

THE GLASS VESSELS OF THE ROMAN, BYZANTINE AND EARLY ISLAMIC PERIODS

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The goal of this summary report is to share the glass material unearthed at Hippos (Sussita) with a wider circle of researchers dealing with the history of glass in the southern Levant during the Roman, Byzantine and Early Islamic (Umayyad) periods. The material discussed below comes from the areas excavated by the Israeli and Polish teams between 2000-2009.¹ Apart from a few intact vessels, around 1800 fragments were registered as indicative ones: rims, bases, handles, decorated elements, etc. Such a large quantity of glass finds always creates an uneasy problem of selection for publishing. We decided first and foremost to present the broad range of specific types occurring at Hippos, represented by the best preserved items. Therefore, the discussed material does not reflect the frequency of particular types, but is rather a presence/absence way of presentation. However, some of the particular finds, which seem to deserve more attention, will be discussed more extensively.

In the first part, a streamlined typology is presented, while in the second part the most interesting glass finds or glass assemblages are briefly discussed.

The glass assemblage from Hippos, taken as a whole, represents a broad repertoire of types that are widespread not only in the area of the southern Levant, but also in the entire Mediterranean basin. Almost all these types which occur at Hippos have already been discussed in various publications. Therefore, the discussion below is limited to the basic information instead of repeating what is otherwise well and widely known.

Dating of glass finds is based both on the dating of pottery contexts of individual baskets,² and on published comparanda from elsewhere. Since Hippos was one of the poleis of the Decapolis, the comparanda is focused on the sites which are located within this region. When necessary, parallels from other areas are taken into consideration.

The illustrated glass items are arranged according to specific excavated areas: East Gate, Decumanus Maximus, Forum, Hellenistic Compound, Odeion, South Wall, Southwest Church and Northwest Church. In the descriptions of illustrations, reference to typological scheme is given only when the specific glass item fits readily into the earlier defined type.

All dates in this report are CE.

STREAMLINED TYPOLOGY

There is considerable inconsistency in the descriptive terms used in the glass vessel publications, especially in excavation reports. Therefore, we have tried, as far as possible, to follow the terms from glossaries worked out by E. M. Stern, D. F. Grose, and by C.

Hess and K. B. Wight.³

I. Closed shapes: bottles/flasks/jugs

1. Vessels with simple or slightly thickened upright rim

This kind of rim can be associated with several different types of closed vessels. Among them, there is a considerable variety of neck types: long, medium or short size, broad or narrow, cylindrical, concave, or tapering either down or up. Body shape also varies: globular, ovoid, pear-shaped, cylindrical, conical, etc. The vessels can be smooth (e.g. Ill. 2: 3) or decorated with applied threads (e.g. Ills. 1: 3; 9: 1; 14: 5). Bases are usually concave or almost flat, varying from thin to thick.

2. Vessels with rim folded either inward or outward. The rest of the body: as Type I.1 above. There are two variants of folded rim:

2a. Rounded, oval or triangular in section, either tubular or pressed leaving no space for hollow tube (e.g. Ill. 10: 12-13). This extremely common type of rim can be associated with various types of closed vessels. See, for example, rims of the Dussart Types BX. 1125, BX. 3242, BX. 6421, BXIII. 1932b (1998, Pls. 35, 41, 45, 56 respectively).

2b. Flattened, horizontal rim. Two intact bottles with this kind of rim have been found in the atrium of the NWC (Ill. 15: 1, 2). They are characterized by a folded out, up, in, or flattened rim; a short neck slightly tapering downward; a squat globular body; and a very slightly concave base. The third bottle from the same context, with a missing rim and categorical concave base (Ill. 15: 3), doubtlessly represents the same type.

Such bottles were very typical during the Umayyad Period. Exact parallels are known, among others, from Beth-Shean (Hadad 2005, nos. 182-194), Hammat Gader (Cohen 1997, Pl. IX: 1-5), Kursi (Barag 1983, Fig. 9: 5, 6).

Other fragments of this kind of rim are presented on Ills. 11: 27; 13: 4; 15: 17, although they could equally well belong to the unguentarium-type of vessel.

3. Vessels with a funnel mouth (Ills. 3: 20; 4: 17; 5: 1-2; 8: 1, 18, etc.)

The characteristic feature of this type of vessels is a funnel-shaped mouth. The funnels vary with respect to shape: they can be deep or shallow, with a triangular or convex profile. The rims can be simple and rounded, folded inward or outward. There is also a considerable variety of body shapes: globular, squatted, cylindrical, square, pear-shaped, etc. Bases are usually more or less concave, sometimes almost flat. The vessels of this type occur in two variants: either smooth, or decorated with threads wound below the rim.

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² Discussed by J. Młynarczyk in 'Pottery Reports' published annually in the Hippos monograph series (*Hippos 2000 - Hippos 2009*).

