Byzantine Periods.
Locus 503 (Figs. 7, 8). A partially exposed bedrock area ( $5.2 \times 9.0 \mathrm{~m}$ ), c. 30 m southwest of L 501 was cleared. Portion of a step quarry whose hewn steps were $0.35-0.45 \mathrm{~m}$ high was exposed. In the midst of the quarry, whose exact dimensions and shape were not determined, was a burial chamber shaft ( $1.03 \times 1.65 \mathrm{~m}$ ) whose excavation yielded no diagnostic finds and was suspended at a depth of 0.6 m , upon reaching a basalt-stone fill.

Locus 504 (Fig. 9). A rectangular hewn area ( $2.45 \times 4.00 \mathrm{~m}$ ) was excavated 20 m southeast of L503. It is 1.2 m high in the east and only 0.53 m high in the west, due to the sloping topography. Three hewn flanks created a small, partially closed space whose northern half contained numerous basalt boulders in disarray and its southern half was vacant. Very few ceramic fragments, dating from the Roman through the Mamluk periods, were found scattered in the space and none was relevant to the dating of the hewing or its function.
Locus 505 (Figs. 10, 11). Another quarry with a burial chamber shaft was exposed 10 m south of L504. The cleared irregularly shaped area (c. $5 \times 8 \mathrm{~m}$ ) proved to be of poor quality, with many cracks and fissures; hence, only a small portion of it was quarried for building stones.
The burial chamber shaft $(1.1 \times 2.0 \mathrm{~m})$ was in the east of the outcropping. A pile of earth immediately to the west of the shaft was apparently removed from the tomb during illicit digging. The pile contained a poorly preserved northern oil lamp (Fig. 12). The mold-made, egg-shaped lamp has a channel running from the unadorned discus to the wick hole. Its surface is decorated with few incised strokes and circles in relief. The base is decorated with an impressed branch pattern, probably of an olive tree. A nearly identical lamp, dated to the Byzantine period, was recovered from the previous excavations at Tel Barom ('Atiqot 55: Fig. 15:11). It is reasonable to assume that the lamp points to a period of activity in the tomb.
A partially completed circular hewn installation (diam. 1.4 m ; Fig. 13) was revealed 0.7 m south of the shaft.
Locus 506. An area $(2 \times 2 \mathrm{~m})$, c. 40 m southwest of L502, on the western edge of the plateau, was excavated. A layer of soil (depth 0.5 m ) covered bedrock. A junction of the soft plateau limestone with the hard escarpment bedrock was revealed and only 25 small and worn Roman and Byzantine body potsherds were found.
Locus 507. An area ( $2 \times 2 \mathrm{~m}$ ), c. 35 m east of L506, was excavated on the plateau. The flaking soft limestone bedrock was overlaid with a thin layer of soil (depth 0.3 m ) that contained ten small, worn Roman and Byzantine potsherds.
Locus 508 (Fig. 14). A roughly rectangular-shaped area ( $4 \times 11 \mathrm{~m}$ ), utilized as a quarry, was in the southwestern corner of the plateau, before it descended to the south and c. 80 m south of L505. This was the only quarry of those excavated where a few measurable negatives of cut stones were visible; two stones in the north attained a size of $0.75 \times 1.10 \mathrm{~m}$. A burial tomb shaft $(0.7 \times 1.9 \mathrm{~m})$, which was not excavated, occupied the northwestern corner of the outcropping. Only fourteen worn potsherds dating to the Roman, Byzantine and Ottoman periods were found throughout L508.
An additional shaft was recorded in the thick brush immediately to the west of the L508 shaft.

Locus 509 (Figs. 15, 16). Locus 509, located 30 m southeast of L508, is a nearly rectangular area ( $4 \times 8 \mathrm{~m}$ ), which was cleared of a shallow, fine earth accumulation that overlaid a small simple winepress. It was subsequently used for quarrying, which destroyed much of its treading floor. A small channel led from the treading floor to a rounded collecting vat (L510; upper diam. 1.12 m , lower diam. 0.7 m , depth 1.3 m ), which was not damaged by the quarrying and its walls tapered down toward the bottom.
Distributed over bedrock west of the collecting vat were seven cupmarks that ranged in depth ( $0.03-0.17 \mathrm{~m}$ ) and in diameter ( $0.14-0.32 \mathrm{~m}$ ). A single shallow cupmark (width 0.2 m ) was on the northern edge of the quarried area and should be associated with the earlier winepress phase.
No datable finds could be associated with any of L509 elements.
To the south of L508 and the eastern extremity of L509 was an accumulation of at least nine shafts in a very limited area covered with brush; several lie beyond the bounds of the development area.

Additional features in the area, recorded but not excavated, were all shafts, except for one quarry. These are tabulated below to enable a better, albeit partial, picture of the extent of the burial ground north of Tel Barom.

| LOCUS | TYPE | LOCATION | COMMENTS |
| :---: | :---: | :---: | :---: |
| 701 | Qarry | 10 m north of L508 | Adjoining shaft? |
| 702 | Shaft | 6 m south of L508 |  |
| 703 | Shaft | 6 m south of L702 |  |
| 704 | Shaft | 15 m south of L703 |  |
| 705 | Shaft | 10 m northeast of L704 |  |
| 706 A | Shaft | 8 m northwest of L509 | 706A and 706B are adjoining shafts. |
| 706B | Shaft | 8 m northwest of L509 |  |
| 707 | Shaft | 5 m north of L509 |  |
| 708 | Shaft | 2 m west of L707 |  |
| 709 | Shaft | 8 m south of L703 |  |
| 710 | Shaft | 10 m south of L503 |  |
| 711 | Shaft | 14 m east of L501 | On upper southern slope of Ras elBiyad where indications of many shafts are visible |
| 712 | Shaft | 35 m northeast of L501 |  |

No connection to the prehistoric and proto-historic site of Ras el-Biyad could be established down the western or southern slope of Ras el-Biyad. If any expansion of the site occurred during these periods, it was either to the north or to the east. However, later activity, probably during the Late Roman and Byzantine periods, is apparent, especially along the escarpment on the western edge of the plateau, as well as in the utilization of sporadic bedrock outcroppings. This activity is manifested mostly in the numerous unexcavated shafts that undoubtedly led to burial chambers found spread along the escarpment and in small opportunistic quarries that occupied the same geological niche
The shafts were part of an extensive burial ground that extended northwest to at least the grounds of the present Tel Hāy College campus and the Tel Hāay Museum. Several excavations had previously been conducted on the college grounds, in burial caves that dated from the second to the fourth centuries CE (HA 63-64:7; HA 67-68:74; 'Atiqot 10:165-167 [Hebrew]). This dating appears to be appropriate for dating the unexcavated shafts and tombs as well, as attested to by the northern lamp retrieved from L505. The investigated 270 m long area appears to have served as a multi-functiona hinterland of Tel Barom, c. 1 km to the south of Ras el-Biyad. Only meager remains from the Roman period were uncovered at Tel Barom, but the Byzantine period was apparently a time of growth and expansion ('Atiqot 55:58*).
The shafts appear to have been hewn after the quarrying was terminated in all of the relevant loci. The quarrying was done on a limited scale and in specific areas of outcroppings. Along these lines, it seems that the winepress was the earliest element in the area, as it was destroyed by quarrying. The small winepress hints at a household wine production rather than a large-scale commercial distribution.


2. Plan.

3. Locus 502, plan.

4. Locus 502, looking east.

5. Locus 502 , looking south.

6. Locus 502B, small cist grave.


7. Locus 503, plan and section.

8. Locus 503 , looking east.


10. Locus 505, plan.

11. Locus 505 , looking east.

12. Lamp.

13. Unfinished round installation, looking east.


16. Locus 509, looking west.

## (Volume No. HA-ESI 120 (2008

## Tel Gat Hefer

Final Report
Yardenna Alexandre
During March 2007, a small salvage excavation was conducted in a private building plot, at the base of the steep southwestern side of Tel Gat Hefer (Permit No. A-5072*; map ref. NIG 230125/738090; OIG 180125/238090). The excavation, on behalf of the Antiquities Authority, was directed by Y. Alexandre, assisted by Y. Laban (administration) and workers provided by the plot owner.

The tell is located on a flat summit that rises above the village of Mashhad, between Nazareth and Kafr Kanna in the Lower Galilee. Previous excavations on the large mound of Gat Hefer had been carried out in 1992 on top of the tell (Areas A, B; 'Atiqot 44:143-170) and in 1995, on the northern lower terrace of the tell (Areas C, D; 'Atiqot 44:97-138). These excavations revealed significant architectural remains from Early Bronze II-III, Middle Bronze II-III, Iron I, Iron IIA-B and the Late Persian period.

The archaeological remains in the present excavation ( 25 sq m ) were minimal, consisting of c. 20 small field stones, lined up in a north-south oriented row, which were uncovered c. 1 m below the original surface. These stones could hardly be considered a wall as they were loosely laid next to each other and not associated with a floor or with pottery. The few potsherds recovered from the excavation were body fragments dated to Iron IIA-B, but these may well have been washed down from the tell itself, c. 150 m to the north and at a higher level than the excavation area. A cluster of small field stones without any associated pottery was found c. 0.5 m below the row of stones. An almost sterile layer of soft, light brown soil was exposed at a depth of c .2 m below surface.

The steep slopes of the tell seem to have been, in effect, the remains of fortification walls and possibly glacis that surrounded the tell. The present excavation indicates that in this specific area no buildings were constructed beyond the town wall, although on other sides of the tell and at different periods, buildings may have existed beyond the fortifications.

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1. Area $A-3$ at the end of the season, looking north.

2. Area $M$ at the end of the season, looking west.

During June-July 2008, the nineteenth season of excavations was conducted at Tel Hazor (License No. G-21/2008). The 'Selz Foundation Excavations at Hazor, in Memory of Yigael Yadin', are undertaken in the Hazor National Park on behalf of the Hebrew University, under the direction of A. Ben-Tor and with the assistance of the Israel Exploration Society. The expedition team included R. Lavie (supervision Area A-3), S. Zuckerman (supervision Area M), S. Bechar (assistance in area supervision), D. Porotzky and V. Pirsky (surveying), O. Cohen (conservation), assisted by I. Strand, M. Cimadevilla (photography), A. Harosh (office supervision and finds registration), S. Yadid (administration) and I. Strand (administrative assistance). The expedition benefited from the assistance of the Antiqua Foundation (Geneva Switzerland), the Edith and Reuben Hecht Fund, the Late Reginald David Benjamin and Esme Benjamin of Perth, Western Australia and other individual donors. Students and volunteers from several countries participated in the excavation.
Area A-3. The excavation in this region, which was renewed in the 2007 season after a long hiatus, continued this year. Its purpose was to expose the western and southwestern parts of the pebble-paved courtyard that is located north of the palace (Fig. 1). At the beginning of the season, walls and floors from Iron II-III, which had been partly exposed during the 2007 season, were removed. At the northern end of the area, a pit from Iron III that contained numerous complete pottery vessels was uncovered
A layer of mud-brick collapse was exposed and excavated below the Iron Age buildings. It could be attributed to the collapse of the palace's northern wall in the southern part of the area. The level onto which the wall had collapsed was exposed and it seems to have been empty and without buildings. Below it and perpendicular to the palace was a meager wall, which may have been a retaining wall that served to stabilize the surface level. Below the mud-brick collapse of the palace layers, fills from the Late Bronze Age were excavated down to the level of the paved courtyard. The continuation of this pavement was not exposed in the southern part of the excavation area.
Sections of unevenly built stone walls that formed part of a building were discovered in the northern part of the area. Two habitation levels of tamped earth, which consisted of ovens and two semicircular stone structures that may have been open hearths, were exposed. The entire complex was covered with mud-brick collapse, which differed in its nature and color from the collapse of the palace walls, which was unlikely to have reached so far north. It therefore seems that the mud-brick collapse above the walls derived from a building that was positioned above the walls.
At this point, the dating of these walls remains an unanswered question; the few potsherds on top of the habitation levels are from Late Bronze II and hence, the entire complex probably represents the last phase before the destruction of Hazor. Evidence of such poor quality of construction in the last phase of the Late Bronze Age had previously been exposed in Hazor, namely in the palace itself and its immediate vicinity. Another possibility suggests that the walls date to Iron II. Poorly built walls from this period are known from elsewhere in Hazor. Still one more option is that the walls represent the remains of a temporary settlement during the hiatus that followed the destruction of Hazor's Canaanite city. However, no remains from this period of time at Hazor have been located to date. Thus, based on the scant ceramic evidence, the first possibility seems plausible.
At the end of the season, a plaster floor was exposed below these levels. Its elevation matched that of the northern courtyard pavement discovered to its east and it seems to have been contemporary with it (Late Bronze I); this matter will be ascertained next season.
The entire area was disturbed by pits that could hardly be discerned during the excavation, which dated to Iron I and contained a meager amount of potsherds.

Area M. The work in this season continued in the squares that were excavated during the two previous seasons. The buildings, ascribed to the later phases of Iron II from the eighth century BCE (Fig. 2), continued to be exposed throughout the entire area.
All the structures attributed to these phases were private dwellings; their walls were relatively thin and they contained a variety of installations and ovens. At least three main phases that had sub-phases, involving the raising floors, blocking of openings and the construction of installations, were identified. The character of the area in this period was that of a residential neighborhood that included small individual buildings separated by narrow alleys. The exposed remains of the eighth century BCE formed a single plan with those excavated in the area in the 1990s. The most prominent characteristic of all the buildings in this phase was the extensive secondary use of columns, column sections and dressed architectural elements of limestone, which were typical of public buildings from the ninth century BCE at Hazor and at other sites.
The excavation continued around the 'stone-lined pit' in the center of the area that was exposed during the previous season and its upper part was incorporated in the Iron Age pavement, which was ascribed to the late phase in the area (HA-ESI 119). It was ascertained in this season that the pit had an early phase when it was incorporated in the walls of a building from the early phase of the eighth century BCE and in the later phase, was free standing at the side of the open space where no building remains were discovered. All the area around the pit was filled with rich material that consisted of bones, mostly fish bones discovered through sampled wet sifting, worn potsherds and metal debris. The function of the pit during its two phases has not yet been determined.
It was proven this season that the destruction phase, which included mud-brick collapse and charred remains of wood, was concentrated only in the northwestern corner of the area. All other buildings attributed to this phase were abandoned without any signs of a violent destruction.
The exposure of two rows of dressed limestone columns that were oriented east-west continued. Based on their location and the relation between them it seems that they belonged to a public building that was sealed by the remains of the aforementioned later residential structures. The columns of the northern row in the middle of the area were leaning slightly northward, perhaps the result of settling or seismic activity. During the last week of the excavation, the top of a wall was exposed. It may be the closing wall of the building, which separated it from the public building that was uncovered during the 1990s in the northern part of the area. This assumption will be investigated next season.
The finds attributed to the Iron Age phases in Area M included mostly pottery vessels, some of which can be restored, as well as several clay figurines, bronze and iron objects and a fragment of a glass bottle.

Conservation and Reconstruction. The work was focused on treating the western wing of the palace ('the bathroom'), its southern wing and the northern part of its front wall.
Several courses of mud bricks were added to the western wall in the bathroom, to prevent visitors from entering and exiting the palace by way of this room. The soil fill that we deposited in this room several years ago to protect its floor was removed. The installation adjacent to the southern wall of the room was cleaned and the northern wall that delimits it toward the interior of the room was reconstructed. The function of the room, which at the time was referred to as a bathtub, was not ascertained.
In the southern wing-the only wing of the palace that was severely damaged by Iron Age construction-the outer southern wall was stabilized and the corridor between the western and eastern rooms of the wing was rebuilt, using mud bricks.
The doorjambs of the main entrance at the front of the palace were reinforced on the inside with mud-brick construction. The northern part of the front wall, which slopes steeply outward to the east, was reinforced by inserting mud bricks and mortar into the recesses and cracks that were discovered in it. This activity will continue next season to prevent the entire facade from collapsing.
These works were carried out with the financial support of several foundations, among which are the Antiqua Foundation (Geneva) the Rosen Foundation (N.Y.), the Late Reginald David Benjamin and Esme Benjamin (Perth, Western Australia), and the Edith and Reuben Hecht Fund (Israel).


1. Area A-3 at the end of the season, looking north.

2. Area $M$ at the end of the season, looking west.

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1. Location map.

2. Plan and section.

3. Amphora base with stamped impression.

4. Stamped impression.

5. Pottery from the pits.

## Orit Segal

During May 2003, a trial excavation was conducted along the northeastern fringes of Tel Ishqaf, within the precincts of Moshav Hanni'el (Permit No. A-3861*; map ref. NIG 19642/69380; OIG 14642/19380), prior to the paving of Highway 571. The excavation, carried out on behalf of the Antiquities Authority and financed by the Department of Public Works, was directed by O. Segal, with the assistance of S. Ya'aqov-Jam (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (photography), E. Belashov (drafting), C. Amit (studio photography), P. Gendelman (pottery consultation), M. Shuiskaya (drawing of finds), R. Kool (numismatics) and D.T. Ariel and M. Lawall and G. Finkielsztejn (identification of amphora impression).
Tel Ishqaf is a small tell located in a region of hamra hills, on the fringes of the Nahal Alexander alluvium valley (Fig. 1). The excavation was meant to expose the ancient remains along the route of Highway 571, which encircles the northern and western sides of the tell (length 390 m ). In recent years, the northern and part of the western margins of the tell have become a regional refuse deposal site that severely damaged the ancient remains and therefore, the excavation was limited to the area along the northeastern edge of the tell. Five squares were opened; remains dating to the Early Roman and Byzantine periods were exposed in three squares (A1, C1, C5; Fig. 2) and in the other two squares were pits whose diameter was greater than the size of the squares (A7, G6).

Potsherds dating to the Iron Age, Persian, Hellenistic, Roman and Byzantine periods and the Middle Ages (J. Porath, S. Dar and S. Applebaum, eds., Qadmoniot Emeq Hefer, 1985, p. 236), had previously been collected at the site. The digging of the refuse pit on the tell revealed a large cluster of potsherds from the Late Roman and Byzantine periods, which included numerous fragments of Samaritan-type lamps (Qadmoniot Emeq Hefer, pp. 235-236). The location of the tell near Nahal Alexander had attracted settlers already in ancient times. Three sites (Tel Shatri in Burgeta, 'Olesh and a site near Nahal Ometz) and a cemetery (in Qibbuz Ma'abarot) that dated to the Chalcolithic period (Qadmoniot Emeq Hefer, p. 44) were discovered near the tell. Potsherds from the Chalcolithic period were collected along the southern side of the tell (Prof. R. Gophna, pers. comm.). Based on the evidence reported by local residents, a Chalcolithic site is located in the northwestern part of the waste-water reservoir, next to the tell. In the nearby ruins of Burgeta (Burj el-'Atut; Khirbat el-Burj) remains and a tower from the Crusader period were discovered (ESI 2:17-18)

Early Roman period (first century BCE-first century CE). A wall (W113) and a floor that abutted it (L108) were exposed in the northern square (A5; Fig. 2). The wall, built of medium-sized fieldstones that were placed on a soil layer (L122), was preserved 1.2 m high. Below the floor was a soil fill (thickness 0.2 m ), apparently placed for the purpose of leveling the area. The fill contained a large quantity of potsherds that were mostly fragments of jars and amphorae, the latest of which dated to the first century CE. Noteworthy among the fragments were those of amphorae that came from the region of Campagna in Italy (Fig. 3:15, 16). On the base of one of the amphorae was a stamped impression bearing the Latin name HERACL (Figs. 4, 5). The impression is dated from the end of the first century BCE to the middle of the firs century CE and it originated from Latium in central Italy. Among the potsherds were a few fragments of Terra Sigilatta vessels, including a bowl from Pergamon (Fig. 3:2), as well as fragments of local vessels, including a krater (Fig. 3:1), jars (Fig. 3:3-11) and jugs (Fig. 3:12-14).

Byzantine period (sixth-seventh centuries CE). Four phases, dating to the Byzantine period, were exposed in the two southern squares (A1, C1; Fig. 2). A winepress (Square A1), which consisted of a treading floor paved with a coarse white mosaic (L126) and a stepped settling pit (L128), were ascribed to the first phase. A built wall to the west of the treading floor was completely robbed during the third phase. The treading floor of the winepress was partitioned by a wall (W124), built of small and medium fieldstones during the second phase. The wall that was built west of the treading floor also continued to be used in this phase. A wall (W115), adjacent and parallel to the robbed wall, was built in the third phase, probably using some stones from the robbed wall. The bottom course of W115 was slightly higher than the level of the winepress' mosaic floor in the earlier phases. The southwestern corner of a white mosaic floor (L120) was discovered in Square C1. It was delimited on the west by a wall (W123) that was coated with grayish white plaster. The winepress of the first two phases was probably relocated to the west in the third phase; the corner of Floor 120 was part of the winepress' treading floor, whose eastern side was delimited by W115. It is also possible that Floor 120 was part of a collecting vat that belonged to the winepress, in which case W115 may have belonged to the fourth phase. A wall (W114), which had cut Floor 120 of the previous phase, and a floor of stream pebbles (L111), both exposed in Square C1 next to the southern balk, were ascribed to the fourth phase, as well as the eastern part of a circular vat, near the western balk of Square C1, which was not excavated and apparently served as an industrial installation (diam. 1.2 m , height 0.8 $\mathrm{m})$. The ceramic finds from the four phases, dating to the sixth-seventh centuries CE, were homogenous and included cooking vessels (Fig. 6:1, 2), jars, many of which were bag-shaped (Fig. 6:3-10), a jar with a high neck (Fig. 6:11) and a saqiyye jar (Fig. 6:12).

The diameters of the pits discovered in Squares A7 and G6 were greater than the size of the squares; they contained potsherds, mostly fragments of jars and amphorae that dated to the Early Roman period. Some potsherds dated to the Chalcolithic period, as well as to other periods, including bowls (Fig. 7:1, 2) from Middle Bronze IIB, a krater (Fig. 7:3) from the Iron Age, mortaria and jars (Fig. 7:4-6) from the Persian period, jar and amphora (Fig. 7:7, 8) from the second century CE and a saqiyye vessel (Fig. 7:9) from the third-fourth centuries CE. A coin that dated to the reign of Agrippa I (41-42 CE; IAA 108952) came from the pit in Square G6 and on the surface, outside the area of the squares, a coin that dated to the Early Islamic period (IAA 108953) was found.

The current excavation has demonstrated the importance of wine production and trade in the Early Roman and Byzantine periods. Many fragments of large storage vessels were discovered in the excavation, among them jars and imported amphorae that dated to the Early Roman period. These vessels clearly indicate trade, partially seafaring commerce that was probably an important factor in the economy of the settlement. It is possible that a spacious farmhouse that has not yet been exposed was nearby. Wine production was a vital activity in the Byzantine period, as manifested by the several phases of the excavated winepress. The potsherds recovered from the pits show that the tell had probably a long range of occupation, beginning in the Chalcolithic period.


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3. Pottery from the Early Roman period.


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4. Amphora base with stamped impression.

5. Stamped impression.


7. Pottery from the pits.
(Volume No. HA-ESI 120 (2008

## Tel Kison

## Nurit Feig

10/4/2008


1. Location of excavation areas.

2. Area D, plan and section.

3. Area D, looking south.

4. Area E, plan and section.

5. Area E, looking south.

During November-December 2005 a salvage excavation was conducted north of Tel Kison (Tell Keisan; Permit No. A-4638; map ref. NIG 21400-425/75340-50; OIG 16400-425/25340-50), as a result of damage caused to antiquities. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Electric Company Ltd., was directed by N. Feig, with the assistance of Y. Lavan and Y. Ya'aqobi (administration), A. Hajian (surveying) and H. Smithline (photography).

Tel Kison, which extends across an area of 60 dunams, is located in the Plain of 'Akko. The tell was excavated in 1935 by A. Rowe and in 1971-1976 by J. Briend and J.-B. Humbert. An excavation was recently conducted north of the tell (HA-ESI 119).
Two areas (D, E; $5.0 \times 7.5 \mathrm{~m}$; Fig. 1), 20 m apart, which were located north of the tell, c. 150 m west of Tepper's excavation, were excavated.
Area D (Figs. 2, 3). Four layers were exposed.
Stratum I: Hellenistic period (fourth-third centuries BCE). A floor of large pebbles survived only in the northeastern part of the square (L404).
Stratum II: Persian period (end of sixth-fourth centuries BCE). Two floor levels were discerned in the southern part of the square (L403). Locus 402 was also ascribed to this stratum. This layer was characterized by a plethora of pottery vessels that included bowls, jars of various types and cooking pots.
Stratum III: Iron I (eleventh-mid tenth centuries BCE). A floor was exposed (L413).
Stratum IV: Chalcolithic period (fifth millennium BCE). No architectural remains were exposed, but rather, a fill layer containing many jar fragments. A yellowish brown layer of alluvium that is characteristic of this region and devoid of potsherds was exposed below Stratum IV

Area E (Figs. 4, 5). Six strata were exposed.
Strata I-II: The upper two layers, which are dated to the Hellenistic period, included a wall (W31) that survived one course high, and two floors. Fragments of Rhodian amphoras were revealed, among them three stamped handles.
Strata III-V: Persian period (end of the sixth-fourth centuries BCE). The remains of floors made of potsherds and small stones were exposed in half of the square; the finds from them are characterized by fragments of mortaria, cooking pots and jars.
Stratum VI: A fill layer replete with potsherds from Iron I and the Chalcolithic period (L313) was discerned; below it was a deposit of yellowish brown soil devoid of sherds (an alluvial layer c. 35 cm thick).

It seems that the occupation along the fringes of the tell occurred mainly during the Hellenistic and Persian periods, at which time the settlement expanded and flourished, as evidenced by the abundance of imported pottery vessels. The rich finds from the Chalcolithic period, which were recovered from the fields surrounding the tell, suggest that the settlement at this time was concentrated primarily on the plain.


1. Location of excavation areas.

2. Area D, plan and section.

3. Area D, looking south.


1-1
4. Area E, plan and section.

5. Area E, looking south.

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## Tel Nov

Final Report
Zohar Daniel
5/11/2008


1. Plan and sections.

2. Wall 109, looking west.

3. Selected finds.

In June 2007 a trial excavation was conducted at the edge of Tel Nov, near the Nov reservoir (Permit No. A-5142*; map ref. NIG 274141-89/748127-69; OIG 224141-89/248127-69). The excavation, undertaken on behalf of the Antiquities Authority with funding provided by the settlement, was directed by Z. Daniel, with the participation of O. Zingboym (area supervision and consultation), Y. Ya'akoby (administration), T. Meltzen (surveying) and A. Shapiro (GPS).
Nov is referred to as 'En Nov in El Amarna Letter 256 from the fourteenth century BCE and is mentioned in the Jerusalem Talmud (Shebiit 4:10) among the list of forbidden towns in the vicinity of Sussita. In the past an excavation was conducted c. 50 m west of the current excavation ('Atiqot 39:13*-26*).

