

EXCAVATIONS AT ET-ṬUWEIRI AND THE BOUNDARY BETWEEN THE DIOCESES OF TYRE AND ‘AKKO-PTOLEMAIS IN THE BYZANTINE PERIOD

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A winery complex uncovered at et-Ṭuweiri, Western Galilee, joins only three published, and several unpublished wineries established in northern Israel in the Roman period. The winery continued to operate in the Byzantine period and went out of use late in the Umayyad period. The article presents the history of research of the site, the excavation and the finds, including pottery, coins and metal objects, as well as inscriptions found at the site in the excavation and in the past. An inscription set in the mosaic floor of one of the treading floors of the winery was dated by the era of Tyre to 564 CE, affording a rare opportunity to reexamine the question of the geographical boundary between the dioceses of Tyre and ‘Akko-Ptolemais in the Byzantine period and the Christian settlement in the region at the time.

Keywords: Tyre, ‘Akko-Ptolemais, inscriptions, winery, Byzantine period, Christianity

INTRODUCTION

The site of et-Ṭuweiri, situated about one kilometer west of Kibbutz Kabri, in what are now agricultural fields in the alluvial coastal plain of northern Israel (map ref. NIG 2126/7698; Fig. 1), is known from documents of the Crusader, Mamluk and Ottoman periods (Frankel and Getzov 2012: Site 42). Its earliest modern record is by Guérin (1880:43; *Kharbet Thouaireh*), who observed a large ruin with architectural fragments that included columns and two capitals, white marble slabs described as “nice” and numerous tesserae, all proposed to have been part of a church; also noted by Guérin was the possible presence of an earlier structure that was superseded by the church. The site sustained heavy damage from intensive cultivation in the course of the twentieth century, exposing ancient finds that were subsequently scavenged from the site and found their way to neighboring settlements.

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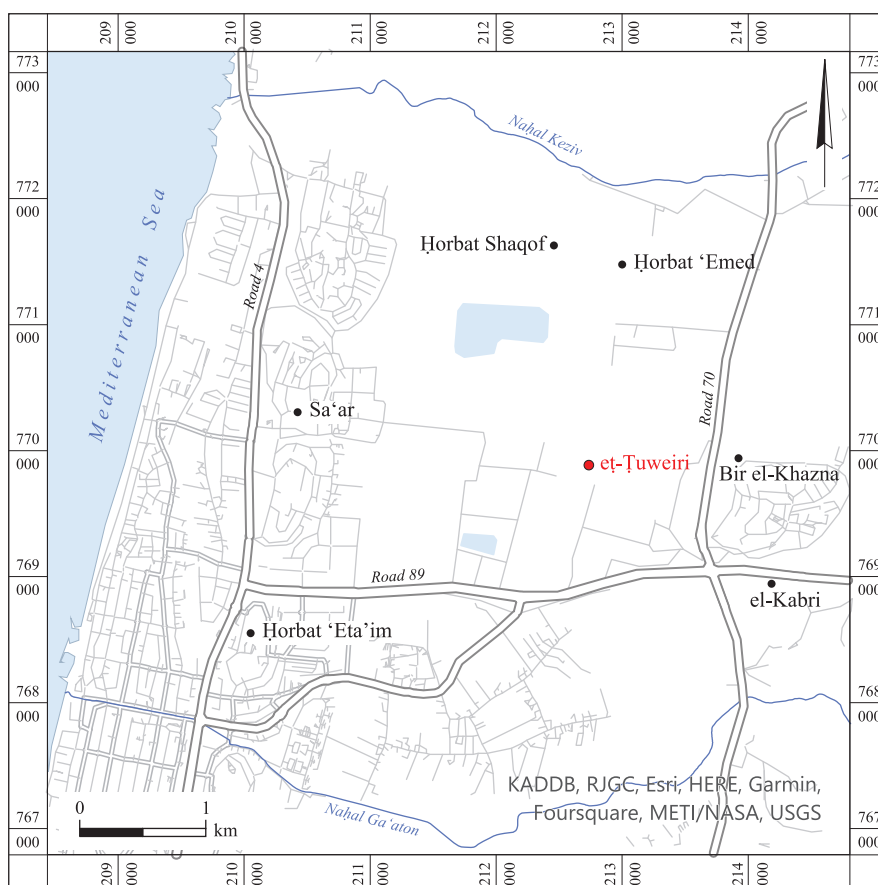


Fig. 1. Location map of et-Tuweiri and other sites mentioned in the text.

A survey by Frankel and Getzov (1997: Site 2.184; 2012: Site 42)² dated the remains at the site to the Roman, Byzantine and Crusader–Mamluk periods, based on evidence of pottery. The surveyors noted the presence of many components of ancient oil-press installations, a sundial, a capital with a cross, decorated panels, an inscription (see below, *Inscription 2*), a gemstone and an amulet, most dating from the Byzantine period.

In 1962, a large winepress was excavated in the northwestern part of the site by B. Safrai (unpublished; see Frankel and Getzov 2012: Site 5.42). Another excavation was conducted in the southern part of the site (Smithline 2007; Fig. 2: A-4258), exposing the remains of a church that may be one and the same as the large ruined structure identified at the site by Guérin, or possibly a different structure; the finds from this excavation included an inscription (see below, *Inscription 5*) and a large quantity of marble architectural elements

² The site appears in two of the survey maps produced by Frankel and Getzov, those of Ḥanita and 'Amqa.

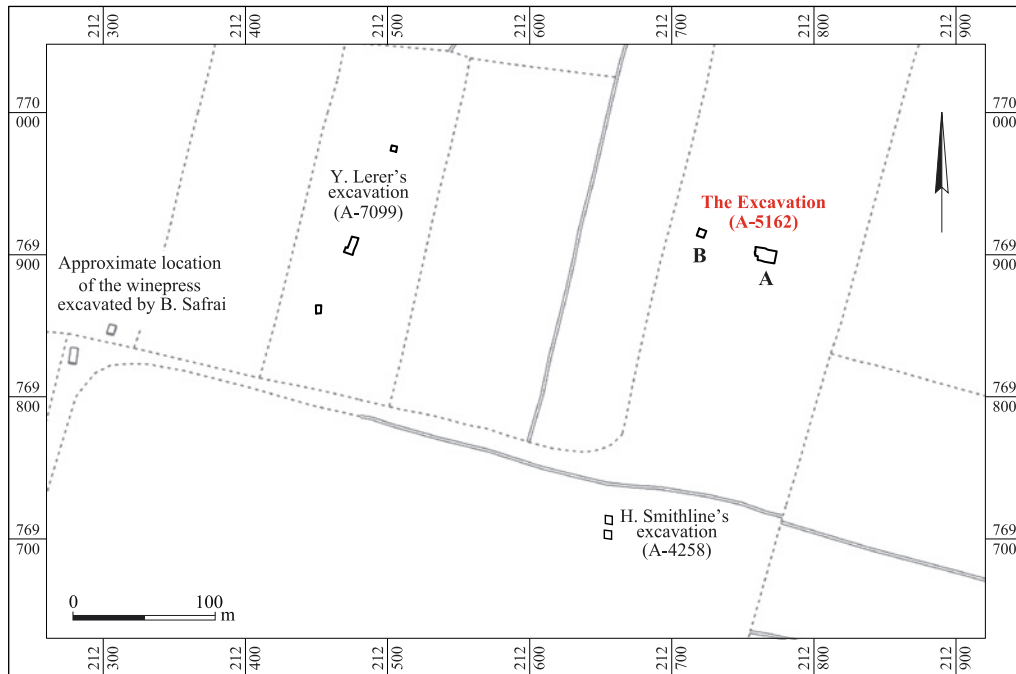


Fig. 2. Location of the various excavations conducted at et-Ṭuweiri.

and glass tesserae, some containing a gold leaf, which appear to have been part of the ancient church. Yet another excavation conducted at the site by Lerer (2021; Fig. 2: A-7099) exposed field walls and a stone-paved floor, associated with pottery and coins dating from the Byzantine, Umayyad and Mamluk periods. Some of the Mamluk-period pottery unearthed at that time belonged to vessels of the sugar industry. The remains from Lerer's excavation seem to have been located at the edge of the ancient settlement.

The present excavation was conducted in July 2007,³ when Kibbutz Kabri planned to expand its agricultural activities over the area occupied by the site of et-Ṭuweiri, and

³ The excavation (Permit No. A-5162/2007) was conducted by Zohar Daniel on behalf of the Israel Antiquities Authority and financed by Kibbutz Kabri. The work was assisted by Howard Smithline (field photography), Danny Syon (metal detector), Mark Molokandov and Vadim Essman (drafting and surveying), Yossi Yaakobi (administration), Nimrod Getzov, Rafael Frankel and Moshe Hartal (scientific advising), Anastasia Shapiro (GPS and preparation of Fig. 2) and workers from Kafr Manda and Nazareth. Post-excavation assistance was provided by Anastasia Shapiro (geological advising), Gali Beiner (metal laboratory), Donald T. Ariel and Ariel Berman (coin identification), Clara Amit and Marianna Salzberger (studio photography), Yael Gorin-Rosen (glass) and Inbar Ktalav (mollusks). This report was written by Danny Syon (stratigraphy, numismatic report, metal finds and epigraphy) and Nimrod Getzov (analysis and pottery). As Zohar Daniel has left the IAA and some of the field documentation was not available during the preparation of this report, the stratigraphic analysis presented below is a reflection of the efforts of the first two authors to evaluate the available information to the best of their ability.

following the exposure of wall remains and architectural elements in a test trench.⁴ Six excavation squares (c. 5 × 5 m each) were opened in two areas (A, B; Fig. 2: A-5162), 35 m from each other, located at a distance of c. 70 m north of Smithline's excavation and c. 80 m east of Lerer's. Area A yielded the remains of a winery complex, of a type known as an improved winery,⁵ from the Byzantine period, while Area B yielded part of a well-built structure, most likely dating from the late Byzantine–Early Islamic period. All excavated loci yielded both Byzantine- and Early Islamic-period pottery and hence, none of the contexts could be clearly attributed to strata.

Taken together, the finds from the present and previous excavations at eṭ-Ṭuweiri suggest that a monastic estate may have existed at the site in the Byzantine period and continued to function in the early part of the Early Islamic period. An inscription (see below, *Inscription 4*) uncovered within a mosaic floor of the winery in Area A further allows a reconsideration of the geographic placement of the administrative boundary between the Dioceses of Tyre and 'Akko-Ptolemais in the Byzantine period.

ARCHITECTURE AND STRATIGRAPHY

Area A

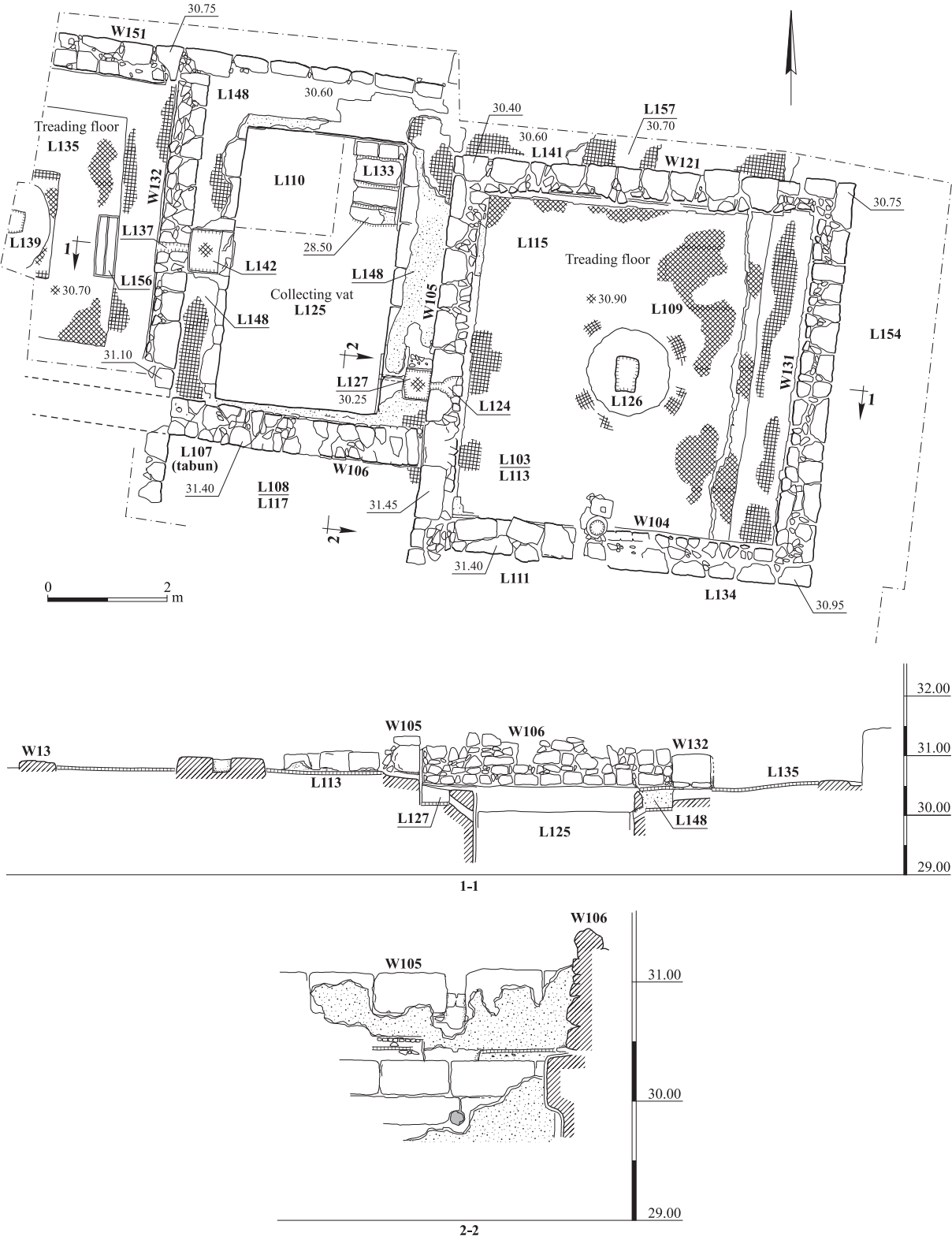
A large winery complex was uncovered in Area A (Plan 1), testifying to two distinct phases of use: primary Phase I—in which the structure seems to have undergone a number of modifications—and secondary Phase II; taken together, these phases indicate that the use of the structure continued over a long period of time. The excavated remains of Phase I comprise two treading floors flanking a large collecting vat, one located west of the vat and the other to its east (Fig. 3).

Phase I

The Western Treading Floor (L135; Plan 1; Figs. 3, 4). This part of the winery was only partly excavated. The enclosing walls (0.5–0.6 m wide) were constructed of large, closely-fitting hewn stones, with plaster still adhering to their interior face. The floor was paved with a well-preserved coarse mosaic composed of tightly-fitting tesserae, arranged in straight rows; in some segments of the mosaic the rows were parallel to the walls, while in others, the rows were diagonal to the walls. A dedicatory inscription in Greek (L156; see below, *Inscription 4*), forming part of the mosaic, was uncovered. Installed in the floor was the base of a fixed screw-press of the 'Hanita' type (see Frankel 1999:144–145). Assuming that the press base was positioned in the center of the floor, the entire floor size is estimated

⁴ Excavation of the test trench was supervised by Yoav Lerer.

⁵ For the terminology and description of this type, see Frankel (1999: esp. Chapters 8, 9).



Plan 1. Area A, winery, plan and sections.

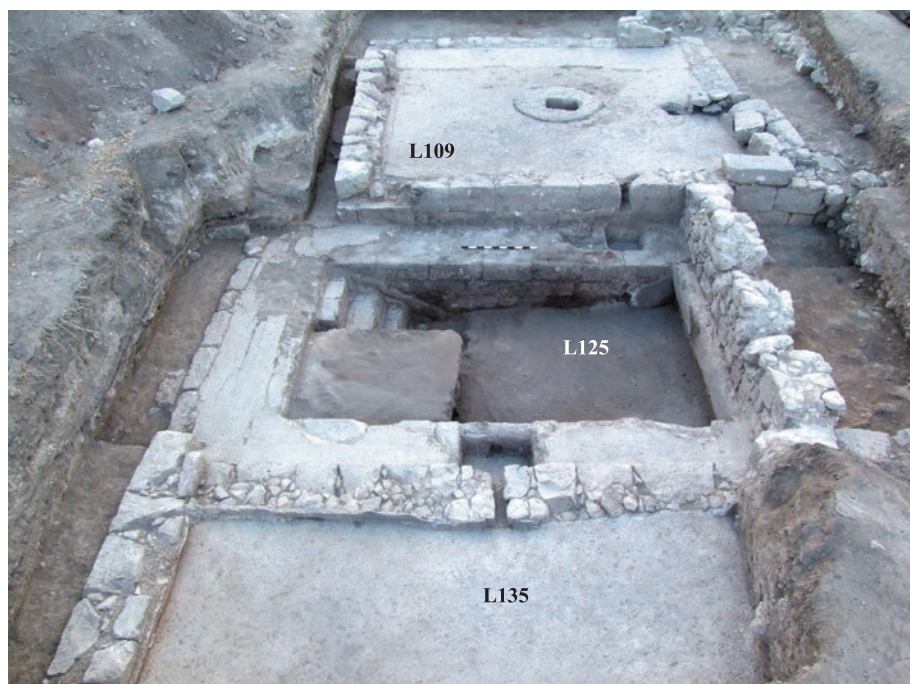


Fig. 3. Area A, the winery, looking east.



