

TEL 'AFAR: A BYZANTINE SITE SOUTH OF CAESAREA

MARTIN PEILSTÖCKER

From September 1994 to January 1995 salvage excavations were conducted in advance of planned construction work at Tel 'Afar (Tell el-Akhdar),¹ located just northwest of Giv'at Olga, about 6 km south of Caesarea (map ref. NIG 1887/7058, OIG 1387/2058; Fig. 1).² The excavations concentrated on those areas of the site designated for construction; only the uppermost, immediately endangered archaeological layers were examined, since the proposed buildings were not to include basements, which would have required deeper foundations.

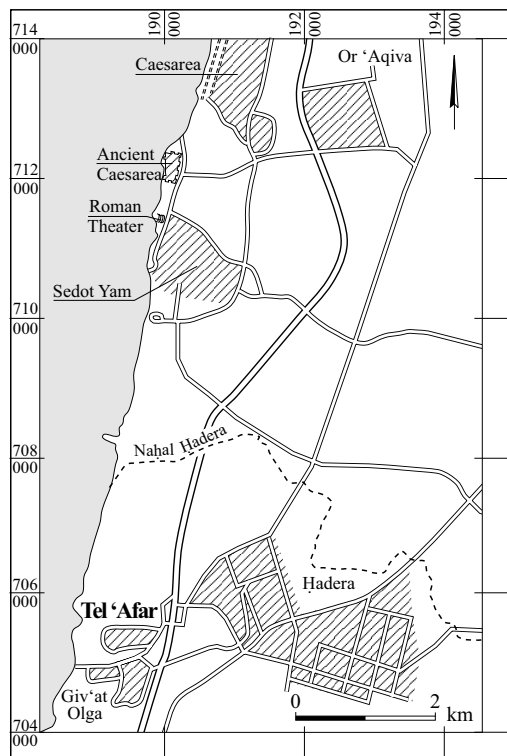


Fig. 1. Location map of Tel 'Afar.

THE SITE

Tel 'Afar, first documented in 1873 by the Palestine Exploration Fund (Conder and Kitchener 1882),³ is situated upon a *kurkar* hill on the coast north of a small bay that may have served as an anchorage in the past.

The area around Tel 'Afar is rich in archaeological remains. Until recently, marble fragments, columns, and Byzantine pottery could be found in the vicinity, with some of the larger pieces finding their way into private gardens in Giv'at Olga and Hadera. Maps issued in the 1950s indicate that the site was about 20 m above sea level; today the highest remaining point at the site is 14 m asl. Pottery scattered over the surface covered an area of approximately 15 dunams, but the western part of the site was extensively eroded by the sea. In the 1960s, Ne'eman (1973), who conducted an archaeological survey in the area of Hadera, documented evidence of Roman and Byzantine occupation at the site, later confirmed by surveys undertaken in the 1970s and in 1998 (Neeman, Sender and Oren 2000:5*, 23* [Site 8]). In 1963, Y. Porath reported that heavy mechanical equipment had damaged the site.⁴ Porath's report mentions remains dating to the Byzantine period that included a well, a masonry pool, plastered channels, and remnants of walls and floors.

The first excavation at the site was conducted in 1986–1987 under the direction of Porath (1988). This investigation revealed a monumental building dating to the Byzantine period on the top of the hill, of which a mosaic floor, remains of pillars and their bases, as well as other architectural elements, were found. As

sections of the building had obviously collapsed into the sea, Porath was unable to determine the function of the structure with any certainty, but went so far as to suggest that it was built by a wealthy resident of Caesarea.

THE EXCAVATION

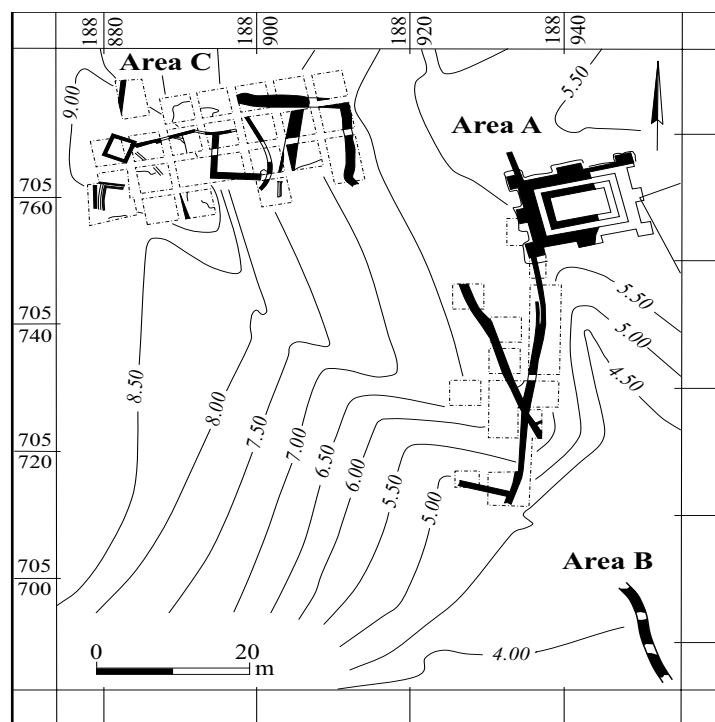
Following a new surface survey, three excavation areas were opened: Areas A and B on the southeastern fringes of the tell, and Area C on its southeastern slope (Plan 1). An area of approximately 1500 sq m was excavated. All the finds unearthed during the excavation are attributed to the Byzantine period.

Areas A and B

Massive Building. The remains of an impressive rectangular building were uncovered in Area A (Plan 2; Fig. 2). The structure was erected on a foundation of packed earth and medium-sized, unworked fieldstones, on leveled *hamra* soil.

In the upper part of this foundation layer the ratio of stone to soil was increased by using larger stones. The foundation, which covered an area larger than the building, was examined in two probes; Locus 325 was excavated into the foundation inside the building, and L324 was opened in the northwestern corner of the structure, after dismantling the remains of W16. The floor, shown by the test pit (L325) to be approximately 0.2 m thick, was built directly on the foundation layer and is an integral part of the building, with the inner walls constructed upon it. On the outer face, the bottoms of the walls are coated to a height of 0.2 m with the same type of plaster found on the foundation platform. A thin layer of crushed shells, visible in the sections at the level of the foundation plaster, indicates the original surface level outside.

The building, of which more than two-thirds were exposed,⁵ measures 13.2×16.8 m, with square towers (2×2 m) at the corners; midway on each side, buttresses of two (in W14) and



Plan 1. General plan of the excavated areas.

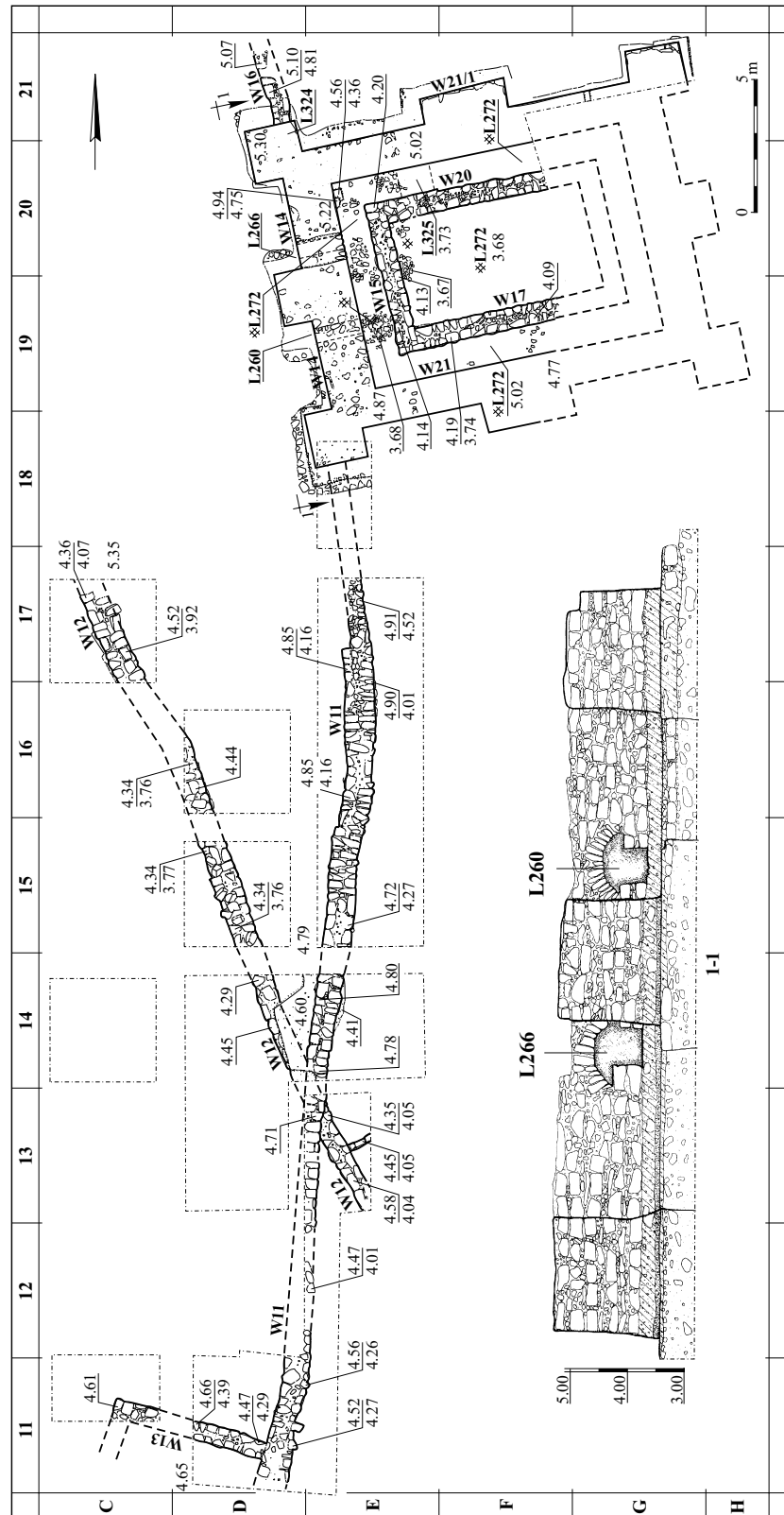




Fig. 2. General view of Area A.

three (in W21/1) meters add further strength. The walls are 1.7 m (W14) and 1.4 m (W21 and W21/1) thick. No notable difference in construction technique was observed for W14, W21, and W21/1, which were built of medium-sized *kurkar* and limestone fieldstones embedded in grayish cement; the walls were obviously built simultaneously with the towers and buttresses. The building is symmetrical in plan, with an inner room, 8.0×11.2 m, covering almost 90 sq m. This inner room (L272) has a plastered stone floor on which a narrow rectangular structure (W15, W17 and W20) stands. Walls 15, 17, and 20 are 0.75 m wide, and remain to a height of approximately 0.45 m; they are built of two rows of unworked *kurkar* blocks and fieldstones with a fill of smaller stones. A thin layer of gravel and small stones, preserved here and there on top of the walls, seems to indicate either a superstructure made of a different material, or, perhaps, a bench. The masonry is strong and of high quality. Except for the above-mentioned plaster on the foundation, no traces of wall-plaster, inside or outside the building, were observed.⁶ In the northern portion of W14, on its eastern side and close to the corner with W21/1, two stones incorporated into the inside face of the wall were apparently steps leading from the central room to a higher,

unpreserved part of the building. Although the walls survived 1.5 m high, their original height is difficult to estimate, since all remains above an absolute elevation of approximately 5.3 m were destroyed in modern times. The massive character of these walls, however, suggests a superstructure of possibly several stories.