One square was opened in which the remains of a wall (W114; length, 4.6 m ; Fig. 1) built of basalt fieldstones were discovered preserved to a height of one course ( $0.2-0.4 \mathrm{~m}$ ). A wall (W109; length c. 11.5 m ; width c. 1.3 m , Fig. 2) that defined the southern end of a pool was exposed to the south of the square. Two-three foundation courses of basalt fieldstones were set on bedrock which had been leveled; basalt fieldstones and roughly hewn chalk stones in secondary use, were laid atop the foundation courses. The southern face of the wall was treated with plaster mixed with gravel and small stones (L115). At the eastern end of the wall a section of a built channel was exposed which diverted water from the stream to the pool (L117). It seems that the eastern part of the wall was also used to divert the flow of the stream to the pool. A wall (W110) that was only partly cleaned was located in the eastern part of the pool, perpendicular to Wall 109.

Finds from the excavation include pieces of flint, fragments of pipes (Fig. 3:1, 2), lead shot from a hunting rifle from the Ottoman period (Fig. 3:3) and animal bones.
The date of the pool was not ascertained. It seems that this installation was located outside the boundary of the settlement.


2-2


2. Wall 109, looking west.


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1. Plan.

2. Entrance shaft to Tomb 1 blocked with stone fill.

3. Entrance to Tomb 1 after clearing the stone blockage.

4. Entrance shaft to Tomb 2. looking north.

5. Wall 100, looking south.

During November 2005, a trial excavation was conducted along the eastern slope of Tel Sha'alvim, within the precincts of Qibbuz Sha'alvim (Permit No. A-4628*; map ref. NIG 19903/64179; OIG 14903/14179), after the discovery of ancient remains during work, inspected by A. Gruber, prior to the construction of a youth club. The excavation, on behalf of the Antiquities Authority, was directed by G. Parnos, with the assistance of E. Bahar (administration), A. Hajian and V. Pirsky (surveying and drafting) and C. Hersch (pottery drawing).
The tell overlooks the Ayyalon Valley and the excavation area was c. 10 m below its peak. Three excavation squares (Fig. 1) were opened, revealing two hewn shaft tombs, remains of a wall and a rock-hewn installation that dated to Middle Bronze II, as well as a massive wall, dating to Iron II or possibly even earlier. Prior to the excavation, the area was exposed with the aid of mechanical equipment, revealing to the north of the squares three very large boulders (W119; length 2 m , width 2.6 m , height 1 m ) in a row whose upper surface was smoothed. It seems that these boulders were the southern end of a massive wall and their smoothed upper surface served as a base for mud-brick courses.
Previous excavations at the tell had exposed Middle Bronze Age burial caves (HA 77:29 [Hebrew]; ESI 7-8:201; 'Atiqot $22: 9^{*}-14^{*}$ ) and the remains of a Samaritan synagogue that dated to the Byzantine period (Bulletin of the Department of Antiquities 2:31-32 [Hebrew]; The New Encyclopedia of Archaeological Excavations in the Holy Land 4: 1338).
Middle Bronze II. A shaft tomb (Tomb 1) that consisted of a vertical shaft (diam. 0.8 m , depth 1.5 m ; Figs. 2, 3), which led to a burial chamber, was discovered in Square D. The southern side of the shaft's upper part was completed with construction that utilized large stones, some of which were roughly dressed. The stones were positioned on a stone step that was hewn in the southern side of the shaft. The shaft was blocked with fieldstones and bonding material of soil and lime (L109). Below this blockage were boulders that sealed the lower part of the shaft and the burial chamber, which was not excavated in its entirety. The western wall of the chamber and the ceiling above it were damaged, probably during the quarrying of a cave in a later phase. The western part of the chamber was filled with stone collapse and the eastern part was blocked to the height of the ceiling with hard reddish soil. The tomb is similar to shaft tombs of MB II that are known at numerous sites, including in the vicinity of Tel Sha'alvim. Only the eastern part of the shaft in another shaft tomb (Tomb 2; presumed diam. 1.5 m ; Fig. 4) was excavated in Square C. The upper part of the shaft was built of small and medium-sized fieldstones to a depth of c. 0.8 m below surface; its lower part was bedrock hewn for an additional 0.5 m . A fill of light brown soil mixed with small stones (L105; thickness 0.3 m ) was discovered in the upper part of the shaft. Below Fill 105 was a fill of reddish brown soil (L107; thickness 0.2 m ), overlaying a fill of gray brown soil (L113) in the lower part of the shaft that contained a scant amount of potsherds. At the bottom of this fill, on the western side, a human skull and bones were discovered, causing the suspension of the excavation. The ceramic finds in the two tombs dated to MB II and included bowls (Fig. 5:1, 3), kraters (Fig. 5:4, 5) and jars (Fig. 5:9, 10).
Remains of a wall ( W 100 , W118; width $0.4-0.6 \mathrm{~m}$ ) that was aligned north-south were discovered in Square B. The northern part of the wall (W100; Fig. 6) was a row of medium-sized stones, preserved a single course high; the eastern face of the stones was coarsely dressed. At its northern end, the wall was abutted by W119, which extended beyond the limits of the excavation. The southern part of the wall (W118) consisted of two rows of small fieldstones, preserved two courses high. A gray-brown soil fill (L106; thickness 0.3 m ), deposited on bedrock and extending as far up as surface, was discovered west of W100. This fill contained a mixed ceramic assemblage that dated to MB II, including bowls (Fig. 5:2), kraters (Fig. 5:6-8) and jars (Fig. 5:11) and the Byzantine period.
A rock-hewn installation (L102; depth 2.5 m ; Fig. 7) was discovered east of W100. The upper part of the installation was a hewn square surface (width c. 2 m ), damaged by the mechanical equipment that exposed the site. An elliptical vat $(0.47 \times 0.80 \mathrm{~m}$, depth 0.65 m$)$ was hewn in the middle of the surface. The installation was filled with modern alluvium. A fill of small and medium-sized stones (L116) between the installation and W100 was probably meant to level the area.

Iron II. A massive wall (W120; preserved length 7 m , width 2 m ), built of one row of boulders and oriented east-west, was discovered in Square C. The wall abutted a bedrock outcrop at the western end. The boulders were usually placed on soil fill; however, in several places they were set on top of large stones. The western part of the wall was placed on the large stones that belonged to the side of Tomb 2. An elongated depression filled with terra rosa soil (L103) was uncovered to the north of W120 when bedrock, which sloped southward, was exposed. South of W120, a gray-brown tamped soil fill from the tell was excavated (L104). The fill contained pottery fragments from Iron II, including a krater (Fig. 5:14), a jar (Fig. 5:15) and a jug (Fig. 5:16), the Late Bronze Age and Middle Bronze II. As no floor in relation to the wall was discovered, its dating is uncertain, but it can be said with certainty that the wall stood exposed in Iron II and may even have been built in an earlier period. The building manner of the wall resembles the construction of the Middle Bronze Age.

A few, out of a stratigraphic context, Late Bronze potsherds were collected from the excavation area, including a jar handle fragment, slipped white and decorated with red paint (Fig. 5:12) and a jar base (Fig. 5:13).


1. Plan.

2. Entrance shaft to Tomb 1 blocked with stone fill.

3. Entrance to Tomb 1 after clearing the stone blockage.


4. Wall 100, looking south.

5. Installation 102.
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6. Plan.

7. Western square, looking northwest.

8. Pottery.

9. Fragments of storage jar with inscription, in situ.

During August 2004 an excavation was conducted in a farm building at Kh. Abu-Mahfudh (Permit No. A-4214*; map ref. NIG 18440-50/57280-90; OIG 13440-50/07280-90), in the wake of damage caused by mechanical equipment. The excavation, carried out on behalf of the Antiquities Authority and financed by the Gili and Yoel Azriah Company, Ltd., was directed by Y. Israel, with the assistance of A. Hajian (surveying), N. Zak (drafting), Y. Bukengolts (pottery restoration), I. Pikovski (pottery drawing), Y. GorinRosen (glass) and Y. Dana (epigraphy).
The ruin is located north of Tel Sheva‘ and Nahal Hevron, near the confluence with Nahal Be'er Sheva'. Six farm complexes were surveyed, all characterized by a series of rooms, surrounding a courtyard, as well as bellshaped cisterns. The walls of the buildings were constructed from soft limestone quarried from bedrock outcrops of nearby Nahal Be'er Sheva' and stream cobbles used as a foundation of the walls.
The excavation took place in the southern complex where two areas were opened (Fig. 1). Remains of a building whose walls (W2, W3, W4; Fig. 2) consisted of cobbles bonded with loess were exposed in a square opened in the eastern area. These walls probably served as a base for a mud-brick superstructure. Next to W2 and W3, several ashlar stones that probably belonged to a bench or were part of an interior wall were found. The floor of the building, which was partly paved with cobbles (L13) and partly consisted of beaten earth in the east (L17), abutted the ashlar stones. A beatenearth floor (L12) to the west of W2 was delimited on the north by W1, built of a single course of stone; this was probably part of an open-air courtyard. A square was opened east of this area, revealing wall remains (W6, W7) that were abutted by a beaten-earth floor (L16). Remains of plaster were traced on the interior of W7, extending also to W6. Remains of another wall (W8) that were documented along the surface to the south of the excavated complex probably also belonged to the same farmstead.

Potsherds were exposed on the floor of the courtyard (L12), on the cobble floor (L13) and its continuation to the east (L17), and in the collapse that overlaid the floors. These included fragments of various sized locally produced and imported bowls (Fig. 3:1-3, 5, 6), kraters (Fig. 3:4, 7-9), casserole lids (Fig. 3:10, 11), a casserole (Fig. 3:12) and a jug (Fig. 3:13). Other artifacts included a ceramic pipe fragment (Fig. 3:14), two bag-shaped storage jars (Figs. 3:15, 16), one of which bore an inscription (Figs. 3:15; 4) and a Gaza storage jar (Fig. 3:17). The inscription, composed of three Greek letters $\mathrm{oul}(\mathrm{OMI})$ and characteristic of the Byzantine period, is probably the name of a pottery workshop or storehouse. The fragments of glass vessels included a piece of a lamp rim, a bowl with a strap handle, characteristic of the Byzantine period, and the rim of a shallow bowl with traces of fluting, dated to the Late Roman and Byzantine periods. Metal artifacts included pieces of three iron nails and a fragment of a copper object, probably part of a camel bell without a clapper. Fragments of animal bones and a mother-of-pearl piece were also discovered.
The exposed farmhouse is similar to those located nearby and probably indicates a familial relationship between their residents.


1. Plan.

2. Western square, looking northwest.

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$\rightleftarrows \rightleftharpoons_{10}$ $\qquad$ 10

$\qquad$ 10
3. Pottery.

4. Fragments of storage jar with inscription, in situ.
(Volume No. HA-ESI 120 (2008
Tel Sheva', Neighborhood 36


1. Plan of the excavation areas.

2. Square $H$, plan.

3. Square J, plan and section.

4. Square J, Pit 114, looking north.

Yael Abadi-Reiss
18/8/2008
During February-March 2003, a salvage excavation was conducted in Neighborhood 36 in Tel Sheva (Permit No. A-3819; map ref. NIG 1840-60/5720-30; OIG 1340-60/0720-30), prior to development. The excavation, carried out on behalf of the Antiquities Authority and funded by the Israel Land Administration, was directed by Y. Abadi, with the assistance of H. Lavi (administration), V. Essman and V. Pirsky (surveying), T. Sagiv and M. Salzberger (field photography) and N. Zak (drafting).

The excavation was conducted in eleven lots of the neighborhood, in whose other lots a previous excavation had taken place (Permit No. A-2062). Eleven squares were opened in the areas slated for construction, based on probe trenches and finds recovered from surface (Fig. 1). A few artifacts from the Byzantine period were discovered, although most of the finds dated to the Chalcolithic period.

Mostly medium and large pits from the Chalcolithic period, which were dug into hard, natural loess soil and filled to their top with artifacts, were discovered. Pits of various sizes (diam. $0.5-5.0 \mathrm{~m}$ ) were excavated in Squares A, B, C, D, G, I and K. Due to the disjointed nature of the excavation not all of the pits were entirely excavated and sometimes they extended beyond the boundaries of the excavation. Small pits were also found, sometimes cut into the bottoms of large pits. Sundried mud bricks were exposed inside the pits and along their edges; these sometimes served as part of the fill in the pits and sometimes as walls.

Generally, the pits in the squares were not connected; however, in Squares $H$ and $J$ several pits of different sizes that were joined to each other with openings and channels were excavated. They were filled to their top with soil and ash mixed with artifacts that dated to the Chalcolithic period. A complex of eight pits that were connected by way of arched passages and tunnels (average diam. of pit's bottom 1.4 m ; Fig. 2) was excavated in Square H. The elevations of the openings of the pits and those of their loess floors were not uniform. Two pits in Square $J$ were connected by way of a tunnel and another complex consisted of two other pits and a shaft (Figs. 3, 4). Only one pit in Square J (L110) had alternating layers of ash and soil.

The ceramic artifacts were characteristic of the Chalcolithic period and included V-shaped bowls, holemouth and other jars, churns and cornets. The flint-tool assemblage, which included sickle blades and adzes, was also typical of the Chalcolithic period. In addition, flint debitage was collected, as well as bone and stone implements, animal bones, mud bricks, stone pendants, shells and carbon.

Artifacts from the Byzantine period were discovered in Squares A, E, F and H. A section of a fieldstone-built wall, preserved two courses high, nine tombs built of stone slabs that were not opened and small pits that contained fragments of pottery vessels from this period were exposed.
The Chalcolithic settlement of Tel Sheva is part of the array of settlements along Nahal Be'er Sheva', which is referred to as the 'Be'er Sheva' cluster' of the Ghassulian culture.


2. Square H, plan.

3. Square J, plan and section.

4. Square J, Pit 114, looking north.
(Volume No. HA-ESI 120 (2008

## Tel Sheva

Final Report


1. Lot 242, plan.


Yoram Haimi

## 4/9/2008

During May 2003, a salvage excavation was conducted in two lots $(242,255)$ in Neighborhood 36 of Tel Sheva (Permit No. A3819*; map ref. NIG 1840-60/5720-30; OIG 1340-60/0720-30). Previous excavations in the neighborhood included more than forty lots in 1993 (Permit No. A-2062) and eleven lots in 2003 (HA-ESI 120). The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Israel Land Administration, was directed by Y. Haimi (photography), with the assistance of H. Lavi (administration), V. Essman and V. Pirsky (surveying and drafting) and I. Lidski (drawing).

One excavation square was opened in each lot. Part of a building that consisted of four walls was exposed in Lot 242 (Fig. 1). The main wall (W102; length 7.25 m ) was preserved three courses high. Three walls that formed rooms abutted it. A tabun (L18) that belonged to a floor (L7) was in the corner of Walls 102 and 103. Wall 101, which abutted W102, separated between two rooms. A floor in the southern room (L16) was overlaid with numerous potsherds. A few potsherds were found on the floor of the northern room (L15). Wall 105, which was west of W102, also separated between two rooms, a northern (L12) and a southern one (L13), which yielded only a meager amount of potsherds.

A wall (W104; length 5.5 m , preserved height 0.57 m ; Fig. 2) was exposed in Lot 255 . The pottery vessels found on the floor (L9) that abutted the wall included bowls (Fig. 3:1-5) and jars (Fig. 3:6-9) that dated to the end of the Byzantine period. A pit (L11; diam. 1.4 m ) uncovered below W104 and Floor L9 contained a large amount of ceramics that dated to the Chalcolithic period, including a handle of a holemouth jar (Fig. 3:11) and the base of a cornet (Fig. 3:12), as well as a fragment of a saqiye jar (Fig. 3:10). The eastern part of the pit was destroyed during the course of development work.

3. Pottery.




## (Volume No. HA-ESI 120 (2008

## Tel Zeton <br> Final Report

Dor Golan
27/3/2008


1. Pottery.

During September 2005 a probe trench was excavated on a steep slope of Tel Zeton in Bnē Berak (Tell Abu Zeitun; Permit No. A4612*; map ref. NIG 18471-90/66733-41; OIG 13471-90/16733-41), following damage to antiquities. The excavation, carried out on behalf of the Antiquities Authority and financed by the Moshe Rifer Company, was directed by D. Golan, with the assistance of S. Ya'aqov-Jam (administration), V. Essman (surveying), T. Sagiv (photography), M. Shuiskaya (pottery drawing), E. Yannai, M. Ajami and D. Barkan.
Tel Zeton is located on a kurkar hill, c. 800 m south of the Yarqon River, in the middle of the Pardes Kaz neighborhood of Bnē Berak. The tell rises to a height of c. 9 m above its surroundings and covers an area of $2-3$ dunams. J. Kaplan (Yedi'ot 1958:98) excavated along the top of the tell in 1957 and exposed two strata that dated to the Persian period. The excavations were suspended when reaching the level of Iron II remains. In the current excavation, a probe trench (width 2.5 m , depth 1.7 m ) was dug on the southern slope of the tell and three strata, dating to Middle Bronze IIA and IIB, were discerned.

The upper stratum contained gray soil mixed with potsherds and small stones, together with modern refuse. The lower stratum contained red-fired tabun material (thickness $10-18 \mathrm{~cm}$ ) that sealed a layer of potsherds, which included a cooking pot (Fig. 1:1) and jars (Fig. 1:2, 4), dating to Middle Bronze IIA, as well as flint sickle blades. The jug (Fig. 1:3) was dated to Middle Bronze IIB.
Remains of a tabun were also documented in the excavation.
The settlement at Tel Zeton joins a series of Middle Bronze II settlements that extended along the Yarqon River, between the two main sites of Tel Gerisa and Tel Afeq.




1. Pottery.

## (Volume No. HA-ESI 120 (2008

## Tel Zoran

Final Report
Aviva Buchennino
4/12/2008


1. Square C11, plan and section.

2. Wall 31, looking southeast.

3. Pottery.

During July 2005, a trial excavation was conducted at Khirbat Umm Sur, c. 60 m north of Tel Zoran (Permit No. A-4530*; map ref. NIG 19305-20/69005-20; OIG 14305-20/19005-20), after ancient remains were exposed while inspecting work by the Meqorot Water Company. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Mehadrin Company, Ltd., was directed by A. Buchennino, with the assistance of A. Hajian (surveying and drafting), A. Dagot (GPS surveying), S. Mahajna (antiquities inspection), E. Belashov (drafting), T. Sagiv (studio photography) and M. Shuiskaya (artifact drawing).

A previous excavation (Permit No. A-3916) had been conducted at the site in 2003, revealing a winepress, sections of walls, a refuse pit and a kiln that dated to the Late Byzantine, Early Islamic (sixth-eighth centuries $\mathrm{CE})$ and Ottoman periods.
Two squares (C11, C12) were opened in the current excavation.
Square C11. A section of a north-south oriented wall (W31; length 3.5 m , width $0.55-0.60 \mathrm{~m}$, preserved height c. 0.35 m; Figs. 1, 2) was found. It was built of kurkar ashlars and founded on virgin soil. A floor (F32; thickness 0.12 m ) of potsherds, crushed mortar and a few small fieldstones abutted the wall from the east.
Square C12. No building remains were found, except for a fill that was mixed with a few potsherds.
The ceramic finds from the two squares dated to the Byzantine period and included mostly body, handles and a few jar rim fragments (Fig. 3:1, 2), as well as a jar rim from the Early Islamic period (Fig. 3:3).

Wall 31 was the continuation of a building wall that was partly revealed in the 2003 excavation; the building was probably part of a winepress complex.


1. Square C11, plan and section.

2. Wall 31, looking southeast.

3. Pottery.

## (Volume No. HA-ESI 120 (2008

## Tell Halif - 2007



1. General plan.

2. LMLK type jars in destruction layer, looking northeast.

3. Votive lamp.

4. Two limestone incense alters.

5. Molded figurine fragments.

Oded Borowski

## 27/3/2008

During June -July 2007, the first season of the Lahav Research Project, Phase IV was conducted at Tell Halif (License No. G19/2007; map ref. NIG 187/587-8; OIG 137/087-8). The excavation was directed by O. Borowski of Emory University (photography), with the participation of Emory University and Miami University of Ohio as consortium member institutions. Additional support was provided by the Michael C. Carlos Museum of Emory University, the Heritage Fund of ASOR, the Cobb Institute of Archaeology at Mississippi State University, the W.F. Albright Institute of Archaeological Research, the Joe Alon Center at Qibbuz Lahav and individual donors. The field staff included Professors D. Appler (Moravian Theological Seminary), J. Bidmead (Miami University), and J.W. Hardin (Cobb Institute), J. Bos (University of Michigan; area supervison trainee), M. Broida (Emory University; registration), aided by L. Abramson (Miami University), D. Kerges (Cobb Institute; drafting and supervision help in Area H7) and J. Rosenberg (AIAR; surveying). Eighteen undergraduate and graduate students from the US, Canada, Australia and New Zealand participated in the program. The expedition wishes to thank Qibbuz Lahav for its hospitality and other services and to A. Navon who served as liaison with the qibbuz.

Work concentrated in a newly opened field (Field V; Fig. 1), south of and adjacent to the previously excavated Field IV, in Areas E7, F7, G7, H6, H7, I5 and I6, all located at the top of the southwestern slope (Fig. 2). The aims of the Lahav Research Project Phase IV have been to expose additional domestic units adjacent to the city fortifications from the end of the eighth century BCE (Stratum VIB), which were destroyed by a military campaign, possibly Sennacherib's in 701 BCE, with the hope of recovering supplementary information that will shed light on daily life in that region. Furthermore, it has been hoped to uncover additional data pertaining to city planning, the economy and relationships between this site and other regions.
Major elements of eighth century BCE domestic architecture (Stratum VIB) were encountered immediately below topsoil in all excavated areas. These included parts of the city outer wall and rooms adjacent to it on the inside in a typical casemate fashion. In several rooms, floors of hard packed dirt, cobbles and crushed limestone, were found overlaid with large amounts of in situ crushed storage jars, many of which of the Im/k type, and other vessels covered with heavy destruction debris (Fig. 3). Evidence of the military action that caused the destruction was found in the form of ballista stones and iron arrowheads, whose preservation was aided by the collapse of the superstructure.

Many of the rooms yielded proof that Iron II inhabitants of Tell Halif were engaged in spinning and weaving. This evidence was very similar to the one recovered from Fields III and IV in earlier seasons. However, this season, Area E7 provided a dramatic illustration of the intensity of the Halifites' engagement in these activities. This area seems to have been occupied by a weaving and dying workshop (Fig. 4), parts of which were not yet recovered since they lie below the east balk and the unexcavated Area E6. The remains in Area E7 included numerous loom weights, spindle whorls and fragments of bone tools, in addition to a large number of ceramic vessels, including jars, bowls, jugs, juglets and oil lamps, as well as grinding implements of different shapes and sizes, possibly for the preparation of dying pigments.

Several of the areas, e.g., F7, H6, H7, were occupied during the life of Stratum VIA—the 'Squatters Phase'. Unfortunately, most of this stratum's floors could not be traced, possibly as a result of root action that affected them, since they were in close proximity to modern surface. Another likely reason could be the fact that the packed-dirt floors did not 'mature' and harden due to the short duration of this phase, whose existence became nevertheless, very clear by the discovery of large quantities of flat-lying, restorable vessels associated with installations built well above the Stratum VIB floors.

Several cult objects from Iron II and the Persian period that were discovered this season indicate that cultic activities took place in the area. These finds strengthen the suggestion advanced in previous seasons that during these periods a cult center must have existed in close proximity to Fields IV and V. The finds included a zoomorphic vessel (Fig. 5), two horse and rider figurine fragments, and votive oil lamps (Fig. 6), all from Iron II. Two limestone incense altars (Fig. 7), two molded figurine fragments (Fig. 8) and a fragment of a third were all from the Persian period.

Typical Hellenistic-period potsherds, mostly in Areas H 6 and I , suggest that during that period the area of Field V was the subject of pitting, possibly for stone robbing from earlier structures. Similar activities were carried out in later periods, especially in the Byzantine period.

Future plans include finishing the recovery of the weaving workshop, continuing to uncover the plan of the city in this quarter and trying to determine the original date of the Iron II fortifications and the adjacent structures.


3. LMLK type jars in destruction layer, looking northeast.


5. Fragment of a zoomorphic vessel.

6. Votive lamp.

7. Two limestone incense alters.


## (Volume No. HA-ESI 120 (2008 Tell Halif - 2008


2. Squares C8-D8, pillared house, looking west.

5. Square E7, loom weights.

7. Oil lamp from weaving workshop.

8. Square K 5 , glacis of crushed limestone lying against the outer wall, looking east.

9. Votive oil lamps.

## Oded Borowski

28/10/2008
During June and the beginning of July 2008, the second season of the Lahav Research Project, Phase IV was conducted at Tell Halif (License No. G-17/2008; map ref. NIG 187/587-8; OIG 137/087-8; see HA-ESI 120: Fig. 1). The excavation was directed by O. Borowski (photography) of Emory University, in collaboration with Consortium member institutions that included Emory University and the Cobb Institute of Archaeology at Mississippi State University, with additional support provided by the Michael C. Carlos Museum of Emory University, the W.F. Albright Institute of Archaeological Research, the Joe Alon Center at Qibbuz Lahav, and individual donors. The field staff included area supervisors N. Bierling (Phoenix Data Systems), E. Hawksley (Cardiff University/Oxford Archaeology), T. Frank (LRP) and J.W. Hardin (Cobb Institute), J. Dylan Woodliff (Emory University; field assistant), D. Kerges (Cobb Institute; drafting and drawing), J. Rosenberg (AIAR; surveying), G. Friend (University of New Mexico/Gallup; laboratory management and registration), as well as twelve undergraduate and graduate students and volunteers from the USA who participated in the program.
Work concentrated in Squares C8, D8, E6, E7, 15, J5, K4, and K5 of Field V, located at the top of the southwestern slope of the tell, south of and adjacent to Field IV (Fig. 1). The aims of this season were to expand the exposure of domestic units adjacent to the city fortifications from the end of the eighth century BCE (Stratum VIB), which were destroyed by a military campaign, possibly Sennacherib's in 701 BCE, with the hope of recovering supplementary information that will shed light on daily life in that region. Furthermore, it has been hoped to uncover additional data pertaining to city planning, the economy, and relationships between this site and other regions.
Work in all the excavated areas continued to expose major elements of eighth century BCE architecture (Stratum VIB) immediately below topsoil. These included parts of the city outer wall and rooms adjacent to it on the inside in a typical casemate fashion. Squares C8 and D8 yielded a pillared house with a cobbled-floor room, possibly a stable (Fig. 2). The pillars were erected on earlier pillars that served as bases. An adjacent small room with a beaten-earth floor that contained a large amount of charred organic matter might have been used for storing straw and fodder. Another room with a cobbled floor contained large amounts of in situ crushed storage jars, some of which of the Imlk type, and other vessels all covered with heavy destruction debris (Fig. 3). Patches of crushed limestone were found overlaying some of this material possibly indicating roof or ceiling material. All structures were covered with heavy destruction layers caused by a tremendous fire and aided by stored organic matters and food commodities, possibly oil. Evidence of the military action that caused the destruction was found throughout the excavated area in the form of ballista stones and iron arrowheads. The collapse of the superstructure helped preserve much of the evidence.