Fig. 4. Area A, Western Treading Floor 135, looking south.

at approximately 4.5×4.5 m. A channel (L137) installed in the center of the eastern wall (W132) allowed the must to flow into the collecting vat (L125).

The Collecting Vat (L125; 2.4×4.2 m). The vat is likely to have been built together with Western Treading Floor 135 as one unit, as the two components seem to share their northern and southern walls (W151 and W106, respectively), although it should be noted that W106 may represent a late modification of the structure (see below). The interior of the vat, excavated to a depth of 3 m without reaching the bottom, was accessed by a set of steps (L133; Fig. 3), of which the overall number remains unknown. The vat's volume is roughly estimated at 30,000 liters, provided that its depth was not much greater than 3 m. Much plaster was found still adhering to the vat walls and steps. The vat was surrounded by a narrow service ledge (L148; 0.7 m wide), paved with a mosaic similar to that of the western treading floor, which allowed workers to extract the must from the vat. A small filtering vat (L142) was installed on the western side of the ledge connected to Channel 137 in W132 of the western treading floor, thus allowing the must to flow into the large collecting vat (Plan 1: Section 1–1; Fig. 5); Filtering Vat 142 connects to Collecting Vat 125 through a ceramic pipe, and originally it probably accommodated a filtering device, such as a wicker basket or a perforated vessel.



Fig. 5. Area A, Filtering Vat 142, looking west; note the ceramic pipe emptying into the collecting vat and the plaster remains.

The Eastern Treading Floor (L109; Plan 1; Fig. 6). This unit was fully exposed (4.7×4.7 m), revealing walls, a mosaic floor and a screw-press base similar to those of Floor 135. As is the case with Floor 135 to the west, a channel (L124) through the western wall of Floor 109 (W105)—connecting to Filtering Vat 127 and a ceramic pipe—allowed the must to flow into Vat 125 (Plan 1: Sections 1–1, 2–2). Apart from a 0.75 m wide strip of mosaic along the eastern wall (W131) of Floor 109, in which the tesserae were neatly arranged as in Floor 135, the lions' share of Floor 109 comprises rather irregularly-arranged tesserae: a few rows are arranged in a circle around the screw base and the remainder, in a haphazard manner, with patches of the mosaic composed of rows oriented in different directions. Here, unlike in Floor 135, the tesserae are not tightly-packed and the surface is uneven, suggesting that the builders did not lay down a robust substrate for Floor 109.

The southern and northern walls delimiting Floor 109 do not align with those of the unit that combines Vat 125 and Floor 135, and its outlet into Vat 125 is off-centered; hence, the eastern treading floor may have originally functioned differently once it was connected to Vat 125, or it may have been a later addition. There is some indication that another space for a large collecting vat existed north of Floor 109. Excavation of a narrow trench



Fig. 6. Area A, Eastern Treading Floor 109, looking southeast; note the narrow strip of mosaic at top left, which was part of the original construction of this pressing unit.

north of the northern wall of Floor 109 (W121) uncovered a mosaic pavement (L141; Fig. 7) of a similar character and quality to that which surrounds Vat 125. Additionally, there may have been a channel through W121 and a filtering vat in L141 for must collection, although the remaining traces are too meager to ascertain this possibility. Provided that this reconstruction is correct, the poorly-executed part of the Floor 109 mosaic may represent a modification aimed at altering its original northern inclination to a western one. Further evidence of this structural alteration comprises damage to the mosaic floor on the ledge that surrounds Vat 125, where its Filtering Vat 127 was installed (Fig. 8).

Another modification of the winepress was detected in the western filtering vat (L142) leading from Floor 135 into Collecting Vat 125, where a narrow partition was installed between the filtering and the collecting vats (Fig. 5); the narrow partition was fitted with a ceramic pipe for the flow of the must and therefore, it seems to be a technical alteration of the filtering function of this component of the press. Yet other alterations to the press building involved the construction of a mosaic floor (L157; Fig. 7), about 0.1–0.5 m above



Fig. 7. Area A, a narrow excavation trench with evidence of two superimposed mosaic floors (L157/L141), adjoining the eastern treading floor along its northern W121, looking east.



Fig. 8. Area A, Filtering Vat 127 and Channel 124, looking east.

Floor 141, north of W121, and the addition of W106 (Fig. 3), both of noticeably inferior workmanship than the original Phase I floors and walls of the winery. Wall 106 is clearly a late addition as it was built atop mosaic Floor 148 that surrounds Vat 125, and abuts both eastern W132 of Floor 135 and western W105 of Floor 109. This addition seems to represent an extensive renovation of the winery (see below). The excavation may have exposed another part of the winepress (L117) south of W106, possibly another collecting vat, although the nature of this area could not be ascertained due to its limited exposure.

Phase II

Activity attributed to this phase includes the blocking of the ceramic pipe and the channel connecting Eastern Treading Floor 109 and Collecting Vat 125 using plaster, effectively rendering this treading floor unusable for pressing grapes. No similar treatment was observed in the conduit linking the collecting vat with Western Treading Floor 135.

Evidence of the latest activity identified in Area A, whether or not contemporaneous with the blocking mentioned above, comprises a *ṭabun* (L107; not illustrated) constructed south of W106, and a set of a grinding stones and a stone basin found atop Treading Floor 109, arranged in a line (Fig. 9). Subsequently, the western half of Treading Floor 109 seems to have become a rubbish dump (L103, L113, L115), which yielded a large quantity of pottery, glass, burned bones, roof tiles and various architectural elements.

Dating of the Winery

The discussion of the chronological attribution of the winery complex is to some degree conjectural, as the excavation exposed only part of the entire structure and its original extent



Fig. 9. Area A, grinding stone and basin atop the eastern treading floor, looking north.

remains unknown. Moreover, the excavation did not reach the foundations of the winery and hence, any conclusions regarding its chronology must remain tentative. The dating of the construction of the winery and its phases relies on parallels for the type of presses found in the excavation. The axial plan of the western press, combining Treading Floor 135 and Collecting Vat 125, and the use of a filtering vat fitted with a retractable filtering device, suggests a winepress of the ‘Simple Galilean Type’ (see Frankel 1999:152; Frankel and Getzov 2012: Introduction, Part VI). This type was hitherto known from only one published example from Khirbat el-Hashash in the Jezreel Valley, dated to the Roman period (Getzov, Tepper and Tepper 2017:104*–106*), and two others from Tell es-Sumeiriya in Western Galilee (Feig 1988–1989), seemingly erroneously dated to the Hellenistic period. Several unpublished examples of this type of winepress all occur in Western Galilee and are attributed to the Roman period (see Frankel 1999). The winepresses from Tell es-Sumeiriya were dated based on the finding of large quantities of Hellenistic-period pottery in one of the collecting vats, with only one Roman-period sherd retrieved from this context (Feig 1988–1989). However, the fact that the treading floors of these winepresses were paved with mosaics, a feature otherwise unknown to be associated with Hellenistic winepresses, strongly suggests a later date. It is noteworthy that the winepresses from Tell es-Sumeiriya and eṭ-ṭuweiri are nearly identical in the form of the collecting and the filtering vats, an observation which reinforces both the revised dating of the former two parallels and the assignment of the eṭ-ṭuweiri example to the Simple Galilean Type. Therefore, a Roman-

period date is suggested for the construction of this winery. This possibility is reinforced by the fact that Roman-period pottery was retrieved at the site in previous surveys (Frankel and Getzov 1997: Site 184).

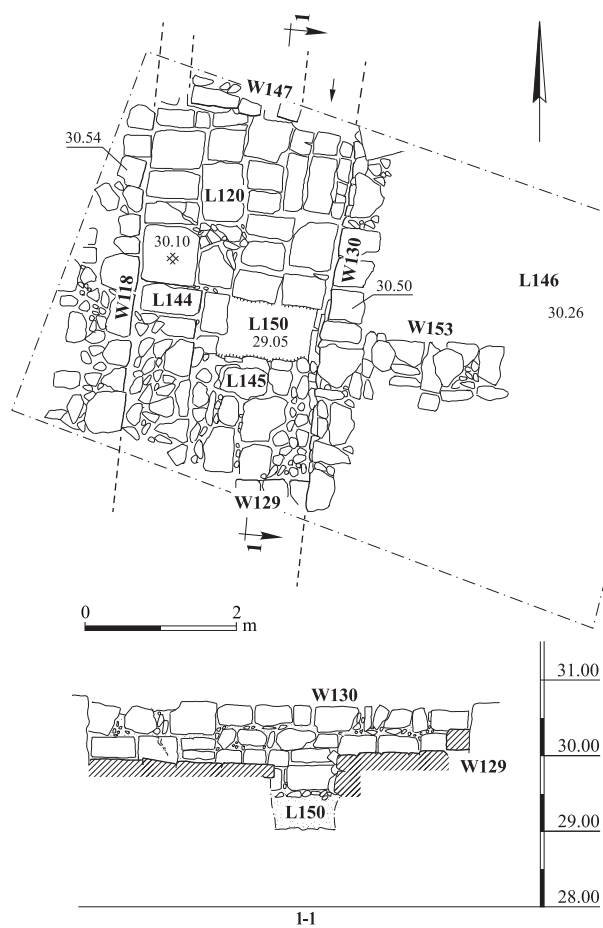
Drawing on the close similarity in the layout and method of construction of the two treading floors at eṭ-Ṭuweiri, it is suggested that they may have functioned contemporaneously (Phase I); however, the misalignment of the east–west oriented walls associated with the two floors implies that they were originally part of separate pressing units, and/or that they were constructed at different phases within the Roman period. The former possibility, suggesting an initial phase in which the two generally identical pressing units operated contemporaneously, seems more likely: one unit comprised Western Treading Floor 135 and Collecting Vat 125, while the other comprised Eastern Treading Floor 109 and presumably a collecting vat with a filtering vat to its north.

According to the proposed reconstruction, the two presses were subsequently combined into one unit, still within Phase I, and a number of structural modifications were undertaken in the two winepresses, although the changes undertaken in relation to Floor 109 were more extensive than in the adjoining winepress. Floor 109 was at that time repaved with a mosaic, which altered its inclination to allow the liquid to flow west into Collecting Vat 125, rather than north; coincidentally, Channel 124 with Filtering Vat 127 for connecting Floor 109 with Vat 125, were installed. It is presumed that the ‘Ḥanita’-type, fixed screw-press bases were installed at this time, while a less likely possibility is that they were installed at a later time, perhaps during the extensive Byzantine-period renovation of the winery. Such presses are typical of Western and Upper Galilee of the Byzantine period (Frankel 1999:153). A winepress of this type was uncovered near eṭ-Ṭuweiri, at el-Kabri (Abu-‘Uqsa 2007; Fig. 1), shown to have been built in the Byzantine period and remained in use until the Umayyad period, as evidenced by pottery found in the collecting vat.

The late construction of W106 along the southern edges of Floor 135 and Vat 125, appearing to represent extensive renovation subsequent to the joining of the two pressing units (Phase I), may indicate that there was a period of abandonment of the winery which necessitated the renovation, although it is just as possible that it operated continuously. Much pottery from the Byzantine period was retrieved from an accumulation (L117) south of W106, adding weight to the suggestion that the extensive renovation of the winery was undertaken during that period. Many potsherds dating to the Umayyad period, found atop the treading floors and inside the large collecting vat, suggest that the winery remained in use well into that period.

Area B

The evidence from architectural remains exposed in this area does not add up to a coherent plan, beyond the identification of what may have been one room of a large structure (Plan 2; Fig. 10). The remains comprise a rectangular paved space enclosed by four walls (W118, W129, W130 and W147), with an opening in W147, in the northeastern corner of the space. Two phases of use were discerned in this construction.



Plan 2. Area B, building, plan and section.



Fig. 10. Area B, looking north; note the caving-in of paving stones at center right.

Phase I

A pavement comprising close-fitting stones, each about 15 cm thick, was exposed. It abutted the eastern, western and northern walls in the northern part of the exposed space (L120) and likely extended to its southern part (see below). The walls surrounding L120, comprising large hewn stones, survived to a height of one to two courses. Also associated with this phase is evidence of a flight of stairs located along the interior of W118, of which only the lowest step (L144) remained.

Phase II

During this phase, a crudely but solidly built vault (L145) was erected within the southern part of the structure exposed in Area B, and possibly, an opening in Phase I W130 was blocked. The caving in of some of the paving stones at the southeastern part of L120 (Fig. 10) may have occurred as a result of the vault construction and the presumed removal of the paving stones in the southern part of the exposed space; the original paving appears to have been replaced at this time with the top of the vault. A few caved-in paving stones that were lifted at the southern edge of the pavement for a sounding (L150), revealed that the paving stones rested on virgin soil. Some pottery fragments found here were most likely deposited during the construction of the vault and the disturbance of the paving stones. Meager additional remains abutting the vault to its east (W153) and west indicate that L120 and L145 were part of a larger structure, most of which was not exposed in the excavation.

THE FINDS

The small finds include pottery, coins, metal objects, inscriptions and colored plaster, which are described below. Other finds include glass vessels (see Gorin-Rosen, this volume) and mollusk shells (see Ktalav, this volume). The finds are presented typologically and not chronologically due to the mixed nature of the excavated contexts. For the location of sites mentioned in this section, see Fig. 22.

Pottery*The Byzantine Period*

The wide variety of vessels retrieved from this period is typical of pottery assemblages from Byzantine-period Western Galilee. The similarity of the present assemblage to that of Ḥorbat 'Ovesh (Aviam and Getzov 1998) is especially noteworthy as it is the closest site to eṭ-Ṭuweiri from which such material was well-published. Vessels of diagnostic significance are described below.

Late Roman Red Ware Bowls.— Vessels of this type were extensively studied by Hayes (1972; 1980), with a revision of his work, focusing on the distribution of such vessels in the Southern Levant, later published by Tsuf (2003). This group includes bowls manufactured at various

sites around the Mediterranean, with most such vessels originating in Cyprus (Fig. 11:1–3), Phocaea and Asia Minor (not illustrated). Such bowls are common, for example, at Ḥorbat ‘Ovesh (Aviam and Getzov 1998:74), el-Waziya (Aviam 2002:197, Fig. 76) and Pi Mazzuva (Lerer 2020:48*–53*), among many other Byzantine-period sites in Western Galilee.

Cooking Pots with a Carinated Neck.— Such cooking pots (Fig. 11:4, 5) are characteristic of the end of the Byzantine period (Aviam and Getzov 1998:69).

Bag-Shaped Jar.— Most sherds collected in the excavation were body sherds of this type of jar, with a gray surface, bearing dense ribbing and decorated with white-painted stripes. These jars have a short neck and a thickened rim (Fig. 11:6).

Jar Lid.— This knob was part of a lid. Such lids resemble deep bowls, and sometimes feature a knob for gripping at the top (Fig. 11:7). Lids are common at Ḥorbat ‘Ovesh (Aviam and Getzov 1998:70), although the examples from that site lack knobs.

Stamped Northern Lamp.— A lamp (Fig. 11:8) belonging to this family of mold-made items bears a stamped decoration, which was applied to the surface before firing (see Sussman 1989). Many such lamps were found in Khirbat el-Shubeika Cave 2, where they were dated to the third–fourth centuries CE (Tatcher and Nagar 2002:266).