At the base of W14, on either side of the buttress, two vaulted openings, 0.8 m high and 0.55 m wide, were discovered (L260 and L266; Plan 2: Section 1–1; Fig. 2). The vaults are wider than the openings, so that their sections are mushroom-shaped (Fig. 3). One of the openings was deliberately blocked by a stone in antiquity.

In several squares excavated west and southwest of the building, heaps of stone debris were found at approximately the level of the building's foundation. Unfortunately, despite the uncovering of these structural features, the picture remains unclear, as later robbing activity destroyed most of the architecture and no finds that could be clearly related to the building were discovered.

In the southern part of Area A, the remains of two walls were found (W11 and W12; Plan 2), which continued south (W10; Plan 3) in Area B. Wall 12/10 was erected on sandy ground and was preserved to a height of up to

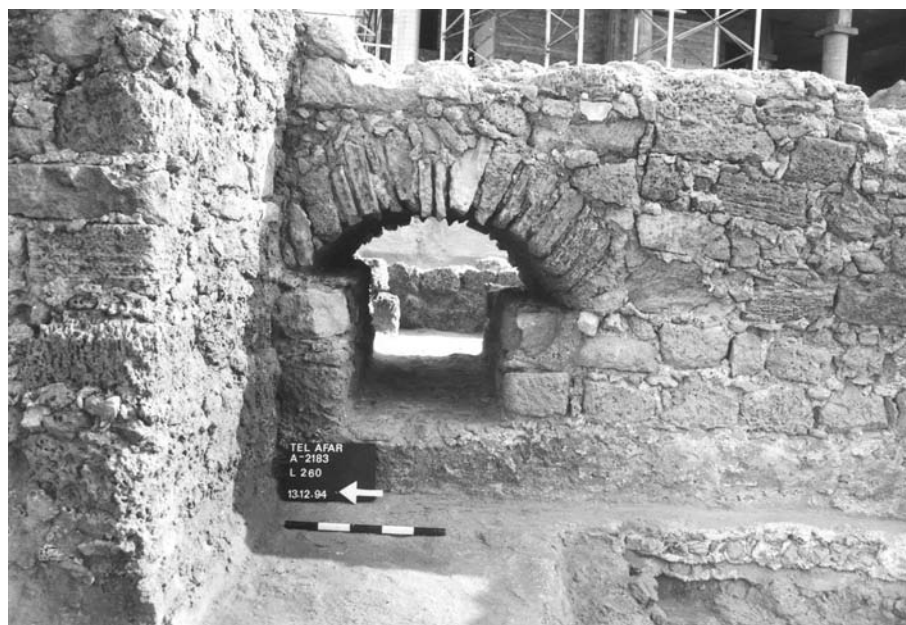


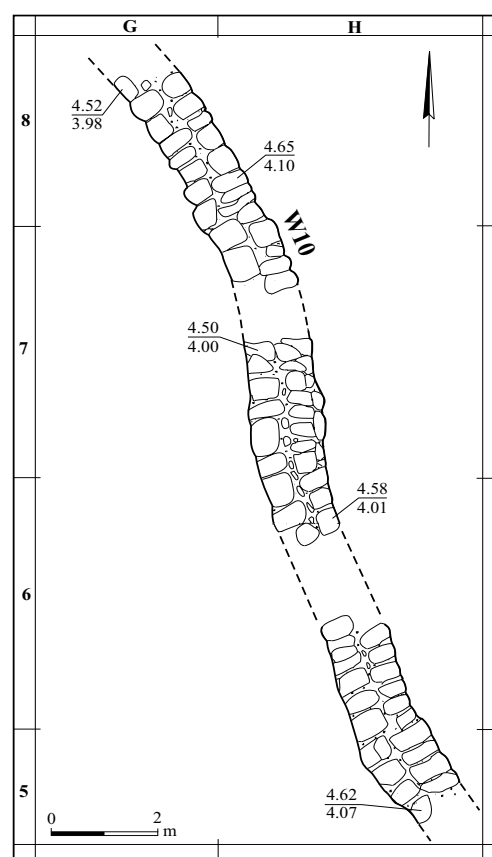
Fig. 3. Vaulted opening L260, looking east.

0.6 m. The wall was constructed of two rows of unworked fieldstones and a fill of smaller stones. It varied in width between 0.65 and 0.85 m; missing stones at several spots were the work of antiquities robbers. Wall 11 was discovered on a higher level, crossing earlier W12/10. This wall, constructed in a similar technique, runs roughly north-south, reaching the building in Sq E18, and continues as W16 from the northwestern tower of the building.

Although only the foundation layers of W11 and W16 are preserved, their elevation would indicate that they are too high to have been in use concomitantly with the building, whose vaulted entrances were found on a much lower level. Apparently, these walls mark the eastern and southern limits of the site, and probably functioned as a kind of fence during two different phases of the settlement, utilizing the earlier walls of the building, perhaps after it fell into disuse.

Area C

On the southeastern slope of the tell, east of the area excavated previously by Porath, an area of



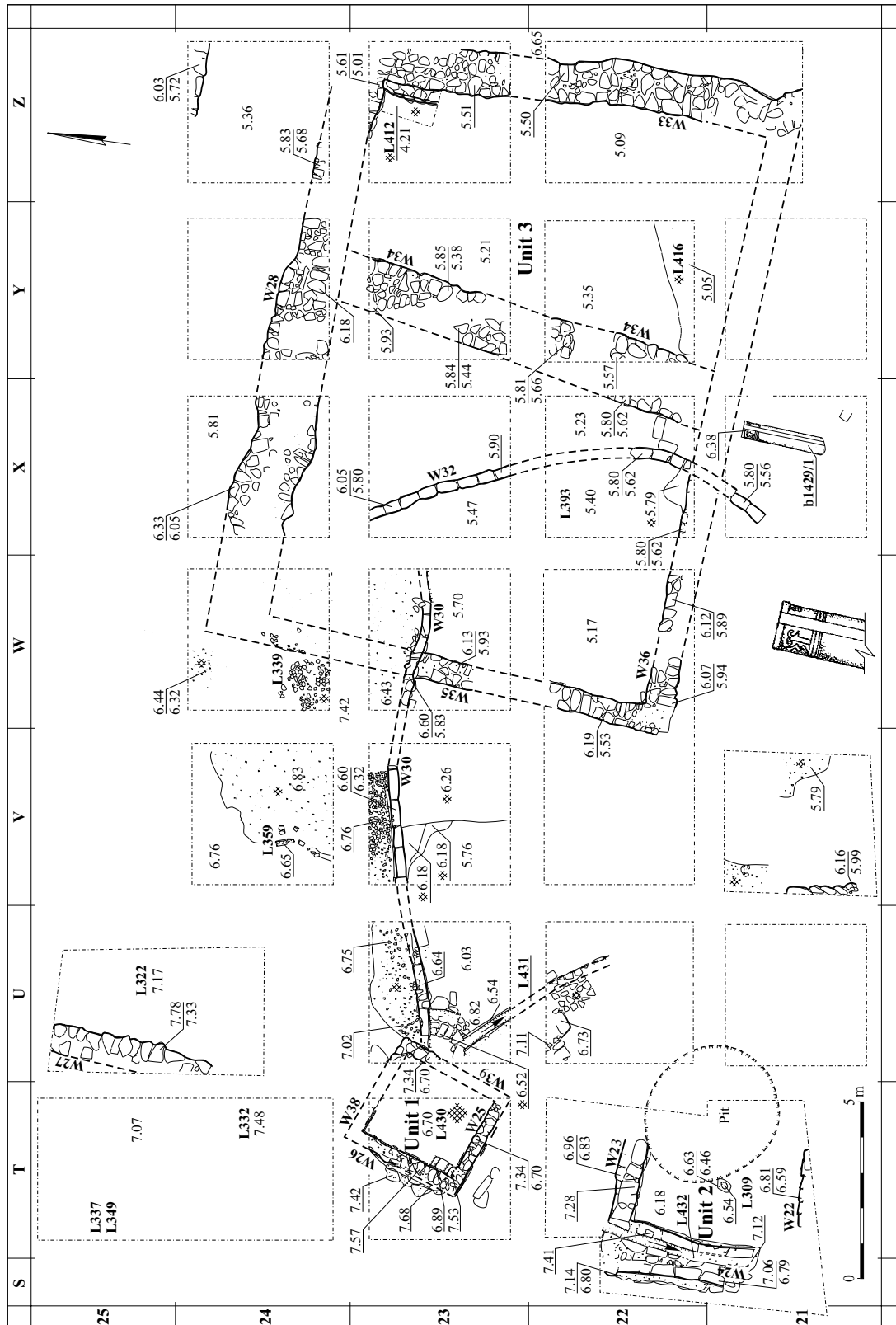
Plan 3. Wall 10 (Area B).

about 20×40 m was systematically investigated (Plan 4). The surface sloped eastward across the excavated area from an absolute elevation of 8.5 to 6.5 m; the archaeological remains were buried under a wind-blown sand layer of up to 2 m, which was removed with mechanical equipment. Only the uppermost layers of the architectural remains were exposed, but at some locations test trenches were dug to clarify the stratigraphic picture. Several building phases were noted; based on the finds (see below), they were all within the same chronological range. Examination of the area revealed the remains of several structures, all in a poor state of preservation, making reconstruction almost impossible. Fortunately, three structural units could be distinguished.

Unit 1. In the upper part of the area remains of a small pool were excavated (Sqs T–U23). The pool (L430; external dimensions 3.3×3.8 m, internal dimensions 2.8×3.3 m) consists of W25, W26, W38 and W39, each preserved to a height of 1.4 m and coated with hydraulic plaster. The floor is paved with white tesserae; four steps in the pool's southwestern corner descend to the floor. To the east of the pool (L431) were the remains of a water channel running south–southeast, coated with the same hydraulic plaster. Sections of this channel could be traced in Sqs U22–23; remnants of a ceramic pipe that probably once connected the channel with the pool were unearthed in the area to the east. Traces of a second channel (L432) running north–south were found in Sq T22 within Unit 2 (see below). This channel was preserved a length of approximately 4 m. Although this channel too was plastered, no connection with the pool was found. In addition, the channel's higher elevation implies that it was not related to the pool. These channels, the pool, the scattered stones bearing traces of plaster, as well as pieces of plaster found throughout the area, indicate the existence of a drainage⁷ and/or water-supply (irrigation?) system for the settlement.