As in previous seasons and similar to what was recovered in earlier seasons in Fields III and IV, many of the rooms yielded proof that the inhabitants of eighth century BCE Tell Halif were heavily engaged in spinning and weaving. The remains of an industrial-size workshop, which were partially exposed in 2007 in Square E7, were expanded to Square E6 and to the balk between the two sqaures (Fig. 4). Numerous clay loom weights and remains of bone tools, testify to the intensity of the operation (Fig. 5). Several spindle whorls (Fig. 6) suggest that a certain amount of spinning also took place in this workshop, as well as the dyeing of the yarn, which is evident from the presence of large number of grinding and crushing stone implements for preparing the pigments and ceramic vessels (bowls, jugs, jars) for mixing and storing the dye, all of which were probably used in this process. The assemblage also included oil lamps suggesting that weaving was carried out in the dark, either at night or in a room without windows (Fig. 7). Massive architectural elements, including portions of the city wall and a crushed-chalk glacis in Squares J5 and K5, suggest that this area was occupied by public structures and that the city gate is possibly in the vicinity (Fig. 8).

Very little evidence of settlement in Stratum VIA (the "Squatters Phase") was recovered this season, indicating that this stratum had only a spotty occupation.

Additional cult objects from Iron II and the Persian period were discovered during the current season, emphasizing the fact that cultic activities took place in this area. This supports the suggestion advanced in previous seasons that during these periods there must have been a cult center or house shrines in close proximity to Fields IV and V. The objects included a head of a pillared figurine, horse and rider figurine fragments and two votive oil lamps similar to those found in 2007 (Fig. 9), all from Iron II, as well as two fragments of molded figurines dating to the Persian period.

Typical Hellenistic-period potsherds in several areas suggest that during this period the area of Field $V$ was the subject of pitting, possibly for stone robbing from earlier structures. Similar activities were carried out in later periods, especially in the Byzantine period.

Future plans include continuing the excavation of another weaving workshop adjacent to the one exposed and the study of the city plan in this quarter.


2. Squares C8-D8, pillared house, looking west.

3. Square D8, pottery on the floor.

4. Square E , remains of a weaving and dyeing workshop, looking east.

5. Square E7, loom weights.

6. Spindle whorl

7. Oil lamp from weaving workshop.

8. Square K 5 , glacis of crushed limestone lying against the outer wall, looking east.

9. Votive oil lamps.

## (Volume No. HA-ESI 120 (2008 <br> Tell Qasile <br> Final Report

Alexander Glick


1. Plan.

2. Pottery.

During August, September and November 2002, a salvage excavation was conducted c. 500 m west of Tell Qasile (Permit No. A3723*; map ref. NIG 19037-9/66765-9; OIG 13037-9/16765-9), prior to construction work. The excavation, on behalf of the Antiquities Authority, was directed by A. Glick, with the assistance of R. Abu Halaf (administration), D. Porotzky (surveying), L. Kupershmidt (metallurgical laboratory), M. Shuiskaya-Arnov (drawing) and E. Yannai and R. Kletter (scientific advice).
The excavation was conducted in a flat area of brown-black soil that covers the kurkar bedrock. The area was severely damaged in the modern era when a hotel was constructed. Previous excavations had been conducted nearby (HA-ESI 111:35*-37*; ‘Atiqot 38:25*-32* [Hebrew]; License Nos. B-210/2000, B-257/2002), revealing settlement remains, industrial installations, a well and tombs, dating from Middle Bronze II until the Hellenistic period. The current excavation included five areas where two pit graves, an installation and quarries were discovered (Fig. 1).

Pit graves. The northern part of a rectangular rock-cutting that was probably a pit grave (L201; $1 \times 1 \mathrm{~m}$, depth 0.47 m ) was discovered in the south of the area. No artifacts were found, other than a non-diagnostic fragment of a worn bowl (Fig. 2:2). The remains of another hewn pit grave that had been severely damaged (L102; presumed dimensions: length c. 2 m , width at least 1 m ) were exposed in the northern part of the area. The pit contained a few small non-diagnostic potsherds, but the outline of the grave was identical to Middle Bronze II tombs that were excavated nearby (HA-ESI 111).

Installation. A rectangular installation hewn in the kurkar bedrock was uncovered in the southern part of the area (L100, L203; c. $2.5 \times 6.5 \mathrm{~m}$, depth 0.9 m ). Three usage phases were discerned. A small, shallow rectangular installation (c. 2.5 $\times 4.0 \mathrm{~m}$, max. depth 0.65 m ) was meticulously hewn in the first phase. In the second phase, the installation was a quarry for kurkar masonry stones and the coarse rock-cutting enlarged the installation to the east. When the quarry was abandoned, the depression filled with soil (depth $0.10-0.15 \mathrm{~m}$ ). In the third phase, the installation was used for storing a white material that may have been lime. This final phase is dated to the modern era, the sixteenth-twentieth centuries CE, based on the recovered potsherds that included gray Gaza ware jars (Fig. 2:7, 8).

Quarries. A quarry (L101, L202) that extended across 9 m (max. depth 2.3 m ; width could not be ascertained) was exposed in the eastern part of the area. Fragments of pottery vessels dating to the Ottoman period were discovered in the fill within the quarry, including bowls (Fig. 2:1, 3, 4), jugs (Fig. 2:5, 6) and non-diagnostic potsherds from earlier periods. A bronze fragment that may have been part of a fibula was also found. A section of another quarry (L204) whose dimensions were not ascertained (depth c. 1.3 m ) was noted in the western part of the area. This quarry was devoid of datable artifacts, except for an almost completely quarried stone (c. $0.6 \times 1.8 \mathrm{~m}$ ).




1. The installation, looking southwest.

## (Volume No. HA-ESI 120 (2008 Tell Qasile (West) Final Report

Diego Barkan
During September 2005 a salvage excavation was conducted in the Saviyonei Ramat Aviv Project (Permit No. A-4606*; map ref NIG 180446/616765; OIG 130446/116765), following the discovery of an underground plastered installation during development works. The excavation, on behalf of the Antiquities Authority and financed by the Africa-Israel Company, was directed by D. Barkan, with the assistance of S. Ya'aqov-Jam (administration), T. Kornfeld (surveying and drafting), A. Dagot (GPS surveying), J. Neguer (mosaics) and M. Ajami and E. Yannai.
The site is located on the western kurkar ridge of the coastal plain, north of the Yarqon River, c. 500 m west of Tell Qasile and c. 1 km east of Tell Qudadi.
Previous archaeological excavations were conducted in the area on behalf of the Antiquities Authority (HA-ESI 111:35*-37*; 'Atiqot 38:25*-32* [Hebrew]; HA-ESI 119) and Bar-llan University (License Nos. B-210/2000, B257/2002).

Part of an underground industrial installation (min. width 3.65 m ; preserved height 3.65 m ; Fig. 1), which was hewn in kurkar bedrock and used for storing liquid, was excavated. The walls, cast of coarse material and small stones, were coated with several layers of hydraulic plaster. The floor was a white industrial mosaic composed of medium-sized tesserae. The complete plan of the installation was not ascertained due to the vast damage caused to it.
The installation was filled with black soil that contained potsherds from the Byzantine period (fifth-seventh centuries CE) together with modern debris (glass and ceramic tiles) and animal bones. The installation should be dated to the Byzantine period based on the manner of its construction, the plaster, the mosaic and the potsherds in the fill.


1. The installation, looking southwest.
(Volume No. HA-ESI 120 (2008
Tell Qasile
Final Report
Etan Ayalon and Nitza Bashkin-Yosef

2. Plan and section.

3. The pool complex, looking north.

4. Pottery.

5. Lamp.

During October 2003, a salvage excavation was conducted along the northeastern edge of Tell Qasile, within the precincts of the Eretz-Israel Museum (Permit No. A-4006*; map ref. NIG 180900/667708; OIG 130900/167708). The excavation, on behalf of the Antiquities Authority and the Eretz-Israel Museum, was directed by E. Ayalon and N. Bashkin-Yosef, with the assistance of L . Padrul-Kwitkowski (photography), R. Mishayev (drafting and drawing of finds), E. Ayash and D. Barkan.
An installation that included three adjacent underground pools, which were built in a large pit cut in the kurkar bedrock, was exposed (Fig. 1). The walls of the pools (width c. 0.35 m ), built of small stones and mortar (debesh), were coated with impermeable gray plaster. The floors were plastered on top of a bedding layer (thickness 0.2 m ). Two adjacent pools $(11,13)$ were in the west of the installation and a third pool $(12)$, whose length was identical to the overall width of the two pools, was in the east (Fig. 2). Pool 11 was exposed in its entirety ( $1.25 \times 1.55 \mathrm{~m}, 1.85 \mathrm{~m}$ deep). Two plastered steps were installed in its northeastern corner. Only the northeastern corner of Pool $13(1.05 \times 1.55 \mathrm{~m}$, depth 1.9 m$)$ was cleaned. Pool $12(1.55 \times 2.65 \mathrm{~m}$, depth 1.9 m$)$ was completely cleaned. Its walls were not absolutely straight. Two plastered steps were installed near the middle of the western wall and opposite them, along the eastern wall, was a semicircular settling depression ( $0.17 \times 0.23$, depth 8 cm ). The fill in the pools, particularly in Pool 11, contained numerous potsherds from the Roman period, including open (Fig. 3:1) and closed pots (Fig. 3:2, 8) and lids (Fig. 3:3), jars (Fig. 3:4, 9), a saqiye jug (Fig. 3:5), amphora (Fig. 3:10) and a bottle (Fig. 3:6), as well as the side of a limestone basin (Fig. 3:7), fragments of tiles and heating pipes from a bathhouse, parts of a clay tabun, fragments of millstones and glass vessels and metal slags. Among the noteworthy finds was a heavy jar base from the Iron Age (?; Fig. 3:11). After it broke, its edge was fashioned by chipping as a straight rim and it was probably used as a crucible for smelting metal. An intact Roman lamp (Fig. 4), potsherds from the Iron Age (eleventh-tenth/ninth centuries BCE) and animal bones were discovered on the floor of Pool 11.
Groups of pools, similar in number and characteristics, were in use from the Roman until the Early Islamic periods and many of them were discovered at Caesarea (Patrich J. 1996. Warehouses and Granaries in Caesarea Maritima, in A. Raban and K.G. Holum, eds. Caesarea Maritima, a Retrospective after Two Millennia. Leiden. Pp. 146-176), Shiqmona (Elgavish J. 1994. Shiqmona on the Seacoast of Mount Carmel. Tel Aviv. P. 111, Fig. 87 [Hebrew]), Appolonia (Roll I. and Ayalon A. 1989. Apollonia and Southern Sharon. Tel Aviv. Pp. 60-62 [Hebrew]), Gelilot (ESI 10:120-121) and Ramla (ESI 19:52*-53*). These pools, apparently used for storage, were either covered with a roof or were part of a complete building.

A hewn pit (diam. 1.3 m , depth 1.25 m ) was exposed c. 2 m east of the pool complex. Its fill contained potsherds that dated to the Byzantine period, as well as cow and donkey bones. The pit was sealed with a layer of hard soil and parts of kurkar sandstone, which contained potsherds from the Byzantine and Early Islamic periods, including the rim of a buffcolored Mafjar-type jug, decorated with a mold-made pattern of leaves and geometric designs.


2. The pool complex, looking north.

## Pool 11 בריכה


3. Pottery.


# (Volume No. HA-ESI 120 (2008 <br> <br> Tiberias, Galei Kinneret 

 <br> <br> Tiberias, Galei Kinneret}


1. Plan.

2. Stone 'measuring cup'.

3. Stadium wall with a Byzantine and Umayyad building above it, looking east.

4. Bronze figurine.

5. Columns from the Byzantine and Umayyad periods, looking west.

## Moshe Hartal

During March-June 2002 excavations were conducted in an area slated for a building addition to the Galei Kinneret Hotel in Tiberias (Permit No. A-3607; map ref. NIG 25125/74330; OIG 20125/24330). The excavation, carried out on behalf of the Antiquities Authority and financed by the hotel, was directed by M. Hartal, with the assistance of K. Covello-Paran, Z. Abass, Y Lerer (area supervision), Y. Ya'aqobi (administration), V. Essman, V. Pirsky and T. Kornfeld (surveying and drafting), T. Sagiv (field photography), S. Marco and M. Stein (geology), H. Smithline (studio photography), H. Tahan (drawing), A. Lester (glass and metal artifacts) and G. Bijovsky (numismatics).

An area of c. 950 sq m was excavated in the hotel's courtyard, next to the beach in the southern part of Tiberias (Fig. 1). Nine strata were exposed. In the Early Roman period the site lay outside the city's perimeter and a stadium was erected there, a section of which was uncovered in the excavation. The stadium was used until the third century CE after which it was dismantled. Buildings constructed in its place in the Byzantine period continued to be used in the Umayyad period. They were destroyed in the earthquake that struck in the year 749 CE. In the Abbasid, Fatimid and Crusader periods, when the site was situated outside the city, industrial installations were found there. Subsequently the area was uninhabited until the twentieth century CE.

## The Early Roman period

An accumulation (depth: 2 m ) of pebbles and numerous potsherds from the Early Roman period was exposed in the excavation area. This was apparently deposited as a result of erosion from the adjacent city that had come to rest on the shore of the Sea of Galilee. Stone 'measuring cups' (Fig. 2), which are indicative of a Jewish settlement at Tiberias, were also found in this layer. No building remains or installations were found from the Early Roman period and it seems that this area was outside the city limits at that time.
The only architecture that dated to the Early Roman period was discovered in the northern part of the excavation area. A large edifice (width c. 39 m ) that was built into the pebble layer was revealed. A section of a curved wall (length 15 m , thickness 9 m , height 2 m ; Figs. 3, 4), built of dressed ashlar stones and a fill of fieldstones and hard bonding material, was exposed. A dressed-stone corbel with a hole through it (Fig. 5) was incorporated into the construction on the inside of the wall; something was probably meant to be tethered to this stone. The material that abutted the outer face of the structure contained potsherds from the first century CE, which dated its construction to this time. On top of the wall was a small bronze figurine of a winged-boy that should probably be identified as Cupid (Fig. 6). A large deposit of clay accumulated inside the building, probably due to flooding from the Sea of Galilee after the structure was no longer in use. It seems that the water that penetrated into the building was a result of the seasonal rise of the lake's level which did not drain off because it was blocked by the walls of the building. The clay, which precipitated in the standing water, contained sherds from the third century CE that are similar to those found on top of the wall. These finds date the destruction of the building to the third or the beginning of the fourth century CE.
The plan of the building and the manner of its construction indicate that this was an important public structure in Roman Tiberias, most likely the city's stadium that was built along the shore of the Sea of Galilee, outside the city's perimeter (Life of Flavius Josephus 16, 17). The stadium was used for athletic competitions and horse races, as well as a gathering place for the city's residents on special occasions. Following the naval battle between the Jews and Romans near Migdal, thousands of prisoners were confined in the stadium, some of whom the Romans decided to execute while others were sold into slavery (War of the Jews 3, 10). The stadium is also mentioned in the Jerusalem Talmud (Erubin 5, 1 [22: p. 2]). The length of the stadium is still unknown; however, it was probably several hundred meters long. A section of its curved southeastern foundation was exposed upon which the seats (cavea) were built. After the stadium was no longer in use the seats were dismantled and used as construction material while the massive foundation remains to the present day.

## The Byzantine period

In the Byzantine period the city expanded and a long hall ( $4.80 \times 9.00 \mathrm{~m}$; Fig. 3) was built on the remains of the stadium Its roof was supported by a row of arches whose remains were found along the length of its walls. The hall had two floor levels, a lower one from the Byzantine period and an upper one from the Umayyad period. In the southern part of the area remains of a large building were exposed that also date to the Byzantine period. Its outer wall, which had an entrance, was exposed for a length of 14 m . The wall was built of fieldstones and roughly-hewn stones (length 2.1 m ; Fig. 7); its lower courses were worn down by the waves of the Sea of Galilee. Most of the remains of the building are situated beneath the hotel and therefore were not excavated. Three columns in secondary use (Fig. 8) were set in place on the beach opposite the front of the building; a Nabatean capital was used as a base for one of them (Fig. 9).

## The Umayyad period

Two large buildings from the Umayyad period were discovered in the area. The northern one utilized the foundations of the Byzantine hall, and a number of halls were added to it. The wide eastern wall (length c. 35 m ) of this building was exposed as were several lateral walls ( 8 m ) built of stones bonded with mortar. Only the foundations of the building were exposed; it appears that its upper part was damaged during work conducted at the site prior to the excavation. All that remained of the southern building were the foundations of two of its walls (lengths $4 \mathrm{~m}, 8 \mathrm{~m}$ ) and the entrance threshold. East of these buildings was a pool ( $3.50 \times 5.00 \mathrm{~m}$, depth 1.95 m ) that was built of ashlar stones. The lower course of the pool's eastern wall was built of two rows of column drums (Fig. 10). The walls and bottom of the pool were not treated with plaster; thus it seems that it was built inside the lake, next to the beach, and was used for keeping fish prior to selling them. The spaces between the columns allowed the constant exchange of water without allowing the fish to escape through them.

Evidence of two geologic faults was found in the area (Fig. 11), causing its western side to settle approximately one meter. As a result walls cracked, were shifted from out of place and were tilted on their sides; the southern building was completely destroyed. The fault that passed beneath the southeastern corner of the northern building caused it to sink (Fig. 12). Pottery and bronze vessels that apparently fell at the time of the earthquake were found on the building's floor. These artifacts date to the mighty earthquake that struck on January 18,749 CE, causing significant destruction to many of the settlements in the country, among them Bet She'an.

## The Abbasid period

Occupation in several sections of the area was renewed following the earthquake. Stone-lined septic pits containing artifacts from the Abbasid period were excavated in the northern part of the area. Next to the eastern wall of the northern building a number of installations were constructed, including work surfaces and a stepped pool. A large quantity of pottery vessels characteristic of the period was found in the pool. After the earthquake a large building (length 14 m ), whose foundations were excavated into the alluvium that was deposited by the flooding of the lake, was constructed above the southern building.

## The Fatimid period

An installation consisting of a pool with a large pithos at its side and treated with two thick layers of plaster is ascribed to the Fatimid period. The pool, constructed from column drums from the Umayyad period, was blocked and a small pool that was treated with thick plaster was built above it.
The excavation area was situated outside the city limitsin the twelfth century CE. A double pool ( $2.0 \times 2.5 \mathrm{~m}$; depth 0.3


2. Stone 'measuring cup'.

3. Stadium wall with a Byzantine and Umayyad building above it, looking east.

4. Stadium wall, looking north.

5. Corbel stone on the inside of the stadium wall, looking southeast.

6. Bronze figurine.

7. Walls from the Byzantine-Umayyad periods; the wall on the right was damaged by the earthquake.

8. Columns from the Byzantine and Umayyad periods, looking west.

9. Nabatean capital in secondary use as a column base, looking west.

10. Pool of columns, looking west.

11. Geological fault that shifted strata of the Byzantine period; the upper layers accumulated after the earthquake,
looking south.

(Volume No. HA-ESI 120 (2008
Tiberias, Survey of the Northern Entrance

## Final Report



1. Location map.

During February 2006 a survey prior to development was performed along the routes of Highway 90 and Highway 348 at the northern entrance to Tiberias (Permit No. A-4715*; map ref. NIG 24930-5090/74435-625; OIG 19930-5090/24435-625). The survey, carried out on behalf of the Antiquities Authority and sponsored by the Department of Public Works, was directed by M. Hartal, with the assistance of A. Shapiro.
A section of Highway 90 will run along the eastern edge of Tel Raqqat where remains from the Early Bronze and the Iron Ages were identified. Since walls were discerned during the survey, it seems that the construction of the road will result in serious damage to the site. No ancient remains were found in the other sections.
No antiquities were noted during the examination of Highway 348. It is feared that damage may be caused to Tiberias' cemetery, which is located at the southern end of the road. No tombs were discovered in the survey; a Roman mausoleum, however, was excavated nearby ('Atiqot 38:73*-90*).


1. Location map.

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Tiberias, Khirbat Nasir ed-Din East Final Report
Hanaa Abu-'Uqsa

4. Pottery.

During April 2000, a salvage excavation was conducted at Khirbat Nasir ed-Din in Tiberias (Permit No. A-3218*; map ref. NIG 24985-90/74310; OIG 19985-90/24310) in the wake of construction. The excavation, carried out on behalf of the Antiquities Authority and financed by the municipality of Tiberias, was directed by H. Abu-'Uqsa, with the assistance of L. Porat (area supervision), H. Smithline (area supervision, photography), S. Ya‘aqov-Jam (administration), A. Hajian and N. Kolelle (surveying), H. Tahan (pottery drawing) and D. Syon (numismatics).

A previous excavation at the site (HA-ESI 109:15*-16*) revealed a complex of residential rooms and storehouses from the Roman period (second-third centuries CE). The current excavation, to the west of the previous one, was on a slope covered with much soil that had accumulated in recent years. Two areas were opened, $A$ in the north and $B$ in the south (Fig. 1).
Area A (15 $\times 20 \mathrm{~m}$; Fig. 2). The western squares (D2-D5) were filled with modern refuse and since no building remains were found, their excavation was suspended. Walls (W105, W112, W113) built of a single row of large unworked basalt stones (length $0.7-0.9 \mathrm{~m}$, width $0.6-0.8 \mathrm{~m}$, height $0.2-0.3 \mathrm{~m}$ ) and set on bedrock, were exposed in the eastern squares; they may have served as retaining walls. A few pottery vessels in the fill included a bowl (Fig. 4:1), a cooking pot (Fig. 4:2) and a jar (Fig. 4:3) from the Hellenistic period; a bowl (Fig. 4:4), cooking pots (Fig. 4:5, 6) and jars (Fig. 4:7-10) from the Roman period (second-fourth centuries CE), as well as seven coins. Two coins were close to bedrock (L302) and dated to the last third of the second century BCE-beginning of the first century CE (IAA 102904, 102905). A third coin on bedrock (L303) was embedded in flint and dated to the time of Demetrius II (145-125 BCE; IAA 102906). One of the two coins on surface was from Ashqelon, from the time of Trajan (117/8 CE; IAA 102911) and the other dated to the fourth century CE (IAA 102910). One other coin came from L102 near bedrock. It dated to the reign of Alexander Janneous and was struck in the mint in Jerusalem (104-80 BCE; IAA 102903). A seventh coin, minted in 'Akko (c. 120 BCE; IAA 102907), was recovered from the fill in Square D5.

Area B, 11.5 m south of Area A, was divided into two sub-areas: B1 in the north and B2 in the south.
Two squares ( $5.0 \times 8.5 \mathrm{~m}$; Fig. 3) were opened in Area B1. Two terrace walls, W522 oriented north-south and W523 aligned east-west, which protruded above surface, were excavated. Both were built on bedrock of medium and large basalt fieldstones (0.4-0.6 0.5-0.8 m).
A wall (W509) of unworked basalt stones ( $0.4-0.7 \times 0.6 \mathrm{~m}$ ) and aligned north-south was excavated. It was built partly on bedrock and partly on a floor of tamped earth and small stones that continued east of the wall. An autonomous or Seleucid coin (145-98 BCE; IAA 102908) minted in Tyre and a few potsherds, including a cooking pot (Fig. 4:11), came from the fill near the wall. A jar (Fig. 4:12) was found on the floor east of the wall and below the floor were worn potsherds that dated to the Roman period (second-fourth centuries CE).
A terrace wall (W519), built of unworked basalt stones (length $0.6-0.8 \mathrm{~m}$, width $0.4-0.5 \mathrm{~m}$, height $0.3-0.4 \mathrm{~m}$ ) and oriented north-south, was visible above surface in Area B2 $(10 \times 10 \mathrm{~m})$. The top of another terrace wall (W518), aligned north-south, was exposed in the south of the area. It was built of unworked basalt stones ( $0.3-0.4 \mathrm{~m}$ ) and founded on bedrock. A segment of a channel's (W513) cover that consisted of basalt slabs $(0.2 \times 0.8-0.9 \mathrm{~m})$ was discerned east of the wall.
The tops of walls (W506, W514-W517), preserved a single course high ( $0.2-0.3 \mathrm{~m}$ ), were exposed in the west of the area. The walls were built of a single row of basalt stones, except for W514, which consisted of two rows of stones with a core of smaller stones. Walls 515-517 and the northern face of W514 were positioned on soil, whereas W506 and the southern face of W514 were set on bedrock.
A few worn potsherds that could not be identified were found.
It seems that the excavation was conducted along the fringes of the site. The numismatic finds attest to an occupation in the Hellenistic period. The ceramic finds from this excavation and the previous one point to a massive settlement from the Roman period that dated to the second-fourth centuries CE.


2. Area A, plan.

3. Area B, plan.

(Volume No. HA-ESI 120 (2008
Tiberias, the Scottish Church
Final Report
Zohar Daniel
4/9/2008
During November 2006, a trial excavation was conducted in a lot that belonged to the Scottish Church, north of Tiberias' northern city wall (Permit No. A-4926*; map ref. NIG 2510-19/7438-40; OIG 2010-19/2438-40). The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Scottish Hotel of Tiberias, was directed by Z. Daniel and M. Hartal, with the assistance of Y . Ya'aqoby (administration) and single-parent mothers from Tiberias.

The lot is located on a precipitous slope east of the fortress and north of Tiberias' city wall. A trial excavation in 2002, conducted in the middle of the lot (Permit No. A-3756), revealed a wall and recent tombs. An area ( $3 \times 15$ $\mathrm{m})$ along the eastern fringes of the lot was opened in the current excavation.