Phoenician Lamps.— These mold-made lamps (Fig. 11:9–11) are characterized by an ovoid body, a channel that connects the filling hole with the nozzle and a wide flat base. This lamp group was first identified by Hartal (2005:200–215), who showed that they were common in Galilee and the northern Golan. One of the items shown here (Fig. 11:10) is decorated with two peacocks in relief, flanking what could be a highly stylized cross. Similar lamps were

Fig. 11 ▶

No.	Vessel	Locus	Basket	Description
1	Bowl	117	1094/1	Purplish pink, well-levigated clay with thin purple slip
2	Bowl	110	1040	Purplish pink, well-levigated clay with thin purple slip
3	Bowl	117	1094/3	
4	Cooking pot	117	1063/2	Red-brown clay; gray brown surface
5	Cooking pot	117	1066/4	Brown clay; gray surface
6	Jar	117	1066/2	
7	Lid	117	1109	
8	Lamp	117	1066	Brown clay; white temper
9	Lamp	117	1092	Gray clay; whitish-gray surface
10	Lamp	140	1098	Pink clay; light brown surface
11	Lamp	110	1061	Dark gray clay

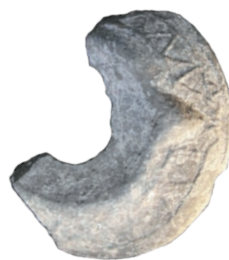
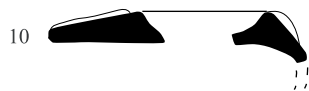
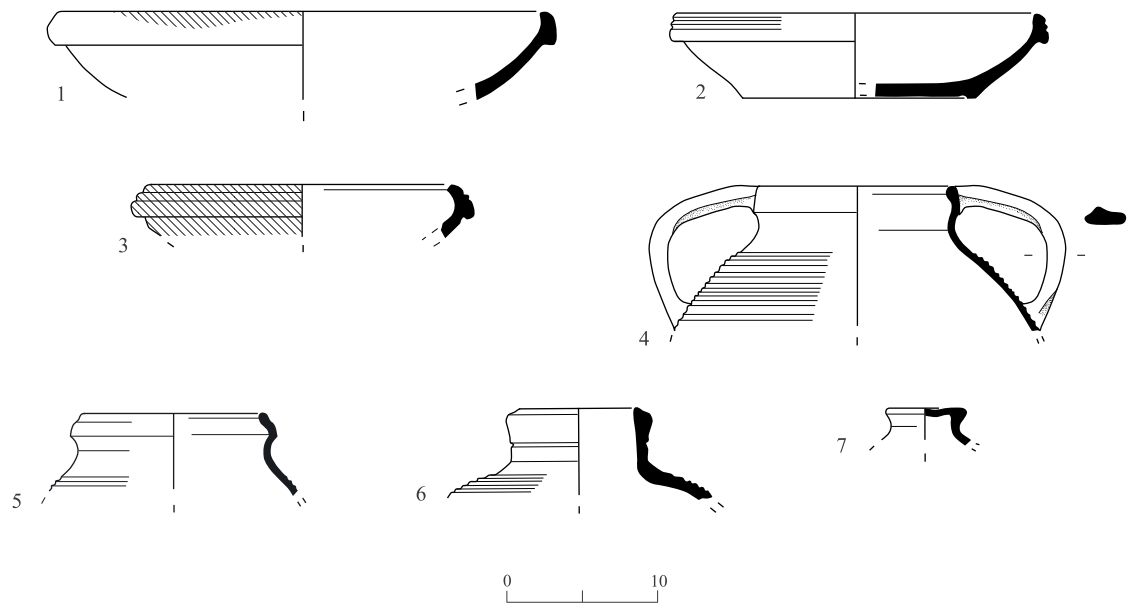


Fig. 11. Byzantine-period pottery.

found at el-Waziya (Aviam 2002:197, Fig. 77) and Khirbat Baṭ el-Jebel (Joppe Gosker, pers. comm.; for a description of the excavation at that site, see Gosker 2021). Such items also comprised the majority of the lamps found at Ḥorbat ‘Ovesh (Aviam and Getzov 1998:71), and were common at Khirbat el-Shubeika (Tatcher and Nagar 2002:266, termed ‘ovoid lamps’) and Pi Mazzuva (Lerer 2020:47*–48*).

The Early Islamic Period

The types presented here all belong to common vessels of the Early Islamic period, with the closest parallels found at Khirbat el-Shubeika (Avshalom-Gorni 2002; Tatcher 2002; Tatcher and Nagar 2002), Aḥihud (Porat and Getzov 2010) and Pi Mazzuva (Lerer 2020).

Egyptian Red-Slip Bowls.— These vessels form a subgroup of Late Roman Red Ware, originating in Egypt, which comprises three different types, A–C, according to Hayes (1972:387–401). Bowls of Type A are characterized by a light colored fabric and a rich red slip (Fig. 12:1–3). Similar bowls were recorded at Ḥammat Gader, where they were defined as Type 26, dating from the sixth to the early eighth century CE (Tsuf 2003:164, Pl. 46:980–982). While such Egyptian imports are also known from the Byzantine period, they are rarely found in Western Galilee at that time and therefore, the present examples should most likely be dated to the eighth century. Such bowls are absent at Ḥorbat ‘Ovesh, but occur at Khirbat el-Shubeika (Avshalom-Gorni 2002:241, Fig. 29:6, 7) and Aḥihud (Porat and Getzov 2010: Fig. 6:3). Another bowl (Fig. 12:4) belongs to Type C of Egyptian red-slipped bowls, characterized by poorly fired clay with much temper. A large stamped human figure, hardly discernable due to the item’s state of preservation, appears on the bottom of this bowl. According to Tsuf (2003:187, Pl. 48:1022–1024), this type should be dated to 620–700 CE.

Bowl Decorated in Kerbschnitt Technique.— Parallels for the sherd shown here (Fig. 12:5) are known from Khirbat el-Shubeika (Avshalom-Gorni 2002:242, Fig. 30:4) and Aḥihud (Porat and Getzov 2010: Fig. 6:4). Avissar (1996:122, Type 11) dated these bowls to the Umayyad and the early Abbasid periods, while Stacey (2004:93) dated them strictly to the Abbasid period.

Black Burnished Ware.— One sherd of a handmade vessel with a black, burnished surface and incised decoration was found (Fig. 12:6). A few such sherds were found at Khirbat el-Shubeika (Avshalom-Gorni 2002:242, Fig. 30:6–9). Stacey (2004:95) dated such bowls from Tiberias to 800–850 CE.

Casseroles and Lids(?).— Many sherds of these types were recovered in the excavation (Fig. 12:7–9), one of which was almost completely mended (Fig. 12:7). This type of casserole has horizontal handles, attached approximately 1.5 cm below the rim. Similar, but not identical casseroles were found at Khirbat el-Shubeika (Avshalom-Gorni 2002:232,

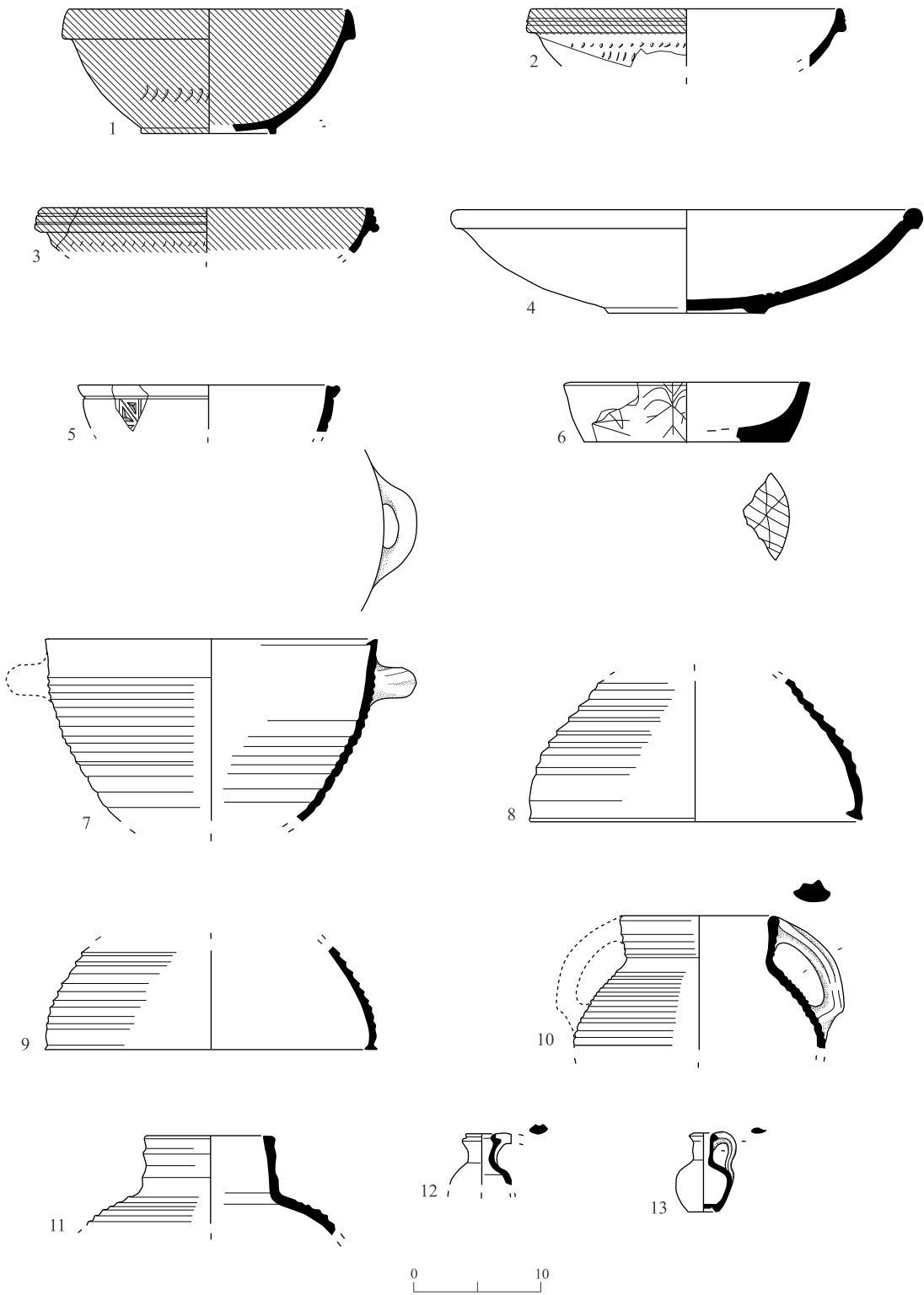


Fig. 12. Early Islamic-period pottery.



Fig. 12. (cont.).

No.	Vessel	Locus	Basket	Description
1	Bowl	109	1069	Whitish-pink clay with air cavities; orange slip; pale burnish
2	Bowl	115	1077	Whitish-pink clay with air cavities; rich red slip
3	Bowl	113	1014/1	Light pink clay with air cavities; rich red slip
4	Bowl	115	1026, 1033	Crumbly pink-brown clay with air cavities; small white temper particles; a human figure with poorly preserved stamp at its bottom
5	Bowl	102	1002	<i>Kerbschnitt</i> decoration
6	Bowl	120	1103/1	Brown-dark gray clay; black-burnished surface with incised palm tree on the side and straight crossing lines on the bottom
7	Cooking bowl	115	1033	Brown-red clay; brown-gray surface
8	Cooking bowl lid	117	1029	Brown-red clay
9	Cooking bowl lid	117	1066/5	Dark gray clay
10	Cooking pot	117	1067	Grayish-brown clay; many small white temper particles; gray surface
11	Jar	141	1105	Orange-brown clay; a few light temper particles; gray surface
12	Juglet	120	1103/3	Pink well-levigated clay
13	Juglet	142	1107	Reddish-brown clay; small light temper particles and mica
14	Lamp	109	1108	Gray clay; whitish-gray surface
15	Lamp	120	1050	Grayish-white clay

Fig. 21:1–5), Aḥihud (Porat and Getzov 2010: Fig. 6:8) and Pi Mazzuva (Lerer 2020: Fig. 1:4). According to Avissar (1996:139), the handles of such vessels were attached to the rim at the beginning of the Early Islamic period and subsequently moved to below the rim in the Abbasid period.

The two items in Fig. 12:8, 9 are tentatively identified as lids, based on the incurving shape of the rim, although they may have also been casseroles.

Tall-Necked Cooking Pot.— These vessels are characterized by a simple rim (Fig. 12:10). Such cooking pots were found at Khirbat el-Shubeika (Avshalom-Gorni 2002:233, Fig.

22:7) and Aḥihud (Porat and Getzov 2010: Fig. 6:11). At Tiberias, Stacey (2004:123) dated such pots to the Umayyad and Abbasid periods.

Bag-Shaped Jar.— The Early Islamic-period jars of this type resemble those of the Byzantine period, except for their taller neck and simpler rim (Fig. 12:11). Such jars were found at Khirbat el-Shubeika (Avshalom-Gorni 2002:235, Fig. 24:6–14), Aḥihud (Porat and Getzov 2010: Fig. 6:12–14) and Pi Mazzuva (Lerer 2020:45*).

Red-Painted Jugs.— A few sherds of such jugs found in the excavation (not illustrated) are dated to the Umayyad period and find parallels at Khirbat el-Shubeika (Avshalom-Gorni 2002:244, Fig. 31:8).

Miniature Juglets.— Two small globular juglets have a thin tall neck and a handle that extends from the rim to the shoulder (Fig. 12:12, 13). No parallels were found for these vessels. Figure 12:13 was found intact in the filtering vat of the western treading floor and therefore should be attributed to the latest phase of use of the winepress, in the Early Islamic period.

Lamps.— The Early Islamic-period lamps (Fig. 12:14, 15) are represented by two slightly different forms, for which parallels are known from Khirbat el-Shubeika (Tatcher 2002:243, Fig. 32:2, 3, respectively).

Discussion of the Early Islamic Pottery. Most of the Early Islamic vessels described here are known from assemblages of both the Umayyad and Abbasid periods. Exceptional in this respect are the red-painted jugs, which are known only from Umayyad contexts, and the cooking bowls with horizontal handles below the rim, which are not found in Umayyad contexts, according to Avissar (1996). Other indications of chronological significance include the lack of glazed and Cream Ware bowls (the latter group formerly known as ‘Buff Ware’). Glazed bowls were found at Khirbat el-Shubeika (Avshalom-Gorni 2002:242, Fig. 30:1, 2), but not at Aḥihud. These bowls date no earlier than the ninth century, and their absence in the present excavation leads to the conclusion that Early Islamic-period activity at the site had ceased prior to that century. The absence of Cream Ware at eṭ-Ṭuweiri is more difficult to explain, as this type is common at the nearby sites of Khirbat el-Shubeika (Avshalom-Gorni 2002:244, Fig. 31:1–7) and Aḥihud (Porat and Getzov 2010: Fig. 6:16–20), which are thought to date to about the same period. According to Cytryn-Silverman (2013:172), Cream Ware jugs appeared only after the Umayyad period, and Stacey (2004:92) dates the bowls of this group to the early Abbasid period.

In conclusion, the Early Islamic pottery assemblage should be dated to the Umayyad period, possibly as late as the very beginning of the Abbasid period, a chronological delineation which is reinforced by both the coins (see below) and the glass finds (see Gorin-Rosen, this volume).

Coins

Of the 18 coins found in the excavation, none were recovered from clear contexts and therefore, they are presented in the catalogue below chronologically. Of these 18 coins, 15 were identifiable and are presented here. The coins are of common types and merit no further discussion. The chronological range spans the Byzantine and Umayyad periods. It is noteworthy that no Roman-period coins were found that could substantiate an early date for the construction of the winery in Area A; the latest (Umayyad) coins were all found in that area.

Catalogue

1. B1053, Surface, IAA 115708.

Late Roman, mid-fourth century CE.

Obv.: [---] Bust r.

Rev.: [---] Illegible inscription in wreath.

Æ, 2.76 g, 17 × 19 mm.

2. B1045, Surface, IAA 115704.

Valentinian I, Antioch, 378–383 CE.

Obv.: DN VALE[NTINIANVS PF AVG] Bust r.

Rev.: [VR]BS ROM[A] Roma seated, holding small Victory and spear; in l. field: Θ/Φ

Æ, ↑, 2.24 g, 19 mm.

LRBC II: No. 2678.

3. B1021, Surface, IAA 115698.

Late Roman, 395–408 CE.

Obv.: [---] Bust r. (traces).

Rev.: [---] Emperor facing, crowned by Victory.

Æ, ↓, 2.17 g, 13 × 15 mm.

Cf. LRBC II: No. 2205.

4. B1056, Surface, IAA 115710.

Late Roman, 402–408 CE.

Obv.: [----]–VS PF AVG Bust r.; behind: ✱.

Rev.: [GLORIA ROMANO]RVM Three emperors facing.

Æ, ↑, 2.06 g, 13 × 15 mm.

Cf. LRBC II: No. 2214.

5. B1043, L120, IAA 115701.

Justin II, Thessalonika, 574/5 CE(?).

Obv.: [---] Justin and Sophia enthroned.

Rev.: **K**; to l., A/N/N/O, to r.: [?]X; below: TES

Æ half *follis*, ↓, 5.15 g, 18 mm.

Cf. *DOC* 1:223, No. 78.

6. B1007, Surface, IAA 115697.

Heraclius, Constantinople, 630–640 CE.

Obv.: [---] Two figures; on r.: **K**.

Rev.: **M**; Above, cross; to l.: [A]/N/N/[O]; below: Δ

Æ *follis*, ↙, 6.41 g, 23 × 25 mm.

DOC 2/1:297, No. 108.

7. B1072, L109, IAA 115699.

Constans II, Constantinople, 666–668 CE.

Obv.: [---] Bust facing; to r.: **K**

Rev.: **M** Above and on each side, figures holding *globus cruciger*. Countermark: * in circle.

Æ *follis*, ↑, 3.79 g, 19 × 21 mm.

Cf. *DOC* 2/2:459, No. 89; for the countermark, see Schultze and Goodwin 2005:45, No. A4a.



8. B1042, L120, IAA 115700.

Arab-Byzantine (645–670 CE).

Obv.: Standing figure.

Rev.: **M**; above, cross; to r., W/O

Struck on a quartered flan.

Æ *follis*, →, 2.59 g, 16 mm.

Cf. *SICA* I: No. 521.

9. B1097, L139, IAA 115702.

Arab-Byzantine (645–670 CE).

Obv.: Standing figure.

Rev.: **M**; Above, cross; to l., Θ

Æ *follis*, ←, 2.88 g, 18 × 25 mm.

10. B1041, Surface, IAA 115703.

Constans II or Arab-Byzantine, 641–670 CE.

Obv.: Facing figure.

Rev.: م; to r., unclear symbols; to l.: N/O. Countermark below:  in circle.

Æ follis, 3.90 g, 20 mm.

Cf. *DOC* 2/2:451, No. 70e; for the countermark, see Schultze and Goodwin 2005:46, No. A9.

11. B1047, Surface, IAA 115706.

Umayyad anonymous, Tabariya, c. AH 116/735 CE.