³ Stern 1995, p. 19-33; Grose 1989, p. 29-36; Hess and Wight 2005.

Vessels with funnel-shaped mouths, undecorated or decorated with threads, constitute a hallmark of mass production of glass vessels during the Byzantine and Umayyad periods. They correspond to Barag Type 15.29-1 (1970: Fig. 45:), the Dussart Types BX. 3211 – BX. 3245, i.e. „flacons” (1998, 18-19, 142-150). Numerous parallels can be cited, among others, from Jerash (Kehrberg 1986, Fig. 9: 11, 32-33, 43-44; Meyer 1987, 202, Fig. 9: O-S), ‘Ain ez-Zara/Callirrhoe (Dussart 1997, Pl. 27: 4-6, 13-15), Hammat Gader (Cohen 1997, 419-425, Pls. VI, VII: 1-6), Beth-Shean, Byzantine and Umayyad periods (Hadad 2006, Fig. 19.3: 34, 38-39; 2005, Pls. 7: 114-124, 132-138; 8: 157-164), Khirbat el-Ni’ana (Gorin-Rosen and Katsnelson 2007, 98-103, Figs. 11-13, and further parallels therein). In Beirut they were used in the sixth-seventh centuries (Jennings 2006, 159, Figs. 7.4 and 7.5), and they occur in the third-fourth century glass factory at Jalame (Weinberg and Goldstein 1988, no. 283).

4. Vessels with a U-shaped mouth

This kind of vessel, closely related to Type I.3 (in fact, the differences between them are sometimes very slight), is characterized by a U-shaped mouth and a tall cylindrical or tapering neck, which can be plain or decorated with threads. One fragment (Ill. 14: 2) was found at the bottom of Cistern 2546 in the NWC, and its pottery context suggests the first half of the seventh century, while the context of the second fragment, from Tomb 295 (Ill. 12: 27), indicates a sixth-seventh centuries date.⁴ This dating corresponds with chronology of similar vessels of the Dussart Type BX. 4421, that is, fifth-seventh centuries (1998, 151).

Vessels of this kind were found in Tomb 3 at Kursi-Gergesa, dated to the sixth-early seventh centuries (Katsnelson 2014, 199, Fig. 1: 2), Khirbat al-Karak (Deloguaz and Haines 1960, Pl. 59: 3, 6), Beth-Shean (Hadad 2005, Pl. 12: 231; Fitzgerald 1931, 42, from “under the Church”, Pl. XXXIX: 25), Cave 2 at Khirbet el-Shubeika, sixth century (Gorin-Rosen 2002a Fig. 8: 39, 41), Hammat Gader (Cohen 1997, Pl. VIII: 8-9, 13), in the church at Shavei Zion (Barag 1967, Fig. 16: 3, 4), Ramat Hanadiv, fifth-sixth centuries (Cohen 2000, Pl. III: 26), Khirbat el-Ni’ana (Gorin-Rosen and Katsnelson 2007: 139, Fig. 34: 6), the Museum in Nazareth (Bagatti 1967: Fig. 2: 54), ‘Dominus Flevit’ in Jerusalem (Bagatti and Milik 1958, Fig. 33: 10), Burial Cave II from the Qidron Valley, dated to the fifth–sixth centuries (Zissu and Adawi 2014, 18, Fig. 10: 2), Bosra, Jerash (Dussart 1998, Pl. 43: 4 and 5). Cf. also an undecorated bottle from the Bosra Museum (Coscarella 1990, Tav. 5: b).

In Jordan, the U-shaped mouth bottles correspond to the Dussart Types BX 4411 and 4421, dated from the fourth and fifth centuries respectively to the middle of the seventh century (1998, 150-151, Pl. 43: 1, 4, 5). In Egypt, parallel U-shaped bottles are known from Kom el-Dikka in Alexandria (Kucharzyk 2007, Fig. 3; 3) and the basilica in Marea (Kucharzyk 2005, Fig. 2: 5). See also an ‘Early Byzantine’ bottle from Sardis (Saldern 1980, 79, no. 478, Pls. 14 and 26).

5. Bottles with narrow neck, often with a constriction at the bottom of the neck, folded-in or rounded rim, and elongated or rounded shoulders (Ill. 6: 1; 7: 8). This type occurs in two variants, either with a smooth neck or decorated with threads.