Unit 2. A very poorly preserved structure (Sqs T22–21; W23, W24 and W22) was unearthed. Partial destruction by a huge pit allowed only the remains of one nearly square room to be identified. Only the foundation layers of the walls were intact, with no floors still extant; fortunately, a pillar base survived to indicate the approximate floor level. It would seem that water channel L432 made use of W24 after the structure ceased to exist. Little can be said about the form or function of this building, as both this unit and Unit 1 were covered by a thick layer of debris containing many pottery sherds. Conceivably, this area may have functioned as a dump after the structures were no longer in use.

Unit 3. A structure, measuring approximately 13.5×18.5 m, consisting of two huge rooms, was exposed. Here, too, only the foundation layers remained and no floors could be exposed. The eastern (W33), central (W34), and northern (W28) walls were more massive than those to the west (W35) and south (W36), most probably due to the need for extra support, as the topography slopes in this direction. Since nothing other than pottery and building material, including roof tiles and tesserae, were found here, the function of this building remains uncertain. Identically dressed stones were found scattered in some places, all roughly the same size ($0.3 \times 0.3 \times 0.6$ m). The dispersion of these blocks bears witness to later, extensive robbing activity, which is responsible for the poor state of preservation of the building. All the walls were built of unworked fieldstones, varying in size, with no apparent cement or other binding material. In the higher, that is, the western (W35) section of the building, the walls survived to a maximum of two courses, while on the opposite side (W33) they stood seven or eight courses high. In Sq Y22, residue of a plaster surface may be the foundation of a mosaic floor (L416). No connection, however, between this surface and any of the walls could be detected. A test trench, dug in Sq Z23 (L412), revealed that the



Plan 4. Area C.

structure was built on the remains of an earlier building, of which a wall and a stone floor were unearthened. It remains uncertain whether this earlier layer represents a constructional phase or comprises a separate settlement stratum.

The architectural remains uncovered in Sqs U25 (W27) and Z24 indicate that this part of the site was also occupied, but the area was beyond the limits of our excavation.

A stone installation of undetermined function was also uncovered in Sq X23 (W32). Slightly curving and orientated north–south, a continuation of this installation was found in Sqs X21–22. A fragment of a marble column was found in Sq X21 (B1429/1; see below).

In Sqs U23–W/23–24, the remains of a road, surfaced with small pebbles mixed with pieces of pottery, crushed shells, and a mixture of sand and soil, were exposed. The road ran east–west and led to the top of the tell. Its southern limits were marked by curbstones and were traced a length of approximately 15 m (W30). This road belongs to a late phase, covering parts of the structure described above in Unit 3, and extends as far as Unit 1 (the pool).

THE FINDS

The Pottery

The pottery assemblage from all the excavated areas proved to be quite homogeneous and included storage, cooking, and table wares, as well as *saqiya* vessels. Assuming that the analyzed material represents a single-period site, it is treated here as a single corpus.

All the vessels can be attributed to the same chronological range, that is, between the end of the fourth and the late sixth centuries CE. The assemblage has close similarities to the pottery from the excavations at the Byzantine city wall of Caesarea (Stratum II; Peleg and Reich 1992:145), and as was the case there, no evidence of Early Islamic pottery turned up.

Two groups of pottery are discussed here at length: the Fine Wares and the Gaza Ware storage jars. Almost all open bowls belong to

the former group, and, although no statistical analysis was made, this ware represents a high percentage of the corpus. Gaza Ware jars are the dominant storage vessel from the excavation, particularly in Area C. Our discussion of other vessels also touches on the glass lamps.

*Fine Byzantine Ware*⁸

An analysis based on Hayes' typology (Hayes 1972) shows that three major types, African Red Slip Ware (ARS), Late Roman C Ware (LRC), and Cypriot Red Slip Ware (CRS), are well represented at the site. In addition, specific forms of each ware were identified, corresponding to the most prevalent forms produced during the Byzantine period; these forms were also found at Caesarea. Several items were difficult to characterize and are not associated below with any particular ware. Also, the presence of local imitations, as described by Adan-Bayewitz (1993), presents an additional difficulty; we could not identify local imitations in form or fabric since no petrographic examination was done.

African Red Slip Ware.— This ware was produced in North Africa from the first through the seventh centuries CE. The clay is coarse and light in color, ranging from orange to brick-red, sometimes with a pinkish tinge. There are occasional lime impurities, lumps, and pock marks. There is a red slip that is similar to, but deeper than, the color of the body clay.

Form 93 (one base; Fig. 4:1): This late fifth or early sixth century form is related to the earlier stamped wares. Since the more diagnostic part of these plates is the rim, no further classification can be made.

Form 105 (5 rims; Fig. 4:2): This is a very common large plate, with a sloping wall and a heavy knobbed rim. The clay is thick and coarse, with a rough underside, brush marks and poor quality slip. Hayes, while dating it to c. 580/600–660 CE, observed that this form is regularly found together with LRC Form 10 (see below), as in Caesarea in the “Late Byzantine Building” (Adan-Bayewitz 1986:111).

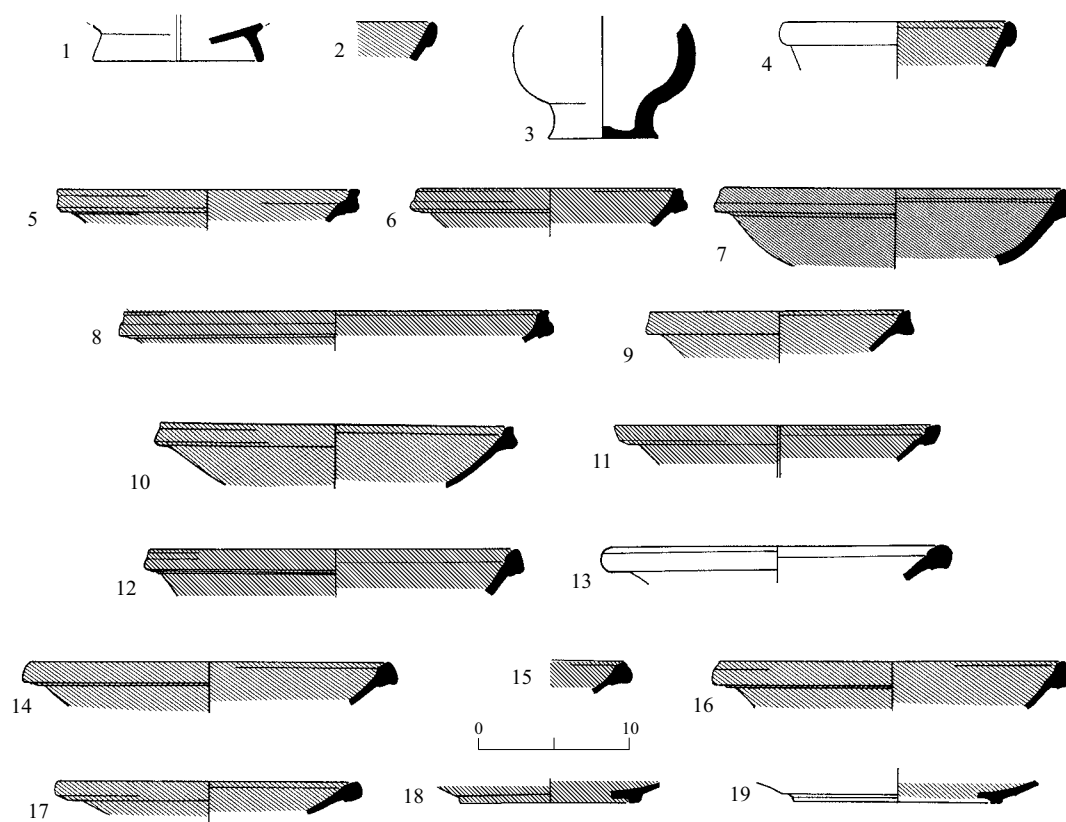


Fig. 4. African Red Slip and Late Roman C bowls.

No.	Loc./Basket	Area	Description
1	338/1288-11	C	Base, ARS
2	222/1049-9	A	Rim, ARS
3	253/1097-1	A	Base, ARS
4	222/1049-10	A	Rim, ARS
5	212/1016-3	A	Rim, LRC
6	212/1017-1	A	Rim, LRC
7	268/1190-2	A	Rim, LRC
8	276/1201	A	Rim, LRC
9	320/1239-1	C	Rim, LRC
10	300/1184	A	Rim, LRC
11	207/1012-7	A	Rim, LRC
12	245/1087-1	A	Rim, LRC
13	253/1097-2	A	Rim, LRC
14	337/1274	C	Rim, LRC
15	349/1300-16	C	Rim, LRC
16	253/1106-6	A	Rim, LRC
17	321/1243-1	C	Rim, LRC
18	222/1033-3	A	Base LRC
19	223/1034-5	A	Base, LRC

Form 107 (2 bases, 1 rim; not illustrated, but see Tsuf 2003: Cat. No. 272): A common large bowl with a rounded body, flat rim with heavy roll on the underside and a knobbed foot. It regularly accompanies Form 105 (above) and is dated to 600–650 CE.

Form 132 (one base; Fig. 4:3): Only very few examples of this not very prevalent type were found.

Late Roman C/Phocaean Red Slip Ware.— This ware was most likely produced at a single center in western Asia Minor during the fifth through seventh centuries CE (Hayes 1980:525–526). Its primary market was undoubtedly Constantinople, although it was widely exported as well. It has a fine-grained red clay and a fine red slip, with a large amount of small lime impurities. The vessels are often hard fired and the ware is of high quality with a smoothed surface characterized by scratches of dragged lime particles along the exterior (Hayes 1972:323). In addition, the wall thickness is not uniform and characteristically becomes thinner halfway between the rim and the base. Vessels were made in molds and the rims were added later, with no exterior decoration below the rim level (Hayes 1972:324).

Form 3 (28 rims; Fig. 4:5–10): A bowl characterized by a vertical rim that incorporates a flange, concave on the outer face and with an overhang at the bottom. While many such vessels are large with a discolored, decorated rim, the examples from Tel 'Afar (in sharp contrast to Tel Hefer, for example; Eli Yannai, pers. comm.) are almost exclusively of the smaller, undecorated variety. They either belong to the small Type F or they are simply small varieties of all types. Hayes explains that the small versions are early, while Type F dates to the sixth century, which makes the latter possibility more probable. Form 3 is typical of LRC ware and accounts for at least half of the total production. The development of the form spans 150 years, during which time the rim became progressively shorter and thicker. The form at its zenith spans c. 450–550 CE, after

which it evolves into the equally common but later Form 10 (see below). Parallels are found at Caesarea Strata IV (Form 3F) and V (Form 3), and at the Promontory Palace (Form 3).