Obv.: لا اله الا الله وحده

Rev.: Around: ضرب بطبرية In center: محمد / رسول / الله

Æ fals, 2.51 g, 17 × 19 mm.

SNAT 1993: No. 346.

12. B1046, Surface, IAA 115705.

Umayyad anonymous, first half of eighth century CE.

Obv.: لا اله الا الله [وحده]

Rev.: محمد / رسول / الله

Æ fals, 1.85 g, 13 mm.

13. B1052, Surface, IAA 115707.

Umayyad anonymous, first half of eighth century CE.

Obv.: Illegible inscription.

Rev.: Illegible inscription.

Æ fals, 2.61 g, 15 × 18 mm.

14. B1055, Surface, IAA 115709.

Umayyad anonymous, first half of eighth century CE.

Obv.: Illegible inscription.

Rev.: محمد / رسول / الله

Æ fals, 3.35 g, 16 × 20 mm.

15. B1057, Surface, IAA 115711.

Umayyad anonymous, first half of eighth century CE.

Obv.: لا اله الا الله وحده

Rev.: [---] Bird (hawk?) flying to l.

Æ fals, 2.09 g, 15 mm.

Walker 1956:202, No. 590.

Metal Objects

The present excavation yielded one metal object that was clearly identifiable and for which parallels could be cited (No. 1), while another four objects could only be described in a cursory manner (Fig. 13). The context of these items is either the surface of the site (No. 1), the northern stone pavement in Area B (No. 3), the accumulation of rubbish above the winepresses (No. 4), or is otherwise undocumented (Nos. 2, 5).

The broken bronze lamp filler (Fig. 13:1) can be reconstructed based on a commonly occurring type. Such lamp fillers, with identical handles and ornamentation, were found in an excavation near Yavne (Gorzalczany, Barkan and Iechie 2010:37*, Fig. 10:9), Ramla (Jakoel 2011: Fig. 10) and Ramat Gan (Volynsky 2009: Fig. 9), all dating to the late Byzantine or Early Islamic period. A dozen similar lamp fillers from the Fatimid period were part of a large hoard found in the 'House of the Bronzes' in Tiberias (Khamis 2013:48–49, Nos. 163–175).

Another bronze object (Fig. 13:2) appears to be complete, and is probably a component of a more complex object, perhaps some kind of tool. On one of its faces are grooves that may have been decoration or impact marks. Other finds include a broken, spoon-shaped bronze spatula (Fig. 13:3), an iron peg with a loop (Fig. 13:4) and an iron pyramidal awl (Fig. 13:5) with a square section. Figure 13:5 is similar in shape and size to some medieval arrowheads, although the context and the chronology of the site seem to preclude the possibility of such identification.



Fig. 13. The metal objects.

No.	Object	Locus	Basket No.
1	Bronze lamp filler	Surface	1023
2	Bronze tool(?)	Unknown	1049
3	Bronze spatula	120	1035
4	Iron peg	115	1033
5	Iron awl	Unknown	1054



Fig. 14. Fragment of painted plaster.

Plaster Fragment

A fragment of painted plaster was found out of context on Eastern Treading Floor 109 (Fig. 14).

Inscriptions⁶

Three inscriptions from et-Ṭuweiri were known prior to the present excavation: two chance discoveries, one by Y. Aharoni in 1951 (Inscription 1) and another, by M. Aviam (Inscription 2); and a third inscription uncovered during excavations at the site by Smithline (2007: Fig. 6; republished here as Inscription 5). Two other finds came to light in the present excavation (Inscriptions 3, 4). The study of Inscriptions 1 and 2 is based on documentary material only: a drawing and a photograph of Inscription 1 and a photograph only of Inscription 2.

Inscription 1 (Fig. 15; Reg. No. IAA 2005-135)

This inscription appears on a fragment of a smooth marble panel with a frame (c. 13 × 20 cm); the thickness of the panel is unknown. The letters, 34–42 mm high, can be clearly discerned and have prominent serifs, although they seem to have been executed rather carelessly overall.

...E]YXAPICT[WN...
...out of gratitude...

...ε]ὐχαριστ[ων...

⁶ We are grateful to Leah Di Segni for reading and commenting on a draft of this paper; her comments were very helpful and improved this manuscript.



Fig. 15. Inscription 1.

The preserved part of the inscription suggests that it belonged to a dedicatory inscription, although no further insights can be gleaned from the fragmentary piece concerning the identity of the donor or the nature of the donation. The paleography places Inscription 1 in the Byzantine period, and a sixth-century date is most probable.

Inscription 2 (Fig. 16; no registration number)

This inscription is carved on a slab of limestone, measuring approximately 40 × 70 cm; the thickness of the slab is unknown. Its surface was roughly prepared, with the toothed chisel marks clearly visible. The letters are of inconsistent size, roughly 4–5 cm high, their depth is not uniform and they are carelessly executed in the cursive style. Some are difficult to read, in part due to a deep gash that obliterated a segment of the inscription on its right side; the gash and some scratches were probably caused by the modern agricultural equipment that lifted the slab out of the ground. Two ligatures are present: **ΜΕ** and **ΜΗΝ**. The inscription was read by Leah Di Segni:

ΚΥΡΙΩ ΣΕΜΕΟΥ
ΡΟΥΦΩ ΜΗΡΡΟΥ ΑΛ
ΥΠΩ ΥΙΩ
ΚΕ ΕΛΕΗÇΟΝ ΑΜΗΝ ±

Κυρίῳ Σεμέου
Ρούφῳ Μηρρου Ἀλ-
ύπῳ υἱῷ
Κ(ύρι)ε ἐλέησον, ἀμήν (cross)

To Kyrios son of Semaïos, Rufus son of Merros(?), Alypos (his) son. Lord, have mercy, amen.

This is either a dedicatory or funerary inscription. It differs from inscription Nos. 1 and 3, also identified as dedicatory inscriptions, in that it is executed in plain limestone rather than marble and the careless execution of the letters. Though the exact findspot of this slab is unknown, it was most probably found near the church excavated by Smithline (2007). The paleography is consistent with a date in the sixth century.

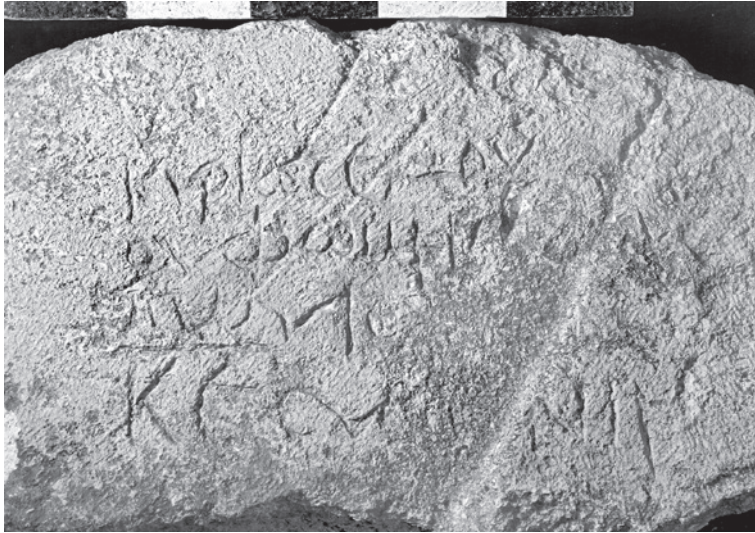


Fig. 16. Inscription 2.



Fig. 17. Inscription 3.

Inscription 3 (Fig. 17; L109, B1037)

This marble fragment (c. 16 × 19 cm, 3 cm thick) was the bottom left corner of a panel. The back of the panel was coarsely worked, indicating that it was set in a wall. The letters are 35 mm high and very carefully cut with well-formed serifs. The inscription is preceded by a Latin cross. The panel is framed, suggesting that the inscription was of a dedicatory nature.

+ ΥΠΕ

+ Υπε[ρ...

The word ὑπὲρ was clearly followed by another word, which was not preserved; it may be reconstructed as σωτηρίας (for the salvation of so and so)—the most common formula appearing in dedicatory inscriptions of the Byzantine period, or ἀναπαύσεως (for the repose of so and so).

Although Inscription 3 was found near the winery in the present excavation, it may have originated in the church discovered nearby, where Inscription 2 was also found (see Smithline 2007).

Inscription 4 (Figs. 18, 19)

This inscription (L156) was part of the mosaic in the western treading floor (L135) of the winery, positioned close to the channel that directed the must into the collecting vat (Fig. 18). It is read facing west and consists of two lines set in a frame, made of a single line of white tesserae (Figs. 19, 20). The frame measures 33 × 100 cm and is abutted by the 15 cm high letters. The inscription is rather crude, partly due to the use of relatively large tesserae, approximately 36 stones per 100 sq cm. The letters were written with reddish stones against the white background of the mosaic, probably to enhance their visibility, although in parts of the inscription the contrast between the letters and the surrounding mosaic is low. Some letters are narrow or contorted, appearing as though the artisan did not plan the spaces ahead, and was compelled to adapt their thickness and spacing to the available area remaining as work progressed. This is especially apparent in the contorted letter Α at the end of the first line, and the observation that certain pairs of letters have no spacing in-between them. The only abbreviation employed in Inscription 4 is ΙΝΔΣ, for *indiktionos*. The ligature ΝΕ occurs twice and the date is marked by a long horizontal line. There are two phonetic spellings of η.



Fig. 18. Inscription 4 at the time of its discovery.

ΕΓΕΝΕ ΤΟ ΗΛΕΝΟΙ ΜΙΝΙ ΠΑ
ΝΕ ΜΟΤΟ ΧΠΘ ΙΝΔΙΝΑΣΙΒ

Ἐγένετο ἡ ληνὸς μνηνὶ Πα
νέμου τοῦ ΧΠΘ ἰνδ(ικτιῶνος) ΙΒ

This winery was built in the month of Panemos, in the year 689, in the twelfth indiction.

The date specified in the inscription conforms to the era of Tyre, which began in 126/5 BCE; thus, 689 is the year 563/4 CE. The twelfth indiction began on September 1, 563 CE, and the month Panemos began on July 20; hence, the date falls between July 20 and August 19, 564 CE. A parallel for this inscription was found at Tel Ashdod and likewise dated to the sixth century CE. It too mentions a winery and employs the word ληνός (Tzaferis 2006; Di Segni 2008).



Fig. 19. Inscription 4 after cleaning.



Fig. 20. Computer-enhanced image of Inscription 4.



Fig. 21. Inscription 5.

Inscription 5⁷ (Fig. 21)

A partial inscription, probably dating to the sixth or possibly the late fifth century CE, was discovered on a broken profiled marble slab. It is an invocation to St. Sergius, a saint commonly referred to in the Byzantine period. The remaining inscription is too short to enable its unequivocal identification. Di Segni suggested that it may be reconstructed as βοήθι] ἀγιε σέργι ἀ[μὴν (St. Sergius, help! Amen), as found on an inscription from Nessana (Kirk and Welles 1962:154, No. 45).

DISCUSSION

Based on the three excavations conducted at the site of eṭ-Ṭuweiri (see Fig. 2), the minimum size of the ancient settlement is estimated at 60 dunams, amounting to a fairly large village. This estimation is reinforced by the fact that as many as five inscriptions are known from the site, and the discovery of an exceptionally ornate Byzantine-period church (see Smithline 2007). It is possible that marble Inscription 3, uncovered in the present excavation, and the glass tesserae containing a gold leaf—both *ex situ* finds—originated from the church excavated by Smithline (2007), about 70 m to the south of the present excavation. Another possibility, given the extensive distance between the two excavations, is that another church existed at the site, which was of an ornate character as that uncovered by Smithline; while the existence of one church at eṭ-Ṭuweiri is certain based on Smithline's (2007) excavations, it remains unclear whether this is the church noted at the site by Guérin in the nineteenth century or a different one. Settlements with more than one church are known in rural Western Galilee of this period, for example, Ḥorbat 'Eirav (Ilan 1986) and Khirbat Baṭ el-Jebel (Joppe Gosker, pers. comm.). The inscription set in the mosaic of the winery (Inscription 4) may

⁷ The description of Inscription 5 is copied *verbatim* from Smithline (2007), apart from the addition of the Greek transcript and the reference.

suggest that it was part of a monastic estate with a church, rather than a village; however, the estimated site size is more compatible with that of a village than an agricultural estate. The latter possibility is reinforced by the presence of a built winery complex, other examples of which are known from villages, unlike simple, rock-hewn winepresses, which are usually found in association with the vineyards located at some distance from the settlements.

Eṭ-Ṭuweiri is surrounded by six other sites with remains dating to the Byzantine or the Umayyad periods (see Fig. 1), two of which are similarly located in valleys rich in alluvium, while the other four are positioned on low hills; some of these sites were also occupied during earlier and later periods. The remains include a church and the base of a 'Ḥanita'-type screw-press identified in a survey at Ḥorbat Shaqof (Frankel and Getzov 1997: Site 156); a large structure, possibly a public building dating to the late Byzantine period, exposed at Ḥorbat 'Emed (Frankel and Getzov 1997: Site 158; Tahan-Rosen 2009; Tahan-Rosen and Hartal 2021); a mosaic floor with a cross and a Syriac inscription found at Bir el-Khazna (Frankel and Getzov 2012: Site 43); a church identified by Guérin (1880) and recently uncovered remains of a Byzantine–Umayyad-period settlement and a Byzantine-period winepress at el-Kabri (Smithline 2004; Abu 'Uqsa 2007; Frankel and Getzov 2012: Site 67); Byzantine-period finds, including the base of a 'Ḥanita'-type screw-press, documented in a survey (Frankel and Getzov 2012: Site 58) and a large church with an impressive mosaic floor exposed in excavations (Dauphin and Edelstein 1984) at Ḥorbat 'Eta'im; settlement remains and a mosaic floor from the Byzantine period found at Sa'ar (Safrai 1990).

Considering the size of Byzantine-period Eṭ-Ṭuweiri and the apparent affluence of its church(es), this settlement may have served as a regional center for the smaller villages in its vicinity. The information gleaned from the pottery, glass and coin finds from the present excavation suggests a seamless transition from the Byzantine to the Umayyad period. While the precise timing of structural modifications that were attested in the winery remains unclear, it is clear that the installations finally ceased to operate and became a rubbish dump well within the Early Islamic period. The site was abandoned sometime in the eighth century CE and was later resettled in the medieval period, from which archaeological evidence was uncovered in Lerer's (2021) excavation.

The Boundary between the Dioceses of Tyre and 'Akko-Ptolemais

Dated inscriptions from Byzantine-period churches in Western Galilee have long been employed by scholars in discussions concerning the location of territorial boundaries of Christian dioceses and administrative regions of that period. The evidence from the present and previous excavations at Eṭ-Ṭuweiri, particularly the dated inscriptions, attests to vigorous ecclesiastical building activities in the mid-sixth century CE, which may have been part of a broader regional trend of intensification throughout Western Galilee. As most inscriptions uncovered in the area of Eṭ-Ṭuweiri are dated according to the era of Tyre—Khirbat 'Alya (665 = 539 CE), Suḥmata (680 = 555 CE), Eṭ-Ṭuweiri (689 = 563/4 CE) and Shave Ziyyon (611 = 485/6 CE)—it could be suggested that ecclesiastical building activity in this area was initiated by the Archdiocese of Tyre. This conclusion seems to conflict with a suggestion

by Avi-Yonah (1934b) to identify the administrative border between the Diocese of Tyre and that of 'Akko-Ptolemais with present-day Naḥal Keziv (Keziv Stream) to the north of eṭ-Ṭuweiri (Fig. 22).