No ancient remains or tombs were found. A modern wall, probably the remains of the wall that enclosed the lot, was exposed on the eastern fringe. Several potsherds that dated to the Roman and Ottoman periods, as well as an Ottoman coin, were collected from surface.

The excavated area, situated outside the limits of the city of Tiberias, was never inhabited.

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2. Aerial photograph, looking east.

3. Lined pit, looking west.

5. Flood channel from the Roman period, looking east.

6. Flood channel from the tenth century CE, looking east.

7. Tabun and pottery vessels, looking west.

## Moshe Hartal

During April-May 2005 a trial excavation was conducted followed in September-October 2006 by a salvage excavation in the municipal park in Tiberias (Permit No. A-4886; map ref. NIG 25082/74365; OIG 20082/24365), prior to the construction of an underground car park. The excavations, on behalf of the Israel Antiquities Authority and with the financial support of the Tiberias Economics Company, were directed by M. Hartal, with the participation of E. Amos, A. Najjar and F. Abu Zeidan (area supervisors) Y. Yaakoby (administration), V. Essman and V. Pirski (surveying), Y. Arnon (pottery reading), D. Syon (numismatics) and the Sky Balloon Company (aerial photography).
The trial excavation revealed that the remains were covered with a layer of soil (thickness c. 1.50 m ) that was devoid of finds; this layer was removed by means of mechanical equipment. The salvage excavation was conducted in the southern part of the municipal park (Area D in the trial excavation).

The remains of a residential quarter (Figs. 1, 2) were exposed which was established in the ninth century CE in the northwestern corner of ancient Tiberias. Its walls were built of mud bricks set on a foundation of fieldstones and roughly hewn stones. The bottom parts of the walls were built of roughly hewn basalt and ashlars stones in secondary use. These were made of dry construction, without bonding material, and were set in shallow trenches as a foundation for the mud-brick walls that did not survive. Clay was applied to most of the walls and a few of them were treated with white plaster. No dressed stones were found in the openings and it seems that the doorframes were made of wood. It is also apparent that the windows were similarly framed even though the walls were not preserved to the height of their sills. The floors were mostly made of tamped earth, while only a few were made of flagstones that were randomly arranged. With the exception of one courtyard, no stone floor was found that covered an entire room. This may indicate that these were used as work surfaces in the courtyards where tamped earth floors were placed. It can reasonably be assumed that the roofs of the house were also made of tamped earth that was placed on wooden beams and reeds.
No overall plan was noted in the neighborhood, nor was it possible to discern streets or alleys. Moreover it seems that buildings were added or enlarged over time based on the ability to do so, without any central planning. Next to most of the buildings were round pits that were dug in the ground and lined with basalt (Fig. 3), without plaster or a floor. Similar pits were found in strata contemporary with the Abbasid period elsewhere in Tiberias; they were probably used as septic pits. Tabuns (Fig. 4), millstones and grinding bowls were found in the courtyards. The finds included storage vessels, cooking vessels, tableware, clay lamps, fragments of clay figurines and glass and metal vessels. Practically no expensive tableware was discovered. Strings of perforated shells were used as jewelry. The artifacts that were recovered in the excavation indicate that the people who resided here, on the fringes of the city, belonged to the lower class.
The neighborhood was uninhabited prior to the Abbasid period. Beneath the buildings was a layer of clayey soil, an accumulation of wadi cobbles and potsherds, most of which date to the Late Roman period with a few from the Early and Middle Roman, the Byzantine and Umayyad periods. It seems that these potsherds were deposited by the flood waters and they originated from nearby settlement layers whose location has not yet been determined. A similar phenomenon was also noted in other excavations in the city. In the Roman period a shallow lagoon probably formed in the northern part of Tiberias, which gradually became blocked. In the excavation a channel that contained wadi cobbles and potsherds that date to the Roman and Byzantine periods (Fig. 5) was discerned which cut through the layers of clay. It seems that the area, which was first inhabited in the ninth century CE, was damaged by a flood in the tenth century CE. At this time a number of structures were destroyed and a new channel (Figs. 6, 7) was created that ran parallel to the channel of the Roman period which was blocked by houses built over it. The sides of the new channel were reinforced with stone construction; the buildings adjacent to it were abandoned and others were built some distance away. In the eleventh century CE the area along the channel was flooded once again but it does not seem that much damage was caused at that time. The western part of the area was deserted for some reason in the tenth century CE, perhaps stemming from the flood damage to the buildings which were not renovated. In the eastern part a new building was erected that was better constructed; it included a number of rooms and a courtyard, part of which was paved with basalt stones. A staircase was built (Fig. 8) along one of the walls, and along another wall were two tabuns and round containers surrounded by ash (Fig. 9).

The building existed for a prolonged period during which walls were destroyed, others were built and floors were raised On one of the floors were the remains of a fierce conflagration.

At the beginning of the eleventh century CE the neighborhood was abandoned together with other quarters of the city. It seems that a deterioration of the security situation necessitated the consolidation and fortification of the city, a step that left the deserted neighborhood outside the city limits.


2. Aerial photograph, looking east.

3. Lined pit, looking west.

4. Iabun in courtyard, looking east.

5. Flood channel from the Roman period, looking east.

6. Flood channel from the tenth century CE, looking east.

7. Tabun and pottery vessels, looking west.

8. Staircase and tabun in a courtyard, looking north.

9. Tabun in a courtyard, looking east.

## (Volume No. HA-ESI 120 (2008

## Tiberias, the Scottish Church

Final Report
Moshe Hartal and Zohar Daniel
20/11/2008
During March 2007, a trial excavation was conducted in a lot that belongs to the Scottish Church (Permit No. A-5025*; map ref. NIG 251000-276/7438-40; OIG 201000-276/2438-40), prior to the construction of a new hotel wing. The excavation, undertaken on behalf of the Antiquities Authority and underwritten by the Scottish Hotel of Tiberias, was directed by Z. Daniel and M. Hartal, with the assistance of Y. Ya'aqoby (administration). The probes, cut with the aid of a backhoe, were cleaned manually by laborers from Tiberias. The work was carried out under the supervision of Rabbi I. Strol, a representative of the Ministry of Religious Affairs.
The lot is located on the slope east of the fortress, north of the Scottish Hotel and west of the MigdalTiberias road. The purpose of the excavation was to locate an area without tombs where construction could take place. Two excavations were conducted here in the past (Permit No. A-3756; HA-ESI 120).
Several walls that dated to the time of the British Mandate were exposed. Stones and walls that seemed to be tombs but could not be excavated due to the objections of the representative of the Ministry of Religious Affairs were also noted. It seems that the area lay outside the limits of Tiberias during all the periods and was vacant of buildings. The construction of the Mandatory-period walls was part of a system of walls used to sub-divide the Scottish Church's land into plots during the time from 1908-1918 and they were apparently responsible for the destruction of the tombs.

The examined area was outside the precincts of the city of Tiberias and devoid of any antiquities.


1. Location map.

2. Site 43 , plan.

3. Site 43, the building, looking north.

4. Site 41, the installation. looking south.

5. Site 3, the inner cell in the cairn, looking west.
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## Timna

## Final Report

Nir Shimshon Paran 30/3/2008
During November-December 2004, a salvage excavation was conducted between Timna and Be'er Ora (Permit No. A-4292*), in the wake of a development survey performed by $Y$. Lender in an area slated for the construction of the new Elat airport. The excavation, carried out on behalf of the Antiquities Authority and financed by the Israel Airports Authority, was directed by N.S. Paran, with the assistance of H. Lavi (administration), A. Hajian (surveying) and Y. Lender.
Seventy-one sites were surveyed in an 8 sq km area ( $1.6 \times 5.0 \mathrm{~km}$; Fig. 1), delimited by the 'Arava road to the west, the Israel-Jordan border to the east, the Be'er Ora waste purification plant to the south and the agricultural fields of Moshav Elifaz to the north. Twelve of the sites were destroyed prior to the excavation, during the construction of the Be'er Ora waste purification plant. The surveyed area mostly extended across the alluvium fans of the Timna, Raham and Ora wadis and the sites were located between the numerous channels that cut through it.
Thirty-eight sites were excavated and twenty-one were cleaned and documented. Forty-four cairns were found, both isolated and in small clusters. In addition, eight buildings, eight installations and twelve cleared surfaces or temporary occupation sites were found. Some of the sites were modern and are not discussed here.

## Buildings

Site 30. Map ref. NIG 200617/403290; OIG 150617/903290. Remains of a semicircular structure open to the south (diam. 1.3 m ) and built of small and medium stones (width $0.20-0.25 \mathrm{~m}$, height 0.3 m ). The interior of the structure was excavated to a depth of 0.2 m ; however, no floors or other finds were discovered. An elongated cairn ( $1 \times 2 \mathrm{~m}$, height 0.4 m ), oriented east-west and built of small and medium-sized stones, was located c. 5 m to the west.

Site 34. Map ref. NIG 200484/403093; OIG 150484/903093. Remains of a circular building (diam. 2.85 m ), whose wall (width $0.3-0.4 \mathrm{~m}$; height 0.35 m ) was built of medium and large stones, some of which were missing. The southeastern quarter of the structure was excavated and the base of the wall was detected at a depth of 0.15 m , without floors or other finds. Another square ( $1.5 \times 1.5 \mathrm{~m}$ ) excavated next to the outer part of the southeastern section of the wall was also devoid of finds. A surface with several stones, possibly the remains of a building was to the southeast of the building.

Site 40. Map ref. NIG 200244/402756; OIG 150244/902756. A horseshoe-shaped building whose opening faced southeast (width c. 1.6 m ); its walls were built of small and medium stones (width $0.2-0.3 \mathrm{~m}$, height 0.25 m ). The interior of the building was excavated to the base of the walls at a depth of 0.2 m , revealing no finds.

Site 43. Map ref. NIG 199788/402728; OIG 149788/902728 (Figs. 2, 3). An elliptical building ( $1.5 \times 1.8 \mathrm{~m}$ ) whose wall (W5; width $0.25-0.35 \mathrm{~m}$, height $0.1-0.3 \mathrm{~m}$ ) was built of a single course of small and medium stones. The interior of the building was excavated to a depth of 0.2 m (L115), revealing the base of a wall, but no floor or other finds.

Site 58. Map ref. NIG 199629/401959; OIG 149629/901959. The survey recorded a U-shaped building at the site. It was opened to the south $(1.0 \times 1.5 \mathrm{~m})$ and built of a single row of medium stones. The site was destroyed prior to the excavation.

Site 67. Map ref. NIG 199580/402595; OIG 149580/902595. A circular building (diam. 3.4 m; Fig. 4), in whose wall (W1; width $0.50-0.65$; height $0.2-0.5 \mathrm{~m}$ ) was an opening that faced south had two large stone doorjambs. The interior of the building (L101) was excavated to the base of the wall (depth 0.1 m ), revealing neither a floor nor other finds.

Site 70. Map ref. NIG 200527/402808; OIG 150527/902808. A circular building or installation (diam. 1.4 m ), whose wall (thickness $0.20-0.25 \mathrm{~m}$, height 0.2 m ) was open to the east. The interior of the building, excavated to a depth of 0.2 m , was devoid of any finds.

## Installations

Site 41. Map ref. NIG 20069/40278; OIG 15069/90278. An elliptical installation (L112; $0.85 \times 1.15 \mathrm{~m}$; Figs. 5, 6) built of a wall (W4; width $0.20-0.35 \mathrm{~m}$, height $0.4-0.5 \mathrm{~m}$ ). The installation was excavated to a depth of 0.4 m , reaching a flagstone floor (L113) that abutted the wall. It seems the installation was embedded in the ground and perhaps served as a granary. No artifacts were discovered.

Site 47. Map ref. NIG 199904/402555; OIG 149904/902555. A slightly curved wall (W2; length 5.3 m , width $0.5-0.7 \mathrm{~m}$, height 0.5 m ; Fig. 7) oriented northwest-southeast and built of large and medium stones arranged in disarray. The interior face of the wall was built and behind it was an accumulation of small stones (L104). The excavation reached the base of the interior wall (L103) where an ash hearth was discovered. The wall was probably part of a copper-production installation. No finds were discovered.

Site 57. Map ref. NIG 199877/402278; OIG 149877/902278. A straight wall (W3; length 3.85 m , width $0.3-0.5 \mathrm{~m}$, height 0.3 m ; Fig. 8), oriented northwest-southeast and built of medium and large stones arranged in disarray. The built interior face of the wall hid behind it an accumulation of small stones. The excavation of the interior face of the wall reached its base (L110), yet no floor or any other find were discovered. The wall was probably part of a copper-production installation.

## Cleared Surfaces/Temporary Habitation Sites

Site 7. Map ref. NIG 200429/404925; OIG 150429/904925. A temporary habitation site ( $10 \times 30 \mathrm{~m}$ ) that included severa stone circles, three of which (west-diam. 0.8 m ; center-diam. 0.8 m ; east-diam. 0.7 m ) were excavated to a depth of c. 0.2 m , revealing no artifacts

Site 9. Map ref. NIG 200648/404674; OIG 150648/904674. Three stone circles (diam. c. 1-2 m) located c. 1 m apart on a surface ( $15 \times 15 \mathrm{~m}$ ) that was cleared of stones. The circles were built of one course of small and medium stones. The interior of the large circle (outer diam. 2.35 m , wall width $0.2-0.3 \mathrm{~m}$, height $0.2-0.3 \mathrm{~m}$ ), excavated to a depth of c .0 .2 m , was devoid of either floors or other finds.

Site 12. Map ref. NIG 200973/404289; OIG 150973/904289. A cleared temporary habitation site ( $20 \times 20 \mathrm{~m}$ ) that had eight concentrations of stones. Two of the concentrations were excavated, revealing no finds. Five depressions (diam. c. 1 m , depth 0.2 m ) were located c .10 m to the west.

Site 22. Map ref. IG 200721/403706; OIG 150721/903706. A cleared temporary habitation site ( $30 \times 40 \mathrm{~m}$; Fig. 9), which included seven small cairns (diam. $0.7-1.0 \mathrm{~m}$, height $0.2-0.4 \mathrm{~m}$ ), two circular surfaces, one of which was excavated and contained no finds and three standing stones (height of middle stone 0.4 m , outer stones 0.3 m ) next to its southwestern corner.

Site 36. Map ref. NIG 200033/402888; OIG 150033/902888. A temporary habitation site on a surface ( $20 \times 30 \mathrm{~m}$ ) where scattered stones and several small stone heaps (diam. 0.5-0.6 m) were found in the western part.

Site 62. Map ref. NIG 199738/401764; OIG 149738/901764. The survey recorded a standing stone at the site, which was supported by several small stones and faced the northwest (height 0.3 m ). The site was destroyed prior to the excavation.

Site 65. Map ref. NIG 199627/401559; OIG 149627/901559. The survey recorded a temporary habitation site on a cleared surface $(10 \times 10 \mathrm{~m})$, with several small stone heaps above it. The site was destroyed prior to the excavation.

## Cairns

Site 1. Map ref. NIG 201584/406774; OIG 151584/906774. An elliptical cairn ( $1.0 \times 1.2 \mathrm{~m}$, height 0.3 m ), built of small and medium stones, was cleaned and not excavated.

Site 2. Map ref. NIG 201329/406803; OIG 151329/906803. Eighteen oval-shaped cairns (diam. 0.5-1.5 m; height 0.4 m ), built of medium-sized stones, were found on an area that measured c. $20 \times 40 \mathrm{~m}$. Three cairns were excavated and contained no finds.

Site 3. Map ref. NIG 200334/405375; OIG 150334/905375. Three elliptical cairns built of medium-sized fieldstones. The cairns stand in an east-west oriented row, $2-6 \mathrm{~m}$ apart (middle cairn $1.0 \times 1.5 \mathrm{~m}$; outer cairns $1.3 \times 2.0 \mathrm{~m}$, height $0.4-0.5$ $\mathrm{m})$. The western cairn was excavated, revealing an inner cell ( $1.2 \times 1.6 \mathrm{~m}$; Fig. 10) that was devoid of finds.

Site 4. Map ref. NIG 20036/40513; OIG 15036/90513. A circular cairn (diam. 2.1 m , height 0.4 m ) built of medium and large stones. The cairn was excavated and contained no finds.

Site 6. Map ref. NIG 200579/404933; OIG 150579/904933. An elliptical cairn ( $1.0 \times 1.7 \mathrm{~m}$, height 0.4 m ) oriented eastwest. The cairn, excavated to the level of natural soil, was devoid of finds.

Site 10. Map ref. NIG 200560/404549; OIG 150560/904549. A rectangular cairn ( $1.0 \times 1.3 \mathrm{~m}$, height 0.5 m ) built of medium-sized stones and oriented east-west. The cairn was excavated and contained no finds.

Site 11. Map ref. NIG 200726/404469; OIG 150726/904469. An elliptical cairn ( $1.0 \times 1.5 \mathrm{~m}$, height 0.6 m ) built of medium-sized stones. The cairn was excavated, revealing the remains of an inner cell (Fig. 11) in its northwestern part, devoid of finds.

Site 13. Map ref. NIG 200099/404223; OIG 150099/904223. An elliptical cairn ( $1.5 \times 2.0 \mathrm{~m}$, height c. 0.7 m ) oriented northwest-southeast and built of medium and large stones. The cairn was excavated, revealing the remains of a small inner cell ( $1.0 \times 1.2 \mathrm{~m}$; Fig. 12), devoid of any finds.

Site 14. Map ref. NIG 200216/404132; OIG 150216/904132. A rectangular cairn ( $1.3 \times 2.0 \mathrm{~m}$, height 0.5 m ) oriented north-south and built of medium and large stones. The cairn was excavated and contained no finds. Remains of another cairn that was not excavated were located c .5 m to the south.

Site 16. Map ref. NIG 200673/403976; OIG 150673/903976. Three elliptical cairns (0.9-1.1 $\times 1.0-1.2 \mathrm{~m}$; height c. 0.5 m ) built of medium-sized stones. The cairns were arranged in a triangle, whose sides were $10-15 \mathrm{~m}$ long. The northern cairn was excavated and contained no finds.

Site 17. Map ref. NIG 200517/403874; OIG 150517/903874. An elliptical cairn ( $0.8 \times 1.3 \mathrm{~m}$, height 0.3 m ) built of medium-sized stones. The cairn was cleaned and not excavated

Site 20. Map ref. NIG 200404/403777; OIG 150404/903777. An elongated cairn ( $1 \times 2 \mathrm{~m}$, height 0.4 m ) oriented northsouth and built of medium and large stones. The cairn was cleaned and not excavated.

Site 23. Map ref. NIG 200343/403678; OIG 150343/903678. An elliptical cairn ( $2 \times 3 \mathrm{~m}$, height 0.4 m ) built of medium and large stones. It was excavated, revealing the remains of an inner cell ( $0.3 \times 0.6 \mathrm{~m}$, depth 0.3 m ) that was devoid of finds. Some 60 m to the north were the remains of four other cairns, aligned east-west and standing in a row. Flooding had damaged the cairns.

Site 24. Map ref. NIG 200279/403743; OIG 150279/903743. Remains of four flat cairns (diam. 1.0-1.5 m, height 0.2-0.3 m ) built of small and medium stones. The cairns, cleaned and not excavated, were standing $5-11 \mathrm{~m}$ apart in a row aligned northwest-southeast.
Site 25. Map ref. NIG 200038/403600; OIG 150038/903600. Three elliptical cairns ( $1.2 \times 2.0 \mathrm{~m}$, height 0.5 m ) built of medium and large stones. The cairns stood in a row, 3-4 m apart and were aligned east-west. The cairns were cleaned; the eastern one was excavated and contained no finds.

Site 26. Map ref. NIG 200626/403556; OIG 150626/903556. An elliptical cairn ( $0.8 \times 1.5 \mathrm{~m}$, height 0.4 m ) oriented eastwest and built of small and medium stones. The cairn was excavated, revealing no finds.

Site 32. Map ref. NIG 200010/403233; OIG 150010/903233. An elliptical cairn ( $1.0 \times 1.2 \mathrm{~m}$, height 0.3 m ) built of medium and large stones. The cairn was excavated and found devoid of artifacts. Remains of another cairn ( $1.0 \times 1.2 \mathrm{~m}$, height 0.1 m ) were discerned c. 5 m to the southeast.

Site 33. Map ref. NIG 200922/403220; OIG 150922/903220. A ruinous cairn that was originally elliptical in shape ( $1.3 \times$ 2.0 m , height 0.2 m ). The perimeter wall was built of medium stones and the core-of small stones. The cairn was not excavated.

Site 35. Map ref. NIG 200555/402796; OIG 150555/902796. An elliptical cairn ( $3.0 \times 5.5 \mathrm{~m}$, height 0.6 m ) mostly built of small stones and soil, with a few larger stones. A probe trench ( $0.6 \times 3.0 \mathrm{~m}$, depth 0.6 m ; Fig. 13) excavated in the center of the cairn was devoid of finds.

Site 38. Map ref. NIG 200094/402806; OIG 150094/902806. Concentration of stones that appeared like building remains across an area c. $10 \times 20 \mathrm{~m}$. A circular installation (diam. c. 0.7 m ), built of medium and large stones, was located between the remains. Several concentrations of stones, devoid of finds, which were probably remains of modern activity, were examined.

Site 39. Map ref. NIG 200221/402807; OIG 150221/902807. A ruinous cairn that was elliptical in shape ( $1.5 \times 2.0 \mathrm{~m}$; height 0.2 m ) and built of one course of small and medium stones.

Site 42. Map ref. NIG 200480/402619; OIG 150480/902619. A ruinous elliptical cairn ( $1.5 \times 2.0 \mathrm{~m}$, height 0.3 m ) that was aligned east-west and built of small and medium stones. The cairn was not excavated.

Site 44. Map ref. NIG 199730/402684; OIG 149730/902684. An elliptical cairn ( $1.5 \times 2.0 \mathrm{~m}$, height 0.5 m ; Fig. 14)
oriented east-west and built of small and medium stones. The cairn was excavated (L129), revealing a small inner cell (L130; $0.3 \times 0.5 \mathrm{~m}$, depth 0.4 m ) that was devoid of finds.

Site 48. Map ref. NIG 200277/402514; OIG 150277/902514. An elliptical cairn ( $1.5 \times 2.5 \mathrm{~m}$, height 0.4 m ) aligned eastwest and built of medium-sized stones. The cairn was cleaned and not excavated

Site 50. Map ref. NIG 199955/402380; OIG 149955/902380. An elliptical cairn ( $1.6 \times 2.4 \mathrm{~m}$, height 0.55 m ) oriented eastwest and built of various sized stones. The cairn was cleaned and not excavated.

Site 52. Map ref. NIG 199781/402341; OIG 149781/902341. A circular cairn (diam. 3 m , height 0.7 m ; Fig. 15) built of medium and large stones that contained a fill of small stones. The cairn was excavated (L108), revealing a built cell (L107; $0.40 \times 0.65 \mathrm{~m}$, depth 0.3 m ) that was devoid of finds.

Site 53. Map ref. NIG 199593/402311; OIG 149593/902311. An elliptical cairn ( $1.2 \times 1.7 \mathrm{~m}$; height 0.4 m ; Fig. 16) oriented north-south and built of medium and large stones. The cairn was excavated, revealing the remains of an inner cell ( $0.3 \times 0.4 \mathrm{~m}$; depth 0.25 m ) that was devoid of finds.

Site 54. Map ref. NIG 199815/402270; OIG 149815/902270. A partly ruinous rectangular cairn ( $0.6 \times 1.5 \mathrm{~m}$, height 0.35 $\mathrm{m})$ built of medium and large stones. The cairn was cleaned and not excavated.

Site 55. Map ref. NIG 200067/402277; OIG 150067/902277. A circular cairn (diam. 1.5 m , height 0.2 m ) built of small stones. The cairn was not excavated.

Site 56. Map ref. NIG 200120/402169; OIG 150120/902169. A flat round cairn (diam. 1.2 m , height 0.2 m ) built of a single course of small and medium stones. The cairn was not excavated.

Site 59. Map ref. NIG 199839/402070; OIG 149839/902070. The survey recorded an elliptical cairn (1.0 $\times 1.2 \mathrm{~m}$, height 0.3 m ) at the site, which was built of medium stones. A similar heap was located c .30 m to the south. The cairn was destroyed prior to the excavation.

Site 60. Map ref. NIG 199966/402042; OIG 149966/902042. The survey recorded a cluster of 5-6 small cairns (diam. $0.5-0.8 \mathrm{~m}$, height $0.2-0.3 \mathrm{~m}$ ) at the site. The cairns were $1-2 \mathrm{~m}$ apart and built of small and medium stones. The site was destroyed prior to the excavation.

Site 61. Map ref. NIG 199715/402000; OIG 149715/902000. The survey recorded six small cairns (diam. 0.6-1.0 m) set in a circle (diam. 10 m ) at the site. Each cairn was built of a single course of medium-sized stones. A cleared surface ( $5 \times$ 5 m ) was located c .10 m to the north. The site was destroyed prior to the excavation.

Site 63. Map ref. NIG 199774/401815; OIG 149774/901815. The survey recorded some ten small cairns (diam. c. 1 m , height 0.2 m ) built of small stones in an area c. $30 \times 30 \mathrm{~m}$. The site was destroyed prior to the excavation.

Site 64. Map ref. NIG 199666/401808; OIG 149666/901808. The survey recorded a flat elliptical cairn (diam. 1.5 m ) at the site, which was built of a single course of small stones. The site was destroyed prior to the ex

The excavated sites and those that were cleaned and surveyed yielded no finds and therefore their dating is unknown. Nevertheless, it is occasionally possible to determine the function of the remains. Sites 47 and 57 were probably part of an installation for copper production and the installation in Site 41 may have been used as a granary.


1. Location map.


1-1
2. Site 43, plan.


4. Site 67 , plan.


6. Site 41 , the installation, looking south.

7. Site 47, plan.


1-1
8. Site 57, plan

9. Site 22, the standing stones, looking northwest.

10. Site 3 , the inner cell in the cairn, looking west.

11. Site 11 , the inner cell in the cairn, looking north.

12. Site 13, the inner cell in the cairn, looking northwest.

13. Site 35 , a section in the cairn, looking west.

14. Site 44, plan.


## 1-1

15. Site 52, plan.

16. Site 53 , the inner cell in the cairn, looking east.
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17. Plan.

18. General view, looking west.

During December 2005 a salvage excavation was conducted on the eastern side of Tirat Karmel, at the outlet of Nahal Gallim (Permit No. A-4645*; map ref. NIG 19790-800/74062-70; OIG 14790-800/24062-70), in an area where a public library is to be constructed. The excavation, carried out on behalf of the Antiquities Authority and funded by the municipality, was directed by A.S. Sa'id, with the assistance of S. Ya'aqov-Jam (administration) and A. Shadman.
Four squares were opened in the middle of the area where probes had previously been dug. At a depth of 0.4 m below surface, three foundation courses of a rectangular building ( $6.5 \times 7.5 \mathrm{~m}$; Fig. 1) that were founded on top of stream alluvium and pebbles (Fig. 2) were exposed. In the northeastern and southeastern corners of the building two sections of stone pavements $(1.35 \times 1.40 \mathrm{~m})$ that were probably used as a base for pillars of an arch or vault were exposed. Abutting the southern wall (W2) of the building was an additional wall (W3) that did not appear to constitute part of a clear plan. No partition walls were found inside the building and modern sewage pits built of concrete were discovered outside its southwestern and southeastern corners.