Form 10 (13 rims; Fig. 4:11–17): This bowl has a sloping wall, a low foot and a knobbed or flattened rim characteristically rounded on the outside, concave underneath, and with a small offset at the junction with the wall. This is the very common successor to Form 3. The earliest securely dated examples are around the 580s and Hayes dates the form to 570–660 CE (Hayes 1972:345). Parallels can be found at Caesarea's Late Byzantine Building (Adan-Bayewitz 1986:111–112) and at Tell Keisan (Landgraf 1980: Fig. 14a, Form 10a, 2–3).

Cross Stamps (4 bases; Fig. 5:1, 2): Hayes (1972:349) associates cross stamps with stamps of Group III (c. 470–580 CE), appearing mainly as a single impression in the center of vessels of Form 3, but also as poor impressions on the later Form 10 (both are possible for the sherds from Tel 'Afar). Both the most common double-outlined cross of Style 71 (1 base; Fig. 5:1) and the plain cross of Style 73 (1 base; Fig. 5:2) are dated to the late fifth–early sixth centuries, with poor impressions (such as ours) continuing even later into the sixth century. The two remaining bases represent a more problematic typology.

Cypriot Red Slip Ware.— Pottery sherds of this ware were found in fair numbers in all areas and do not differ in fabric or decoration from the wares described by Hayes (1972:371–372).

Form 7 (1 rim; Fig. 5:3): This rim belongs to a heavy bowl typical of Byzantine heavy bowls dating to the end of the period.

Form 9 (5 rims; Fig. 5:4, 5): This is a dish with a broad, flat base and flaring wall. The characteristic thickened rim is vertical or curved on the inside and convex on the outside. The base is usually flat with a low ledge-foot or incised groove. In addition, there are usually one or two lines of rouletting on the vessel wall, as in many examples from Tel 'Afar. This form is standard for the later stages of the ware, and Type A, which corresponds to the

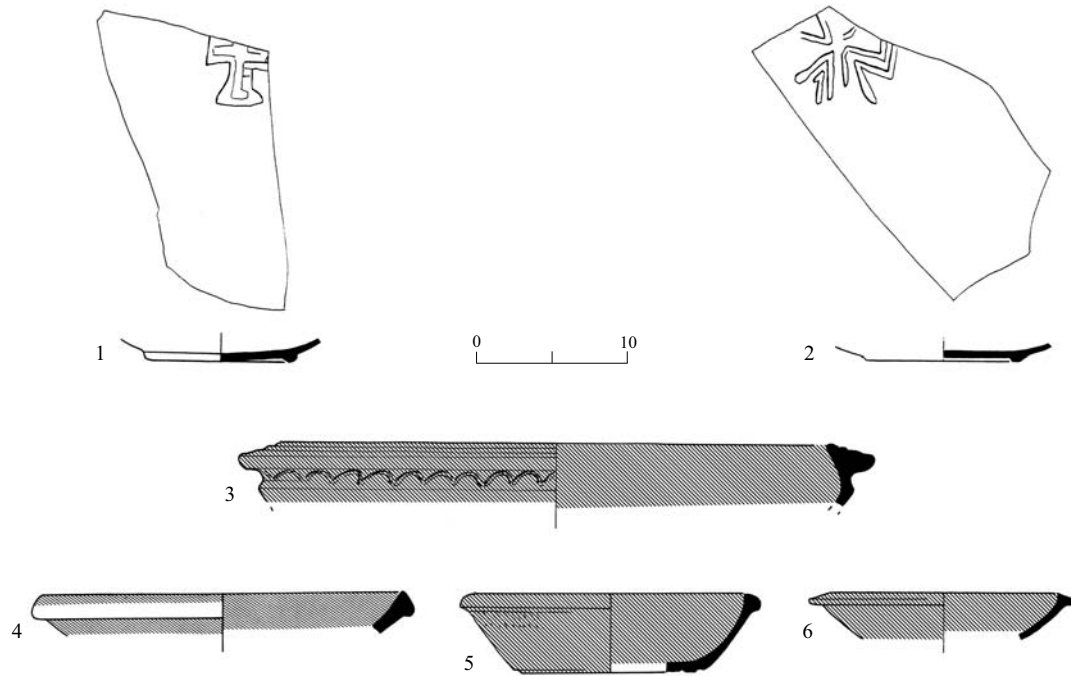


Fig. 5. Late Roman C and Cypriot Red Slip bowls.

No.	Loc./Basket	Area	Description
1	322/1263-17	C	Base with cross stamps, LRC
2	337/1274	C	Base with cross stamp, LRC
3	358/1315-2	C	Rim with wavy decoration, CRS
4	287/1163-4	A	Rim, CRS
5	393/1402-16	C	Profile with rouletted decoration, CRS
6	329/1265-1	C	Rim, CRS

examples from Tel 'Afar, dates to 550–600 CE. Parallels are found at Caesarea (Adan-Bayewitz 1986:112).

Cooking Vessels (Fig. 6)

Cooking pots, casseroles (frying pans?) and lids were uncovered. The dominant type of cooking vessel is the open casserole or frying pan (Fig. 6:1–5), sherds of which were found in copious quantities. Unfortunately these vessels have a wide chronological range (late third to eighth centuries CE), but they also appear in related strata at Caesarea, albeit the relation is vice-versa, and they report merely one open vessel (Peleg and Reich 1992: Fig. 15.3), which shows

similarities to the cooking vessels in Fig. 6:1–3 from Tel 'Afar. The number of closed cooking pots unearthed was very limited; one of the pots shown here (Fig. 6:7) belongs to a type found also in Stratum V in Caesarea (Bar-Nathan and Adato 1986:135, Fig. 1:18).

The assemblage includes examples of body sherds with and without ribbing. According to Magness's typology (Magness 1993:211), Fig. 6:5 seems to be of a later type (seventh century CE). The casserole lids (Fig. 6:8, 9) are of little chronological significance, since "no morphological developments are evident during the extended chronological span of this type" (Magness 1993:215).

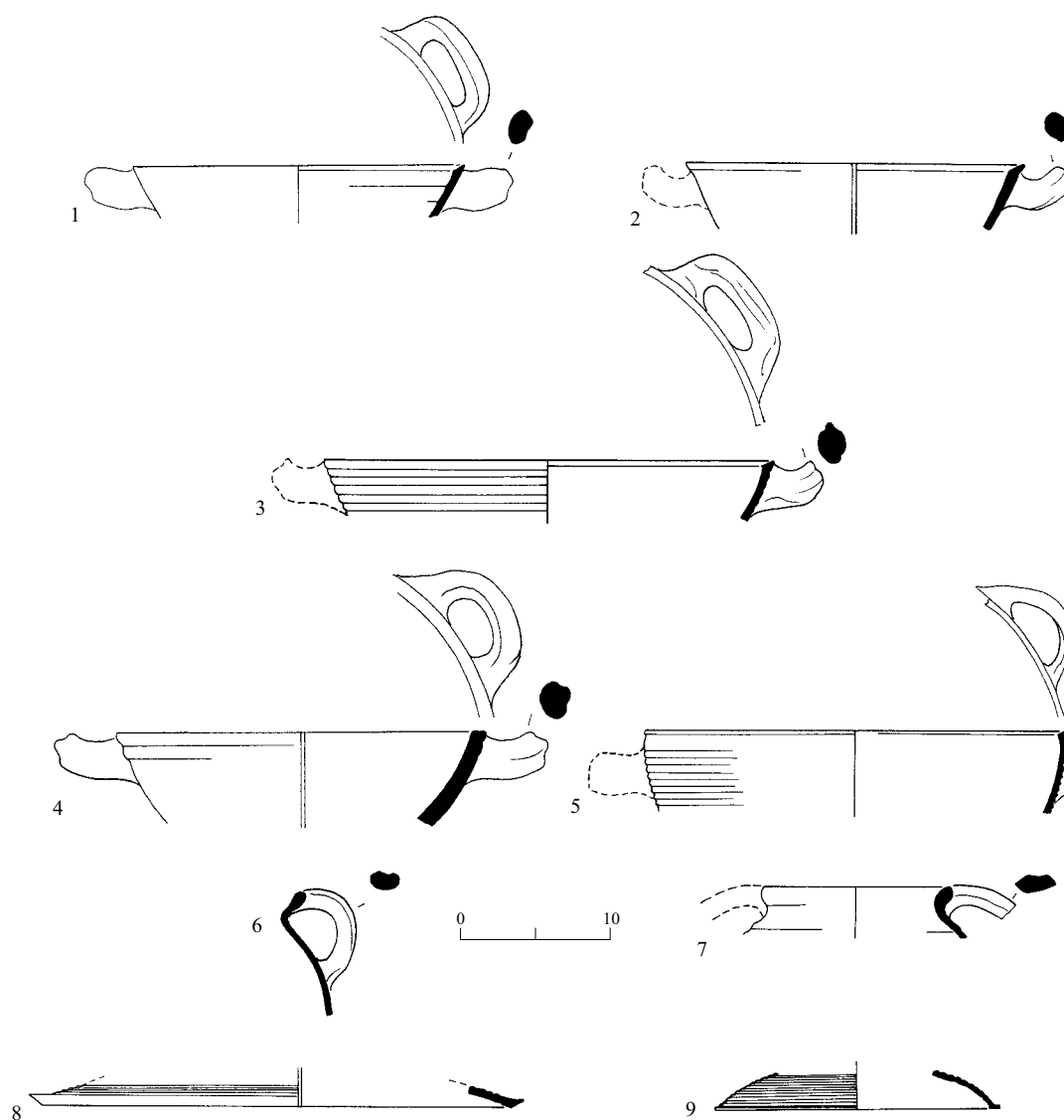


Fig. 6. Cooking vessels.

No.	Type	Loc./Basket	Area	Parallels
1	Casserole	280/1160-1	A	Magness 1993: Form 1
2	Casserole	337/1274	C	Magness 1993: Form 1.6
3	Casserole	322/1254/10	C	As No. 2
4	Casserole	258/1108-2	A	As No. 2
5	Casserole	322/1263-1	C	Magness 1993: Form 10
6	Cooking pot	268/1125-6	A	
7	Cooking pot	281/1197-3	A	Peleg and Reich 1992: Fig.13:9
8	Lid	245/1098	A	
9	Lid	393/1402	C	

Jars

A large quantity of storage-jar fragments was excavated, primarily in Area C. Two main groups can be distinguished. No complete vessels were found.

The first and smaller group consists of bag-shaped storage jars (Fig. 7). They resemble Riley's Storage Jar Type 1B (Riley 1975:26–27). This jar has two loop handles on the shoulder, a pronounced rim and a ribbed shoulder and body. It is very common in Byzantine sites, for example at Caesarea (Adan-Bayewitz 1986:91). The vessels from Tel 'Afar include the four variations that appear in the typology of Rosenthal-Heginbottom (1988:80–85), dating to the fifth and sixth centuries CE; some of them continue the tradition of Riley's Type 1A with a higher neck (Fig. 7:4, 8, 9).