The boundary between the territories associated with the important coastal cities of Tyre and 'Akko-Ptolemais is known to have shifted through history (Frankel et al. 2001:115–116), while different opinions were put forth as research has progressed regarding its precise location and possible translocation during the Byzantine period (Avi-Yonah 1934b; Di Segni 1989). At that time, the boundary was defined by the administrative subdivision between the Archdiocese of Tyre and its subordinate Diocese of 'Akko-Ptolemais. According to Avi-Yonah (1934b), the boundary was located along Naḥal Keziv close to the coast and south of the stream further inland, an identification which was based in part on the inscriptions found at Khirbat 'Alya and Suḥmata. A different reconstruction was suggested by Di Segni (1989), placing the boundary along Naḥal Ga'aton (Ga'aton Stream), 5 km south of Naḥal Keziv and about 2 km south of eṭ-Ṭuweiri. Her identification was based on evidence from two fifth-century inscriptions found at 'Evron, approximately 7 km south of Naḥal Keziv—both employing the era of 'Akko-Ptolemais (Tzaferis 1987), and the apparent mention of a

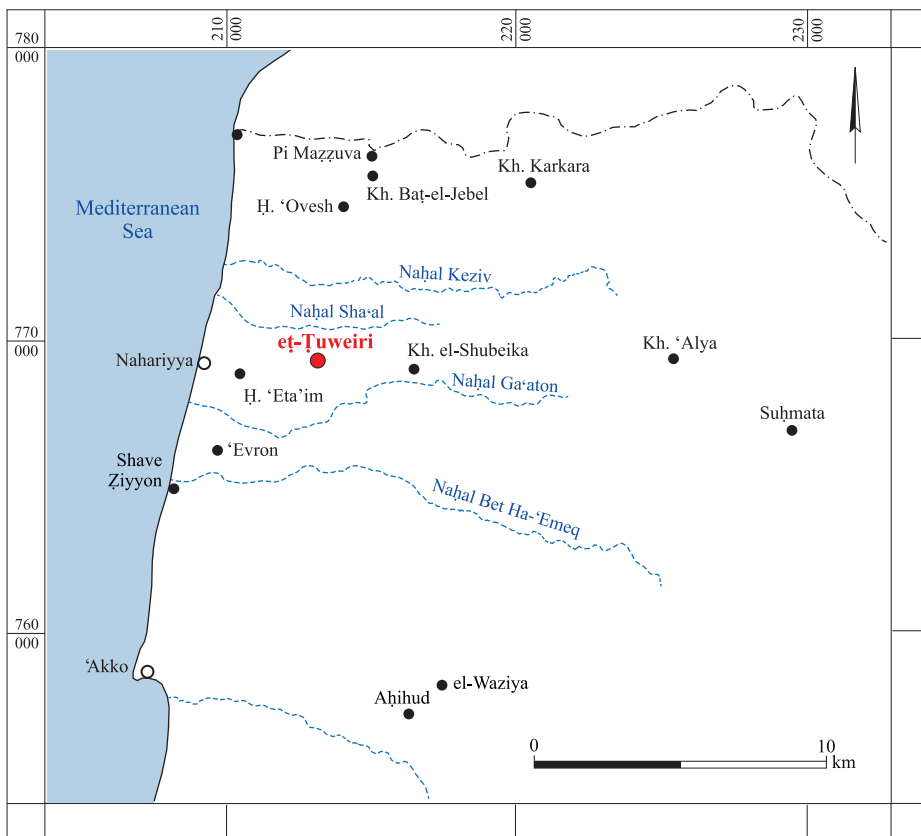


Fig. 22. Location map of sites with dated Byzantine-period inscriptions from churches in Western Galilee.

metropolitan of Tyre in a monogram carved on a column in the church at Ḥorbat ‘Eta’im, less than 1 km north of Naḥal Ga‘aton (Dauphin and Edelstein 1984:91–93).

It is also noteworthy that Inscription 4 differs from other typical inscriptions bearing dates in the dating convention of Tyre, which are usually written in an ascending order: units, tens and hundreds. Such inscriptions are known, for example, from Suḥmata and Khirbat ‘Alya (Avi-Yonah 1934a), Khirbat Karkara (Avi-Yonah 1966) and Shave Zīyyon (Avi-Yonah 1967). The descending order of the date formula used in Inscription 4 is exceptional and may reflect the influence of other dating conventions known to have been employed in the region, e.g., the creation era, which used a descending order of the date (*anno mundi*; Arav, Di Segni and Kloner 1990). Nevertheless, while the creation era had already been in use by the end of the fifth century CE (Di Segni 2006–2007), all known inscriptions from Western Galilee ascribing to this dating convention are from the eighth century CE, e.g., the church at Khirbat el-Shubeika (Tzaferis 2003). It is noteworthy in this regard that the manner of writing the date in the sixth-century inscription from Shelomi (Tahan and Syon 2010), in all likelihood a site that was located within the territory of the Diocese of Tyre, also does not accord with the ascending order typical of the dating convention of Tyre; the order in this case is as follows: units, hundreds and tens. It is also unclear whether the order of writing the date in Inscription 4 was deliberate or simply an oversight of the artisan.

To summarize, Inscription 4 from et-Ṭuweiri appears to reinforce the suggestion that the coastal boundary between the two dioceses was nearer to Naḥal Ga‘aton than Naḥal Keziv. Regardless of the order in which the date of this inscription was written, the date itself is clearly given in accordance with the era of Tyre. Nevertheless, it must be kept in mind that the use of different eras in inscriptions may not offer a one-to-one representation of the reality of ancient administrative boundaries. A case in point is the inscription from Shave Zīyyon (Avi-Yonah 1967:59–60), which, while employing the era of Tyre, was uncovered about 3 km south of Naḥal Ga‘aton and only 6 km north of ‘Akko-Ptolemais. Provided that the boundary is to be located south of Naḥal Keziv, Naḥal Ga‘aton forms the only natural feature along which it could have been established. This conclusion ought to be reevaluated in the light of future discoveries.

REFERENCES

- Abu-‘Uqsa H. 2007. El-Kabri. *HA-ESI* 119 (June 6). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=526&mag_id=112 (accessed January 12, 2024).
- Arav R., Di Segni L. and Kloner A. 1990. An Eighth Century Monastery near Jerusalem. *LA* 40:313–320.
- Aviam M. 2002. Five Ecclesiastical Sites in Western Upper Galilee. In Z. Gal ed. *Eretz Zafon: Studies in Galilean Archaeology*. Jerusalem. Pp. 165–218 (Hebrew; English summary, pp. 184*–185*).

- Aviam M. and Getzov N. 1998. A Byzantine Smithy at Ḥorvat 'Ovesh, Upper Galilee. *'Atiqot* 34:63–83 (Hebrew; English summary, pp. 6*–7*).
- Avissar M. 1996. The Medieval Pottery. In A. Ben-Tor, M. Avissar and Y. Portugali. *Yoqne 'am I: The Late Periods* (Qedem Reports 3). Jerusalem. Pp. 75–172.
- Avi-Yonah M. 1934a. The Byzantine Church at Suhmata. *QDAP* 3:92–105.
- Avi-Yonah M. 1934b. Territorial Boundaries in North-Western Galilee. *JPOS* 14:56–58.
- Avi-Yonah M. 1966. An Addendum to the Episcopal List of Tyre. *IEJ* 16:209–210.
- Avi-Yonah M. 1967. The Mosaic Pavements. In M. Prausnitz. *Excavations at Shavei Zion: The Early Christian Church* (Monografie di archeologia e d'arte 2). Rome. Pp. 47–63.
- Avshalom-Gorni D. 2002. Excavations at Khirbet el-Shubeika 1991, 1993. In Z. Gal ed. *Eretz Zafon: Studies in Galilean Archaeology*. Jerusalem. Pp. 219–254 (Hebrew; English summary, pp. 186*–187*).
- Cytryn-Silverman K. 2013. The Islamic-Period Pottery. In D. Ben-Ami. *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot) I* (IAA Reports 52). Jerusalem. Pp. 167–204.
- Dauphin C. and Edelstein G. 1984. *L'église byzantine de Nahariya (Israël): Étude archéologique* (BYZANTINA MNHMEIA 5). Thessaloniki.
- Di Segni L. 1989. Greek Inscriptions in Western Galilee and the Question of the Border between Phoenicia and Palaestina. In Y. Ben-Artzi, A. Segal and B. Kipnis eds. *The 4th Conference on Galilee Studies*. Haifa. Pp. 4–10 (Hebrew).
- Di Segni L. 2006–2007. The Use of Chronological Systems in Sixth–Eighth Century Palestine. *Aram* 18–19:113–126.
- Di Segni L. 2008. The Greek Inscription from Tel Ashdod: A Revised Reading. *'Atiqot* 58:31*–36*.
- DOC 1: A.R. Bellinger. *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection 1: Anastasius I to Maurice (491–602)*. Washington, D.C. 1966.
- DOC 2/1: P. Grierson. *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection 2/1: Phocas and Heraclius (602–641)*. Washington, D.C. 1968.
- DOC 2/2: P. Grierson. *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection 2/2: Heraclius Constantine to Theodosius III (641–717)*. Washington, D.C. 1968.
- Feig N. 1988–1989. Wine Presses of the Hellenistic Period from Tell es-Samariya. *Israel—People and Land* 5–6:73–91 (Hebrew; English summary, p. 15*).
- Frankel R. 1999. *Wine and Oil Production in Antiquity in Israel and Other Mediterranean Countries* (JSOT/ASOR Monograph Series 10). Sheffield.
- Frankel R. and Getzov N. 1997. *Map of Akhziv (1), Map of Ḥanita (2)* (Archaeological Survey of Israel). Jerusalem.
- Frankel R. and Getzov N. 2012. *Map of 'Amqa (5)* (Archaeological Survey of Israel). Jerusalem.
- Frankel R., Getzov N., Aviam M. and Degani A. 2001. *Settlement Dynamics and Regional Diversity in Ancient Upper Galilee: Archaeological Survey of Upper Galilee* (IAA Reports 14). Jerusalem.

- Getzov N., Tepper Y. and Tepper Y. 2017. Evidence of a Flourishing Ancient Viticulture in Light of the Excavations near Khirbat el-Hashash (Midrakh 'Oz), in the Rural Area between Geva' and Legio. *'Atiqot* 89:75*–132* (Hebrew; English summary, pp. 119–122).
- Gorin-Rosen Y. This volume. Late Byzantine and Early Islamic Glass from et-Ṭuweiri: A Rural Site in Western Galilee.
- Gorzalczany A., Barkan D. and Iechie L. 2010. A Site from the Persian, Hellenistic and Early Islamic Periods at Holot Yavne. *'Atiqot* 62:21*–46* (Hebrew; English summary, pp. 171–172).
- Gosker J. 2021. Khirbat Baṭ el-Jebel. *HA-ESI* 133 (February 16). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=25888&mag_id=133 (accessed January 12, 2024).
- Guérin V. 1880. *Description géographique, historique et archéologique de la Palestine* III: *Galilée* II. Paris.
- Hartal M. 2005. *Land of the Itureans: Archaeology and History of Northern Golan in the Hellenistic, Roman and Byzantine Periods* (Golan Studies 2). Qazrin (Hebrew; English summary, pp. 1*–7*).
- Hayes J.W. 1972. *Late Roman Pottery*. London.
- Hayes J.W. 1980. *A Supplement to Late Roman Pottery*. London.
- Ilan Z. 1986. Excavations in the Western Church at Ḥorbat 'Eirav ('Iribbin). In M. Yedaya ed. *The Western Galilee Antiquities*. Tel Aviv. Pp. 503–515 (Hebrew).
- Jakoel E. 2011. Ramla. *HA-ESI* 123 (April 28). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=1670&mag_id=118 (accessed January 12, 2024).
- Khamis E. 2013. *Tiberias: Excavations in the House of The Bronzes; Final Report II: The Fatimid Metalwork Hoard from Tiberias* (Qedem 55). Jerusalem.
- Kirk G.E. and Welles C.B. 1962. The Inscriptions. In H.D. Colt ed. *Excavations at Nessana ('Auja Hafir, Palestine)* I. London. Pp. 131–197.
- Ktalav I. This volume. The Mollusks from et-Ṭuweiri.
- Lerer Y. 2020. Byzantine-Period Pottery Vessels from Pi Mazuva. *'Atiqot* 99:41*–55* (Hebrew; English summary, p. 184).
- Lerer Y. 2021. Et-Ṭuweiri. *HA-ESI* 133 (July 7). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=26024&mag_id=133 (accessed January 12, 2024).
- LRBC II: R.A.G. Carson and J.P.C. Kent. Part II: Bronze Roman Imperial Coinage of the Later Empire, A.D. 346–498. In *Late Roman Bronze Coinage A.D. 324–498*. London 1965. Pp. 41–114.
- Porat L. and Getzov N. 2010. Aḥihud. *HA-ESI* 122 (July 2). https://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?print=all&id=1414&mag_id=117 (accessed January 12, 2024).
- Safrai B. 1990. Sa'ar. *ESI* 7–8:158–159.
- SICA 1: S. Album and T. Goodwin. *Sylloge of Islamic Coins in the Ashmolean 1: The Pre-Reform Coinage of the Early Islamic Period*. Oxford 2002.
- Schulze W. and Goodwin T. 2005. Countermarking in Seventh Century Syria I. *ONS Newsletter Suppl.* 183:23–56.

- Smithline H. 2004. El-Kabri. *HA-ESI* 116 (April 4). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=3&mag_id=108 (accessed January 12, 2024).
- Smithline H. 2007. Eṭ-Ṭuweiri. *HA-ESI* 119 (May 26). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=515&mag_id=112 (accessed January 12, 2024).
- SNAT 1993: L. Ilisch. *Sylloge Numorum Arabicorum Tübingen: Palästina IVa Bilād aš-Šām I*. Tübingen 1993.
- Stacey D. 2004. The Pottery. In D. Stacey. *Excavations at Tiberias, 1973–1974: The Early Islamic Periods* (IAA Reports 21). Jerusalem. Pp. 89–147.
- Sussman V. 1989. Northern Stamped Oil Lamps and Their Typology. *Michmanim* 4:22–58.
- Tahan-Rosen H. 2009. Ḥorbat ‘Emed. *HA-ESI* 121 (July 12). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=1127&mag_id=115 (accessed January 12, 2024).
- Tahan-Rosen H. and Hartal M. 2021. Ḥorbat ‘Emed. *HA-ESI* 133 (December 22). https://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=26093&mag_id=133 (accessed January 12, 2024).
- Tahan H. and Syon D. 2010. A Christian Inscription at Shelomi. *‘Atiqot* 62:161–167.
- Tatcher A. 2002. Excavations at Khirbet el-Shubeika 1991, 1993: Clay Lamps. In Z. Gal ed. *Eretz Zafon: Studies in Galilean Archaeology*. Jerusalem. Pp. 243–245 (Hebrew).
- Tatcher A. and Nagar Y. 2002. Excavations at Khirbet el-Shubeika 1991, 1993: The Burial Caves. In Z. Gal ed. *Eretz Zafon: Studies in Galilean Archaeology*. Jerusalem. Pp. 263–288 (Hebrew).
- Tsuf O. 2003. *Red Slip Bowls in the Late Roman and Byzantine Period: Social, Economical and Technological Aspects*. Ph.D. diss. University of Haifa. Haifa (Hebrew; English summary, pp. 1*–12*).
- Tzaferis V. 1987. The Greek Inscriptions from the Early Christian Church at ‘Evron. *Eretz-Israel* 19:36*–53*.
- Tzaferis V. 2003. The Greek Inscriptions from the Church at Khirbet el-Shubeika. In G.C. Bottini, L. Di Segni and L.D. Chrupcała eds. *One Land—Many Cultures: Archaeological Studies in Honour of Stanisław Loffreda OFM* (SBF Collectio Maior 41). Jerusalem. Pp. 83–86.
- Tzaferis V. 2006. A Greek Inscription from Tel Ashdod. *‘Atiqot* 51:3*–5* (Hebrew; English summary, pp. 233–234).
- Volynsky F. 2009. Ramat Gan. *HA-ESI* 121 (September 20). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=1203&mag_id=115 (accessed January 12, 2024).
- Walker J. 1956. *A Catalogue of the Arab-Byzantine and Post-Reform Umayyad Coins* (Catalogue of the Muhammadan Coins in the British Museum II). London.

LATE BYZANTINE AND EARLY ISLAMIC GLASS FROM ET-ṬUWEIRI: A RURAL SITE IN WESTERN GALILEE

Yael Gorin-Rosen¹

The glass assemblage from the 2007 excavation at et-Ṭuweiri, was studied in comparison to the previously published assemblage from the 2004 excavation at the site. Most of the finds from the 2007 excavation were retrieved from the winepress in Area A, whereas only a few items were discovered in Area B. The assemblage consists mainly of wineglasses, bottles and oil lamps, alongside decorated vessels, windowpanes, a stirring rod and glass tesserae. Both excavations yielded the remains of glass production, likely associated with a local manufacturer that may have been involved with the construction of the nearby church uncovered in 2004. The glass artifacts from both excavations faithfully represent the regional glass repertoire of the Byzantine and Early Islamic periods.

Keywords: Byzantine period, Umayyad period, glass, wineglasses, oil lamps, tonged decoration, stirring rod, glass production

INTRODUCTION

Large quantities of glass fragments were found at the site, relative to the limited size of the excavation (see Syon, Getzov and Daniel, this volume).² The material from the 2007 excavation at et-Ṭuweiri is presented below and compared to the previously published assemblage from the 2004 excavation at the site by H. Smithline (Gorin-Rosen 2007). The glass retrieved from both excavations faithfully represents the Byzantine- and Early Islamic-period glass repertoire in the region. The 2007 material considered hereby originated mainly from the winepress in Area A, with only a few finds from Area B. Although only few glass assemblages from rural sites in Western Galilee were published so far, the types identified at et-Ṭuweiri are also well-known from other regions of Israel. The vessels are presented below in chronological and typological order, followed by a discussion of their context.

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THE GLASS VESSELS

The late Byzantine and Early Islamic glass from the 2007 season presents a combination of vessel types known from other sites in the region, e.g., Umayyad-period contexts at Bet She'an (Hadad 2005; Winter 2011) and late Byzantine and early Umayyad assemblages at Ḥammāt Gader (Cohen 1997), Tiberias (Lester 2004; Hadad 2008) and Caesarea (Pollak 2003; Israeli 2008). Parallels from sites located nearer to eṭ-Ṭuweiri than those mentioned above are known from the burial caves at Khirbat el-Shubeika (Gorin-Rosen 2002) and the Courthouse Site in 'Akko (Katsnelson 2016). The description below is divided into three sections, based on chronological considerations: (1) vessels broadly assigned to the late Byzantine–Umayyad period—these are presented together with a very small number of vessels strictly dated to the Byzantine period; (2) vessels that first appeared in the Umayyad period—some of these remained in use in the Abbasid period; and (3) special finds, including remains of glass production.