The finds recovered from inside (L110) and outside the building (L109) included a few fragments of Roman, Crusader and Ottoman-period pottery that were not found in a clear context. The excavation was suspended after it was determined that the structure dated to the 1940 s and was built of ancient stones in secondary use.


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## Tirat Karmel

## Final Report

Orit Segal


1. Plan and sections.

2. General view, looking west.

3. The southwestern section, W237, looking southeast.

4. Pottery.

5. Grave 275 , looking south.

During September 2005, a salvage excavation was conducted at Tirat Karmel (Permit No. A-3945*; map ref. NIG 19780/74085; OIG 14780/24085), prior to the construction of a residential building. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Almog Company, was directed by O. Segal, with the assistance of S. Ya'aqov-Jam (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (field photography), E. Belashov (drafting) and M. Shuiskaya (pottery drawing).
East of the current excavation area, another excavation had been carried out in the past (HA-ESI 118).
The lot was damaged in the west by pits that were filled with construction debris and in the east by development work. Ten squares were opened in the excavation area ( $16 \times 16 \mathrm{~m}$ ), revealing walls dating to the Byzantine period and tombs that were not excavated.
The Byzantine Complex (Figs. 1, 2) included an infrastructure of fragmented walls that was oriented east-west and built on natural, tamped clay soil. The walls formed a square enclosure, possibly an open courtyard ( $12 \times 12 \mathrm{~m}$ ), around which rooms can be reconstructed and within which later graves, also oriented east-west, were located. The western part of the complex (length 12 m ) included Walls 226 and 237, which were found leaning on their sides, probably due to soil erosion along the slopes of the Karmel ridge (Fig. 3). In the northwestern part of the area the connection between Walls 224 and 226 was severed by a later disturbance of walls (W214 and possibly W215).
The eastern part of W224 (length 10 m ) was severed by a later disturbance. The southern wall (W228) was also severed and its continuation eastward was not located. It seems that the eastern part of the complex was destroyed by modern development activity.
Wall 266, which was parallel to W228, formed a long narrow room (L269; width 1.4 m ) that may have been a storeroom. To the south of this room, another room (L220), which was survived by a column base, can be reconstructed, extending as far as the damaged eastern area. A curved wall (W267), probably part of an installation, was exposed north of W266 and next to W237.
The room in the southwestern corner of the complex (L222) was situated outside the southwestern corner of the courtyard.

The pottery finds were dated to the fifth-sixth centuries CE. Noteworthy were the imported bowls from Phokaia (Fig. 4:111) and Cyprus (Fig. 4:12-26) and the African Red Slip bowls (Fig. 5:1-3). Other ceramic finds included a local Galilee bowl (Fig. 5:4), a krater (Fig. 5:5), Syrian mortaria (Fig. 5:6, 7), a cooking krater and cooking pots (Fig. 5:8-10) and jars, among them a Byzantine jar (Fig. 5:11), northern jars (Fig. 5:13-15) and a Gaza jar (Fig. 5:16). The variety and quantity of imported bowls are indicative of a farmhouse or an estate complex. The absence of transition types dates the complex only up to the fifth-sixth centuries CE, prior to the end of the Byzantine-beginning of the Early Islamic periods.

Burial Field. Ten pit graves were found dug in the ground. Each grave was surrounded by small fieldstones that supported covering slabs. The graves were not excavated and no datable artifacts were found. Most of the graves were dug in the area of the open courtyard, at the elevation of the walls' foundation courses. Grave 273 was located north of W224 and beyond the limits of the courtyard (Fig. 6), whereas Grave 275 was incorporated in the northern face of W224 (Fig. 7) and may possibly indicate that some of the graves were dug after the Byzantine complex was no longer in use. Building stones in secondary use were placed as covering slabs on some of the graves (Fig. 8).
The modern disturbance in the western section of the excavation, which destroyed the western part of Grave 274, negated any possibility of dating the tombs to the modern era.
The salvage excavation exposed an open courtyard of a farmhouse or an estate that was surrounded by rooms. Based on the two winepresses found east of the excavation (HA-ESI 118) it is feasible that the building administered the agricultural and industrial activity in the region. The graves in the area were dug after the Byzantine structure was abandoned, at the end of the Byzantine-beginning of the Early Islamic periods. The graves were probably Muslim burials, based on their east-west orientation.


1. Plan and sections.

2. General view, looking west.

3. The southwestern section, W237, looking southeast.


$0 \quad 10$


4. Graves 273 , 274, looking west.

5. Grave 275 , looking south.

6. Grave 260 , looking south.
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7. The survey map.

Oren Zingboym
During July 2005, a survey prior to development was conducted at Umm ed-Dananir northeast of Moshav Yonatan (Permit No. A4554*; map ref. NIG 2760-70/7610-20; OIG 2260-70/2610-20), prior to preparing the area for construction. The survey, carried out on behalf of the Antiquities Authority and financed by the Kolhē Golan Company, was directed by O. Zingboym and A. Shapiro.
The site is located on an easily cultivated basalt hill north of Moshav Yonatan. Surveys that had been performed at the site (ESI 9:7-8; Gregg R.C. and Urman D., Jews, Pagans and Christians in the Golan Heights: Greek and Other Inscriptions of the Roman and Byzantine Eras, Princeton, 1996, p.172) exposed remains from the Late Roman and Mamluk periods that included buildings, masonry stones, tombs and ceramics, as well as potsherds dating to the Early Bronze Age.

The survey was conducted west of the site, adjacent to a trench cut by the Israel Defense Forces and extending as far as the trees planted by the Jewish National Fund (Fig. 1). At the time the trench was cut, cists tombs that apparently belonged to a settlement from the Roman-Byzantine period were damaged in the northern part of the site. Other than a few pottery fragments, no antiquities were found and it seems that the area lay outside the confines of the ancient site.


1. The survey map.
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Yafo, Rabbi Aha Street

## Final Report

Angelina Dagot


1. Location map.

2. Squares B and C, plan.

3. Square A, plan.

4. Pottery.

During March 2006 a salvage excavation was conducted at 8 Rabbi Aha Street in Yafo (Permit No. A-4746*; map ref. NIG 177034/662289; OIG 127034/162289), prior to construction work at the site. The excavation, on behalf of the Antiquities Authority, was directed by A. Dagot, with the assistance of S. Ya'aqov-Jam (administration), V. Essman and V. Pirsky (surveying), T. Sagiv (photography) and M. Shuiskaya (drawing of finds).
The excavation area was located on the eastern slope of Tel Yafo, c. 100 m east of Yefet Street (Fig. 1), where numerous excavations have been carried out recently (Permit Nos. A-2374; A-2629; A-2956; A-3018; A-3163; A3197; A-4312).

The excavation area consisted of three squares (A-C; Figs. 2, 3), in which the remains from five strata that were partly damaged during the construction of a modern building, were identified.

## Square A (Fig. 2)

Architectural remains dating to the Crusader period were not exposed; however, the upper layer of fill in the square (L1800) contained potsherds from the period (Fig. 4:1, 10). A layer of burnt soil fill (L1807) that contained a large quantity of fieldstones, industrial metallurgical debris and fragments of pottery vessels (Fig. 4:6, 11, 13) was ascribed to the seventh-eighth centuries CE. A stone collapse (L1814) in the western part of Square A and a reddish brown layer of hamra fill (L1815), without architectural remains, below the bottom level of the collapse, were ascribed to the Byzantine period. The fill included a large quantity of store jar fragments from the Byzantine period (Fig. 4:12), as well as a number of other vessels from the same period (Fig. 4:2).

Only a few potsherds (Fig. 4:7) from the Hellenistic period were found; no architectural remains were discovered from that period.

## Squares B and C

A channel (L1802; Fig. 3), which most likely conveyed water from a well that was exposed on Rabbi Hananya Street (Permit No. A-4675), was ascribed to the Ottoman period. The channel (length 3 m , inner width 0.2 m , outer width 0.7 m , depth 0.16 m ), oriented southeast-northwest, was built of plastered kurkar stones. Potsherds from the Ottoman period (Fig. 4:9) that dated the last phase of its use were collected from the fill (L1805) inside the channel.

The northern corner of a building (W1824; $0.6 \times 1.9 \mathrm{~m}$, oriented northeast-southwest; W1825, $0.6 \times 2.0 \mathrm{~m}$, oriented northwest-southeast; Fig. 2), built of undressed kurkar stones ( $0.15-0.40 \times 0.2 \mathrm{~m}$ ), was ascribed to the Crusader period. Potsherds from that period were collected from the fill above the walls (L1817; Fig. 4:5) and from fill near W1824 (Fig. $4: 3,4,14)$.

Below the bottom course of W1825 (L1820) was a fill layer that contained potsherds from the Early Islamic period (Fig. $4: 8$ ). Also ascribed to this layer is a small section of a wall (W1826) that was exposed in the eastern part of the square $(0.6 \times 1.1 \mathrm{~m}$; Fig. 3). Unlike Walls 1824 and 1825, W1826 was built of a combination of large kurkar stones and small fieldstones.

The remains of five different layers (Ottoman, Crusader, Islamic, Byzantine and Hellenistic) were identified in the excavation; these were consistent with finds that were recovered from other areas, previously excavated at the site.


1. Location map.


## 1-1

2. Squares B and C, plan.

3. Square A, plan.




4. Pottery.

5. Location map.

6. The complete doorpost.

7. The broken doorpost.

During May 2006, two doorjambs of a large gate were documented on Roslan Street in Yafo (Jaffa; map ref. NIG 177070-124/662308-386; OIG 127070-124/162308-386), while inspecting work for the renewal of pavement. The documentation, on behalf of the Antiquities Authority, was conducted by Y. Arbel and K. Eder'i. Professor M. Fischer of Tel Aviv University, M Peilstöker and T. Shaham of the Tel Aviv-Jaffa Antiquities Museum were consulted with regard to the find.
The development work on Roslan Street is part of an extensive project to rehabilitate and renew the city center of Yafo. The street is located along the northeastern slope of Tel Yafo. The two doorjambs were exposed next to each other inside a mixed soil fill at a depth of 0.4 m below the modern asphalt sidewalk, opposite Sabil Suleiman (Fig. 1). Several potsherds were recovered from the fill, including one fragment from the Ottoman period.

The dressed doorjambs are each carved out of a single block of red granite without decorations. One of the doorjamb, preserved in its entirety (Fig. 2), consists of three parts: a section incorporated in the wall (length 3.77 m , width 0.45 m , thickness 0.3 m ), a main narrower recessed section (length 3.77 m , width 0.34 m , thickness 0.22 m ) and a round engaged pillar, positioned alongside the opening (length 2.98 m , lower diam. 0.37 m , upper diam. 0.32 $\mathrm{m})$. The two ends of the doorjamb exterior parts become flare slightly. The engaged pillar is shorter than the other two parts and it is reasonable to assume that it was placed on a base and a capital that supported an arch or the lintel in the opening was positioned above it. The second doorjamb (preserved length 2.5 m , preserved width 0.82 m ; Fig. 3) is missing one of the ends, the engaged pillar and a section of the middle part. The width of its preserved parts is identical to that of the parts of the complete doorjamb and therefore, it is assumed that the two jambs had originally belonged to the same gate.

Hardly any large architectural elements were discovered in the excavations at Yafo. The origin of the columns, capitals and bases, which are incorporated in the Mahmudiyyeh Mosque, is unclear. Historic evidence shows that the governor Mahmûd Abu Nabut, who built the mosque at the beginning of the nineteenth century, imported to Yafo architectural elements from Caesarea and other Crusader cities. This probably explains how the doorjambs made their way here. They were most likely used as a foundation for the original sidewalk opposite the Sabil Suleiman that was built in 1809, after being rejected for use as doorjambs due to a crack or some other reason.


1. Location map.

2. The complete doorpost.

3. The broken doorpost.

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Yafo
Yoav Arbel


1. Anchor.

During September 2006, D. Schlezinger reported finding an ancient anchor on the Yafo escarpment, next to the water line, following development work that had been conducted in preparation of a park. The anchor was documented by Y. Arbel and L. Rauchberger on behalf of the Israel Antiquities Authority, with the assistance of T. Shaham of the Jaffa Antiquities Museum, and A. Ben Ezra.

The anchor was found in an area that is part of a declared antiquities site where ancient architectural elements had been discovered in the past. However, it was utilized for many years as a refuse site for construction debris and no archaeological excavations were conducted there.

The shape of the beach-rock anchor is trapezoidal (length 0.57 m , upper side 0.32 m , lower side 0.37 m , thickness 0.2 m ; Fig. 1). One of the broad side corners is broken and it is estimated that c .10 cm are missing from it. The narrow side is probably the upper part of the anchor and c. 15 cm below it is a square perforation $(9 \times 9 \mathrm{~cm})$ for tying a rope.

Anchors of similar types were used in various periods and as the anchor was not found within a clear archaeologica context it could not be precisely dated.

The anchor was moved to the Jaffa Antiquities Museum for temporary storage, prior to its transfer to the storerooms of the Antiquities Authority.


1. Anchor.

2. Stratum II, plan and section.

3. Stratum II, Channel 6704, which extends from the Ottoman well, looking east.

4. Strata IV-V, plan and section.

5. Stratum V, Wall 6715 , looking east.

6. Stratum V, Wall 6714, looking north.

## (Volume No. HA-ESI 120 (2008 <br> Yafo <br> Final Report

Amir Gorzalczany
During March 2006, a salvage excavation was conducted on Rabbi Pinhas Street in Yafo (Jaffa; Permit No. A-4751*; map ref. NIG 177006-22/662222-41; OIG 127006-22/162222-41), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and funded by Batē Gan Le-Haskara-Land and Loan Company, was directed by A. Gorzalczany, with the assistance of E . Bechar (administration), A. Hajian (surveying), M. Cohen and M. Bransphiz (preliminary examinations), M. Peilstöker, Y. Arbel, D. Barkan and M. Ajami.

Six excavations were conducted in the past along the borders of the site (Ganor Compound); the first took place in 1995 (ESI 20:47*-49*). Other excavations were conducted close to the compound when the nearby flea market underwent renovation (HA-ESI 111, 113; 'Atiqot 47:193-207). The conclusions of the current excavation refer to a stratigraphic profile, which was compiled in the wake of the many excavations.

Two and one half squares were excavated in the eastern part of the compound, on the eastern border of Area H (Permit No. A-3908). Remains dating to the modern era, as well as the Ottoman (Stratum II), Crusader (Stratum IV) and Early Islamic (Stratum V) periods were exposed.

The entire surface was covered with a thick layer (thickness 0.6 m ) that contained modern building debris and iron scrap.
Stratum II. Remains of an Ottoman well, which local sources claim was used until the latter part of the twentieth century CE, was found. The well is apparently a 'heavy saqiye" type, characteristic of the Yafo region (S. Avitsur, Everyday Life in the Land of Israel in the Nineteenth Century, 1972, p. 220 [Hebrew]). The well was located within a room built of dressed stones with pointed vaults. At some point in time, the vaults facing west were blocked by a built wall. The well was beyond the area slated for development and therefore, not excavated; however, its western façade was documented. A damaged channel, which was connected to the well (L6704; length 4.21 m , inside width 0.6 m , outside width 1.25 m Figs. 1, 2) was exposed. Several potsherds that dated to the Ottoman period were found inside and around the channel.

Stratum IV. A poorly preserved wall (W6710; length 0.55 m , width 0.7 m ; Fig. 3) was discerned in a thin layer. A floor (L6713) of small stones affixed with bonding material abutted the wall. In the absence of potsherds, the stratum was identified as Crusader, based on the architectural parallels and styles of walls from previous excavations.

Stratum V. Several massive walls were exposed at a much lower elevation than the previous stratum. A very fragmented kurkar wall stump, oriented east-west (W6709; length and width 0.4 m ), was exposed in the northwestern square. The wall's western end was missing and its eastern end was hidden in the eastern balk of the square.
The half-square adjacent to the channel consisted of another fragmented wall that was aligned east-west (W6715; length 0.82 m , width 0.53 m ; Fig. 4). Several wall sections that belonged to a corner of a building were exposed in the southeastern square. In the eastern balk of the square was another, mostly plundered, wall (W6714; width 0.7 m ; Fig. 5). All that remained of it was a single course, built of large coarsely dressed stones and aligned east-west. Another wall, oriented north-south (W6716; width 0.7 m ), seemed to form a corner with W6714. Wall 6716 survived by a single course, built of a row of large stones that were arranged widthwise. The walls of the building were apparently robbed in antiquity. A robber trench discerned in the balks of the square was filled with sea sand that stood out against the background of the brown soil, which is characteristic of the region. The channel (bottom width 0.7 m , width near surface 1.2 m ) enabled to reconstruct the route of the wall and the corner of the building.

A few worn potsherds that dated to the Crusader period were found in the fill that abutted the walls of Stratum IV. Noteworthy among them were fragments of kraters and bowls with green and brown glaze, occasionally decorated with sgraffito, as well as jugs and cooking pots, some of which, glazed with a brown zigzag, had a strap handle. The potsherds recovered from Stratum V included fragments of ribbed, buff-colored vessels that dated to the ninth-tenth centuries CE. Prominent in this stratum was the absence of glazed vessels.


2. Stratum II, Channel 6704 , which extends from the Ottoman well, looking east.

3. Strata IV-V, plan and section.

4. Stratum V, Wall 6715 , looking east.

5. Stratum V, Wall 6714, looking north.

## (Volume No. HA-ESI 120 (2008 Yafo, the Flea Market Compound



1. Location map.

2. Rabbi Nahman Street, building remains from the Crusader period, looking east.

3. Rabbi Hanina Street, a well from the Ottoman period, looking north.

4. Rabbi Hanina Street, vats in an industrial building, looking east.

5. Rabbi Hanina Street, remains of buildings from the Hellenistic period, looking north.

Yoav Arbel
8/9/2008
From December 2005 until October 2006, salvage excavations were conducted on four streets in the flea market compound in Yafo (Jaffa; Permit No. A-4675; map ref. NIG 21230-8/62707-12; OIG 16230-8/12707-12), prior to development. The excavations, carried out on behalf of the Israel Antiquities Authority and financed by the Tel Aviv-Yafo Municipality, were directed by Y. Arbel, with the assistance of L. Rauchberger and M. Cohen (area supervision), R. Haim and R. Assis (assistance in area supervision), S. Ya'aqov-Jam and E. Bechar (administration), V. Essman and V. Pirsky (surveying and drafting), T. Sagiv (field photography), Y. Nagar (physical anthropology), C. Raphael (metallurgical laboratory), P. Gendelman (pottery), Y. Gorin-Rosen (glass), D.T. Ariel (numismatics), M. Sadeh (archaeozoology) and G. Finkielsztejn (Rhodian handles). Additional assistance was rendered by M. Peilstöker, T. Shacham of the Jaffa Museum and Y. Drey.
The excavations were undertaken in the southern part of the flea market compound, on Rabbi Nahman, Rabbi Haninah, Rabbi Pinhas and Rabbi Tanhum Streets (Fig. 1). These excavations are an additional phase in a project that includes excavating the streets of the marketplace, where preliminary probes revealed ancient remains (HA-ESI 118). Limitations in the extent and depth of the excavated areas precluded the exposure of complete assemblages and in most cases, bedrock was not reached. Construction and road paving activities from the time of the British Mandate caused substantial damage to the excavation areas. The exposed antiquities included building remains, installations, rock-cuttings, tombs, a road and a city wall. The finds dated to the Iron Age and the Persian, Hellenistic, Roman, Byzantine, Early Islamic, Crusader, Mamluk and Ottoman periods.

Table 1. Preliminary Stratigraphy

| Stratum | Period | Remains |
| :--- | :--- | :--- |
| I | British <br> Mandate | Lime pits, refuse pits and septic pits |
| II | Ottoman | Well, paved road, water channels |
| III | Mamluk | Tombs |
| IV | Crusader | City wall, residential buildings |
| V | Early Islamic | Isolated walls, refuse concentrations, scattered |
| potsherds |  |  |

Table 2. The Strata Exposed in the Different Excavations

| Street/Stratum | 1 | II | III | IV | V | VI | VII | VIII | IX | X | XI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rabbi Nahman |  |  | + | + | + | + |  |  |  |  |  |
| Rabbi Hanina | $+$ | + |  |  | + | + |  | + | + |  |  |
| Rabbi Pinhas |  | + | + | + | + | + | + | + | + | + |  |
| Rabbi Tanhum |  | + | + | + |  |  |  |  |  |  |  |

## Rabbi Nahman Street

The excavation, conducted in a section between 'Ami'ad and Rabbi Pinhas Streets, was limited to a depth of 1.5 m . Seven Muslim pit graves, oriented east-west, were discovered along the street. The graves were found only several centimeters above the floors of the Crusader period (Stratum IV; below) and therefore it is reasonable to date them to the Mamluk period or the beginning of the Ottoman period (Stratum III; fourteenth-sixteenth centuries CE), at which time the site was uninhabited.
Meager construction remains in the northern part of the area belonged to two sub-phases of Stratum IV (twelfththirteenth centuries CE). The remains ascribed to the later sub-phase included tamped-earth floors, wall sections, scattered plaster fragments and simple installations. The earlier sub-phase comprised a wall section built of kurkar masonry stones and a corner of two walls that were built of fieldstones (Fig. 2); it seems that these were the foundations of walls. A large dressed stone, delimited by a stone pavement, was also ascribed to the early sub-phase. The stone was probably used as a column base. In the other parts of the excavation area, floors ascribed to Stratum IV were discovered. Sections of a poured plaster floor were found in the middle of the street while tamped-earth floors occurred in the southern part of the street.
Potsherds dating mainly to the Byzantine (Stratum VI) and Early Islamic (Stratum V) periods, to the Middle Ages and a few to the Hellenistic period, were found below the floors of Stratum IV. A section of a wall built of dressed stones, which was discovered in the balk of the northernmost square, seems to have predated the remains of the Crusader period (Stratum IV).

## Rabbi Hanina Street

The excavation was conducted in the section between Rabbi Ada and Rabbi Pinhas Streets. The upper strata were severely damaged by construction and road paving during the British Mandate. The preserved remains were ascribed to Strata I, II, V, VI, VIII, IX.

Stratum I. Three irregular-shaped pits that contained mostly iron refuse and whose sides were lined with lime were revealed in the middle of the road. The pits caused extensive damage to the remains of the industrial building from Strata V-VI (below).

Stratum II. A well from the Ottoman period, lined with dressed limestone (Fig. 3), was discerned in the southwestern corner of the street. The ceramic finds in the well included a Turkish pipe and gray potsherds of Gaza ware that dated to the Ottoman period. During the British Mandate buildings were constructed above the well.

Strata V-VI. The southeastern part of a large industrial building was exposed in the middle of the street, next to the modern level. The outer wall of the building was wide (c. 0.8 m ) and built of two rows of roughly hewn kurkar stones, bonded with plaster, with a core of fieldstones and soil. Six plastered vats (average dimensions $0.7 \times 1.0 \mathrm{~m}$; Fig. 4) were discovered in the building. Four of them were arranged in a row and the fifth vat, to their east, was connected by a pipe to the western wing of the building, which was not excavated. Part of a stone vault was preserved above this vat. The sixth and southernmost vat was trapezoidal and partly destroyed. The vats were coated with light pink plaster mixed with potsherds. A cloth-dying industry or tannery probably operated in the building, which was located some distance from the city center. It is not possible to date the structure precisely due to lack of finds. However, based on evidence from other excavations in the vicinity, regarding industrial activity in the Byzantine and Early Islamic periods, the building can be dated likewise.

Stratum VIII. Parts of rooms that apparently belonged to a residential building were discovered in the middle and the northern end of the street. The walls of the rooms were built of kurkar and founded directly on bedrock or in shallow foundation trenches that were hewn in bedrock (Fig. 5). Crumbled mud bricks, which were revealed on the floors of the rooms, indicate that the upper courses of the walls were apparently built of this material. The ceramic finds that dated to the end of the Persian period and the beginning of the Hellenistic period (the Ptolemaic dynasty; fifth-third centuries BCE), included a variety of storage and serving vessels, intact lamps and stamped handles. Some of the vessels were imported from the Greek islands, Cyprus and Egypt. The finds recovered from the excavation are important, since only a few artifacts have been retrieved, so far, from several probes that were dug in the market compound.
Stratum IX. Part of a large well-preserved structure that was founded on the kurkar bedrock was discovered. The outer western wall (length 6.3 m ) of the structure, as well as parts of the southern and northern walls (each c. 3.5 m long) whose continuation was buried beneath modern buildings, were exposed (Fig. 6). The walls of the structure were built of fieldstones bonded with plaster and plastered on the inside. The structure was probably used as a water reservoir or as an industrial installation of some sort. The ceramic finds in the structure were sealed beneath Stratum VIII and dated to the latter phase of the Iron Age or the transition phase from the Iron Age to the Persian period (seventh-fifth centuries $B C E)$.

Rabbi Pinhas Street
Stratum II. A road of tamped earth mixed with lime was exposed in the middle and western part of the street, next to the modern road level. The road was cut by three plastered water channels that were covered with stones. Below the road, potsherds and Marseilles roof tiles that dated the road to the second half of the nineteenth century CE were exposed. It seems that the beginning of the road was at the gate, which was broken into the city wall in the year 1869 (R. Kark, 2003, Jaffa, The Growth of a City 1799-1917, p. 27).

Stratum III. Several shallow Muslim pit graves, aligned east-west, were discovered in the eastern part of the street. The tombs were not excavated, but based on their stratigraphy, style and the potsherds collected in their vicinity, they can reasonably be dated to the Mamluk period or the beginning of the Ottoman period.

Stratum IV. At the eastern end of the street, a section of the eastern city wall of the Crusader period was exposed (Fig 7). The exposed wall's foundation (width 2.5 m , height 2.7 m ) protruded from the city wall built on top of it. The outer face of the city wall consisted of kurkar masonry stones and the inner face was constructed from large fieldstones mixed with soil and plaster. The wall was preserved two courses high. Potsherds that dated to the Hellenistic and Roman periods were discovered below the foundation level. It can be assumed that the continuation of the wall was incorporated in the remains of the gate from the Crusader period, which had been exposed in the past c .16 m north of the excavation, at the eastern end of the Olē Ziyyon Street.