The second group consists of Gaza Ware jars (Fig. 8), a very common vessel at Byzantine sites (see Riley 1975:27–30; Rosenthal-Heginbottom 1988:85–86, Form 3; Johnson and Stager 1995 with distribution list), attributed to the fourth–sixth centuries CE. For a detailed discussion on these vessels see Majcherek (1995:163–178); however, many additional sites in which Gaza Ware jars were found still await publication. Evidence for variations of this type was found in all areas, although most of the examples derived from Area C.

Area C provided high concentrations of Gaza Ware jar sherds, in particular in the area of adjacent Sqs U–T24 and U–T25. Approximately one-third of all the sherds of this type found in the excavations were retrieved here, suggesting that a large portion of the Gaza Ware jars originates from a single source, perhaps a dump. Examples from the same area, although from different loci, are illustrated in Fig. 8:2, 6, 8, and 11.

Examination of rim types in a sample of eight baskets indicates that most belong to Killebrew's Type A (in Mayerson 1992).⁹ Among these, the rims vary from a steep shoulder that ends in a straight rim with no neck (Type A1; Fig. 8:7, 15–17) to a steep shoulder that runs into a short but distinctive neck (Type A2; Fig. 8:1–3).

A minority of rims resembles Killebrew's Type B (Fig. 8:4, 9, 11), with a short rim and a nearly horizontal shoulder. In addition, two rims were found with inner ridges, perhaps indicating an early or late version of the type. Still, other fragments are clearly Gaza Ware jar rims, with the characteristic clay buildup, but are too small to provide an adequate typology.

Amphoras

A modest number of amphora sherds was found, belonging to a type with a high neck and a ridge below the rim (Fig. 9:1, 2). Rosenthal-Heginbottom (1988:86–87) lists these amphoras as Form 4 and states that this vessel might be of Egyptian origin. However, this amphora is very common at Byzantine sites in the coastal plain, such as Tell Keisan, Shave Ziyon, Ashdod and Caesarea (Rosenthal-Heginbottom 1988:88). The hollow foot (Fig. 9:3) belongs to an amphoriskos, which has its origin in Athens (see Bar-Nathan and Adato 1986:167), while the bulbous foot shown in Fig. 9:4 might belong to Type 4, found in Caesarea (Adan-Bayewitz 1986:106, Fig. 3:8), with Adan-Bayewitz once again suggesting the possibility of an Egyptian source (Adan-Bayewitz 1986:104).

Jugs and Flasks

The vessels illustrated in Fig. 9:5–7 clearly show their affinity to the traditional Byzantine amphoriskos. Figure 9:6 has handles starting from the neck below the rim and is made in one piece, while the other two vessels (Fig. 9:5, 7) display, both inside and out, that the neck was made separately and later connected to the body, a characteristic feature of these flasks.

Saqiya Vessels

A large number of complete or almost complete scoop-vessels were uncovered (Fig. 10). Fragments of such vessels were found in all excavated areas. These jugs also have close parallels in the assemblage from Caesarea (see Peleg and Reich 1992:154), although they were not identified by the excavators as *saqiya* vessels. They belong to the Late Roman and Byzantine

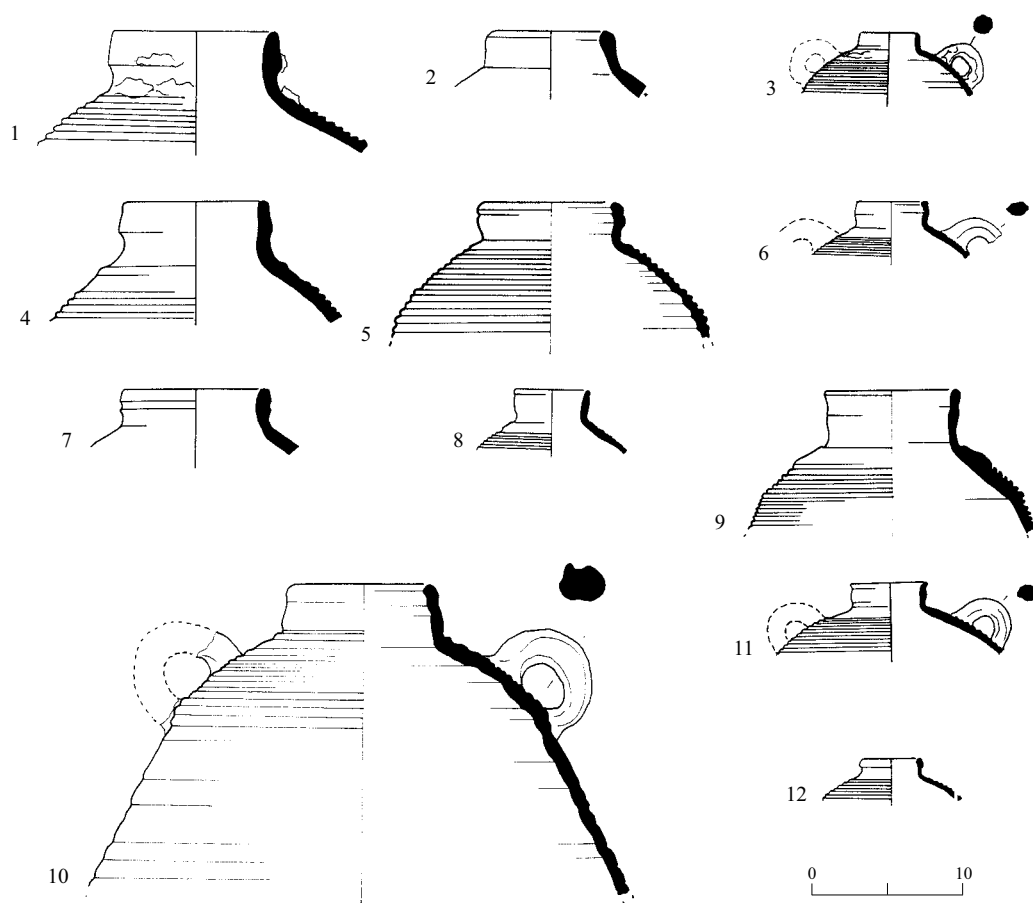


Fig. 7. Storage jars.

No.	Loc./Basket	Area	Parallels
1	220/1032-1	A	Peleg and Reich 1992: Fig. 13:15
2	250/1088-1	A	Peleg and Reich 1992: Fig. 13:17
3	409/1455-1	C	As No. 1
4	254/1111-2	A	As No. 1
5	358/1313-14	C	
6	228/1055	A	As No. 1
7	260/1114-2	A	As No. 2
8	358/1313-2	A	
9	320/1239	C	Peleg and Reich 1992: Fig. 15:12
10	304/1196-5	A	As No. 1
11	337/1274-6	C	Peleg and Reich 1992: Fig. 13:16
12	383/1394-1	C	

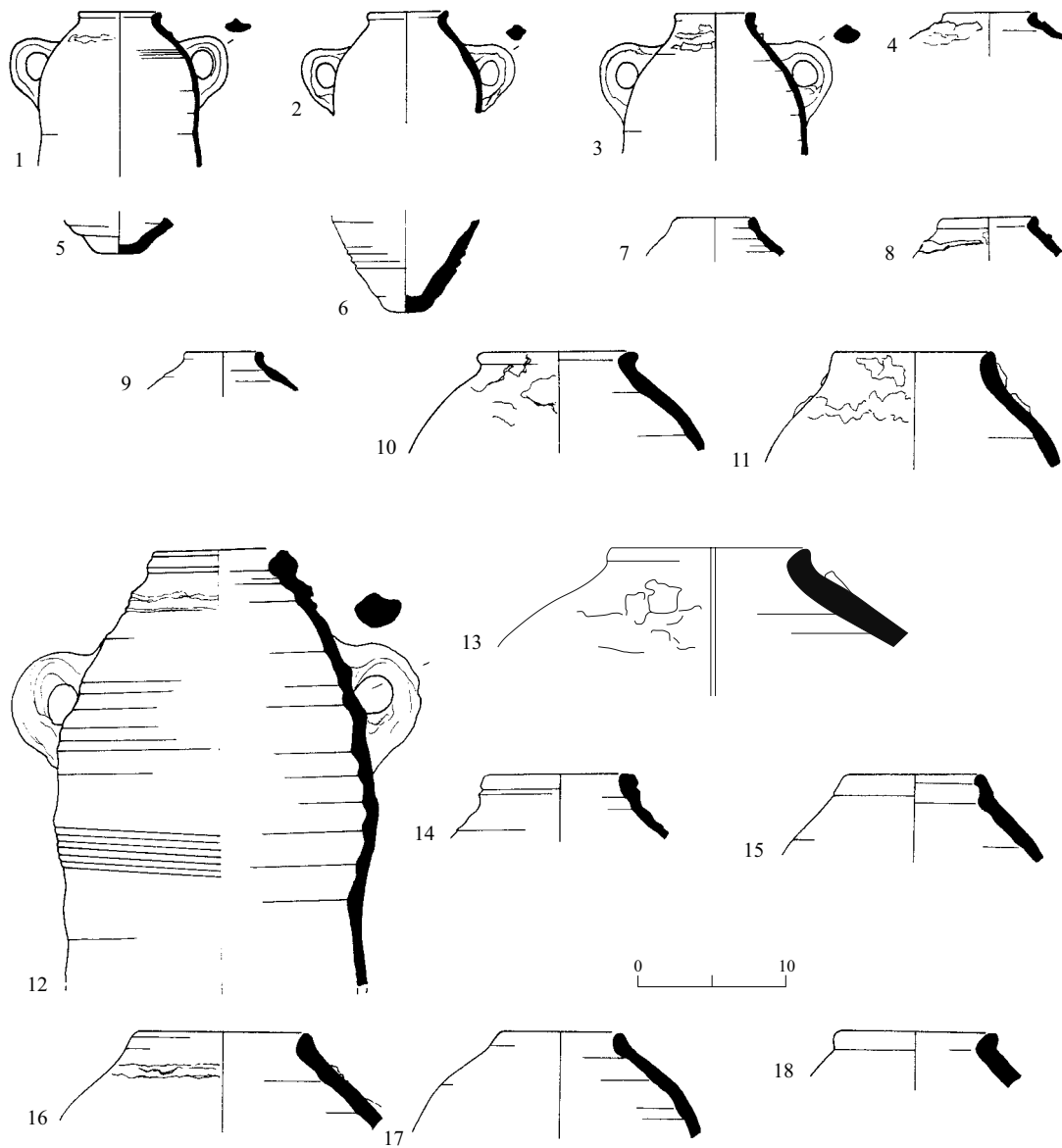


Fig. 8. Gaza Ware jars.