Late Byzantine–Umayyad Periods*Bowls*

Bowl with Out-Folded Rim (Fig. 1:1).— Only a small number of specimens of this type were found in the excavation. This bowl type is known from the Late Roman to the late Byzantine and early Umayyad periods, and was especially common in the early part of this time span. During the Byzantine period, bowl-shaped vessels with such rims and three handles, identified as oil lamps, were quite common (Katsnelson 2016:82–83, Fig. 3.9:53, 54, and see further references therein). Umayyad-period bowls of this type are known from Ramla (e.g., Gorin-Rosen 2016:44, Fig. 1:3, 4, see references therein to parallels from Ramla, Khirbat eth-Thahiriya and Bet She'an).

Wineglasses

Two subtypes of wineglasses, with plain (Fig. 1:2) or decorated (Fig. 1:3, 4) rims, were identified. The rims of both subtypes are rounded, slightly incurving and thickened. While both subtypes are fairly common, the plain-rim wineglasses are somewhat more so. Both are known from the Byzantine and the Umayyad periods.

Also included among the finds from eṭ-Ṭuweiri are wineglass bases: a few small fragments of a tubular bases in a very fragmentary condition (Fig. 1:5) and solid bases (Fig. 1:6–8), which were more frequent and better preserved than the specimens of the former subtype. Tubular bases are strictly known from the Byzantine period, when they are a rather common find, while solid bases are mainly known from the end of the Byzantine period and the Early Umayyad period.

All the subtypes presented below have parallels in the excavations of the pottery workshop in the Bet She'an theater, built around 700 CE and destroyed by the earthquake of 749 CE (Winter 2011:246–359, Fig. 12.1:3–9, and see further references therein).

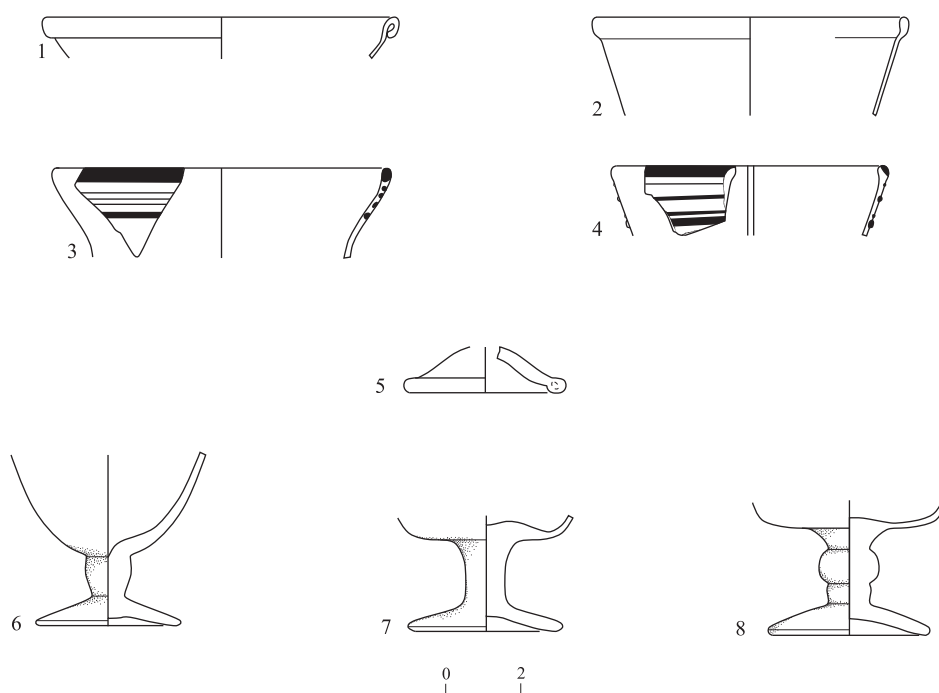


Fig. 1. A bowl and wineglasses.

No.	Vessel	Locus	Basket	Color	Weathering	Notes
1	Bowl	109	1079/3	Bluish green		
2	Wineglass	125	1080/2	Greenish blue		Clear, good quality
3	Wineglass	125	1076	Light bluish glass with turquoise trails		Good workmanship
4	Wineglass	109	1037/3	Bluish green with turquoise trails		The turquoise trails include red veins
5	Wineglass	109	1037/2	Bluish green	Silver weathering, sand deposits	
6	Wineglass	109	1079/1	Bluish	Sand deposits	Clear, bubbly glass
7	Wineglass	109	1079/2	Bluish	Sand deposits	Clear, bubbly glass; tooling marks on the base
8	Wineglass	109	1032	Bluish green	Silver weathering, pitting	Tooling marks on the base; remains of glass from the pontil

Wineglass with Plain Rim (Fig. 1:2).— This rim is characterized by a thickened rounded edge and a slightly incurving, slanting wall. It represents the most common type of wineglass of the Byzantine period in Israel and throughout the Byzantine Empire. A wineglass with a rim of this type and a solid base was found in Burial Cave 2 at Khirbat el-Shubeika, dated

to the late Byzantine–Early Umayyad period (Gorin-Rosen 2002:314, 316, Fig. 7:36), and similar examples were found at Khirbat el-Batīya, Upper Galilee, dated to the same period (Gorin-Rosen 2006:29*, Fig. 1:3–5).

Wineglasses with Rims Decorated with Fused-In Trails (Fig. 1:3, 4).— Wineglasses with applied horizontal trails of different colors, usually in hues of blue or turquoise, were common during the sixth and seventh centuries CE, continuing into the Umayyad period and disappearing thereafter. A rim with fused-in trails was unearthed in Cave 1 at Khirbat el-Shubeika, together with other glass vessels characteristic of the late Byzantine and Umayyad periods (Gorin-Rosen 2002:301, Fig. 7:56). A wineglass with fused-in trails was also found at Zippori (Gorin-Rosen 2010a: Fig. 16:5). It was at one time suspected that this type of decorated wineglass was mainly manufactured at glass workshops in Jerusalem and the surrounding areas, where numerous examples of such vessels belonging to several variants were discovered, e.g., an assemblage from the sixth–seventh centuries at Binyene Ha-Umma (Gorin-Rosen 2005:201–203, Fig. 2:20–24, and see additional examples therein). However, finds from other parts of the country that have been unearthed in recent decades suggest a wider geographic area for their production.

Wineglasses with Tubular Ring Bases (Fig. 1:5).— The distribution of this type is very wide. Similar bases have been found in sites such as the Byzantine church at Shave Ziyon (Barag 1967:67–68, Fig. 16:15, 17), ‘Akko (Katsnelson 2016:84, Fig. 3.9:59, 60) and Shiqmona (Gorin-Rosen 2010b:213, Fig. 2:6, 7, with further references therein to Nazareth, Kh. Tinani in Haifa and Jerusalem, as well as to Syria, Lebanon and Jordan).

Wineglasses with Solid Bases (Fig. 1:6–8).— Many subtypes of this wineglass type are known, differing in the shape of the foot and the body. The item in Fig. 1:6 is characterized by a short, thick cylindrical foot and an ovoid body, while that in Fig. 1:7 has a cylindrical foot and body, with the preserved part from the beginning of the body being wider than that of Fig. 1:6. The item in Fig. 1:8 is characterized by a beaded foot and a body similar to that of Fig. 1:7.

This type first appeared in the Byzantine period and became especially popular in the late Byzantine and Umayyad periods. Parallels are known from various sites, e.g., Burial Cave 2 at Khirbat el-Shubeika (Gorin-Rosen 2002:314, 316, Fig. 7:36, and see further discussion therein), ‘Akko (Gorin-Rosen 2012: Fig. 8:4) and Shiqmona (Gorin-Rosen 2010b:213, Fig. 2:8, and see further references therein to Qaṣṣa, Tinani and other sites near Haifa). Two wineglasses with such body shapes, one globular and the other conical, were found in a church at Khirbat al-Karak (Delougaz and Haines 1960: Pl. 60:16, 17, respectively), dated to the seventh century CE based on the glass assemblage (Barag 1970:115), and in another church at Kursi (Barag 1983: Fig.9:9). Other examples were found at Khirbat el-Batīya, Upper Galilee (Gorin-Rosen 2006:32*, Fig. 1:9–10) and Zippori (Gorin-Rosen 2010a: Fig. 16:6, 7).

Bottles

Bottles with Upright Infolded Rims (Fig. 2:1, 2).— This thickened, infolded rim-type belongs to a bottle with a cylindrical mouth and a neck, either with no delineation between them or a narrower one. This type of rim first appeared in the Late Roman period, became common in the Byzantine period and increased in popularity in the Umayyad period. A similar bottle was found in the Byzantine-period church at Shave Zīyyon (Barag 1967:65–66, Fig. 16:1). Such bottles were also found in Burial Caves 1 and 2 at Khirbat esh-Shubeika (Gorin-Rosen 2002:297–298, Fig. 6:43; 306–307, Fig. 2:9, and see further references therein) and in the

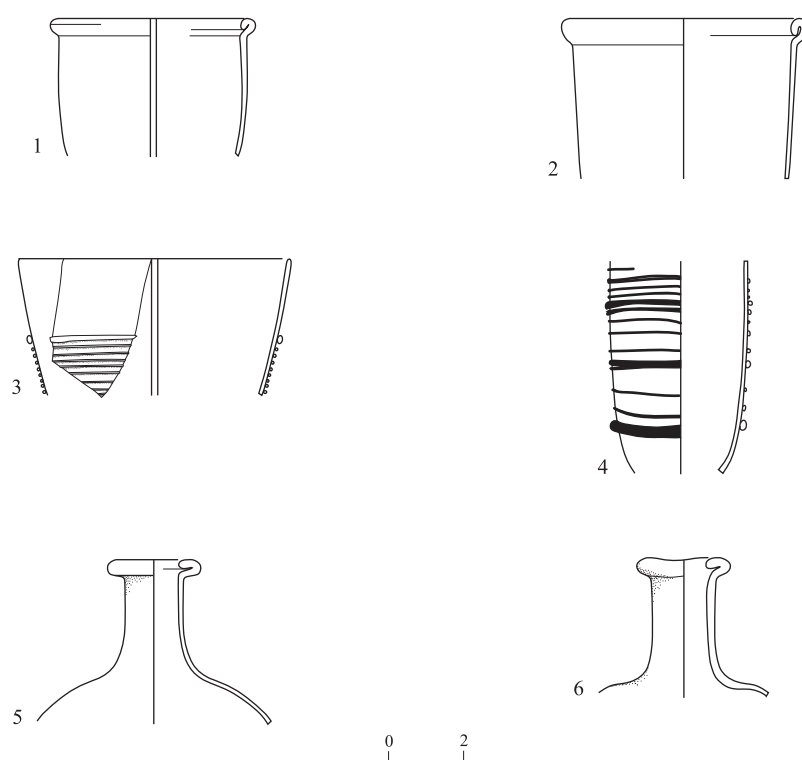


Fig. 2. Bottles.

No.	Locus	Basket	Color	Weathering	Notes
1	109	1037/1	Light bluish green	Silver weathering, sand deposits	
2	125	1080/1	Greenish blue	Sand deposits	
3	114	1088	Light bluish green	Slight iridescence, lime and sand deposits	Vessel and trails of the same color
4	110	1018/2	Bluish green with turquoise trails	Sand deposits	Bubbly glass with blowing spirals
5	114	1088	Bluish green	Silver weathering, sand deposits	Uneven infolded rim
6	120	1103	Bluish green	White enamel-like weathering, sand deposits	Bubbly glass with impurities; uneven infolded rim

‘Akko Courthouse Site (Katsnelson 2016:84, Fig. 3.9:61). Umayyad-period examples are known from various excavations in Bet She’an, e.g., the paved street (Peleg 1994: Fig. 15:6, 7) and other parts of the ancient city (Hadad 2005: Pls. 8:158–164; 9:170–175).

Bottles with Applied Horizontal Trail Decoration below the Rim (Fig. 2:3, 4).— Bottles decorated in this manner were common in the Late Roman and Byzantine periods, and continued to be produced in the Early Islamic period, although the late examples differ from their predecessors in their designs, fabric and workmanship. The fragments found from eṭ-Ṭuweiri represent various subtypes of such bottles, assigned to the late Byzantine and Umayyad periods.

The bottle in Fig. 2:3 has a funnel mouth decorated with multiple thin trails wound around it. Finds of similar bottles demonstrate the wide distribution of this subtype. Four bottles with such trail decoration on the mouth/neck were found in Burial Cave 2 at Khirbat esh-Shubeika (Gorin-Rosen 2002:316–317, Fig. 8:39–42). Other examples were found in Cave 1071 at Qaṣṭra (Gorin Rosen 2013:105, Fig. 25:20, 23, 24). The bottle in Fig. 2:4 has a long cylindrical neck decorated with multiple, alternating thick and thin trails. This subtype was likewise very common during the period in question, with a number of examples found in Umayyad-period contexts at Bet She’an (Hadad 2005: Pl. 12:223–227, 231).

Bottles with Infolded Flattened Rim (Fig. 2:5, 6).— Bottles with this rim type, usually dated to the Umayyad period, are characterized by a short neck and a globular or squat body; they represent a common find in glass assemblages of the period. A complete example of such a bottle is known from Burial Cave 2 at Khirbat esh-Shubeika (Gorin-Rosen 2002:316–317, Fig. 8:37, 38, and see further discussion therein). The upper part of such a bottle was found at Aḥihud, with other glass vessels dated to the late Byzantine and Umayyad periods (Porat and Getzov 2010: Fig. 7:2). This type is common in Umayyad-period contexts at Bet She’an, where complete bottles were among the glass finds (Hadad 2005:23–24, Pls. 9:182–184; 10:185–190; 11:191–195; Winter 2011:348, Fig. 12.1:10, 11; Katsnelson 2014: Fig. 7:2, and see further references therein).

Bottles with Wavy Trail Decoration (Fig. 3:1, 2).— Horizontal wavy trails of variable thickness and workmanship are applied to these bottles’ mouth or neck. Bottles decorated in this fashion are especially common during the transition from the Byzantine to the Early Islamic period, the seventh and early eighth centuries CE. Figure 3:1 represents a bottle with a tall narrow neck, with an applied thin wavy trail, while Fig. 3:2 has a wider neck and a thicker trail. Bottles with this type of decoration were found in Cave 1 at Khirbat esh-Shubeika, together with a group of vessels dated to the late Byzantine and Early Islamic periods (Gorin-Rosen 2002:300–302, Fig. 7:61, 62). Examples with both narrow and wide necks were found in large quantities in Umayyad-period contexts at Bet She’an (Hadad 2005: Pls. 13:262–269; 14:270–277; 19:358–361; Winter 2011:348–349, Fig. 12.1:18–20; Katsnelson 2014:37*–38*, Fig. 7:7, 8). Additional parallels are known from Qaṣṭra Cave

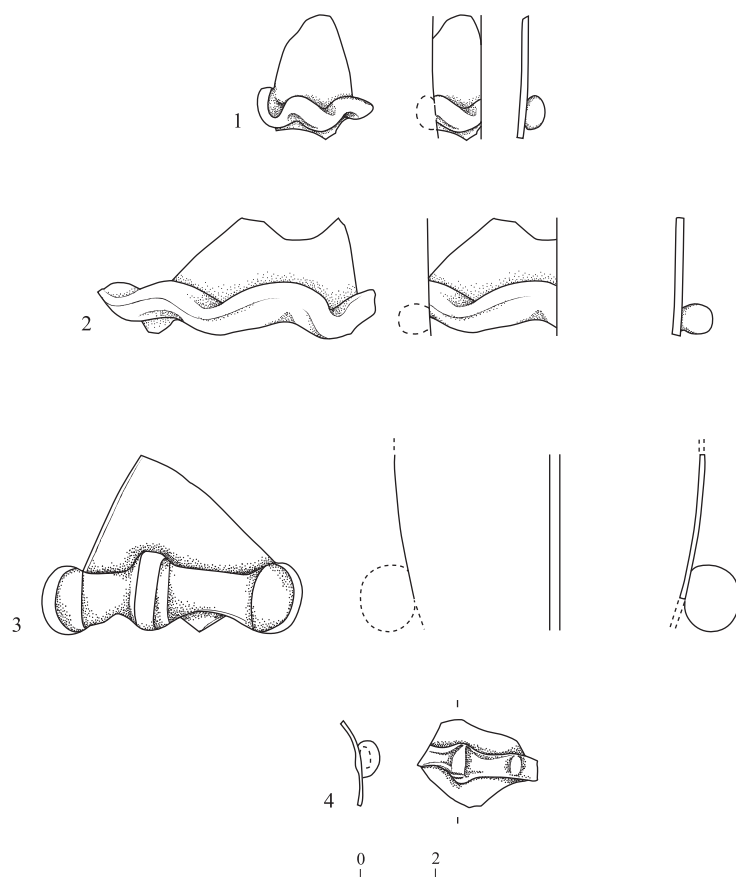


Fig. 3. Bottles (cont.).

No.	Locus	Basket	Color	Weathering	Notes
1	112	1013/1	Greenish	Black and silver weathering	Vessels and trail of the same color
2	112	1013	Bluish green	Sand deposits	Black impurities; tooling marks on trail
3	114	1070/2	Bluish	Sand deposits	Black impurities; tooling marks on trail
4	154	1162/2	Indistinct	Black thick crust over a thin gold coating	

1071 (Gorin-Rosen 2013:105, Fig. 26:26–28) and Ramla (Gorin-Rosen 2016:49, Figs. 3:21–23; 5:34, and see further references therein).