Strata V-VI. Two sections of walls, ascribed to different, poorly preserved buildings, were exposed. In addition, debris concentrations that contained large amounts of potsherds from the Byzantine and Early Islamic periods were uncovered.

Stratum VII. Three pit graves were discovered in the eastern part of the street. The level of these graves was deeper than that of the Muslim graves in Stratum III and their orientation was different. These tombs were not excavated; however, they were dated to the Early Roman period and possibly also to the Hellenistic period, based on the ceramic finds in the stratum. At the western end of the street, a single well-built cist tomb that was covered with kurkar masonry stones was discovered (Fig. 8). The tomb was breached and had probably been looted. Some of the tomb's cap stones were discerned nearby. The tomb was not excavated; however, its construction and elevation, as well as comparing it with similar tombs that were exposed in the nearby excavations of the Ganor compound (ESI 20:47*-49*), indicate that it should be dated to the Roman period. Potsherds that apparently dated the looting of the tomb to the Mamluk period were discovered between the cap stones lying near the tomb.

Stratum VIII. Remains of buildings, installations and tamped-earth floors that were probably part of a residential complex from the Hellenistic period were exposed in the middle of the street, near the corner with Rabbi Hanina Street. Most of the walls were dismantled during the Middle Ages but their robber trenches were quite apparent (Fig. 9). The exposed earthen floors in the stratum were founded on natural soil.

Probes conducted below Stratum VIII revealed fragments of pottery vessels that dated to the transition phase between the Iron Age and the Persian period (Strata IX-X).

## Rabbi Tanhum Street

In the north of the street, at a depth of 1.5-2.0 m below modern surface, remains of two rooms that belonged to the same residential building were exposed (Stratum IV; Fig. 10). At least two phases of construction were discerned in the remains. The walls were built of kurkar masonry stones. Incorporated in one of the walls was a square stone door that originally came from a Jewish burial cave, as indicated by the menorah engraved in its center. A large stone basin, equipped with two handles and two gutters, whose function is unclear, was exposed among the remains of the rooms. The ceramic finds dated to the twelfth-thirteenth centuries CE and included storage and serving vessels, many of which were glazed. Some of the vessels were imports from Europe and Egypt. Among the artifacts were arrowheads and coins that dated to the same period. At the northern end of the street, a Muslim pit grave that dated to the Mamluk period or the beginning of the Ottoman period was discovered.

The results of the excavations in the southern part of the flee-market compound are rather consistent with the results of excavations elsewhere in the compound. Their main contribution lies in providing additional information about the nature of this section of the city during the different periods. The excavations also contributed to the understanding of urban development processes and what influenced them. The assumption that throughout different periods Yafo had a kind of lower city, at the same time that the tell maintained its status as the urban center, was also corroborated. This was the situation in the early part of the Hellenistic period, in the Byzantine period when industrial activity was conducted in the lower city and in the Crusader period, when the area was fortified for the first time. During other periods the area was used for agriculture or burial. The remains and the artifacts from the excavations are in keeping with the information from the historical sources regarding the changes that occurred in the city throughout the periods. The urban compound spread to areas east of Tel Yafo at times of political stability and economic prosperity, even if they were short-lived. The lower city was abandoned and the area was used for burial during less stable periods, for example during the conflict between the Seleucids and the Hasmoneans and at the time of the Jewish revolts against Rome, or during times of social and economic depression in the country, such as the Mamluk period and the beginning of the Ottoman period.


1. Location map.

2. Rabbi Nahman Street, building remains from the Crusader period, looking east.

3. Rabbi Hanina Street, a well from the Ottoman period, looking north.

4. Rabbi Hanina Street, vats in an industrial building, looking east.

5. Rabbi Hanina Street, remains of buildings from the Hellenistic period, looking north.

6. Rabbi Hanina Street, section of a plastered structure from the Iron Age, looking west.

7. Rabbi Pinhas Street, section of the city wall from the Crusader period, looking east.

8. Rabbi Pinhas Street, built cist tomb from the Roman period, looking southwest.

9. Rabbi Pinhas Street, robber trench of a wall from the Hellenistic period, looking south.

10. Rabbi Tanhum Street, remains of rooms from the Crusader period, looking west.
(Volume No. HA-ESI 120 (2008 Yafo, Giv'at Aliya Final Report

Lior Rauchberger


1. The well and the iron ladder alongside its wall.

During November 2006, a well was recorded in the storeroom of a house at No. 5 Yanush Korchak Street in the Giv'at Aliyah neighborhood of Yafo (Jaffa), following a report submitted by Z. and A. Abukasis. The well was documented by L. Rauchberger, on behalf of the Israel Antiquities Authority, with the assistance of D. Barkan.

The well is built of dressed kurkar masonry stones, reinforced with plaster (diam. 3 m , depth c. 35 m ). A ladder and a two-inch pipe made of iron are joined to the inside of the well and extend down to its bottom. A concrete and iron casting on the mouth of the well is set on blocks of cement, mixed with seashells.

This type of well is referred to as a 'dry-well'. Its water was pumped with the aid of a motorized mechanism that raised it from a drilling to the level of the water table by means of the pipe, for whose maintenance and operation the ladder was used. Pumping mechanisms such as this were extensively used in Yafo since 1898 and by the First World War, hundreds of 'dry wells' were being operated (S. Avitsur, The Water Resources of the Land of Israel - Their Sources of Production and the Ways They are Used, 1992). The pump is probably earlier and the mechanical mechanism was incorporated in it at a later phase. This assumption requires further investigations in the field and a comparative study of other wells exposed in the city should be undertaken.


1. The well and the iron ladder alongside its wall.

2. One of the walls, looking northwest.

## (Volume No. HA-ESI 120 (2008 Yattir Forest (A) Final Report

Nir Shimshon Paran
During May 2005, a salvage excavation was conducted along the route of the separation fence in the region of the Yattir Forest (Permit No. A-4483*; map ref. NIG 19970-85/58495-505; OIG 14970-85/08495-505). The excavation, on behalf of the Antiquities Authority and funded by the Ministry of Defense, was directed by N.S. Paran, with the assistance of H. Lavi (administration), A. Hajian (surveying) and M. Haiman (photography).

Sections of three walls (Fig. 1), which were built on the northwestern slope of a spur that extended northward, were excavated. These walls were part of an extensive complex of walls and installations, associated with the agricultural activity in the southern Hebron Highlands. Two of the walls, parallel and 10 m apart (length 120 m , exposed length 6 m , width $0.6-0.8 \mathrm{~m}$, height $0.5-1.2 \mathrm{~m}$ ), were built on bedrock of one-two courses of very large fieldstones and oriented southeast-northwest. The walls continued from the top of the spur down to the Eshtamo'a wadi channel at its base. At their upper end these two walls met a third wall (unexcavated) built on top of the spur in an east-west direction. It seems the walls delimited a wide road, possibly a field road, which was flanked on either side by cultivation plots. The third wall (length 17 m , exposed length 4 m , width $0.2-0.3 \mathrm{~m}$, height $0.1-0.2 \mathrm{~m}$ ) was c . 10 northeast of the excavated section of one of the first two walls. It was partly founded on bedrock and partly on soil and consisted of a single course of small fieldstones oriented southwest-northeast. It seems that the third wall was used to collect surface run-off, which may have been conveyed to a water cistern on the slope of the spur that was not identified. A few potsherds, mostly ribbed body fragments, were discovered in the excavation.


1. One of the walls, looking northwest.
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Yattir Forest (B) Final Report
Nir Shimshon Paran

2. Location map.

3. Wall 1, plan and section.

During May 2005 a salvage excavation was conducted along the route of the separation fence in the Yattir Forest (Permit No. A$4485^{*}$; map ref. NIG 20115-21/58515-25; OIG 15115-21/08515-25). The excavation, on behalf of the Antiquities Authority and financed by the Ministry of Defense, was directed by N.S. Paran, with the assistance of H. Lavi (administration), A. Hajian (surveying and drafting) and M. Haiman (photography).
Three walls (W1-W3; Fig. 1), two farming terrace walls (W1, W3) and an enclosure wall of a cultivation plot (W2), were excavated. These walls were part of an extensive complex of terrace walls, enclosure walls and installations connected with agriculture in the southern Hebron Highlands. Wall 1 (length 22 m , exposed length 8 m , with 0.8 m ; Fig. 2) was built of large fieldstones in a wadi channel, founded partly on bedrock and partly on soil and stones. It was generally oriented east-west and preserved three-four courses high (1.0-1.2 m). The bottom part of the wall was built of two rows of stone (height $0.6-0.8 \mathrm{~m}$ ) and its upper part consisted of a single row of stones. Wall 2 was c .5 m north of the western end of W1. It seems this was a short section of an enclosure fence that delineated a cultivation plot in the wadi channel. The wall (length 1.7 m , width 0.9 m ) was founded mostly on bedrock and a small part of it rested on soil and small stones. It was built of fieldstones and preserved two-three courses high ( $0.8-1.0 \mathrm{~m}$ ). Some 30 m north of W2 another section of the fence was visible. Wall 3 (length 35 m , exposed at length 5 m ; Fig. 3), built along a slope that descended westward to the wadi channel, was c. 40 m northeast of W1. Most of the wall was set directly on bedrock and in places where it dipped the wall was founded on soil and small stones. It was built of fieldstones and oriented northwest-southeast. A fill of small stones (width 1.2 m ), which was probably used to level the terrace, ran parallel to the northeastern side of the wall. A few potsherds, mostly ribbed and non-diagnostic, were discovered in the three excavated walls.


1. Location map.


2. Wall 3, plan and section.
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3. Wall 1, plan and section.

4. Wall 1, looking south.

5. Wall 1, looking west.

6. Wall 2, looking south.

During August 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4566*; map ref. NIG 20890/58495; OIG $15890 / 08495$ ), prior to the construction of the separation fence. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).
Probe trenches were excavated in the retaining walls of five farming terraces (W1-5), located in a wadi channel. Farming Terrace 1 (length 7 m , width 1.1 m ; Fig. 1) was built of medium and large stones (max. length 0.5 m ) arranged in four stepped courses (height 1.3 m ; Figs. 2, 3). Terrace Wall 2 (length 12 m , width 1 m ; Figs. 4, 5) was built of large stones (length $0.4-0.8 \mathrm{~m}$ ) that were placed in stepped courses (height 1.2 m ). Terrace Wall 3 (length 24 m , width c. 0.7 m ; Fig. 6) was built of different size stones to a height of 0.6 m . Terrace Wall 4 (length 22 m , width 1.5 m ; Fig. 7) was built of medium and large stones (length c. 0.5 m ) that were arranged in three stepped courses (height c. 0.95 m ). Terrace Wall 5 (length 24 m , width c. 1 m ; Fig. 8) was built of a row of very large stones (max. length 1 m ) with smaller stones inbetween (height 0.6 m ). The excavated farming terraces represent a widespread phenomenon in the region, namely agriculture that was irrigated with runoff in the wadi channels. A few worn potsherds that dated to the Byzantine period were discovered in the excavation. These potsherds and the date of similar farming terraces in the region indicate that the farming terraces at the site should be dated to the Byzantine period.


2. Wall 1 , looking south.

3. Wall 1, looking west.

4. Wall 2, plan and section.

5. Wall 2, looking south.



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10/10/2008

2. Wall 1, looking south.

3. Wall 2, plan and section.

4. Wall 2, looking west.

During August 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4565*; map ref. NIG 2072/5855, OIG 1572/0855), prior to the construction of the separation fence. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A . Hajian (surveying and drafting).

Four squares were excavated along a stone fence that delimited the northern side of an agricultural area ( $160 \times 360 \mathrm{~m}$ ) located on a slope. A section of the fence (W1-4; Figs. 1-9), which was built of one or two rows of different size fieldstones (max length 0.8 m ) that were placed on bedrock (max. depth below surface 0.2 m ), was exposed in each square. Shallow farming terraces (length $5-30 \mathrm{~m}$, width c. 1 m , height c. 0.5 m ) were visible within the agricultural area, which is characteristic of the Yattir region. No datable artifacts were discovered in the excavation; however, comparing the plot to similar plots in the region suggests a date in the Byzantine period.

678.00
677.00


1-1

1. Wall 1, plan and section.


2. Wall 2, looking west.
$\approx$


3. Wall 3, looking south.

4. Walls 3 and 4, looking south.


5. Wall 4, looking south.
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## Final Report

Mordechai Haiman
11/10/2008


1. Plan and section.

2. The excavation area, looking north.

During May 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4512*; map ref. NIG 1993/5846, OIG $1493 / 0846$ ), prior to the construction of the separation fence. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).
The excavation was undertaken where a farming terrace (W1) joined an enclosure wall of a cultivation plot (Figs. 1-3). Wall 1 was built of different size stones (max. length $0.2-0.7 \mathrm{~m}$ ) and stood 0.4 m high. The farming terrace was c .0 .8 m wide and the soil in the terrace was c. 0.4 m deep. The wall enclosing the cultivation plot was built of large stones (max. length 1 m ) that were placed on bedrock.


2. The excavation area, looking north.

3. The excavation area, looking south.

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Mordechai Haiman
During June 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4509*; map ref. NIG 1995/5850, OIG $1495 / 0850$ ), prior to the construction of the separation fence. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).
The excavation was undertaken in an ancient cultivation plot (c. $110 \times 120 \mathrm{~m}$ ), which was delimited by a stone wall. Within the cultivation plot were shallow farming terraces (length 3-30 m). Probe trenches were excavated along the wall (W3; Figs. 1-4) that delineated the area and in one of the farming terraces (W2). Wall 3 was built of a single row of large stones (length c. 1 m ), placed on bedrock (depth below surface c. 0.2 m ). Wall 2 (length 23 m , width c. 1 m ; Figs. 5-7) was built of different sized stones (max. length 0.2 m ). The maximum depth of the soil in the terrace was 0.4 m . No datable artifacts were discovered in the excavation. Similar cultivation plots in the region were dated to the Byzantine period, based on the ceramic finds and it is therefore, possible to ascribe the current excavated area at the site to the same period.

3. Wall 3, looking east.

4. Wall 3, looking south.


2. Wall 3 , looking southeast.

3. Wall 3 , looking east.

4. Wall 3, looking south.


1-1
5. Wall 2, Plan and section.

6. Wall 2, looking north.

7. Wall 2, looking north.


1. Cave 100, plan and section.

2. Cave 101, looking south.

3. Cave 102 , general view to the south.

4. Quarry 106, looking northwest.

5. Winepress 300 , looking north.
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Final Report
Mordechai Haiman
11/10/2008
During August-September 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4575*; map ref. NIG 20750/58495; OIG 15750/08495), prior to the construction of the separation fence. The excavation, carried out on behalf of the Israel Antiquities Authority and funded by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).

Two natural caves that were converted into dwellings by means of crude quarrying (100, 101), a rock-hewn burial cave (102), a quarry (106), two farming terraces (107, 110), a stone fence (112) and a rock-hewn winepress (300) were excavated. It seems that the excavation area was part of the agricultural hinterland of Horbat 'Anim (Khirbat Ghuweina), located c. 150 m north of the excavation. Although no ceramic finds were discovered in the excavation it can be assumed that the burial cave, the winepress and the quarry date to the Roman and Byzantine periods. The two cave dwellings were in use until the War of Independence and the farming terraces are still being used by the residents of Horbat 'Anim.
Caves 100 and 101 (Cave 100-3 $\times 5 \mathrm{~m}$, height 1.5 m ; Cave 101-c. $2 \times 3 \mathrm{~m}$, height 1.5 m ; Figs 1-5). The ceilings of the two caves collapsed. Their bedrock floors were discovered at a depth of $0.4-0.5 \mathrm{~m}$ below surface. A layer of ash (thickness $3-5 \mathrm{~cm}$ ) was found on the floors of the two caves and above it was an accumulation of earth and stones. The opening of Cave 101 was rectangular (width 0.9 m ). The surface area around Cave 101 was enclosed by a stone fence. The two caves were apparently used as dwellings by shepherds until 1948.

Cave 102 (Figs. 6, 7). Remains of a burial cave that was not completely quarried. Below the bedrock-hewn opening (c. 1 $\times 2 \mathrm{~m}$, depth c .1 m ) was a natural void (c. $1 \times 2 \mathrm{~m}$ ), with no other signs of quarrying and devoid of any artifacts. The opening is characteristic of arcosolium burial caves, yet the soft bedrock beneath it was apparently unsuitable for further quarrying.

Quarry 106 (Figs. 8, 9). Remains of rock-cuttings ( $1-3 \times 2-4 \mathrm{~m}$, max. depth 1 m ) were exposed over a distance of c .70 m . In one section of the quarry ( $6 \times 8 \mathrm{~m}$, depth 0.6 m ) building stones had been hewn, as evidenced by quarrying marks of large stones $(0.4 \times 0.6 \mathrm{~m})$ and severance channels (width 0.1 m$)$.

Farming Terraces 107 and 110 (Terrace 107-length 30 m ; Terrace 110—length 32 m ; Figs. 10-12). The retaining wall of Terrace 107 was built of a row of fieldstones (length c. 0.3 m ), one course high. The retaining wall of Terrace 110 was built of one course of various size fieldstones to a maximum of three courses high.

Stone Fence 112. The fence was built of one or two courses of stones (max. length 0.3 m ) at the bottom of a slope. It delimited a cultivation plot ( $45 \times 90 \mathrm{~m}$ ).

Winepress 300 (Fig. 13). The bedrock-hewn winepress included a rectangular treading floor ( $1.8 \times 3.2 \mathrm{~m}$, depth 0.2 m ) and a square collecting vat $(0.7 \times 0.7 \mathrm{~m}$, depth 0.6 m$)$.




4. Cave 101, looking south.

5. Cave 101.

6. Cave 102 , general view to the south.

7. Cave 102.


9. Quarry 106, looking northwest.


11. The retaining wall of Farming Terrace 110, plan and section.

12. The retaining wall of Farming Terrace 110, looking southwest.

13. Winepress 300 , looking north.

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Mordechai Haiman
During August 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4540*; map ref. NIG 2078/5848, OIG $1578 / 0848$ ), prior to the construction of the separation fence. The excavation, undertaken on behalf of the Antiquities Authority and underwritten by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).
Three retaining walls of farming terraces (W1-W3) were excavated in a section of a wadi channel (length 55 m , width 35 m ) that descends from east to west and is surrounded by a stone fence. A rock-hewn pressing installation was also documented.

The three walls, aligned north-south across the width of the wadi channel, formed dams (Figs. 1-5). They were built of a row of large stones placed on bedrock (Wall 1-length 31 m , height 0.8 m ; Wall 2-length 31 m , width 1.6 m ; Wall 3length 21 m , height 0.9 m ). The walls were supported on their western side by a tamped fill of small stones (width 1.0-1.5 m ). The pressing installation was hewn in a large bedrock block ( $\mathrm{c} .2 \times 2 \mathrm{~m}$; Fig. 6) that had rolled down from the adjacent slope onto Terrace 3. The installation consisted of two hewn circles (diam. 0.45 m , depth 2-5 cm).

The excavated wadi-channel section is an example of agriculture in wadi channels that was commonly practiced in the Yattir region and as far south as the Negev Highlands. It is customary to date the farming terraces in the wadi channels, based on the farmsteads and watchman's towers discovered in their vicinity that are dated to the Byzantine and Early Islamic periods. The towers revealed in the region of Yattir date only to the Byzantine period and it is suggested that the date of the farming terraces in this region, including those excavated at the site, is also the Byzantine period.

4. Wall 2, looking north.

6. Rock-hewn pressing installation.


1-1

1. Wall 1, plan and section.

2. Wall 1, looking north.


3. Wall 2, looking north.

4. Wall 3 , looking south.

5. Rock-hewn pressing installation.
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6. Wall 1, plan and section.

7. Wall 1, looking west.

8. Wall 2 , looking west.

During June 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4508*; map ref. NIG 19945/58470; OIG $14945 / 08470$ ), prior to the construction of the separation fence. The excavation, undertaken on behalf of the Israel Antiquities Authority and financed by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).
The excavation was conducted in an ancient cultivation plot $(60 \times 110 \mathrm{~m})$ that extended along a slope. The area was enclosed by a stone fence and retaining walls of farming terraces were visible within it. A section of a stone fence that delimited the area (W1) and one of the retaining walls (W2) were excavated. Wall 1 (exposed length 3.5 m ; Figs. 1, 2) was built of large stones (max. length 1 m ) that were set on bedrock (c. 0.2 m below surface). Wall 2 (length 13 m , exposed length 2 m ; Figs. 3,4) was built of small and medium-sized stones to a height of 0.6 m . This cultivation plot is characteristic of the Yattir region. Potsherds dating to the Byzantine period were recovered from similar plots that were excavated in the region.


2. Wall 1 , looking west.

3. Wall 2, plan and section.

4. Wall 2, looking west.
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1. Fence 1, plan and section.

2. Wall 1, looking south.

3. Cave 2, looking north.

4. Wall 3, looking northwest.

Mordechai Haiman

30/11/2008
During July-August 2005, an excavation was conducted in the Yattir Forest (Permit No. A-4539*; map ref. NIG 2077/5848; OIG 1577/0848), prior to the construction of the separation fence. The excavation, undertaken on behalf of the Israel Antiquities Authority and financed by the Ministry of Defense, was directed by M. Haiman (photography), with the assistance of A. Freiberg (area supervision) and A. Hajian (surveying and drafting).
A wall (W1) that delineated an agricultural plot, a cave (2), two retaining walls of farming terraces (W3, W4) and a quarry (5) were excavated. The excavated area was located along the fringes of agricultural complexes, which extended across the surrounding slopes.
Fence (1). A probe was cut on both sides of the fence that delimited a cultivation plot, whose size is unclear (Figs. 1, 2). The fence was built of large stones (length $0.5-0.7 \mathrm{~m}$ ) placed on bedrock (c. 0.2 m below surface).

Cave (2). The collapsed remains of a natural cave (presumed diam. 3.2 m , presumed height 1.5 m ; Figs. 3, 4) were exposed. A few pieces of organic material were discovered on the cave's bedrock floor.

Retaining Walls $(3,4)$. Wall 3 (exposed length 4.8 m ) was built of a row of large stones (Figs. 5, 6). Wall 4 (exposed length 7 m ; Fig. 7) was built of small and medium-sized stones (max. height 0.45 m ). Terrace 4 (width c. 1.1 m ) was composed of small stones and soil mixture, overlaying a bedrock surface.

Quarry (5). Remains of a quarry ( $3 \times 4 \mathrm{~m}$ ) that was damaged in the past when a dirt road was built; quarrying lines of a stone block were discerned.


1. Fence 1, plan and section.

2. Wall 1, looking south.


3. Cave 2, plan and section.

4. Wall 3, plan.

5. Wall 4, plan and section.
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Yattir Forest
Final Report
Emil Aladjem
During June 2005, a salvage excavation was conducted in the region of Nahal Yattir (Permit No. A-4496*; map ref. NIG 2054-5/5850-1; OIG 1554-5/0850-1), prior to the construction of the separation fence. The excavation, undertaken on behalf of the Israel Antiquities Authority and underwritten by the Ministry of Defense, was directed by E. Aladjem.

The excavation (c. 25 sq m ) was concentrated along a row of stones (length 30 m ).
A wall built of medium-sized fieldstones $(0.5-0.6 \mathrm{~m})$ and preserved a single course high was exposed. The wall was founded on bedrock or on top of a stone fill that was used to level the natural depressions in bedrock. The wall delimited a courtyard that was probably part of a residential complex located to its north.

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1. Plan of the excavation
areas.

2. Area A, plan and section.

3. Area C, looking west.

4. Area D, plan.

5. General section S1.
lanir Milevski
During July-September 2005 excavations were conducted in Yehud (Permit No. A-4533*; map ref. NIG 18992-19000/6599566000; OIG 13992-14000/15995-16000). The excavation, carried out on behalf of the Antiquities Authority and financed by the Maslavi Construction Company, was directed by I. Milevski, with the participation of E. Bachar and Y. Ohayon (administration), A. Hajian (surveying), T. Sagiv (photography), C. Hersch (pottery and glass drawing), O. Marder (flint implements), L. Zeiger (flint drawing), N. Katsnelson (glass), L. Horwitz and H. Mienis (archaeozoology), Y. Nagar (anthropology), A. Re'em, T. Kanias and A Dekel (Central Region).

The excavations $(80 \times 100 \mathrm{~m})$ were located in the center of Yehud (Zvi Yishay and Yoseftal Streets), c. 200 m northeast of Tel Yehud. The northern part of the area was previously examined ('Atiqot 42:25-34). Four excavation areas (A-D; Fig. 1) were opened and four probe trenches (T1-T4) were dug.

## Area A

In Area A three squares were opened (I-III from north to south; 35.9 m above sea level; to a depth of 0.5 m ; Fig. 2) in which an undulating layer of clay soil (thickness c. $0.2-0.3 \mathrm{~m}$ ) was discovered that contained a large number of potsherds, several animal bones, flint implements and fragments of basalt bowls from the Chalcolithic period (end of the fifth millennium BCE). A number of medium-sized stones were also discovered that may be indicative of building remains.

In Square I a level of potsherds and wadi cobbles (L107) was identified; below it, at a depth of c. 0.3 m , a layer of clayey soil was exposed that contained carbonates and was devoid of artifacts. The layer of finds (L106) in Square III was thicker (c. 0.4 m ). A modern septic pit (L104) was also discovered in the square

Trench T1 $(2.0 \times 0.6 \times 2.0 \mathrm{~m})$ was located east of Area A. No archaeological remains were discovered in it.

## Area B

A square was opened in the southeastern corner of Area B. Finds were revealed in the clayey soil layer ( 35.75 m above sea level). The thin nature of the stratum (c. 0.05 m ) is unclear; it contained a large quantity of potsherds from the Chalcolithic period, a few from the Intermediate Bronze Age and copious amounts of mud-brick material. The eastern side of the square had been disturbed by a modern trench

## Area $C$

In Area C, on the eastern side of the site (between Areas A and B), two squares (I-II) were opened. Artifacts were discovered in a brown undulating layer of clayey soil (thickness $0.6 \mathrm{~m} ; 36.0 \mathrm{~m}$ above sea level); included were a very large quantity of potsherds from the Chalcolithic period, animal bones, a few flint implements, stone objects (Fig. 3), mudbrick fragments and river pebbles. The northern side of Square II was damaged by a modern trench.

Trench T2 $(3.0 \times 0.6 \times 2.5 \mathrm{~m})$ was located south of Area C. No remains were discovered.