No.	Loc./Basket	Area	Parallels	No.	Loc./Basket	Area	Parallels
1	289/1210	A	Peleg and Reich 1992: Fig. 13:1, A2	10	254/1098-4	A	As No. 8
2	358/1315-1	C	Peleg and Reich 1992: Fig. 13:19, A2	11	329/1265-1	C	As No. 4
3	243/1083	A	Peleg and Reich 1992: Fig. 15:5, A2	12	423/1447-1	C	As No. 8
4	318/1232-1	A	Riley 1975: Type B	13	224/1036-5	A	As No. 8
5	422/1433-8	C		14	275/1147-2	A	As No. 8
6	347/1289-13	C		15	245/1087-3	A	Riley 1975: Type A1
7	318/1232-4	A	Peleg and Reich 1992: Fig. 15:14, A1	16	224/1036-6	A	As No. 15
8	321/1243-2	C	Riley 1975: Type A2	17	222/1049-3	A	As No. 15
9	223/1035-1	A	Peleg and Reich 1992: Fig. 13:5, B	18	203/1001-3	A	As No. 15

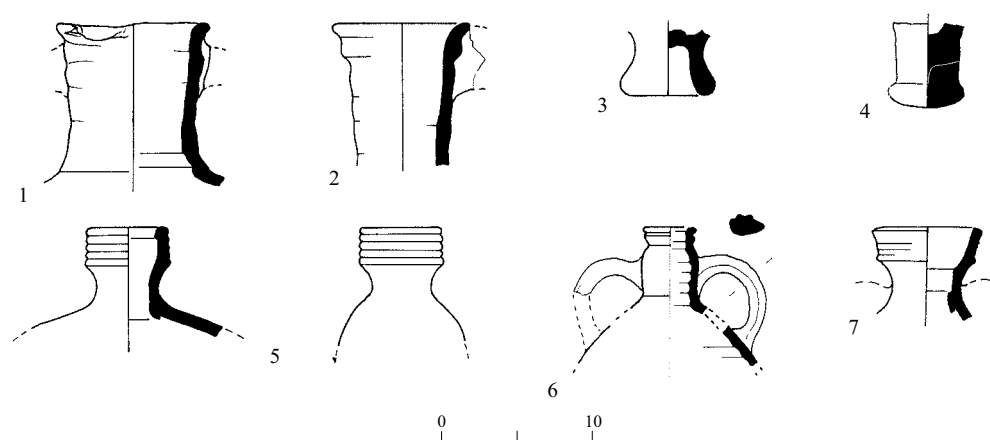


Fig. 9. Amphorae, jug and flask.

No.	Type	Loc./Basket	Parallels
1	Amphora	339/1320–5	Ustinova and Nahshoni 1994: Fig. 4:15
2	Amphora	287/1163–3	As No. 1
3	Amphora	322/1254–16	
4	Amphora	??? /1047–1	Adan–Bayewitz 1986: Fig. 3:8
5	Jug	271/1130–1	
6	Amphoriskos	320/1239	
7	Flask	422/1433–6	

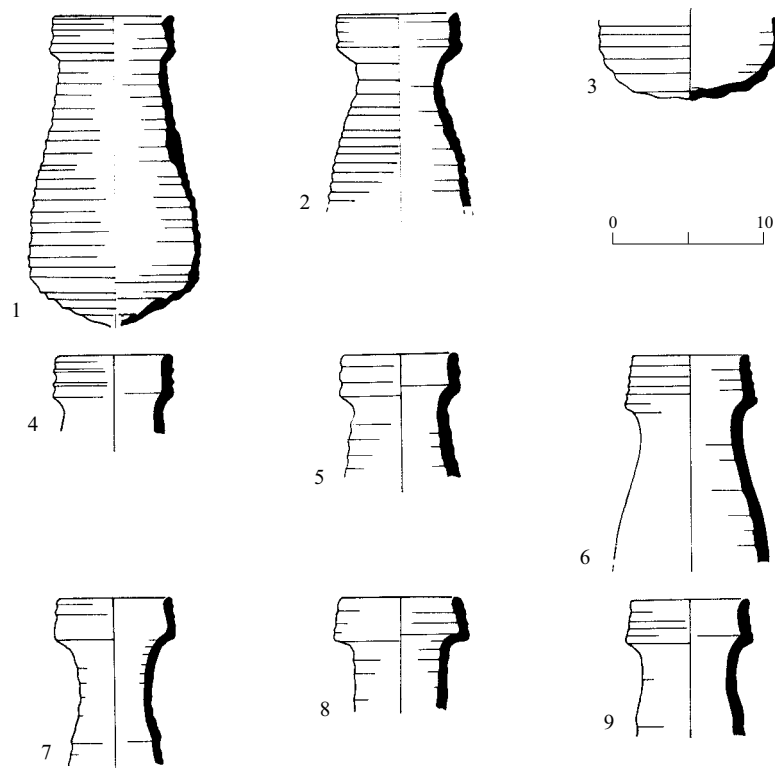


Fig. 10. *Sakiya* vessels.

◀ Fig. 10

No.	Loc./Basket	Parallels
1	254/1153	Peleg and Reich 1992: Fig 14:5
2	319/1238	See No. 1
3	375/1453-1	See No. 1
4	375/1253-3	See No. 1
5	375/1453-2	See No. 1
6	383/1372	See No. 1
7	339/1289-12	Peleg and Reich 1992: Fig. 13:3
8	339/1289-9	See No. 7
9	339/1289-5	See No. 7

variants of these vessels (Ayalon 2000: Fig. 3:4-6).

Miscellaneous

Ceramic and Glass Oil Lamps.— Only one fragment of a ceramic oil lamp (Fig. 11:1), a Samaritan type typical of the late Byzantine period (see Ayalon 1994:30*), was found in the excavation. Apparently, oil lamps made of glass were more common, the stems of which are shown in Fig. 11:2, 3. These stems are of the solid type, as found in Jerash and other Byzantine sites (Peleg and Reich 1992:155). The lamps hung on bronze candelabras and are usually attributed to public buildings, such as churches or synagogues.

Roof Tiles.— As mentioned briefly above, numerous roof tiles were found, including larger amounts of the flat *tegula* roofing tile, as well as smaller numbers of the rider tile (*imbrex*). It would seem that all the *tegula* fragments collected at the excavation site belong to the type shown in Fig. 11:4. Several attempts have been made to establish a typology (see Adan-Bayewitz 1982:25-27; Landgraf 1980:83-87).

Marble Fragments.— Fragments of architectural marble elements came to light in

virtually all excavated loci, most of them belonging to decorative tiling (e.g., on orthostats and floors). The fragments can be divided into three categories based on their thickness: (1) approximately 1.5 cm thick (41%); (2) approximately 2 cm thick (57% of all the pieces found); and (3) approximately 3 cm thick (1.7%).

One fragment belonging to Category 1 (6.5-7.5 × 11.5 × 1.5 cm; Fig. 11:5) with a worked edge bears the remains of an inscription, of which the three lower lines were preserved. Only the two lower lines contain legible letters: [K]AIE (upper row) and A[C], carved in a manner that leaves a triangular section. It would be pure speculation to reconstruct any words except KAI (= and); nonetheless, the question remains whether the fragment originated from the building excavated by Porath, or other buildings at the site were decorated with marble as well.

In Sq X21 the upper part of a column of grayish marble was found in the sand layer covering the area. The fragment (B1429/1; 2.4 m long, diam. 0.38 m) had a decorated capital (see Plan 3) and flattened sides, indicating that it was used as an internal element separating two partitions, as used in churches. The capital bears the same ornamentation both front and back. The design hints at an origin in Asia Minor, possibly the area of Constantinople during the fifth century CE, most probably the first half of the century. This suggestion is based on the capital's artistic design (for parallels see Kramer 1994:100-105, Figs. 8, 17 and Pl. 15.4).¹⁰ The column is another indication of an ecclesiastical presence at the site, although rich ornamentation of this sort could just as well be found in an opulent villa.

Coins.— The coin assemblage, retrieved primarily from Area C, is homogeneous, dating between the fourth and sixth centuries CE (see Bijovsky, this volume). These finds support the dates attributed to the pottery finds.

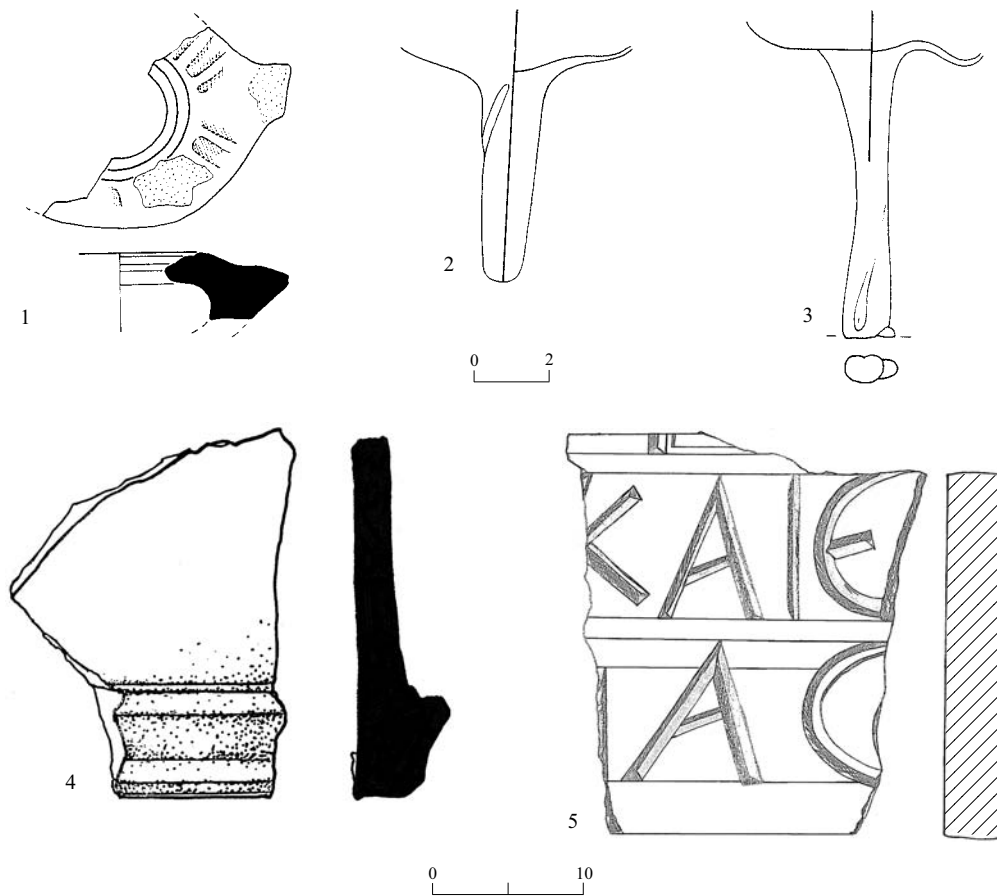


Fig. 11. Lamps and miscellaneous finds.