Bottles with Tooled-Out Trail Decoration (Fig. 3:3, 4).— The trails applied to these bottles, which vary in thickness and quality of workmanship, were tooled out and pinched to create protruding bosses around the neck. The fragment in Fig. 3:3 was part of a wide funnel mouth, with a very thick, tooled-out trail. The neck of such a bottle was found in an Umayyad-period assemblage at a site near Ramla (Gorin-Rosen 2016:49, Fig. 3:24). A complete

vessel bearing such decoration, held at the al-Sabah Collection, Kuwait, was assigned a Syrian provenance and dated to the seventh–eighth centuries CE (Carboni 2001:39, Cat. No. 1.5). This common type of decoration with protruding pinches is known also from the loop handles of other vessels of the Early Islamic period, for example, a handle from Bet She'an (Hadad 2005: Pl. 21:399, Umayyad period; Pl. 45:945, Abbasid–Fatimid periods). Figure 3:4 is a shoulder fragment, bearing an applied tooled-out trail. Similar specimens, bearing several such trails, were found in Umayyad-period contexts at Bet She'an (Hadad 2005: Pl. 14:281, 282).

Oil Lamps

Bowl-Shaped Oil Lamp with Hollow Stem (Fig. 4:1–3).— These fragments comprise a complete, long hollow stem (Fig. 4:1), a deformed stem (Fig. 4:2) and a piece of a bowl-shaped oil lamp with a hollow stem, broken at one end (Fig. 4:3). The deformation of Fig. 4:2 may be due to a failure in the production process, or to its subsequent exposure to fire. It is noteworthy that deformed vessels were also found at eṭ-Ṭuweiri in the 2004 excavation (Gorin-Rosen 2007).

Fig. 4 ▶

No.	Vessel	Locus	Basket	Color	Weathering	Notes
1	Oil lamp	109	1064	Bluish green	Sand deposits	Slightly constricted in the upper part that connects to the bowl; pontil scar with traces of glass
2	Oil lamp	109	1092	Light bluish	Silver weathering	Knocked-off at bottom
3	Oil lamp	114	1070/1	Bluish green	Slight silver weathering, sand deposits	Bubbly glass
4	Oil lamp	110	1040	Greenish blue	Silver weathering, iridescence, pitting	Knocked-off at bottom
5	Oil lamp	109	1037	Bluish green	Slight silver weathering	Bubbly glass; knocked-off at bottom
6	Bowl	110	1018/1	Colorless with greenish tinge	Lime deposits	Low quality glass with many impurities
7	Bottle(?)	109	1060	Colorless with greenish tinge	Black enamel-like weathering, severely corroded	Small scar on appliqué/base
8	Handled vessel	135	1104	Olive-green glass	Sand deposits	Bubbles and impurities
9	Stirring rod	146	1113	Bluish green with dark trail	Silver weathering, iridescence, pitting	Broken on both sides
10	Tessera	154	1116/1	Indistinct	Severely corroded	Two-layers, the upper one poorly preserved; cut corners

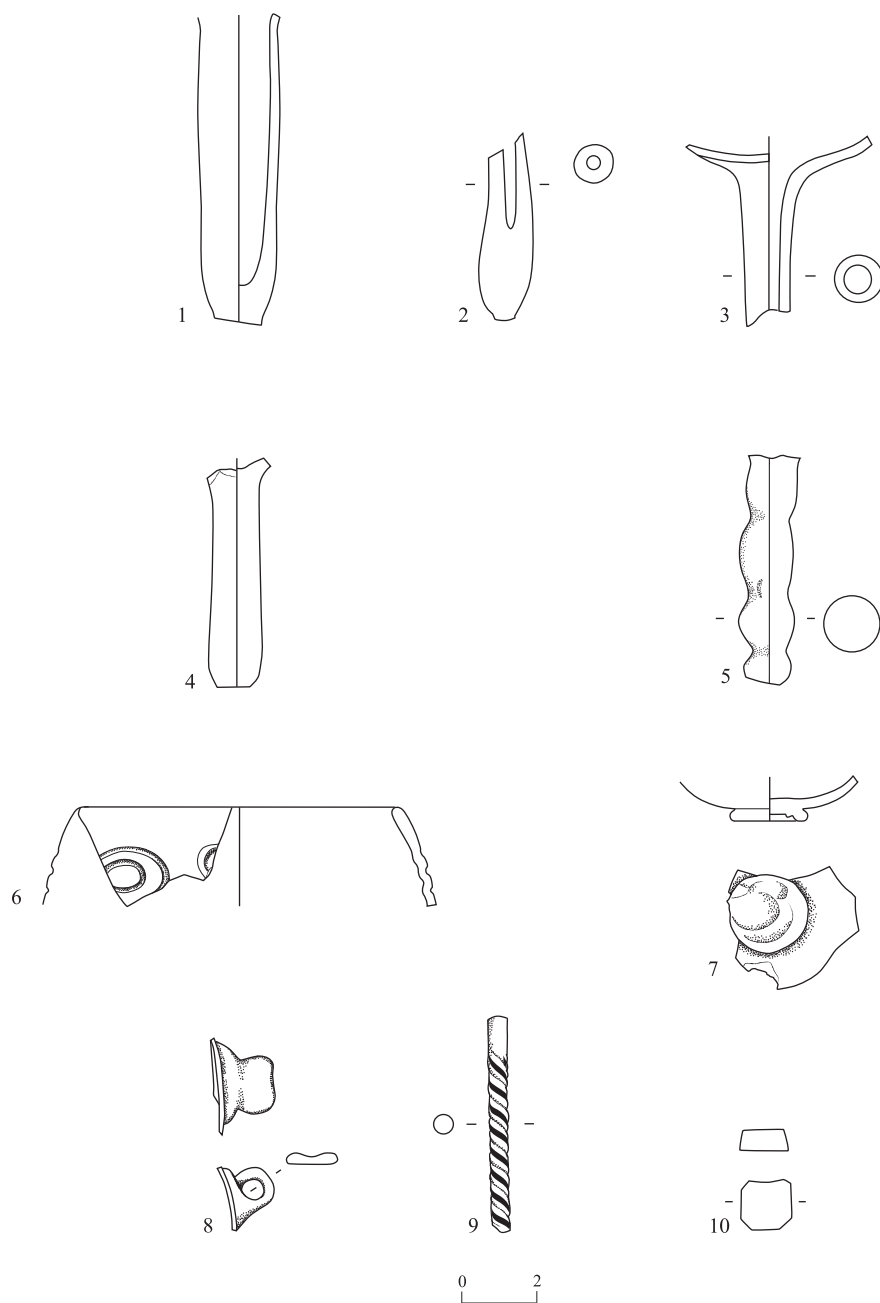


Fig. 4. Oil lamps, decorated vessels, stirring rod and tessera.

This type was very common during the Byzantine period, known for example from the Byzantine church at Shave Ziyon (Barag 1967:68–69, Fig. 16:25) and Ḥorbat ‘Uza (Gorin-Rosen 2009:97–98, Fig. 2.55:8, and see further references therein to finds from Caesarea, Jerusalem and Ashqelon).

Bowl-Shaped Oil Lamp with a Solid Stem (Fig. 4:4).— A complete, long solid stem with the beginning of its body was found. This type was common during the Byzantine period, usually found together with hollow-stem oil lamps.

Bowl-Shaped Oil Lamp with a Solid Beaded Stem (Fig. 4:5).— Locally produced oil lamps with this type of stem became popular in the late Byzantine–Umayyad periods. Such oil lamps were found in large quantities and were widely distributed in Israel and the surrounding countries, e.g., at Shiqmona (Gorin-Rosen 2010b:213–214, and see further references therein to material from Bet She’an, Qastra, Bat Gallim and Tinani, as well as to sites in Lebanon and Jordan). A glass workshop producing such oil lamps was uncovered in Beirut (Foy 2000:242–247, Figs. 4:6–10; 6:12–18; 7:18–22). Workshops producing these items may have operated in northern Israel in this period, perhaps in ‘Akko, from where evidence of glass production activities from this period has come to light (Gorin-Rosen 2012). Remains of glass production activities associated with oil lamps of this type were uncovered at Aḥihud (Porat and Getzov 2010) and may represent a local workshop.

Umayyad and Abbasid Periods

Vessel with Tonged Decoration (Fig. 4:6).— This fragment primarily belongs to a group of open vessels, mainly bowls and beakers, while it could also belong to a very small number of other vessel categories, mainly bottles and jars, the latter of a wide-mouthed type. These vessels were decorated when the glass was still hot and flexible, using a pair of tongs to form impressions on both wall faces. This decorative technique was very common from the Umayyad to the Abbasid period. Finds assigned to this group, ubiquitously found in sites across Israel, display tonged decoration in various patterns (for a comprehensive discussion of the manufacture technique and distribution of this type in Israel, see Gorin-Rosen 2010c:242–245).

The rim in Fig. 4:6 probably belonged to a small bowl. It displays a decoration of concentric ovals, tonged into both wall faces (observed in section). Several bowls decorated in this manner were found in Abbasid–Fatimid-period contexts at Bet She’an (Hadad 2005:37, Pl. 32:631–637; Winter 2011:252–254, Fig. 12.3:1, 2, and see further discussion and references therein). This popular pattern is also seen on a bowl from Ramla (Gorin-Rosen 2010c:243–244, Pl. 10.8:2) and two fragments from Nessana (Harden 1962:80–81, Pl. XX:28, 30).

A few vessels with tonged decoration were found in Western Galilee—several examples from excavations at ‘Akko³ and two from Aḥihud (Porat and Getzov 2010: Fig. 7:3, 4), as well as in Lower Galilee, e.g., Zippori (Gorin-Rosen 2010a: Fig. 16:14), although the material from the latter region displays different profiles and decorative patterns.

Vessel with Applied Patches of Glass (Fig. 4:7).— The small, plain disc-shaped fragment shown here was part of a decoration applied to the wall of a small bottle; it may have also been a small disc-shaped base. Bottles bearing such a decoration have a globular or an ovoid body, a short neck and a small disc base. A body fragment of such a vessel was found at Ramla, where it was dated to the Umayyad period (Gorin-Rosen 2010c:226, Pl. 10.2:17, and see references therein to examples of complete specimens in collections of the Israel Museum and the Islamic Museum in Jerusalem, originating from Jericho, Ḥorbat Liqit in the Negev and as far as the Sassanian Empire). Even though this type is known mainly from unprovenanced complete specimens held in museum collections, it is clear that the group to which it belonged was produced locally during the late Umayyad and the early Abbasid periods, in the eighth century CE.

Vessel with Small Loop Handles (Fig. 4:8).— A small handle of this type was found atop the western treading floor (L135) of the winepress, together with a wineglass and two glass oil lamps (not illustrated) of the late Byzantine–early Umayyad period; nevertheless, this type is believed to have strictly belonged to the Umayyad–Abbasid period, as such handles were found at Bet She’an, in contexts dated to the Umayyad and Abbasid–Fatimid periods (Hadad 2005: Pls. 21:394–396; 44:934, 935; Katsnelson 2014:33*, Fig. 6:8), and Tiberias, where they were dated to the Umayyad period (Hadad 2008:174, Pl. 5.7:116, 117). Various types of vessels of the period in question were adorned with small loop handles, probably used as an oil lamp.

OTHER GLASS ARTIFACTS

Stirring Rods (Fig. 4:9).— This item was found outside the building in Area B, together with a small handle fragment, the lower edge of an oil lamp and a very small raw glass chunk, none of which are illustrated; taken together, these vessels broadly suggest an Early Islamic date. Glass stirring rods are a common find in the Early Islamic period, with a widespread distribution, e.g., Ramla (Gorin-Rosen and Katsnelson 2005:102, 104, Fig. 1:11; Gorin-Rosen 2010c:254, Pl. 10.11:7, 8); Bet She’an, in both Umayyad and Abbasid–Fatimid-period contexts (Hadad 2005:30, 48, Pls. 24:464–467; 49:1007–1010, Winter 2015:223, Fig. 5.5:54, and see further discussion and references therein); and Tiberias (Lester 2004:209–210, Fig. 7.17:190–194; Hadad 2008:175, Pl. 5.8:129–131). A twisted

³ Unpublished material from excavations at the compound of the Teutonic Order by Boaz and Melloni (2005).

stirring rod was also found in excavations conducted west of Tel 'Akko, among a group of vessels dated to the Umayyad period (Gorin-Rosen 2012: Fig. 8:7). The stirring rods were apparently locally produced, possibly fulfilling a very specific function which is yet to be determined.

Glass Tesserae (Fig. 4:10).— Seventy glass tesserae of various colors, including 15 of gold-colored glass (Fig. 4:10), were found in as many as 11 of the excavation loci (L102, L103, L105, L109, L110, L112, L113, L115, L120, L135 and L154). This number may be compared with the nearly 500 glass tesserae found in the 2004 excavation at eṭ-Ṭuweiri (Gorin-Rosen 2007; 2015: Figs. 1, 2, and see further discussion therein). The much smaller quantity of glass tesserae from the present excavation is likely due to its greater distance from the church where the tesserae originated, supposedly the building exposed in the 2004 excavation; the much smaller area of the 2004 excavation (50 sq m) compared to that of the 2007 excavation (150 sq m) further emphasizes the high concentration of glass tesserae. While the excavation of the winepress in Area A yielded glass tesserae, window fragments (see below) and an inscription (see Syon, Getzov and Daniel, this volume: Inscription 3), which appear to have originated in a church, the quantity of such finds exposed in direct association with the church structure was appreciably greater.

Glass Windowpanes

Three fragments of glass windowpanes, found in L115 and L117, probably originated in the same building as the glass tesserae, where other such finds were retrieved in the 2004 excavation (Gorin-Rosen 2007: Fig. 19).

GLASS PRODUCTION REMAINS

Six finds relating to glass production debris were found in different loci, including two raw glass chunks—one found on the surface (L100) and another in one of the filtering vats of the winepress (L142); three deformed fragments (L102, L125, L154); and two pieces of production waste (L120). These remains, together with 20 other glass-production remains found in the 2004 excavation (Gorin-Rosen 2007), suggest that glass production activities took place at the site; the greater quantity of such finds in the 2004 excavation indicates that the putative area of glass working may have been nearer to that part of the site than to the 2007 excavation area. It is noteworthy that some heat-deformed glass finds from the 2004 excavation area may have been the result of a conflagration that destroyed the church rather than part of a glass production (see Smithline 2007).

The existence of small areas of industrial activity in association with rural sites of the Late Roman and Byzantine periods was documented at other sites, for example Jalame (Weinberg 1988), where a glass workshop was uncovered close to installations for oil and wine production. At eṭ-Ṭuweiri, the glass production debris may have originated in a small glass workshop, or perhaps one glass furnace that operated during the construction of the

church and served to supply its builders with windows, oil lamps and other glass vessels and objects.

SUMMARY AND DISCUSSION

The extensive area excavated in 2007 at et-Tuweiri yielded a large assemblage of glass fragments, including some glass tesserae that may have originated in the church exposed in 2004, and remains of glass production—a raw glass chunk, a few deformed vessels and a small fragment of furnace debris—suggesting a small-scale local production.

The glass from the 2007 excavation was mostly found in connection with the winepress in Area A, including finds uncovered in accumulations atop the treading floors and in the collecting vats, while scattered finds were retrieved from other parts of the excavation. The lion's share of the finds from the winepress was associated with the eastern treading floor (L109), including a bowl (Fig. 1:1), wineglasses (Fig. 1:4–8), a bottle (Fig. 2:1) and oil lamps (Fig. 4:1, 2, 5). These finds were shown to date mostly from the Byzantine–early Umayyad period, apart from an eight-century decorated glass vessel (Fig. 4:7). Vessels unearthed in connection with the western collecting vat (L110 and L125) included wineglasses (Fig. 1:2, 3), bottles (Fig. 2:2, 4), an oil lamp (Fig. 4:4) and an eighth-century bowl with a tonged decoration (Fig. 4:6), the latest glass find in this context. A small handle of an Umayyad-period oil lamp (Fig. 4:8) was found in the adjacent western treading floor (L135). Glass finds uncovered in accumulations near the winepress (L112, L114, L153) include bottles (Figs. 2:3–5; 3:1–3), an oil lamp (Fig. 4:3) and a gold-colored tessera (Fig. 4:10). Only two fragments were found in association with the structure in Area B: a bottle from atop the stone pavement (L120; Fig. 2:6) and an Umayyad-period stirring rod found east of the structure (L146; Fig. 4:9).

Some of the glass vessels described here, including the wineglasses (Fig. 1:4–8), oil lamps (Fig. 4:1, 2, 5), bottles (e.g., Fig. 2:1), window fragments and tesserae, apparently belong to the Christian occupation of the site, from the Byzantine to the Early Islamic period, while others, especially the tonged bowl (Fig. 4:6), the vessel decorated with applied glass patches (Fig. 4:7), the small loop handle (Fig. 4:8) and the stirring rod (Fig. 4:9), demonstrate the increasing infiltration of Early Islamic glass-making traditions of the eighth century.