Such bottles correspond to the general Dussart Type BX. 1111, especially BX. 1111b1 (1998, 128, Pl. 32: 3), dated to the Byzantine Period. Parallels are found at Jerash, in the Late Byzantine-Early Umayyad context (Meyer 1987, 202, Fig. 9: T-V), Khirbet al-Karak (Delougaz and Heaines 1960, Fig. 59: 2, 6), Beth-Shean, from the Umayyad Period (Hadad 2005, 24-25, Pl. 12: 223-229), Hammat Gader (Cohen 1997, Pl. 9-11, 14; VIII: 16, 17; IX: 14, 21), Catacomb 20. Room XII, at Beth Shearim, dated to the first half of the fourth century (Barag, 1976, 201, Fig. 97: 17), in the third-early fourth century Tomb XV at Hanita (Barag 1978, Fig. 12: 45), in Tomb 1 from the northern cemetery at Samaria, dated to the fourth-fifth centuries (Crowfoot 1957, Fig. 95: 11). The same type of bottles are known also from Bosra Museum (Coscarella 1994, 390, Tav. I: a-b) and from the ‘Roman’ Period at Sardis (Saldern 1980, 24-25, nos. 132, 159-160, 174, Pls. 7-9, 22).

6. Unguent pots

The common feature of vessels from this group is the similar function they have played in daily usage rather than their similarity of shapes. There were used as containers for precious liquids and have several different names: phial, unguentarium, ampule, balsamarium.⁵

6a. Pot – miniature small bottle. Intact (Ill. 11: 1)

The vessel is characterized by a simple rounded rim, straight-side neck tapering downwards, short sloping shoulders, rounded body and a slightly concave base. Date: before the earthquake of 749.

There are a few parallels regarding both the form and size of the pot: from Capernaum (Bagatti 1963-64, Fig. 4: 8), the third-fifth centuries vessel from Samaria (Crowfoot 1957, 412, C84, Fig. 95: 8 from), from a burial cave at Giv’at Sharett, Beth Shemesh, dated to the last quarter of the fourth to the first quarter of the fifth century (Seligman et al. 1996, 56, Fig. 15: 5 and further parallels therein from Beit Fajjar and Ashqelon); cf. also a phial from Collezione Personeni, probably originated in Turkey, and dated to the second – third centuries (Roffia 2000, Tav. IX: 72).

From outside Palestine, unguentaria comparable in shape and size were found in a tomb at Vasa, in Cyprus (fourth, fifth? century), at the Athenian Agora (fifth century), and in the church at Moza, northern Italy (590-604).⁶

6b. Pot – small jar (Ill. 13: 6)

Completely preserved vessel. Globular body, conical neck with a wide-mouthed simple rounded rim, slightly thickened outside, and a concave base. Date: before the earthquake of 749.

Parallels are quite few. The best one, both in shape and size, is a complete squat bottle/jar with a wide-mouthed rounded rim, from Area D, Stratum II, at En-Gedi, dated to Late Roman-Byzantine Period (Jackson-Tal 2007, 485-486, n. 7, Fig. 9 and Pl. 8: 7). A similar complete jar with a simple rounded rim is known from Jerash, Dussart Type BX. 1123 (1998: 132, Pl. 34: 2). An intact vessel with an out-folded tubular rim was found “under the Church” at Beth-Shean (Fitzgerald 1931, 42, Pl. XXXIX: 12). Similar conical necks with a simple rounded rim are also known from Bosra, Jerash,

and Amman. They belong to the Dussart Group BVII. 2411, dated mainly to the second-fourth centuries and the first half of the eighth century (1998, Pl. 91, Pl. 18: 1-4).

For further discussion on these two pots, see below in Section Northwest Church.

II. Bowls

1. Plain bowls/dishes with straight or tapering walls, an upright or slightly everted rim, either rounded or thickened. There are two variants:

1a. Deep hemispherical or conical bowls (e.g. Ill. 11: 3, 6).

1b. Shallow dishes with straight or tapering downward walls (e.g. Ill. 5: 4).

These bowls were very common since the third century. From among numerous parallels we can refer to the following ones: burial Cave D at Hurfeish (Gorin-Rosen 2002b, Figs. 1-3), Khirbet el-Shubeika (Gorin-Rosen 2002a, Fig. 1), Beth-Shean (Hadad 2005, Pl. 2: 29-35), Hanita Tomb XV (Barag 1978, Fig. 7: 10-22).

2. Folded rim bowls

Bowls of this type are characterized by rims folded out and downwards, with straight or convex walls and usually a low tubular base. This is a common type which appeared in the Late Roman and continued until the Byzantine/Umayyad periods.

2a. Large-to-small, shallow bowls with straight or tapering walls, and a rounded tubular or pressed folded rim (e.g. Ill. 6: 3).

Parallels can be cited from the third century burial Cave D at Hurfeish (Gorin-Rosen 2002b, 147-153, Fig. 6: 15-17), Beth-Shean, Umayyad Period (Hadad 2005, Pl. 3: 51-53, 55-71), Capernaum (Loffreda 1984, Fig. 6: 5-9; [= Roffia 2000: Tav. XIII-XVI; Tav. 1: 2]), Tell Tanninim (Pollak 2006, 155-158, Fig. 126).