No.	Description	Loc./Basket	Parallels
1	Pottery oil-lamp fragment	339/1289-1	
2	Glass oil-lamp foot	378/1356	Peleg and Reich 1992: Fig. 20:1
3	Glass oil-lamp foot	322/1245-1	As No. 2
4	Roof tile	333/1266-3	
5	Inscribed marble fragment	409/1450	

CONCLUSIONS

Porath suggested that the building revealed during his excavations at the site was probably a villa belonging to a wealthy citizen of Caesarea. He ignored the possibility that the structure may have been part of a monastery because of what

he considered an unsuitable architectural layout and the lack of a water source (Porath 1988:3). However, the numerous scoop vessels—the so-called Persian-wheel or *saqiya* vessels found in our excavation (see Fig. 10)—clearly indicate that a well and an animal-powered waterwheel existed somewhere at the site. This is most

likely, as no other water source was found.¹¹ It is quite probable that the well was connected to the water channels and the pool discussed above.

The numerous roof tiles found in the area, and the relatively high percentage of Late Roman pottery, together with the marble finds, may be interpreted as further indicators of the existence of a monastery. Nonetheless, the uncertainty persists, and Porath's opinion cannot be ruled out without conducting further excavations.

The meager architectural remains on the slope (Area C) most probably belong to houses that served the main building situated on the top of the hill. The walls that were exposed in Areas A and B surrounded the complex at least in its final stage, and may have included a larger open area and perhaps even a mole.

The conundrum of the function of the building in Area A remains unsolved. The shape of the structure suggests a water pool or reservoir but the vaulted openings make such a function unlikely. The finds from in and around the building date it clearly to the Byzantine period, but provide no clue to its use or function. Nevertheless, the large number of storage vessels found in the area indicates that the building may well have served as some kind of storage facility.

The question of whether or not the building materials, such as the roof tiles, the marble fragments (including the column), and the

numerous tesserae found in all the excavated areas, should be attributed to the building excavated by Porath must be left unanswered. As mentioned above, several phases were identified at a number of spots at the site, but no diagnostic pottery dating earlier than the Byzantine era was found.

The pottery analysis did not assist in closely defining chronologically separate stages of settlement, and it seems that changes took place gradually, all within an advanced phase of the Byzantine period. The finds apparently represent a single-period site; the particular forms and types of fine wares suggest that the site be dated to the later part of the sixth century CE, possibly the 580s.

The settlement apparently ceased to exist at the end of the period.¹² While a few coins dating to the Crusader period and remains dating to the Ottoman era were found (see Porath 1988), it seems that after the Byzantine period the site was occupied only sporadically.

For a better understanding of the compound further investigation of similar settlements in the vicinity of Caesarea is necessary, e.g., Ramat Ha-Nadiv (Hirschfeld 2000). It seems that only a regional approach can provide an understanding of the mechanisms of interaction between Caesarea and the smaller settlements in its hinterland (Hirschfeld and Birger-Calderon 1991).

Appendix 1. Loci List.

No.	Area	Square	Type	Opening Elevation	Closing Elevation
200	B	G/H-6/7	Fill	4.43	2.40
201	B	H6-7	Fill	4.42	3.90
202	B	G6	Fill	4.30	3.40
203	A	D15	Sur.	4.99	4.15
204	A	E15	Sur.	5.09	4.72
205	A	E15	Fill	4.72	4.14
206	A	E14	Sur.	5.19	4.20
207	A	D14	Sur.	4.91	4.58

No.	Area	Square	Type	Opening Elevation	Closing Elevation
208	B	H/G8	Fill	4.48	3.40
209	B	H/G8	Fill	4.63	3.50
210	A	E16	Sur.	5.09	4.85
211	A	E16	Fill	4.85	4.26
212	A	E15-16	Fill	5.09	4.31
213	B	H/G8	Fill	4.63	3.50
214	A	E16	Fill	4.85	4.16
215	A	D13	Sur.	4.83	4.68

Appendix 1. (cont.)

No.	Area	Square	Type	Opening Elevation	Closing Elevation	No.	Area	Square	Type	Opening Elevation	Closing Elevation
216	A	E17	Sur.	5.03	4.42	257	A	C11	Fill	4.62	4.39
217	A	C14	Sur.	4.97	4.83	258	A	D20	Fill	5.42	4.66
218	A	D16	Sur.	5.23	4.99	259	A	E20	Fill	5.03	4.43
219	A	E/D14	Fill	4.91	4.59	260	A	E19	Fill	4.48	3.68
220	A	C14	Fill	4.84	4.63	261	A	E19	Sur.	5.16	5.04
221	A	D13	Fill	4.68	4.02	262	A	E20	Fill	4.43	4.13
222	A	D16	Fill	4.99	4.44	263	A	D/E20	Fill	3.50	2.97
223	A	C14	Fill	4.63	4.42	264	A	E20	Fill	4.14	3.71
224	A	C14	Fill	4.42	4.24	265	A	E20	Fill	4.13	3.71
225	A	E17	Fill	4.82	4.29	266	A	E20	Fill	4.55	3.71
226	A	E17	Fill	4.82	4.06	267	A	E19	Fill	5.04	4.40
227	A	D15	Fill	4.15	3.88	268	A	D20	Fill	4.66	3.45
228	A	D15	Fill	4.15	3.49	269	A	E19	Fill	4.40	3.71
229	A	D13	Fill	4.02	3.27	270	A	E21	Sur.	5.34	4.56
230	A	D14	Fill	4.58	3.79	271	A	D20	Fill	3.45	2.90
231	A	E17	Fill	4.29	4.02	272	A	E19–20	Sur.	3.71	3.68
232	A	D13–14	Fill	5.19	3.79	273	A	D21	Sur.	5.34	5.12
233	A	C14	Fill	4.24	3.89	274	A	E21	Fill	4.56	3.63
234	A	E16–17	Fill	5.16	4.02	275	A	F19	Sur.	5.10	4.65
235	A	D16	Fill	4.75	4.44	276	A	D21	Fill	5.12	3.89
236	A	D16	Fill	4.44	3.61	277	A	E21	Fill	3.63	3.53
237	A	E13	Sur.	4.77	4.51	278	A	F19	Fill	4.65	3.79
238	A	C17	Sur.	5.25	4.91	279	A	E21	Fill	3.53	3.38
239	A	E13	Fill	4.51	4.24	280	A	D21	Fill	5.07	4.81
240	A	E14	Fill	4.24	3.79	281	A	E18	Fill	3.47	2.90
241	A	E14	Fill	4.24	3.83	282	A	E21	Fill	3.38	3.00
242	A	E13	Sur.	4.51	3.79	283	A	F20	Sur.	5.19	5.00
243	A	C17	Fill	4.91	4.52	284	A	C/D19	Sur.	5.35	4.00
244	A	D/E19	Fill	4.76	4.36	285	A	F20	Fill	5.00	4.22
245	A	D/E11	Sur.	4.58	4.52	286	A	C/D19	Fill	4.00	3.75
246	A	E18	Sur.	5.16	5.04	287	A	D21	Fill	4.81	3.70
247	A	C17	Fill	4.62	4.52	288	A	C/D19	Fill	3.75	3.65
248	A	D11	Fill	4.52	4.13	289	A	D21	Fill	3.70	3.00
249	A	E18	Fill	5.04	4.37	290	A	E18	Floor	3.00	2.90
250	A	D16	Fill	3.61	3.13	291	A	E21	Floor	2.90	2.75
251	A	C17	Fill	4.52	3.62	292	A	F20	Fill	4.22	3.76
252	A	C17	Fill	4.52	3.70	293	A	D18	Sur.	5.37	5.05
253	A	D/E19	Fill	4.36	3.50	294	A	D18	Fill	5.05	4.50
254	A	E18	Fill	4.37	3.47	295	A	F21	Sur.	5.19	5.15
255	A	C11	Sur.	4.80	4.62	296	A	D18	Fill	4.50	4.00
256	A	E20	Sur.	5.13	5.03	297	A	F21	Fill	5.15	3.85

Appendix 1. (cont.)

No.	Area	Square	Type	Opening Elevation	Closing Elevation	No.	Area	Square	Type	Opening Elevation	Closing Elevation
298	A	F19-20	Fill	5.19	3.72	340	C	X24	Fill	6.89	6.28
299	A	F20-21	Fill	5.19	3.76	341	C	T24	Fill	7.48	7.32
300	A	E/F20	Fill	5.19	3.76	342	C	Y24	Sur.	6.97	6.52
301	A	D/E18	Fill	5.16	4.00	343	C	Z24	Sur.	6.85	6.70
302	A	E22	Fill	4.25	3.82	344	C	T24	Fill	7.32	6.74
303	A	D22	Fill	4.26	3.89	345	C	Y24	Fill	6.52	6.27
304	A	D18	Fill	4.00	2.85	346	C	Z24	Fill	6.70	6.26
305	A	E19-20	Fill	5.19	3.75	347	C	T24	Fill	6.74	6.07
306	A	F19	Sur.	5.19	4.98	348	C	T24	Fill	6.74	6.06
307	A	D22	Fill	3.89	2.99	349	C	T25	Fill	7.70	6.88
308	A	E22	Fill	3.82	2.75	350	C	Z24	Fill	6.26	6.04
309	C	T21-22	Fill	7.60	7.50	351	C	X24	Fill	6.28	6.08
310	A	E21-22	Fill	4.25	2.75	352	C	X24	Fill	6.28	6.09
311	A	D21-22	Fill	4.25	2.75	353	C	T24	Fill	6.07	5.71
312	C	T21-22	Fill	7.50	7.34	354	C	Z24	Fill	6.04	5.95
313	C	T21-22	Fill	7.34	6.88	355	C	V23	Sur.	7.47	7.08
314	A	F22	Fill	3.82	2.75	356	C	W23	Sur.	7.22	7.01
315	A	F18	Sur.	5.10	4.85	357	C	V23	Fill	7.08	7.00
316	A	G21	Sur.	5.15	3.85	358	C	T/U23		8.07	5.71
317	A	F18	Fill	4.85	4.26	359	C	V24	Fill	6.83	6.54
318	A	G21	Fill	3.85	3.46	360	C	V23	Fill	7.00	6.43
319	C	S22	Fill	6.88	6.58	361	C	W23	Fill	7.01	6.26
320	C	T22	Fill	6.88	6.41	362	C	Z24	Fill	5.95	5.75
321	C	U24-25	Sur.	8.17	7.94	363	C	X23	Sur.	6.97	6.78
322	C	U24-25	Fill	7.94	7.17	364	C	Y23	Sur.	6.93	6.52
323	C	T23	Sur.	7.98	7.75	365	C	Z23	Sur.	6.8	6.42
324	A	D/E21		2.75	1.80	366	C	Y24	Fill	6.27	5.79
325	A	E25		3.73	3.46	367	C	Z24	Fill	5.75	5.43
326	C	T23	Fill	7.75	7.42	368	C	X23	Fill	6.78	6.32
327	C	U23		7.83	7.34	369	C	Y23	Fill	6.52	6.21
328	C	T24		8.19	7.93	370	C	Z23	Fill	6.42	5.98
329	C	U23		7.34	6.73	371	C	X23	Fill	6.32	6.22
330	C	T23	Fill	7.42	7.22	372	C	Y23	Fill	6.21	6.00
331	C	T23	St. fall	7.42	7.23	373	C	Z23	Fill	5.98	5.76
332	C	T24	Fill	7.93	7.48	374	C	U22	Sur.	7.43	7.13
333	C	T25	Sur.	8.39	8.17	375	C	U22	Fill	7.13	6.29
334	C	V24	Sur.	7.94	7.25	376	C	V22	Sur.	7.30	6.59
335	C	W24	Sur.	7.33	7.11	377	C	W22	Sur.	6.92	6.55
336	C	X24	Sur.	7.12	6.89	378	C	X23	Fill	6.22	5.95
337	C	T25	Fill	8.17	7.70	379	C	Y23	Fill	6.00	5.94
338	C	V24	Fill	7.25	6.83	380	C	Z23	Fill	5.76	5.68
339	C	W24	Fill	7.11	5.75	381	C	W22	Fill	6.55	6.23

Appendix 1. (cont.)