## Area D

In Area D two squares were opened in the southwestern corner of the site, in an area where a concentration of human bones was discerned that had been damaged at the beginning of the construction work (Fig. 4). In Square IV, in the northwestern part of the area, two adjacent rectangular cist tombs were exposed (Loci 404, 405; $2.0 \times 2.5 \mathrm{~m}$; Fig. 4:I) They were aligned along an east-west axis and were built of different sized dressed stones. The southern tomb (L404) contained a tamped dark brown soil (thickness c. 0.3 m ) fill with a scatter of human bones representing at least nine individuals, together with Roman, Byzantine and Ottoman period potsherds, glass vessels from the Byzantine period and modern roof tiles. The southern side of the tomb had been damaged during the course of earthmoving work. The northern tomb (L405) contained masonry stone collapse (thickness c. 0.2 m ), scattered human bones representing at least two individuals, potsherds of the Roman, Byzantine and Ottoman periods and a number of pieces of metal and stone jewelry. Fragments of ceramic pipes, plastered sherds and glass industrial debris from the Byzantine period were found in the fill that covered the tombs (L403), indicating that a settlement might have existed there.

In the square to the south of the tombs (II) a single stone and a number of potsherds from the Chalcolithic and Byzantine periods and modern era were discovered. A layer of clayey soil (L402; 37.2 m above sea level) was discovered that was devoid of finds and contained carbonates to a depth of c. 2 m below the surface level.

Trench T3 $(2.0 \times 0.6 \times 2.0 \mathrm{~m})$ was located north of Area D. No remains were discovered.
Trench T4 (2.0 $\times 0.6 \times 2.0 \mathrm{~m}$ ) was located east of Area D. A few potsherds were discovered in the upper 5 cm , whereas the clayey soil below was devoid of finds.

The following picture is derived from the documentation of Section S1 (Fig. 5) at the eastern end of the site (opposite Area C) and the cores that were drilled to the foundations of the buildings and their comparison with the excavation results. The archaeological stratum that is located between $2.5-3.0 \mathrm{~m}$ below the surface level is composed of brown clayey soil. In Section S1, Byzantine potsherds were identified in the upper part of the layer and Chalcolithic potsherds were in its bottom part. Below this stratum there is a layer of clayey soil that is devoid of finds which reaches a depth of 7 m . The layers of hamra and sand begin below the clay.

## Chalcolithic Period

Pottery: The potsherds that were discovered were not worn and occurred in large concentrations; they attest to the existence of a site, the nature of which is not easily understood because of damage caused by earthmoving activity. The assemblages are similar in both Areas A and C ; however, they are not identical. It is not possible to determine if the differences are indicative of a functional or chronological difference. The potsherds include various-sized open $V$-shaped bowls and a number of small bowls decorated with a red-painted stripe on the rim (Figs. 6:1-3; 7:1, 2), small, deep, carinated bowls (Fig. 7:3-5), and vessels with a pedestal such as bowls and/or chalices (Fig. 6:4, 5); most of the latter belong to the connection between the vessel and the pedestal. A large number of cornet bases were found, particularly in Area A (Figs. $6: 6,7 ; 7: 6$ ), as well as several lug handles (e.g. Fig. 7:13) that belong to small bowls or cornets. Other ceramic finds that were recovered included a large quantity of holemouth vessels (Figs. 6:8; 7:7), large neckless pithoi with molded rims (Figs. 6:9-11; 7:8,9) and jars with long or short necks and everted rims (Figs. 6:12; 7:10, 11). Plastic ornamentations appear on the large pithoi and on the jars. Fragments of churns (Fig. $7: 14$ ) were also found in Area C

Flint: Forty-one flint implements were found including primary flakes, flakes and a few blades-bladelets. Three cores and a few denticulated tools were recovered, including two blades and a flake. It should be mentioned that five items were found that had a pale yellow patina; these were knapped using the Levallois technique and are ascribed to the Lower Paleolithic period.
apparently came from nearby Nahal Yehud. Basalt millstones and bowls (Fig. 8:1, 2) and limestone bowls (Fig. 8:3) were also discovered. The basalt bowls belong to a group of pedestaled vessels that have patterns incisid on the rim. Similar potsherds previously found in the exploratory trenches probably belong to the same vessels ('Atiqot 42:29).

Weights: Two weights were found, one a ceramic loomweight (Fig. 8:4), the other made of basalt (Fig. 8:5).
Faunal Remains and Shells: A number of animal bones (65) and two Mediterranean Sea shells (Glycymeris insubrica) were found. All of the bones were covered with lime encrustations; most of them (56) were found in Area C. The faunal remains represent cattle (Bos taurus, 74\%), pig (Sus scrofa, 14\%), goat (Capra hircus) and sheep (Ovis aries, together $12 \%$ ). In addition an adult human tibia was found in Area A together with animal bones; the archaeological context of the tibia could not be ascertained. It was not possible to determine the age and sex of these bones except for a cow which was identified as young, and a goat ( $2-3$ years of age). Despite the small number of bones and the partial sifting that was done, the species represented in the assemblage match faunal assemblages of the Chalcolithic period that were studied by C. Grigson.

## Intermediate Bronze Age (EB IV)

A few potsherds found in Area A and B were identified as jars from the Intermediate Bronze Age. The type of jars and decorations (Fig. 9:1-3) is representative of the "Southern Group". The original context of the artifacts is unclear; they may, however, have been connected to the tombs next to the tell (HA-ESI 116).

## Byzantine Period

Skeletal remains: Finds from the Byzantine period discovered in Area D included animal bones and a few glass fragments. In Area D poorly preserved human bones were found scattered in two tombs and in the fill that covered them (Loci 404, 405). The bones were examined in the field by Y. Nagar and were reinterred in their tombs. They represent at least nine individuals. The bones from L404 represent six individuals, among them a boy (c. 5 years old) and five adults (one 20-30, one 30-40, and three $>15$ years old). A male was identified among the adult individuals. The bones from Locus 405 represent at least three adult individuals (15-20, 30-40, and $>15$ years old); at least one female was identified among them. The tomb was not excavated in its entirety.

Pottery: Most of the potsherds discovered are body fragments of storage jars; also identified were rims and necks of jars dating to the sixth century CE (Fig. 9: 4, 5).

Glass: Fragments of two cosmetic vessels and bluish-green glass debris were found that are indicative of a glass industry in the region. The vessels are made of two parallel tubes used to hold kohl; they belong to vessels that were extremely common in the fourth-sixth centuries CE. Similar vessels have suspended handles and are decorated. One of the vessels (Fig. 9:6) is made of thick pale-green glass and is undecorated. Another vessel (Fig. 9:7) is made of greenish-blue mold-blown glass and is decorated with vertical ridges. Vessels with this decoration are rare in the country.

Three principal habitation periods were identified at the site: Chalcolithic (constituting most of the finds), Intermediate Bronze and Byzantine period. The Chalcolithic settlement probably extended across most of the area; however, it was not possible to determine the nature of it because its remains were removed during earthmoving work. The assemblages of pottery, flint, stone items and fauna are all consistent with Ghassulian assemblages. The Intermediate Bronze Age is represented by a few finds of unclear provenance, whereas in the Byzantine period the site was used as a cemetery of a settlement whose location has not been determined.


1. Plan of the excavation areas.

Area A now

2. Area A, plan and section.

3. Area C, looking west.



## 5. General section S1.


6. Area A, Chalcolithic period pottery.





7. Area C, Chalcolithic period pottery.

8. Area A, Chalcolithic period stone artifacts and weights.

9. Areas A and B, Intermediate Bronze Age pottery (1-3); Area D, Byzantine period pottery and glass (4-7).

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1. Plan of the fort showing excavated areas.

2. Area 5000, plan.

3. Area 7000, collapsed staircase, looking east.

4. Area 9000, plan.

5. Area 1000 , cold plunge bath (L1031), looking northeast.

During June 2007, a fifth and final season of excavations was conducted in the Late Roman fort at Yotvata (License No. G45/2007; map ref. NIG 2043/4217; OIG 1543/9217). The excavation was directed by G. Davies, on behalf of Florida International University and J. Magness, on behalf of the University of North Carolina at Chapel Hill and was funded by the Elot Regional Council, with special thanks to D. Banet, the Toronto Jewish Community, the Foundation for Biblical Archaeology (Sheila Bishop) and the American Schools for Oriental Research (ASOR Heritage Grant). The excavation staff included R. Darby, C. Duncan, B. McCane, A. Ratzlaff and S. Werlin (area supervision), J.S. Bucko (surveying and drafting), J. Haberman (photography), E. Stegmaier (drawing), C. Swan (glass) and R. Halbmaier (animal bones).
Work was continued in the five areas that had been opened in previous seasons (1000, 2000, 5000, 7000, 9000; Fig. 1; $\underline{H A-E S I} 119$ ).

## Area 2000

Two separate trenches were opened in this area (Fig. 2). The first (L2072; $3.5 \times 5.5 \mathrm{~m}$ ) was within the southeast corner tower of the fort, whose walls were mostly intact, except on the east. Above the original Roman floor in the tower, a substantial burnt patch that contained twenty iron nails was discovered on the west (L2076; 76.82 m). The nails came perhaps from a ladder that led to the roof. Below the burnt patch was a fill (L2077; 76.62 m) of black ash and soot, presumably representing the remains of fallen timbers from the floor of the upper story, as indicated by large chunks of charred wood. When the excavation ended we appeared to be just above the original Roman floor, as suggested by the discovery of a coin ( 76.20 m ).
The second trench (L2071; $2.5 \times 6.0 \mathrm{~m}$ ) lay outside the fort, at the junction of W510 and W514. This trench exposed the exterior faces of the curtain wall (W510) and the northern wall of the southeast corner tower (W514), both of which were constructed from irregular fieldstones and coated with plaster. The two lowest courses of W510 comprised a foundation of large fieldstones, projecting slightly from the wall above. Wall 514 was a much thinner tower wall that did not have a foundation. No trace of an external defensive ditch was discerned.

## Area 5000

Work resumed in the entrance corridor to the main (east) gate of the fort and in the room immediately to its north (L5022; Fig. 3). Previous seasons had revealed a large semi-circular niche (L5015) in the east wall of the fort (W517) with a built stone platform in front of it (L5025). Two benches (L5044, L5045), abutting W523 on the north and W525 on the south, flanked the platform and extended into the balk under the Mandatory police station. Four successive plastered floors were distinguished in front of the platform, the lowest of which (L5024; 76.1 m) was excavated this season. Finds associated with this floor included animal bones, pottery, glass fragments, a coin and a possible ballista shot.
Four successive Roman floors were also discovered in the entrance corridor. A partition wall (W532) associated with the third of these floors (L5029) separated the entrance corridor from areas to the south. A stone bench (L5028) lined the entrance corridor, abutting W532.
A thickly plastered surface (L5026; 76.35 m ), corresponding to the uppermost (fourth) Roman floor in the entrance corridor, was exposed in the area enclosed by the projecting piers of the entrance arch. This surface covered the threshold stones of the gate, indicating that by this time the threshold was no longer in use. Three earlier Roman floors abutted the threshold stones, which came to light at 76.29 m (L5030). A large camel bone had been buried under the uppermost of these three floors (L5032), just outside the threshold.
The threshold was constructed from thickly mortared cut stones, consisting of a rectangular block in the center and two carefully worked stones on either side that served as doorjambs and projected inward (west). The doorjambs were worked so that their bases, indicated by deeply cut circular hollows, were several centimeters lower than the elevation of the threshold. This, together with the evidence of semicircular grooves on both stones, indicates that the original fort gate comprised an inward-swinging double-leafed door. As the two uppermost Roman floors covered the doorjambs, this double-leafed gate presumably had gone out of use by the later phases.
Twenty-four iron nails associated with burnt patches, probably from the double-leafed doors, were found lying on the earliest Roman floor inside the gate (L5034; 76.07 m). An iron object that might be the gate's locking mechanism was also found lying on this floor. In addition, the walls just inside the doorjambs of the gate were reddened by intense heat and burning. This is additional evidence for the conflagration that marked the end of this phase, as discovered elsewhere in the fort. A drain (L5036 and L5037) ran under the first (earliest) Roman floor (L5034) in the entrance corridor and out of the gate.
The western balk of Area 5000 preserved evidence of seismic activity after the fort's abandonment. A mud-brick collapse (width 3 courses, height 13 courses) appears to have toppled southward from W523 to rest on top of the uppermost Roman floor (L5018) at its furthest point. The fact that these bricks fell en bloc suggests a single, catastrophic event.

## Area 7000

Work continued in the southwest corner of the fort. A new trench (L7040; $2 \times 4 \mathrm{~m}$ ) was opened north of the Roman room (L7036), west of the staircase by the southwest corner tower (Fig. 4). An entrance with two steps led from this room to a corridor on the north side of W533.
Excavations in the postern gate (L7060) revealed that the staircase consisted of seventeen large stone steps, seven of which were still in situ (Fig. 5). Two sets of stairs were at either end of a central mud-brick platform (W534). Both sets were accessible from the postern gate and turned as they ascended to the central platform.
The postern gate was filled with collapse (Fig. 6). Its frame was built of three courses of fine ashlar stones, each cut in an L-shape to form the doorjambs. The stones were carefully cut and fitted into place, without any visible mortar. The doorway was 0.8 m wide and c. 1.8 m high. Square slots were cut into the east and west walls (W519, W550) of the postern gate, just inside the entrance and c. 0.5 m below the top of the doorway. The slots presumably held a bar to lock the gate. On the west side the slot extended through W550 into the southwest corner tower, so that the gate could be locked from inside the tower. Two horizontal grooves, c. 0.25 m below the slots, seem to have been formed by the repeated blocking of the gate with a wooden panel, which was locked in place by the bar.
The discovery of a thickly plastered Early Islamic threshold (L7082; 77.29 m) indicates that the gate still functioned in the last major occupation phase of the fort. Beneath it, the original Roman threshold was composed of one large stone between the doorjambs (L7090; 76.92 m). At least one floor surface was identified on the inside of this threshold (L7085; c. 76.8 m ). Finds associated with Floor L7085 included pottery, glass, and animal bones, as well as a number of iron fragments representing at least four nails and other door fittings, clustered just inside the gate and on its east side. There may have been earlier Roman floors associated with the gate, but the end of the excavation precluded further exploration.
A new trench (L7041;3 $\times 6 \mathrm{~m}$ ), opened in the southwest corner tower, was accessed from the postern corridor. Excavation in this area was limited to the tower's entrance (width 0.94 m ) and the inner face of its north wall (W551). An Early Islamic floor (L7066; 77.62 m) and four Roman floors were exposed in the tower. At the level of the lowest Roman floor (L7084; 76.70-76.65 m), three crudely cut stone blocks had been laid as a threshold at the entrance to the tower. At this point the excavation ended.

## Area 9000

The area to the east of W536 was a room with a series of Roman floors (Fig. 7). At the beginning of this season, excavations revealed a compact dirt surface that apparently represented the second to lowest Roman floor. The material associated with this surface (L9027 and L9030; c. 77 m ) included coins, animal bones, pottery, glass, and a spindle whorl. The room contained several built features, the most prominent of which was a large plastered hearth (L9026),
enclosed by mud bricks that abutted W539. It was filled with charcoal, ash, burned bones, a date pit, pottery, glass, iron fragments and three coins. The lowest original floor (L9035, L9037; 76.92 m) included a plastered flagstone pavement on the west side of the room that yielded a large number of iron objects, three coins and a gaming piece. Soundings below the earliest floor revealed the gravel leveling bedding, deposited when the fort was originally constructed.
Excavations north of W536 indicated that all but the lowest course of W539 had been removed after the initial construction to create a continuous corridor along the inside of W518 (the west curtain of the fort).
The trench ( $4.5 \times 4.5 \mathrm{~m}$ ) was extended northward to locate the staircase at the entrance to the northeast corner tower. An Early Islamic surface (L9043) was found at 78.40 m . The topmost step of the corner tower staircase was uncovered in situ, immediately west of W553. At the same elevation, the top of a mud-brick platform (L9045) appeared between W552 and W518, analogous to the platforms associated with staircases in other areas (L2019 in HA-ES/ 117). A second step was found immediately to the north of and below the first step (elevation of top step c. 78.19 m ; second step, c. 78.03 m ). Another extension ( $1.25 \times 3.50 \mathrm{~m}$ ), north of the curtain wall (W558) and east of W553, revealed the top of an Early Islamic tabun (L9047; diam. c. 1 m ). Its walls, built of concentric rings of tiles, were covered with plaster; the opening faced west. At this point the excavation ended.

## Area 1000 - the Bathhouse

Excavation continued in the frigidarium and apodyterium, enclosed on the north by W545, on the east by W554 and W556 and on the west by W546 (total dimensions $8.5 \times 9.0 \mathrm{~m}$; Fig. 8). The bath complex was entered on the east through a courtyard paved with finely cut stones (L1032). A low stylobate (W556) of finely cut stones and covered with plaster, marked the boundary between the courtyard and the bathhouse to the west. Six large stone piers, arranged in two rows of three, supported the roof of the frigidarium (L1008) and apodyterium (L1033). The space between the piers formed a passage between the two rooms and presumably served as the entrance to the complex from the courtyard. The walls and floor of the frigidarium were coated with thick hydraulic plaster, whereas the plaster in the apodyterium was thinner and non-hydraulic.
A plunge bath (L1031; depth over 1 m; Fig. 9), enclosed by W554, W557 and W559, was exposed in an extension to the northeast of the frigidarium. Four steps descended to the bottom of the plunge bath along its western side. A crude semicircular mortar and stone wall (W555) was built over the plunge bath after it went out of use. This secondary wall is presumably associated with Bedouin occupation, which was evidenced throughout the bath complex.

Radio-carbon analyses have now clarified the dating of the three major occupation phases in the fort. The first phase, dating to the late Roman period, included four successive floor levels, the earliest ending with destruction by fire and the latest with the abandonment of the fort. The second occupation phase, dated to the Byzantine period (fifth century CE), consisted of relatively ephemeral dirt floors, hearths and thin mud-brick walls. The last and third occupation phase was Early Islamic in date (late sixth or early seventh-eighth centuries CE). It comprised a single occupation level with rooms and installations, enclosed by thin mud-brick walls that abutted the ruined, original fort walls.
Our excavations indicate that staircases were adjacent to each of the corner towers and a double staircase was next to the southwest corner tower and postern. Open corridors ran along the inside of the curtain walls of the fort. Roofed rooms and enclosed open spaces abutted the inner faces of the curtain walls. The large size of the bathhouse suggests that it may have been used by the local population, as well as by travelers along the 'Arava road.
The numismatic evidence shows that the Roman occupation of the fort ended c. 360-370 CE. The paucity of finds associated with the final abandonment points to an orderly evacuation of the garrison. Shortly thereafter, the fort appears to have been damaged by an earthquake, which toppled some of the mud-brick walls and the staircase by the southwest corner tower. With the end of our excavations in June 2007, the Elot Regional Council has assumed responsibility for all future conservation and restoration work at the site.


| Exposed walls 1 | קירות 1 |
| :---: | :---: |
| Conjectural walls | קירות משוערים |
| Exposed walls 2 <br> Mandate walls | קירות חשופים 2 <br> קירות מנדטוריים |
| Is lamic walls | קירות אסלאמיים |
| Square outline | מתאר ריבוע |

1. Plan of the fort showing excavated areas.

## Area 2000 שטח



| Exposed walls |  | קירות חשופים |
| :---: | :---: | :---: |
| Conjectural walls |  | קירות משוערים |
| Islamic walls |  | קירות אסלאמיים |
| Trench/square outline |  | מתאר ריבוע / תעלה |


3. Area 5000, plan.


5. Area 7000, collapsed staircase, looking east.

6. Area 7000, postern corridor, looking south.



Exposed walls 2
Square outline
$\qquad$ קירות מודרניום 2
מתאר ריבוע
8. Area 1000, plan.


# (Volume No. HA-ESI 120 (2008 <br> Zarnuqa <br> Final Report 



1. Location map and previous excavations at the site.

2. Plan and section.

3. Pottery and objects.

Alexander Glick
During May 2006, a trial excavation was conducted at Zarnuqa (the Qiryat Moshe neighborhood) in Rehovot (Permit No. A-4790*; map ref. NIG 180061-73/643131-44; OIG 130061-73/143131-44), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and funded by the contractor A. Cohen, was directed by A. Glick, with the assistance of E. Bachar (administration), A. Hajian (surveying and drafting), T. Sagiv (photography), M. Avissar and P. Gendelman (pottery).
Zarnuqa is located in the western part of Rehovot, near the Yavne-Rehovot highway (Fig. 1). Zarnuqa was a village located in the district of Gaza during the Mamluk and Ottoman periods. Numerous excavations were conducted at the site (Fig. 1) exposing remains of the Byzantine (HA-ESI 114:71*), the Early Islamic (HA-ESI 115:80*) and the Ottoman (HA-ESI 119) periods.
In the excavation one square and two half-squares (Fig. 2) were opened in which remains from the Persian and Ottoman periods were discovered.
In the western part of Square A, a floor made of small and medium-sized stones (L105; 1.30×1.85 m) into which a large fragment of a basalt grindstone was set (Fig. 3:10), was exposed. East of the floor were fragments of pottery vessels, including bowels (Fig. 3:1, 2) and a cooking pot (Fig. 3:4). Next to them, the scant remains of a wall (W6), built of dressed stones and oriented east-west $(0.23 \times 0.70 \mathrm{~m})$, were preserved only a single course high. The pottery from this stratum included a storage jar rim (Fig. 3:6) and fragments of imported amphoras that dated to the Persian period.

Five secondary phases at the site were ascribed to the Ottoman period. The earliest phase (VI) consisted of a stone wall (W5) that was exposed in the eastern corner of Square A. It was built of a single course of two large stones (length 0.52 $\mathrm{m})$ that were aligned north-south and sealed by two floors (Phase IV). On the western side of the wall, in a layer of brown soil, were pottery sherds that dated to the Ottoman period, along with a residual jar sherd from the Persian period (Fig. 3:5). This phase should probably be consolidated with Phase V to which a floor of small to medium-sized stones (LI09; 2 $\times 2 \mathrm{~m}$; Square C) and a hearth in the southern corner belonged. The floor, which was lower than the kurkar floors of Phase VI in Square A, was below Walls 2 and 3. This phase was also dated to the Ottoman period based on an associated bowl sherd (Fig. 3:3).
A structure built of small to medium-sized stones (W2, W3) in Square C should be ascribed to Phase IV. The building contained plaster collapse and was dated by ceramic finds, such as jars (Fig. 3:7, 9), to the Ottoman period. Also attributed to this phase were two crushed kurkar floors in Square A; the bottom one sealed an excavated channel.
Phase III, dated to the Late Ottoman period, was manifested in Square A by a stone and cement construction and floor tiles. In the northeastern part of Square B the corner of another building ( $0.84 \times 1.78 \mathrm{~m}$; W1), whose walls and floor were built of cement with a foundation of a small stone layer $(7-8 \mathrm{~cm})$, was discovered. In the northwestern part of the square was a foundation beam of reinforced concrete. Ottoman pottery sherds of a jar (Fig. 3:8) were found in its fill. In Square C a habitation level of gray soil that dated, together with Phases II and I, to the twentieth century was discovered.

Thus, during the course of the excavation, seven phases that belong to three different cultural periods were exposed. Phases I and II are attributed to modern activity, Phases III-VI represent an Arab settlement that was present in the Ottoman period. Phase III dates to the end of the nineteenth-beginning of the twentieth centuries and Phases IV-VI are earlier. The earliest phase (VII) belongs to a settlement from the Persian period; unfortunately only a few artifacts were recovered from it. The main significance of the excavation is the discovery of this Persian-period stratum, a period that was previously unknown at the site.


1. Location map and previous excavations at the site.



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## Zarnuqa

Final Report

## Dor Golan

5/8/2008

2. Walls 101, 105, looking south.

3. Pottery.

During January 2004, a trial excavation was conducted in the Qiryat Moshe neighborhood of Rehovot (Permit No. A-4074*; map ref. NIG 180095-134/643009-40; OIG 130095-134/143009-40), prior to construction. The excavation, carried out on behalf of the Antiquities Authority and funded by S. Hayyal, was directed by D. Golan, with the assistance of S. Ya'aqov-Jam (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), E. Yannai (pottery consultation), M. Shuiskaya (pottery drawing), E. Ayash, M. Ajami, A. Gorzalczany and M. Peilstöker.
Remains of a building that had three construction phases were exposed. The walls (W101, W102, W106, W109; width $0.5-0.6 \mathrm{~m}$; Fig. 1), built of small fieldstones, were preserved three courses high.

The remains of a kiln (L108) were found near the corner of Walls 102 and 106. A section of a wall (W105; height 0.8 m ; Fig. 2), built of medium-sized fieldstones, was discovered at a depth of 1 m below the foundations of the building. A floor of small fieldstones (L104) abutted W105 from the north. A layer (L107) that included sand and a few potsherds was excavated below Floor 104. Only the corner of W109 with W102 was exposed; the rest of the W109 continued eastward, beyond the limits of the excavation.

The pottery vessels recovered from the excavation dated to the Ottoman period (eighteenth-nineteenth centuries CE) and included bowls (Fig. 3:1-3), a jug (Fig. 3:4), a cooking pot (Fig. 3:5), brown slipped and burnished pipes (Fig. 3:6, 7) and a hookah (Fig. 3:8).


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1. Plan and sections.

2. Walls 101, 105, looking south.


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3. Pottery.
(Volume No. HA-ESI 120 (2008

## Zarnuqa

Final Report


1. Plan and section.

2. Pottery.

During July 2005, a trial excavation was conducted at Zarnuqa in the Qiryat Moshe neighborhood of Rehovot (Permit No. A-4544*; map ref. NIG 18017-22/64302-7; OIG 13017-22/14302-7), prior to construction work. The excavation, on behalf of the Israel Antiquities Authority, was directed by A. Dagot, with the assistance of E. Bachar (administration), A. Hajian (surveying and drafting), T. Sagiv (field photography), E. Yannai (pottery consultation) and M. Shuiskaya (drawing).

Excavations were conducted at the site during 1999-2005 (HA-ESI 120: Fig. 1) where building remains that dated to the Byzantine period (HA-ESI 114:71*; HA-ESI 118) and the Ottoman period (HA-ESI 119) were exposed.