For the sake of comparison, it is important to reiterate here the description of the glass repertoire of the 2004 excavation. That assemblage is noteworthy for the preponderance of glass tesserae, far exceeding the quantity of all other glass objects found in 2004, strongly suggesting the association of that assemblage with the church unearthed at that time. The glass vessels found in 2004 (Gorin-Rosen 2007: Figs. 15–24) comprised: bowls with hollow, out-folded rims; beakers and wineglasses with rounded rims, hollow ring bases and stems; bottles with a neck decorated with wound wavy trails; rims of various bottle types and fragments of bases; bowl-shaped oil lamps with hollow, out-folded rims and three handles and oil lamps with hollow, conical stems. Also found were windowpanes (Gorin-

Rosen 2007: Fig. 19) and fragments of debris from glass production, amounting to as many as 20 pieces (Gorin-Rosen 2007: Figs. 23, 24), including mainly melted waste from the furnace, deformed vessels and windowpanes, and one raw glass chunk. The heat-deformed finds were probably the result of the conflagration that destroyed the church (see Smithline 2007). The two glass assemblages from eṭ-Tuweiri reveal some similarities in the vessel types, although they also differ in one important respect, the presence of Umayyad-period finds in the present excavation. Smithline (2007) concluded that the church exposed in his excavation was abandoned at the end of the Byzantine period, based on the absence of finds dating later than the mid-seventh century CE. Accordingly, he suggested that the church was destroyed at that time, possibly during the Persian invasion of 614 CE, or in the later Muslim conquest in the mid-seventh century CE. Nevertheless, Smithline (2007) noted the continuity in occupation of a number of nearby settlements between the Byzantine and the Umayyad periods, e.g., Khirbat esh-Shubeika, Shelomi, Khirbat el-Ghureiyib and Ḥorbat Bata. The glass finds from the 2007 excavation are in agreement with the chronology put forward by Syon, Getzov and Daniel (this volume), demonstrating a continuity of occupation between the Byzantine and Early Islamic periods at eṭ-Tuweiri, despite the apparent destruction of the church.

REFERENCES

- Barag D. 1967. The Glass. In M.W. Prausnitz. *Excavations at Shavei Zion: The Early Christian Church* (Monografie di archeologia et d'arte II). Rome. Pp. 65–70.
- Barag D. 1970. *Glass Vessels of the Roman and Byzantine Periods in Palestine*. Ph.D. diss. The Hebrew University. Jerusalem (Hebrew; English summary, pp. I–VIII).
- Barag D. 1983. Glass Vessels. In V. Tzaferis. *The Excavations of Kursi-Gergesa ('Atiqot [ES] 16)*. Jerusalem. Pp. 37–38, 62–63.
- Boaz A. and Melloni G.P. 2005. 'Akko (East). *HA-ESI* 117 (September 26). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=237&mag_id=110 (accessed April 1, 2020).
- Carboni S. 2001. *Glass from Islamic Lands: The al-Sabah Collection, Kuwait National Museum*. New York.
- Cohen E. 1997. Roman, Byzantine and Umayyad Glass. In Y. Hirschfeld. *The Roman Baths of Hammat Gader: Final Report*. Jerusalem. Pp. 396–431.
- Delougaz P. and Haines R.C. 1960. *A Byzantine Church at Khirbat al-Karak* (OIP LXXXV). Chicago.
- Foy D. 2000. Un atelier de verrier à Beyrouth au début de la conquête islamique. *Syria* 77:239–290.
- Gorin-Rosen Y. 2002. Excavations at Khirbat el-Shubeika, 1991, 1993: The Glass Vessels. In Z. Gal ed. *Eretz Zafon: Studies in Galilean Archaeology*. Jerusalem. Pp. 288–322 (Hebrew; English summary, pp. 186*–187*).

- Gorin-Rosen Y. 2005. The Glass. In B. Arubas and H. Goldfus eds. *Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex; The Pottery and Other Small Finds* (JRA Suppl. S. 60). Portsmouth, R.I. Pp. 195–210.
- Gorin-Rosen Y. 2006. The Glass Finds from Khirbat el-Baṭiya (Triangulation Spot 819). *'Atiqot* 53:29*–36* (Hebrew; English summary, pp. 198–199).
- Gorin-Rosen Y. 2007. The Glass Finds. In H. Smithline. Et-Ṭuweiri. *HA-ESI* 119 (April 26). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=515&mag_id=112 (accessed April 1, 2020).
- Gorin-Rosen Y. 2009. The Glass Vessels from Strata 9–6. In N. Getzov, D. Avshalom-Gorni, Y. Gorin-Rosen, E.J. Stern, D. Syon and A. Tatcher. *Ḥorbat 'Uza; The 1991 Excavations II: The Late Periods* (IAA Reports 42). Jerusalem. Pp. 78–98.
- Gorin-Rosen Y. 2010a. Glass. In Y. Tepper. Zippori. *HA-ESI* 122 (October 4). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=1516&mag_id=117 (accessed April 2, 2020).
- Gorin-Rosen Y. 2010b. Glass from the Late Byzantine Remains near Shiqmona. *'Atiqot* 63:209–218.
- Gorin-Rosen Y. 2010c. The Islamic Glass Vessels. In O. Gutfeld. *Ramla: Final Report on the Excavations North of the White Mosque* (Qedem 51). Jerusalem. Pp. 213–264.
- Gorin-Rosen Y. 2012. Glass. In N. Feig. 'Akko, Ha-Ḥaroshet Street. *HA-ESI* 124 (December 31). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=2186&mag_id=119 (accessed September 22, 2021).
- Gorin-Rosen Y. 2013. The Glass Assemblage from Cave 1071. In E.C.M van den Brink, O. Rutgaizer, Y. Gorin-Rosen, L.K. Horwitz, N. Liphshitz and H.K. Mienis. Two Roman–Byzantine Subsurface Features at Ḥorbat Qastra (Castrum), at the Foot of Mount Carmel. *'Atiqot* 75:98–109.
- Gorin-Rosen Y. 2015. Byzantine Gold Glass from Excavations in the Holy Land. *JGS* 57:97–119.
- Gorin-Rosen Y. 2016. An Umayyad Glass Assemblage from Ramla. *'Atiqot* 86: 41–57.
- Gorin-Rosen Y. and Katsnelson N. 2005. Glass Finds from the Salvage Excavation at Ramla. *'Atiqot* 49:101–114.
- Hadad S. 2005. *Islamic Glass Vessels from the Hebrew University Excavations at Bet Shean* (Qedem Reports 8). Jerusalem.
- Hadad S. 2008. Glass Vessels. In Y. Hirschfeld and O. Gutfeld. *Tiberias: Excavations in the House of the Bronzes; Final Report I: Architecture, Stratigraphy and Small Finds* (Qedem 48). Jerusalem. Pp. 167–189.
- Harden D.B. 1962. Glass. In H.D. Colt ed. *Excavations at Nessana (Auja Hafir, Palestine)* 1. London. Pp. 76–91.
- Israeli Y. 2008. The Glass Vessels. In J. Patrich. *Archaeological Excavations at Caesarea Maritima, Areas CC, KK and NN; Final Reports I: The Objects*. Jerusalem. Pp. 367–418.
- Katsnelson N. 2014. The Glass Finds from Bet She'an (Youth Hostel). *'Atiqot* 77:23*–57*.
- Katsnelson N. 2016. The Courthouse Site: The Glass from Areas TB and TC. In M. Hartal, D. Syon, E. Stern and A. Tatcher. *Akko II: The 1991–1998 Excavations; The Early Periods* (IAA Reports 60). Jerusalem. Pp. 65–89.

- Lester A. 2004. The Glass. In: D. Stacey. *Excavations at Tiberias, 1973–1974; The Early Islamic Periods* (IAA Reports 21). Jerusalem. Pp. 167–220.
- Peleg M. 1994. Bet She'an: A Paved Street and Adjacent Remains. *'Atiqot* 25:139–155.
- Pollak R. 2003. Early Islamic Glass from Caesarea: A Chronological and Typological Study. In *Annales du 15^e Congrès de l'AIHV (New York–Corning 2001)*. Nottingham. Pp. 165–170.
- Porat L. and Getzov N. 2010. Aḥihud. *HA–ESI* 122 (July 2). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=1414&mag_id=117 (accessed April 1, 2020).
- Smithline H. 2007. Eṭ-Ṭuweiri. *HA–ESI* 119 (April 26). http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=515&mag_id=112 (accessed April 1, 2020).
- Syon D., Getzov N. and Daniel Z. This volume. Excavations at eṭ-Ṭuweiri and the Boundary Between the Dioceses of Tyre and 'Akko-Ptolemais in the Byzantine Period.
- Weinberg S.S. 1988. The Buildings and Installations. In G.D. Weinberg ed. *Excavations at Jalame: Site of a Glass Factory in Late Roman Palestine*. Columbia, Mo. Pp. 5–23.
- Winter T. 2011. The Glass Finds. In R. Bar-Nathan and W. Atrash. *Bet She'an II: Baysān; The Theater Pottery Workshop* (IAA Reports 48). Jerusalem. Pp. 345–362.
- Winter T. 2015. The Glass Finds. In G. Mazor and W. Atrash. *Bet She'an III/1: Nysa-Scythopolis; The Southern and Severan Theaters. The Stratigraphy and Finds* (IAA Reports 58/1). Jerusalem. Pp. 207–227.

THE MOLLUSKS FROM ET-ṬUWEIRI

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The mollusk remains retrieved from et-Ṭuweiri serve as evidence of food consumption, trade and the sources of construction material in Western Galilee in the Byzantine and Umayyad periods.

keywords: mollusks, snails, malacology, food consumption, trade, building material

INTRODUCTION

Thirty specimens of mollusks were collected manually at et-Ṭuweiri (see Syon, Getzov and Daniel, this volume).² They belong to eight species, six of which originated in the Mediterranean Sea, one land snail and one, from the Nile River.

THE FINDS

The mollusks are described below according to their prospected use in ancient times (Tables 1, 2).

Food Consumption

The edible species *Patella caerulea*, *P. ulyssiponensis* and *Phorcus turbinatus* are common in the intertidal zone of Israel's rocky shores and found throughout the Mediterranean Sea and the eastern Atlantic Ocean (Poppe and Goto 1991; Barash and Danin 1992). The species *P. turbinatus* can be easily collected by hand, while *P. caerulea* and *P. ulyssiponensis* need to be pried from the rock with the aid of a sharp object at the precise time that the shell is immersed in water by wave action and the animal releases its hermetic grip of the rock. The prying action may at times cause a small break at the edge of the shell, as identified on a specimen from L146. The three species of mollusks may be eaten alive immediately after

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² I thank Zohar Daniel for allowing me to study this material.

Table 1. Number of Specimens and Origin of Mollusk Species

Group	Species	N	Origin/habitat
Marine gastropod	<i>Patella caerulea</i>	7	Mediterranean Sea
	<i>Patella ulyssiponensis</i>	1	Mediterranean Sea
	<i>Phorcus turbinatus</i>	7	Mediterranean Sea
	<i>Hexaplex trunculus</i>	2	Mediterranean Sea
Marine bivalves	<i>Glycymeris nummaria</i>	5	Mediterranean Sea
	<i>Cerastoderma glaucum</i>	1	Mediterranean Sea
Freshwater bivalves	<i>Chambardia rubens</i>	5	Nile River
Land snails	<i>Levantina caesareana</i>	2	Rocky habitat

Table 2. Mollusk Finds according to Context

Area	Locus	Context	Species	N
A	102	Surface	<i>Glycymeris nummaria</i>	1
			<i>Chambardia rubens</i>	1
A	109	Eastern treading floor	<i>Glycymeris nummaria</i>	1
			<i>Cerastoderma glaucum</i>	1
			<i>Hexaplex trunculus</i>	1
			<i>Phorcus turbinatus</i>	6
			<i>Patella caerulea</i>	3
A	110	Central collecting vat, upper accumulations	<i>Glycymeris nummaria</i>	1
			<i>Hexaplex trunculus</i>	1
A	114	Eastern treading floor, Phase II	<i>Chambardia rubens</i>	2
A	115	Same	<i>Glycymeris nummaria</i>	1
			<i>Phorcus turbinatus</i>	1
A	117	Accumulations south of the central collecting vat	<i>Glycymeris nummaria</i>	1
			<i>Chambardia rubens</i>	1
A	135	Western treading floor	<i>Patella caerulea</i>	2
A	139	Western, fixed-screw press base	<i>Patella caerulea</i>	1
A	141	Narrow strip of mosaic floor north of eastern treading floor	<i>Levantina caesareana</i>	1
B	146	West of W130	<i>Patella caerulea</i>	1
			<i>Patella ulyssiponensis</i>	1
B	101	Surface	<i>Levantina caesareana</i>	1
B	120	Northern part of paved space	<i>Chambardia rubens</i>	1

collection or boiled in water.³ After cooking, the flesh of the mollusk is easily removed with a small pick. At eṭ-Ṭuweiri, altogether 15 shells of these three species were found, likely brought to the site as a source of sustenance.

³ It was observed that fishermen near Haifa prepare *P. turbinatus* by cooking with diced onion, salt and pepper (personal observation).

Also of nutritional value is the land snail *Levantina caesareana* that lives in rocky habitats. Evidence of its consumption was obtained from the Upper Paleolithic layer of Qafzeh Cave (Bar-Yosef Mayer, Vandermeersch and Bar-Yosef 2009). A very large number of such shells was found in a Byzantine-period monastery in Jerusalem, dated to the sixth century CE (Bar 1977, and see therein for preparation methods and recipes). This snail is still regularly consumed in Arab-Christian villages in Israel today (*Tareekaa: How To Make Palestinian Wild Snail*). The two specimens of this snail found at et-Ṭuweiri could represent either a natural occurrence or consumption remains.

Five specimens were found of *Chambardia rubens*, a freshwater bivalve distributed over much of Africa, including along the Nile River up to its outlet into the Mediterranean Sea. This mollusk has a solid elliptic shell, with an unpronounced umbo and a pink mother-of-pearl sheen, which turns white on exposure to sunlight (Pain and Woodward 1962; Mandahl-Barth 1988). Evidence of the importation of this species to Israel has been found from as early as the Natufian period (Bar-Yosef Mayer 1989). While the occasional shells found in prehistoric contexts are considered precious items of personal adornment or burial offerings, those found in large numbers in later contexts are generally believed to have been a source of exotic food (Reese, Mienis and Woodward 1986; Sharvit et al. 2002). Although the five broken specimens from et-Ṭuweiri do not offer direct evidence of their manner of use, they undoubtedly represent evidence of exchange with the Nile region, through either direct or indirect contacts.

Personal Adornment and Construction Material

Two specimens of *Hexaplex trunculus* were found, one of them (L109) has a large, square artificial hole at its center to allow a string to be passed through the shell for hanging it as a pendant. Remains of other marine species probably arrived at the site with sand brought as construction material: five broken and worn specimens of *Glycimeris nummaria* and one specimen of *Cerastoderma glaucum*.

CONCLUSIONS

The mollusk remains retrieved from et-Ṭuweiri offer a glimpse into aspects of food consumption, trade contacts, personal adornment and the sourcing of construction material in a rural context of Western Galilee in the Byzantine and Umayyad periods.

REFERENCES

- Bar Z. 1977. Human Consumption of Land Snails in Israel. *Basteria* 41:53–58.
- Barash A. and Danin Z. 1992. *Fauna Palaestina, Mollusca I: Annotated List of Mediterranean Molluscs of Israel and Sinai*. Jerusalem.

- Bar-Yosef Mayer D.E. 1989. Late Paleolithic and Neolithic Marine Shells in the Southern Levant as Cultural Markers. In C.F. Hayes III, L. Ceci and C.C. Bodner eds. *Proceedings of the 1986 Shell Bead Conference: Selected Papers* (Research Records 20). Rochester, N.Y. Pp. 169–174.
- Bar-Yosef Mayer D.E., Vandermeersch B. and Bar-Yosef O. 2009. Shells and Ochre in Middle Paleolithic Qafzeh Cave, Israel: Indications for Modern Behavior. *Journal of Human Evolution* 56:307–314. <https://doi.org/10.1016/j.jhevol.2008.10.005>
- Mandahl-Barth G. 1988. *Studies on African Freshwater Bivalves*. Charlottenlund.
- Pain T. and Woodward F.R. 1962. The African Freshwater Bivalve *Aspatharia (spathopsis) rubens* (Lamarck). Its Synonymy and Distribution. *Journal of Conchology* 25:73–78.
- Poppe G.T. and Goto Y. 1991. *European Seashells I: Gastropoda*. Wiesbaden.
- Reese D.S., Mienis H.K. and Woodward F.R. 1986. On the Trade of Shells and Fish from the Nile River. *BASOR* 264:79–84.
- Sharvit J., Galili E., Rosen B. and Brink E.C.M. van den. 2002. Predynastic Maritime Traffic along the Carmel Coast of Israel: A Submerged Find from North ‘Atlit Bay. In E.C.M. van den Brink and E. Yannai eds. *In Quest of Ancient Settlements and Landscapes: Archaeological Studies in Honour of Ram Gophna*. Tel Aviv. Pp. 159–166.
- Syon D., Getzov N. and Daniel Z. This volume. Excavations at et-Ṭuweiri and the Boundary between the Dioceses of Tyre and ‘Akko-Ptolemais in the Byzantine Period.
- Tareekaa: How to Make Wild Snail*. <https://www.tareekaa.com/نوزلحلا-لمع-ةقيرط-٦٤٣٩/ةعونتم-تافصو> (accessed February 5, 2020).