No.	Area	Square	Type	Opening Elevation	Closing Elevation	No.	Area	Square	Type	Opening Elevation	Closing Elevation
382	C	V22	Fill	6.59	6.23	408	C	U23	St. fall	6.73	6.17
383	C	Z23	Fill	5.68	4.42	409	C	T23	St. fall	7.23	6.80
384	C	V22	Fill	6.23	6.00	410	C	Y22	Fill	5.89	5.21
385	C	W22	Fill	6.23	6.05	411	C	Z22	Fill	5.92	5.77
386	C	X23	Fill	5.96	5.70	412	C	Z23	Floor	4.42	4.42
387	C	X23	Fill	5.96	5.58	413	C	X24	Fill	6.08	5.96
388	C	Y23	Fill	5.94	5.60	414	C	X24	Fill	6.09	5.96
389	C	V22	Fill	6.00	5.63	415	C	Z22	Fill	5.77	5.26
390	C	X22	Sur.	7.00	6.90	416	C	Y22	Fill	5.21	5.11
391	C	X33	Fill	6.90	6.70	417	C	X21	Sur.	6.87	6.55
392	C	W22	Fill	6.05	5.75	418	C	U21	Sur.	7.22	6.90
393	C	X22	Fill	6.70	5.40	419	C	U21	Fill	6.90	6.20
394	C	Y22	Sur.	6.85	6.55	420	C	X21	Fill	6.55	6.18
395	C	Z22	Sur.	6.83	6.40	421	C	V21	Sur.	7.15	6.76
396	C	Y23	Fill	5.60	5.41	422	C	U21	Fill	6.20	5.56
397	C	Y23	Fill	5.60	5.42	423	C	V21	Fill	6.76	5.67
398	C	W22	Fill	5.75	5.30	424	C	X21	Fill	6.18	5.98
399	C	Y22	Fill	6.55	5.89	425	C	Z21	Sur.	7.04	6.70
400	C	Z22	Fill	6.40	6.00	426	C	Z21	Fill	6.70	5.71
401	C	V23	Fill	6.43	6.25	427	C	X21	Fill	5.98	5.38
402	C	V-W22		6.94	5.60	428	C	Z21	Fill	5.71	5.14
403	C	Z22	Fill	6.00	5.92	429	C	U21	Fill	5.56	5.37
404	C	X23	Fill	5.70	5.60	430	C	T23	Floor	6.80	6.80
405	C	W23	Fill	6.26	5.84	431	C	U22-23	Instal- lation	6.82	6.54
406	C	W23	Fill	6.26	5.92						
407	C	V23	Fill	6.25	5.87						

NOTES

¹ The site also appears as Tel 'Aferin and Khirbat Malkha in various publications.

² The excavations were directed by the writer on behalf of the Israel Antiquities Authority (Permit No. A-2183). The excavation staff included Daud Daud (area supervisor) and Vadim Essman (surveyor and draftsman), Tsila Sagiv and the author took the photographs, and Marina Shuiskaya drew the pottery and small finds. Special thanks to David Alexander,

Michael Bendon and Sharon Gonen, who helped process the finds and prepare this report.

³ Conder and Kitchener reported architectural remains including a "masonry pool with buttresses", pottery, and marble and mosaic fragments. An "Arab cemetery" appears in the northern section of the site on their map (Sheet VII, 52).

⁴ Report by Y. Porath, July 21, 1963 (IAA Archives).

⁵ The eastern part was already built over when the excavation began. The entire area was covered with sand after the excavation.

⁶ However, Porath mentions remnants of plaster on the walls (see n. 4).

⁷ Additional water channels, leading toward the sea, were found during the earlier excavations (Y. Porath, pers. comm., September 1994).

⁸ Since this article was written comprehensive research has been carried out on these wares, including those from Tel 'Afar (Tsuf 2003; additional types from the site are illustrated and discussed therein).

⁹ Mayerson refers to an unpublished study carried out by Killebrew.

¹⁰ I would like to thank Prof. M. Fischer of Tel Aviv University for dating this object and for his kind assistance in finding parallels for the capital.

¹¹ Oleson (1984) investigated these wells and vessels. For further discussion, see Roll and Ayalon 1989:210–213. Ayalon (2000) published a typology of the *saqiya* vessels and a list of sites where these vessels were found. The list also includes vessels from two wells, which were recently recorded at Yavne Yam (Ayalon and Drey 2005) and Jaffa (Peilstöcker 1998).

¹² For the problem of the transition from the Byzantine to the Early Islamic period, see Orssand 1992.

REFERENCES

- Adan-Bayewitz D. 1982. The Ceramics from the Synagogue of Horvat 'Amudim and their Chronological Implications. *IEJ* 32:13–31.
- Adan-Bayewitz D. 1986. The Pottery from the Byzantine Building (Stratum 4) and Its Implications. In L.I. Levine and E. Netzer eds. *Excavations at Caesarea Maritima 1975, 1976, 1979—Final Report* (Qedem 21). Jerusalem. Pp. 90–129.
- Adan-Bayewitz D. 1993. *Common Pottery in Roman Galilee: A Study of Local Trade*. Ramat Gan.
- Ayalon E. 1994. A Roman-Byzantine Mausoleum at Kh. Sabiya, Kefar Sava. *'Atiqot* 25:27*–39* (Hebrew; English summary, p. 189).
- Ayalon E. 2000. Typology and Chronology of Water-Wheel (Saqiya) Pottery Pots from Israel. *IEJ* 50:216–226.
- Ayalon E. and Drey Y. 2005. An Irrigation System from Byzantine Yavne Yam. In M. Fischer ed. *Yavneh, Yavne Yam and their Neighborhood*. Tel Aviv. Pp. 229–252 (Hebrew).
- Bar-Nathan R. and Adato M. 1986. The Promontory Palace: Pottery. In L.I. Levine and E. Netzer. *Excavations at Caesarea Maritima 1975, 1976, 1979—Final Report* (Qedem 21). Jerusalem. Pp. 160–175.
- Bijovsky G. This volume. The Coins from Tel 'Afar.
- Conder C.R. and Kitchener H.H. 1882. *The Survey of Western Palestine* II. London.
- Hayes J.W. 1972. *Late Roman Pottery*. London.
- Hayes J.W. 1980. *A Supplement to Late Roman Pottery*. London.
- Hirschfeld Y. 2000. *Ramat HaNadiv Excavations: Final Report of the 1984–1998 Seasons*. Jerusalem.
- Hirschfeld Y. and Birger-Calderon R. 1991. Early Roman and Byzantine Estates near Caesarea. *IEJ* 41:81–111.
- Johnson B.L. and Stager L.E. 1995. Ashkelon: Wine Emporium of the Holy Land. In S. Gitin ed. *Recent Excavations in Israel*. Boston.
- Kramer J. 1994. *Korintische Pilasterkapitelle in Kleinasien und Konstantinopel: antike und spätantike Werkstattgruppen*. Tübingen.
- Landgraf J. 1980. La céramique byzantine. In J. Briand and J.B. Humbert. *Tell Keisan (1971–1976): Une cité phénicienne en Galilée*. Fribourg. Pp. 51–99.
- Magness J. 1993. *Jerusalem Ceramic Chronology: Circa 200–800 CE* (JSOT/AASOR Monograph Series). Sheffield.
- Majcherek G. 1995. Gazan Amphorae: Typology Reconsidered. In H. Meyza and J. Mlynarczyk eds. *Hellenistic and Roman Pottery in the Eastern Mediterranean: Advances in Scientific Studies; Acts of the II Nieborow Pottery Workshop, Niebowow, 18–20 December, 1993*. Warsaw. Pp. 163–178.

- Mayerson P. 1992. The Gaza "Wine" Jar and the "Lost" Ashkelon Jar. *IEJ* 42:76–80.
- Ne'eman Y. 1973. *Hadera*. Hadera (Hebrew).
- Neeman Y., Sender S. and Oren E. 2000. *Map of Mikhmoret (52), Map of Hedera (53)* (Archaeological Survey of Israel). Jerusalem.
- Oleson J.P. 1984. *Greek and Roman Mechanical Water-Lifting Devices*. Phoenix.
- Orssand D. 1992. Le passage de la céramique byzantine a la céramique islamique. In P. Canivet and J-P. Rey Coquais. *La Syrie de Byzance a l'Islam*. Damascus.
- Peilstöcker M. 1996. Tel 'Afar. *ESI* 16:77–79.
- Peilstöcker M. 1998. Jaffa. *ESI* 20:47*–49*.
- Peleg M. and Reich R. 1992. Excavations of a Segment of the Byzantine City Wall of Caesarea Maritima. *'Atiqot* 21:13–170.
- Porath Y. 1988. Tel Afar. *ESI* 7/8:1–3.
- Peacock D.P.S. and Williams D.F. 1986. *Amphorae and the Roman Economy*. New York.
- Riley J.A. 1975. The Pottery from the First Session of Excavations in the Caesarea Hippodrome. *BASOR* 218:25–63.
- Roll I. and Ayalon E. 1989. *Apollonia and Southern Sharon*. Tel Aviv (Hebrew).
- Rosenthal-Heginbottom R. 1988. The Pottery. In Y. Tsafir. *Excavations at Rehovot-in-the-Negev I: the Northern Church* (Qedem 25). Jerusalem. Pp. 78–96.
- Tsuf O. 2003. *Red Slip Bowls in the Late Roman and Byzantine Periods: Social Economic and Technological Aspects*. Ph.D. diss. University of Haifa. Haifa (Hebrew).
- Ustinova Y. and Nahshoni P. 1994. Salvage Excavations in Ramot Nof, Be'er Sheva'. *'Atiqot* 25:157–177.