A single square was opened and five strata were documented (Fig. 1).
Stratum I. This stratum was a layer of fill that consisted of modern refuse and fragments of pottery vessels from the Ottoman period, including bowls (Fig. 2:1, 2, 4).
Stratum II. Scant wall remains preserved a single course high (W10; length 4.5 m , width 0.6 m ) that probably belonged to a foundation wall. Potsherds from the Ottoman period were found in the fill adjacent to the wall, including jars (Fig. 2:7, 9). Part an installation or a pit (L105; length 0.4 m , width 0.85 m ) was exposed in the northeastern corner of the square. It was lined with white plaster (thickness 0.05 m ) that contained potsherds dating to the Ottoman period, e.g., a bowl (Fig. 2:3).
Stratum III. Layers of fill, composed of hamra soil and sand, below W10 (Loci 106, 107), which contained potsherds dating to the Ottoman period, i.e., a krater (Fig. 2:5) and a jar (Fig. 2:6).
Stratum IV. Stone collapse (L109) beneath the fill layers of Stratum III. Pottery vessels from the Ottoman period, including a jar (Fig. 2:8), were found while cleaning and dismantling collapse.
Stratum V. A layer of reddish hamra soil, devoid of any architectural remains, which contained a few body fragments of jars that dated to the Byzantine period.

The site is dated to the Ottoman period, based on the recovered finds. Other remains from this period were found c. 50 m southwest of the excavation (HA-ESI 120).


1. Plan and section.

2. Pottery.

## (Volume No. HA-ESI 120 (2008 Zefat



1. General view of the excavation, looking west.

2. Phase 1, plan and sections.

3. Phase 1, looking east.

4. Channel A. looking west.

During June 2005, a salvage excavation was conducted in Zefat (Permit No. A-4505; map ref. NIG 24630-40/76320-33; OIG 19630-40/26320-33), prior to the paving of a road in a new neighborhood. The excavation, on behalf of the Antiquities Authority, was directed by M. Cohen (photography), with the assistance of Y. Ya'aqoby (administration) and V. Essman and V. Pirsky (surveying and drafting).

The excavation area ( $3 \times 7 \mathrm{~m}$, c. 21 sq m ; Fig. 1) was located on the western slope of Zefat. Two phases of construction were revealed in the excavation. Next to the excavation area, another excavation was conducted in 2004 (Permit No. A-4210).

Phase 1. (Figs. 2-4). A massive wall (W2; width c. 1 m ) was discovered. It was oriented east-west, preserved 2.5 m high and built of two rows of ashlar stones, with a core of fieldstones. The bottom part of the wall was not exposed. A drainage channel (Channel A) that sloped westward (at a gradient of c. $40^{\circ}$ ) was built parallel to the southern side of the wall. Another drainage channel (Channel B) from the southeast was connected to Channel A. Both drainage channels were paved with flagstones. One of the covering stones of Channel B was preserved in situ. The two channels were filled with gray soil, without stones and contained a few artifacts. A break discerned in the eastern part of W2 caused Channel B to drop off at a $20^{\circ}$ angle. These were probably the result of a landslide that covered the building with soil and occurred during an earthquake.

Phase 2. Two meager walls, built on the soil fill that covered the wall and the drainage channels, were exposed.
The finds from both phases included fragments of pottery vessels from the Mamluk period, a few fragments of glass vessels, animal bones and several coins from the Mamluk period. The building remains of Phase 1 were part of the city's southwestern neighborhood during the Mamluk period (Harat al-Watta), which was densely built-up along the entire western slope. These remains reflected a high level of town planning. It seems that after the earthquake and still within the Mamluk period, the neighborhood was abandoned and never resettled.


1. General view of the excavation, looking west.


2. Phase 1, looking east.

3. Channel A , looking west.
(Volume No. HA-ESI 120 (2008

## Zofit, Survey

Final Report
Polina Spivak


1. Location map and plan of the site.

2. Lithics from the site.

During March 2006, a survey was conducted in the vicinity of Giv'at Ha-Berakhot in Moshav Zofit (Permit No. A-4738*; map ref. NIG 19210-35/67820-40; OIG 14210-35/17820-40; Fig. 1), prior to development work. The survey, conducted on behalf of the Antiquities Authority and financed by the local council, was directed by P. Spivak, with the assistance of O. Marder, A. Azav and L. Yhiye.
The hamra hill is covered with a late, thin, sandy layer that is typical of numerous Epipaleolithic sites in the Sharon region. In the wake of the survey it seems that an Epipaleolithic site, represented by Kebaran and Geometric Kebaran flint industries, existed on the hillop at the end of the Late Pleistocene. The site was first surveyed in the 1970s by E. Ayalon and I. Gilead who reported a rich Epipaleolithic site. It should be noted that Tel Zofit and Gat Rimmon are the only Epipaleolithic sites to have survived in the eastern hamra strip.

During the course of the survey flint implements (cores, tools and industrial debitage) that are typical of Epipaleolithic sites were found (Fig. 2). The densest concentrations (dozens of items per square meter) were identified close to the hilltop and became sparser the farther one descended from the hilltop; only isolated items were found in the more distant areas. Most of the flint items were located on the hill's southwestern and southeastern slopes (see map). The thick vegetation at the foot of the hill and a row of cypress trees, a debris heap and agricultural installations to the north and east of the hill prevented the completion of the survey.

The aim of the survey was to locate the settlement's nucleus and delineate its boundaries. The results of the survey indicate that in all likelihood, settlement remains are present in the area marked in red (see map). It seems that the nucleus of the site was on the hilltop where it suffered damage by construction and development work.


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## (Volume No. HA-ESI 120 (2008 <br> Zuq el-Fauqani



1. Strata 2 and 3 , plan.

2. General view of the excavation, looking south.

3. Ovens in the courtyards, looking east.

Moshe Hartal
19/8/2008
During October-November 2003, a salvage excavation was conducted at Zuq el-Fauqani, west of Yuval (Permit No. A4002; map ref. NIG 25550/79425; OIG 20550/29425), in the wake of damage to the site. The excavation, carried out on behalf of the Antiquities Authority and financed by the Department of Public Works, was directed by M. Hartal and E. Bron, with the assistance of Y. Ya'aqoby (administration), V. Essman and V. Pirsky (surveying), H. Smithline (photography) and E.J. Stern (ceramics).

While paving an approach road to Yuval, on the northern fringes of Zuq el-Fauqani, a large ruin along the eastern bank of Nahal 'Ayun, a wall built of large stones was exposed near a location that had previously yielded a lead coffin, decorated with a human figure and floral patterns in relief (currently displayed in Ussishkin House). Remains dating to the Late Islamic and Ottoman periods were identified at the site in the past, revealing ceramic finds that mainly dated from the fourteenth century CE onward and very few finds from the earlier Islamic periods. Eight squares (Figs. 1-3) were opened in the current excavation and four occupation strata that dated to the Early Ottoman period were exposed.

## Stratum 1

Remains of walls were not traced on the surface and the ceramic finds included glazed bowls, vessels from the Rashaya el-Fukhar workshop and pipes that dated to the seventeenth century CE.

## Stratum 2

A rectangular structure $(6 \times 13 \mathrm{~m})$ and a number of courtyards alongside it were uncovered. The mud-brick walls of the building were set on a foundation of two courses of basalt stones that had no dug-in foundations. The openings, which were apparently set at the top level of the foundation and in the mud-brick courses, were not preserved. The erosion of the bricks left behind a layer of friable mud-brick material, rich in organic remains. The building had a mortar roof that was borne atop wooden posts; the burnt remains of one post were discovered. The western wall of the building collapsed and a new wall was built in its place, slightly contracting the building. The southern wall was destroyed when a refuse pit was dug in the 1970s. It seems that the building was demolished by a mighty conflagration and its ceiling collapsed.
Walled courtyards were exposed to the south and west of the building's main hall. Six ovens were found on the floor in three of the courtyards (Fig. 3). These were made of burnt material and the vent hole in one of them was preserved. The sixth tabun (oven) was built below the courtyard's floor, damaging wall remains from Stratum 3. A round installation of small stones, which contained thick layers of ash, was built next to the southern wall of one of the courtyards.
The ceramic finds included glazed bowls, as well as open and closed vessels that were probably manufactured at the Rashaya el-Fukhar workshop. Pipes were recovered only from the upper part of the stratum. A number of iron arrowheads and coins were also found.

## Stratum 3

Sections of foundations that stood two courses high were discovered below the Stratum 2 walls. These were meant for mud-brick walls that belonged to a building whose partial plan was different than that of Stratum 2. The pottery vessels included glazed bowls and closed Rashaya el-Fukhar vessels.

## Stratum 4

Below the walls of Stratum 3 and extending down to bedrock were the accumulated ruins and remains of earthen floors with vessels, but without wall remains. The pottery vessels were similar to those from Stratum 3.

The results of the excavation indicate that this section of the site was first occupied in the latter part of the Mamluk or the beginning of the Ottoman periods (sixteenth- seventeenth centuries CE). Changes to the buildings occurred during Stratum 2, with the construction of a large edifice whose plan differed from the regular rural-type house. The building included a long hall and a number of courtyards. It was probably a khan, which was destroyed by a mighty conflagration. A modern refuse pit was dug in its southern part and the fragmentary walls in its western part were probably destroyed in an earthquake, although evidence of this event is insufficient.
The ceramic finds are of great importance. Strata 3 and 4 contained vessels that were found for the first time in the region during the Mamluk period. However, vessel types that were found in Mamluk assemblages in Zefat are missing and it therefore seems that the finds belong to the Early Ottoman period. Rashaya el-Fukhar, which was the manufacturing center for vessels discovered in the excavation, is located on the western fringes of the Hermon and its products were distributed throughout the northern part of the country. Two kinds of vessels whose provenance is probably Rashaya el-Fukhar were discovered. Pottery vessels in Stratum 1 were characteristic of rural production and they continued to be made until the modern era. Similar vessels from Strata 2-4, made of non-'metallic' fabric, were decorated with colors more faded that than on the later Rashaya el-Fukhar vessels. Such vessels were also discovered in the Mamluk assemblages of Zefat and it therefore appears that the production of pottery vessels at Rashaya el-Fukhar had already begun in this period and its development could be traced within the assemblage. While Stratum 3 contained only closed vessels, an increase in the number of open vessels was clearly discerned in Stratum 2.


2. General view of the excavation, looking south.

3. Ovens in the courtyards, looking east.


1. Map of the installations.

2. Burial Cave 8, looking south.

3. Burial Cave 36, plan and sections.

4. Burial Cave 36, looking south.

5. Cist Tomb 70, looking southeast.

During May 2002, an excavation was conducted west of the Zur Natan settlement (Permit No. A-3639*; map ref. NIG 1995-2004/6827-34; OIG 1495-504/1827-34), prior to the construction of a new residential neighborhood. The excavation, on behalf of the Israel Antiquities Authority, was directed by O. Sion, M. Haiman and B.A. Artzi, with the assistance of A. Hajian (surveying), Y. Dangor (administration), T. Sagiv (field photography), A. Onn (ceramic finds) and I. Pikovski (pottery drawing).
The excavation area is located on the fringes of western Samaria and extends across an area of $0.6 \times 1.0 \mathrm{~km}$. The region was surveyed in the past (E. Ayalon, A. Kidron and Y. Sharvit. Groups of Installations in the Fields of Zur Natan in the Roman-Byzantine Period. Israel - People and Land, Annual of the Eretz Israel Museum [Avitzur Volume], Tel Aviv, V-VI [23-24], 1988-89, pp. 93-120).

Numerous installations and tombs were found (Fig. 1), of which seventy-five tombs, burial caves, winepresses, quarries, field towers, olive presses, cisterns, limekilns, cupmarks and stone clearance heaps were excavated.
Burial Caves. Only the courtyards and facades of five burial caves (Fig. 1:7, 8, 26, 35, 36; Table 1) were partly excavated. The caves had an open courtyard with rock-hewn steps across it. The entrance was arched and often sealed with a rolling stone. The dimensions and shapes of the burial chambers varied; some were hewn in natural caves. Kokhim were noted in a few caves and fragments of sarcophagi were recovered from one cave. In the southern part of the area, a bedrock-hewn cist tomb (Fig. 1:70), which was covered with a flat stone slab that fitted its dimensions, was found.

Table 1. Burial Caves (all measurements in meters)

| No. in Fig. 1 | Courtyard |  | Burial Chamber |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Len | Width | Length | Width |  |
| 7 | - |  | 3.2 | 2.5 | Cave is plastered; cistern in secondary use. |
| 8 (Figs. 2, 3) | 5.9 | 3.3 | 4.0 | 3.2 | Rolling stone located in entrance of cave; cistern located in eastern wall, in secondary use. |
| 26 | 3.2 | 1.6 | 6.5 | 4.2 | - |
| 35 | 9.2 | 5.3 | 8.6 | 7.0 | Remains of 11 kokhim preserved in walls of burial chamber; fragments of two sarcophagi in center of chamber. |
| 36 (Figs. 4, 5) | 3.6 | 2.7 | - | - | Groove of rolling stone in opening of cave. |
| 70 (Figs. 6, 7) | $\begin{aligned} & \text { Rock-hewn cist tomb (1.1 } \\ & \times 2.2) \end{aligned}$ |  |  |  | A hewn stone that covered the tomb was found near the opening. |

Caves. With the exception of one cave, all caves (Table 2) were located in the northern part of the area, along both banks of a local stream (Fig. 1:43). The caves were natural and some of them had rock-cut facades.

Table 2. Caves (all measurements in meters)

| No. in <br> Fig. 1 | Length | Width | Height | Comments |
| :--- | :--- | :--- | :--- | :--- |
| 18 | 2 | 1 | 1 | Cave at bottom of wadi channel, fronted by hewn <br> courtyard $(1.5 \times 6.0)$ and devoid of finds. |
| 22 | 3 | 1 | 1 | Devoid of finds. |
| 24 | 2 | 1.5 | 1 | Several bones in front of cave apparently brought by <br> animals. |
| 43 | 15 | 7 | 1.8 | Hewn courtyard $(3.7 \times 8.0)$ in front, devoid of finds. |
| 100 | 2.5 | 2 | 2.3 | Arched ceiling, devoid of finds. |
| 101 | 4 | 2.1 | 2 | Early Bronze Age potsherds at front of cave. |
| 102 | 4 | 1.5 | 1.5 | Early Bronze Age potsherds at front of cave. |

Winepresses. The winepresses scattered throughout the excavated area were of two types, namely a small winepresses that consisted of a small treading floor (up to 4 sq m ) and a small collecting vat and a large winepress that had a large treading floor (up to 16 sq m ), a collecting vat and a settling vat.

Table 3. Winepresses (all measurements in meters)
Small Winepresses (up to 2 m )

| No. in Fig. 1 | Treading Floor |  |  | Collecting Vat |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Length | Width | Depth | Length | Width | Depth |  |
| 25 (Figs. 8, 9) | 1.5 | 1.5 | 0.4 | 1.2 | 0.8 | 0.5 |  |
| 28 (Figs. 10, 11) | $\begin{aligned} & \text { Elliptical } 1.5 \times 2.1 \text {; depth } \\ & 0.05 \end{aligned}$ |  |  | $\begin{aligned} & \text { Elliptical } 0.6 \times 0.9 \text {; depth } \\ & 1.05 \end{aligned}$ |  |  |  |
| 32 | 1.05 | 1 | 0.2 | 0.8 | 0.4 | 0.4 | Settling pit (diam. 0.3 ) in corner of collecting vat. |
| 34 (Figs. 12, 13) | Diam. 1.1 |  | 0.2 | Diam. 0.7 |  |  |  |
| 40 | 1.5 | 1.85 | 0.3 | 0.6 | 1.05 | 0.5 |  |

## Large Winepresses

| No. in Fig. <br> 1 | Treading <br> Floor | Collecting Vat |  | Comments |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 22 A | 3.5 | 2.5 | 0.6 | 1.5 | 1.5 | 2 |
| Hewn, stepped settling pit (diam. 0.4 ) in |  |  |  |  |  |  |


|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Quarries. The quarries in the area (Table 4) were of the small 'courtyard' type; tomb courtyards and winepresses were also quarried for masonry stones. The quarrying was done by hewn severance channels around and below the stones.

Table 4. Quarries (all measurements in meters)

| No. in Fig. $\mathbf{1}$ | Length | Width | Height |
| :--- | :--- | :--- | :--- |
| 5 | 2.5 | 2 | 0.3 |
| 10 | 3.5 | 2.4 | 0.3 |
| 17 | 4.5 | 2.7 | 0.4 |
| 29 | 4.4 | 3 | 2.3 |
| 35 A | 2.5 | 3.2 | 2 |
| 37 | 3 | 0.9 | 0.6 |
| 39 | 3.4 | 2.3 | 0.6 |
| 53 | 2.4 | 1.7 | 0.7 |

Field Towers. Four field towers (Table 5) that were partly preserved to a single course high were excavated. It was impossible to reconstruct the dimensions of two of the towers. The towers were dispersed throughout the area and in most cases, were located in places that had a commanding view over the surroundings.

Table 5. Field Towers (all measurements in meters)

| No. in <br> Fig. 1 | Length | Width | Comments |
| :--- | :--- | :--- | :--- |
| 2 (Figs. <br> $22,23)$ | 4.5 | 4 | Only eastern part of tower was preserved a single <br> course high; it is dated to the Byzantine period |
| 45 | 1.75 <br> (western <br> wall) | 1.5 (southern <br> wall) | Small tower, southwestern corner was preserved; <br> dated to the Byzantine period |
| 4 |  | Remains of ruinous tower |  |
| 24 (Fig. |  | - | Built on bedrock surface. Tower's outer casing stones <br> found scattered nearby; dated to the Byzantine <br> period |
| 59 | - | - |  |

Open? Olive Presses/Grist Mill. Three installations (Table 6) were found. Only the crushing basin was preserved in all three and a round hewn walking track for a person or an animal.

Table 6. Open Olive Presses/Grist Mill (all measurements in meters)

| No. in Fig. 1 | Diam. of Crushing Basin | Comments |
| :---: | :---: | :---: |
| $\begin{array}{\|l} 6 \text { (Figs. 25, } \\ 26 \text { ) } \\ \hline \end{array}$ | 2.25 |  |
| $\begin{array}{\|l\|l\|} 27 \text { (Figs. 27, } \\ 28) \end{array}$ | 1.9 | Basing is partially preserved |
| 71 (Fig. 29) | 2.25 | Two small cupmarks next to basin, diams. 0.25 and 0.50 , depth 0.35 |

Cisterns. The cisterns were mostly bell-shaped (max. diam. 6.5 m ; Table 7), as well as triangular or rectangular shaped. The sides were coated with plaster and at the top of the cistern was a round aperture for the drawing of water (diam. 1.01.5 m ).

Table 7. Cisterns (all measurements in meters)
Table 7. Cisterns (all measurements in meters)

| No. in <br> Fig. 1 | Diameter | Depth | Comments |
| :--- | :--- | :--- | :--- |
| 11 | c. 1 | 1.3 | Bell-shaped cistern |
| 33 | 5 | 3.5 | Bell-shaped cistern |
| 44 | c. $1.7 ;$ | 2.3 | Bell-shaped cistern; cistern was divided in two; plaster remains |


|  | $\|l\| l\|l\| \mid$ |  |  |
| :--- | :--- | :--- | :--- |
| 46 | 1.8 | 1 | on side |
| 47 | 1.6 | 1 | Triangular cross-section |
| 54 | Rectangular cross-section |  |  |
| 55 | c. 1.5 | 2 | Bell-shaped cistern; remains of gray plaster and rock-cut <br> footrests hewn in side of cistern |
| 83 | 6.5 | 0.5 | Bell-shaped cistern filled with stones |

Limekilns. The kilns were located in a wadi channel, in the northern part of the excavation area (Table 8).
Table 8. Limekilns (all measurements in meters)
Table 8. Limekilns (all measurements in meters)

| No. in Fig. $\mathbf{1}$ | Outer <br> Diam. | Depth |
| :--- | :--- | :--- |
| Comments |  |  |
| 19 (Figs. 30, <br> $31)$ | 5.5 | 1.7 |
| 30 (Figs. 32, <br> $33)$ | 5 | 1.5 |

Cupmarks. These were found in a variety of sizes (diam. 0.1-0.8 m, depth $0.05-0.30 \mathrm{~m}$; Table 9). Cupmarks and depressions that were located next to winepresses are not presented below.

Table 9. Cupmarks (all measurements in meters)

| No. in Fig. 1 | Diameter | Depth | Comments |
| :--- | :--- | :--- | :--- |
| 17 (Figs. | 0.8 | 0.1 |  |
| $34,35)$ |  | Two cupmarks hewn in single bedrock surface |  |
| 17 A | 0.75 | 0.25 |  |
| 29 A (Fig. 36) | 0.45 | 0.25 |  |
| 41 | 0.5 | 0.3 | 0.6 long border hewn south and east of cupmark |
| 60 | 0.12 | 0.05 |  |
| 60 A | 0.28 | 0.05 | Five small cupmarks hewn in single bedrock |
| 60 B | 0.12 | 0.04 | Surface |
| 60 C | 0.34 | 0.05 |  |
| 60 D | 0.30 | 0.10 |  |
| 62 | 0.28 | 0.3 |  |
| 63 | 0.35 | 0.2 |  |

Stone Clearance Heaps. These were mostly located in leveled areas (Table 10). Several of the clearance heaps were found enclosed within a perimeter of large stones that prevented the scattering of stones.

Table 10. Stone Clearance Heaps (all measurements in meters)

| No. in Fig. 1 | Length | Width | Height |
| :--- | :--- | :--- | :--- |
| 9 (Figs. 37. 38) | 11 | 9.5 | 1 |
| 16 | 10 | 7 | 0.4 |
| 51 | 8 | 7 | 0.5 |
| 56 | 5 | 4 | 0.5 |
| 61 | 11 | 1.5 | 1 |
| 1 | 9 | 8.5 | 1.2 |
| 58 | 5 | 4 | 0.5 |
| 64 | 20.5 | 13.5 | 1 |
| 65 | 17.5 | 14 | 1 |
| 66 | 12 | 10 | 1.2 |
| 67 (Figs. 39, 40 ) | 14.5 | 12 | 1 |
| 84 | 12.5 | 12.5 | 1 |

Ancient Road. Mechanical equipment was used to dig a trial probe (width 5.5 m ) in order to evaluate the paving of an ancient road (Fig. 1:38) that crossed the excavation area from east to west. It seems that the southern part of the area, facing the top of the slope, was made level by means of small rock-cuttings. A retaining wall of stones (up to 1 m long) that stood three courses high was located along the northern side of the road facing the descent. The roadbed (max. thickness 0.5 m ) consisted of small stones that were deposited on natural bedrock. The road pavement was composed of tamped earth and a few small stones.

The survey and the excavation of the installations show a recurring model that consists of eight groups of installations (Fig. 1:A-H), each includes winepresses, olive press/grist mill, a burial cave, field tower, cistern and quarry. This format of installations is indicative of family farms that were probably associated with the adjacent site of Khirbat Majdal and the multitude of winepresses attests to the importance of wine production in this region (Israel - People and Land V-VI [2324], 1988-89, p. 115).

Most of the activity in the excavation area can be dated primarily to the Roman and Byzantine periods, based on the ceramic finds that included bowls (Fig. 41:1, 2), cooking vessels (Fig. 41:3-6) and jars (Fig. 41:7-12), with the exception of two caves (Fig. 1:101, 102) that contained pottery fragments that dated to the Early Bronze Age. The dating is further emphasized by the types of installations, namely complex winepresses, kokhim burials, crushing basins of olive presses/grist millsthat were common to the Roman and Byzantine periods when the settlement of Khirbat Majdal was at the height of its prosperity.



4. Burial Cave 36, plan and sections.

6. Cist Tomb 70, plan and section.

7. Cist Tomb 70, looking southeast.

8. Winepress 25 , plan and section.

9. Winepress 25 , looking southwest.

10. Winepress 28 , plan and section.


12. Winepress 34, plan and section.

13. Winepress 34 , looking southeast.

14. Winepress 42, plan and section.

15. Winepress 42, looking north.


17. Winepress 59, looking northeast.

18. Winepress 68, plan and section.

19. Winepress 68 , looking northeast.


21. Winepress 86 , looking south.

22. Field Tower 2, plan and section.

23. Field Tower 2, looking south.

24. Field Tower 49, looking north.

25. Crushing Basin 6, plan and section.

26. Crushing Basin 6, looking north.

27. Crushing basin of Olive Press 27, plan and section.

28. Crushing basin of Olive Press 27, looking southeast.

29. Olive Press 71, plan and section.

30. Limekiln 19, plan and section.

31. Limekiln 19, looking northwest.

32. Limekiln 30, plan and section.


34. Cupmark 17, plan and section.


36. Cupmark 29A, looking southwest.

37. Stone Clearance Heap 9, plan and section.

38. Stone Clearance Heap 9, looking northwest.


39. Stone Clearance Heap 67, plan and section.

40. Stone Clearance Heap 67, looking south.

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## Zuri'el, Survey in the Moshav

 Final Report

1. Survey map.

During August 2004, a survey prior to development was conducted in Moshav Zuri'el (Permit No. A-4193*; map ref. NIG 2288-92/7676-80; OIG 1788-92/2676-80), in an area slated for expansion. The survey, on behalf of the Israel Antiquities Authority, was directed by Y. Lerer, with the assistance of A. Shapiro (GPS), H. Abu 'Uqsa and E. Stern.

The survey to the west of Moshav Zuri'el was conducted on the easternmost hill, upon which the Arab village of Suhmata was located. Ancient settlement remains were discerned among the ruins of the village. Potsherds that dated to the Middle Ages were collected and cisterns, an underground water reservoir and a burial cave that apparently dated to the Roman period, were recorded.
Thirteen sites with antiquities were measured (Fig. 1):

1. Rock-hewn cistern.
2. Burial cave $(2.5 \times 2.5 \mathrm{~m})$, in whose center is a shallow standing pit, surrounded by seven hewn kokhim. The burial style of the cave points to a date in the Roman period
3. Rock-hewn cistern
4. A rectangular structure. The north-south oriented wall is c .1 m wide.
5. Remains of five buildings from the ruinous village, in whose walls ancient ashlar stones were incorporated.
6. Remains of a building with a cistern in its courtyard.
7. Remains of a building. A hewn water reservoir with plastered walls and a vaulted ceiling was discerned beneath its foundations. Pottery dating to the Middle Ages was collected from around the building.
$8-10$. Remains of buildings from the ruinous village, in whose walls ancient ashlar stones were incorporated.
8. Rock-hewn cistern.
9. A building with five vaults. A courtyard $(10 \times 16 \mathrm{~m})$ surrounded by a stone wall is located west of the building. Another small courtyard, probably a later addition, is located south of the building
10. Ancient quarry.

11. Survey map.

[^0]:    7. Iron coffin handles
[^1]:    Area A שטח
    AL111
    A2