2b. Large, medium-to-small, deep bowls with straight or tapering walls, and a rounded tubular or pressed folded rim, sometimes everted. Example: Ill. 6: 4.

Numerous similar examples are known, among others, from burial Cave D at Hurfeish (Gorin-Rosen 2002b, 147-153, Figs. 6: 18, 19; 7: 8), Tell Tanninim (Pollak 2006, 155-158, Fig. 127). Such bowls of small dimensions could also be used as lamps (see below, Type IV.1).

In the third, early fourth century factory at Jalame, all bowls with an out-folded rim were classified as one group, although they differ considerably in shape, rim and diameter (Weinberg and Goldstein 1988, 41-44, Figs. 4-3 and 4-4).

3. Bowls with tubular ‘collar’ rims (Ill. 3: 16; 5: 7; 6: 5; 9: 11)

The characteristic feature of these shallow bowls is an upright broad tubular rim, folded out and downwards with its edge folded up. The bases of such bowls may be of various types, usually pushed-in ones.⁸ According to Dussart these bowls were common in the

middle of the fourth century, with possible continuation into the eighth century.⁹

Complete bowls were found, among others, in Tyre, dated to the mid-second to fourth century (Harden 1949, 151-2, Fig. 1: 7), and in Beth-Shean (Hayes 1975, 120, no. 468). Other parallels are from: Beirut, mid-second/ third to fourth centuries (Jennings 2006, 75, Fig. 4.7: 3-4), Paneas (Gorin-Rosen and Jackson-Tal 2008, 83, Fig. 5.2: 5), Kisra (Stern 1997, 106, Fig. 1:6), Jalame, third-fourth centuries (Weinberg and Goldstein 1988, 47-49, Fig. 4-7), Meiron Strata IV and V (Meyers and al. 1981, Figs. 9.10: 15, 16; 11: 1-4), Hammat Gader (Cohen 1997, 400, Pl. 10-12), Tiberias (Amit-Preiss 2004, 178, Fig. 11.1: 3), Flavia Neapolis, area of hippodrome, first-fifth centuries (Sarig 2009, Pl. 41: 8), Tell Tanninim (Pollak 2006, 158-159, Fig. 128). In Jordan such bowls are known from Jerash, Ain es-Zara, Amman (Dussart 1998, p. 75, Pl. 11: 2-10, ‘Iraq al-Amir (Dussart 1991, 299, fig. 36: 1-3); Greece: Athens, late third to fourth centuries (Weinberg and Stern 2009, 143, nos. 309, 310, Fig. 18, and further parallels therein).

These bowls correspond to the Isings Form 118 (1957, 148), the Barag Type 2.16 (1970, Pl. 31), and the Dussart Type BII.311 (1998, 75, 251).

4. Small deep bowls (Ill. 3: 4-5; 7: 3; 8: 5; 9: 8; 15: 8)

The bowls of this small but fairly homogenous group are characterized by a short, everted rounded rim and convex/globular body profile; the rim diameters range between eight and twelve cm. Such simple bowls were a long-lived type of vessel since the mid-second century. A bowl (Ill. 8: 5) from the Odeion may be roughly dated to the period when the structure was being dismantled during the second half of the fourth century.¹⁰ Another fragment (Ill. 7: 3) comes from top soil of a building situated on the northern side of the decumanus (HLC 10). The pottery context of the building relates this bowl to the period between the mid-sixth/early seventh to the late seventh/early eighth century.¹¹ The latest chronologically fragment (Ill. 15: 8) pertains to the final phase of the Northwest Church, which was destroyed by the earthquake in 749.

Such bowls, corresponding to the Dussart Type BI. 521 (1998, Pl. 8), were found at Bosra, Umm Qeis, Jerash, Amman (1998, 70-71, Pl. 8; 10-29), and at ‘Iraq al-Amir (Dussart 1991, 300, Figs. 36: 10-11, 37: 12-15).

Other published parallels are of bowls found in the burial Cave D at Hurfeish, from the third century (Gorin-Rosen 2002b, Fig. 4: 120), in Nabratein, from the late Roman period (Fischer 2009, Pl. H: 10, “lamp”), in Meiron, from the late fourth century (Meyers et al. 1981, Pl. 9.12: 12-15), in Khirbet Shema, from the fourth to early fifth century (Meyers et al. 1976, Pl. 8.4: 10-12), in Jalame, from the second half of the fourth century (Weinberg and Goldstein 1988, 40, Fig. 4-1: 34), and in Beirut, where the vessels were classified as cups, bowls or wide necked jars, and dated to the mid- and late Roman periods (Jennings 2006, Figs. 4.1: 1, 3; 4.3: 1-2; and particularly Fig. 5.22).

Similar deep bowls were fairly common also in Cyprus. They

4 Młynarczyk, *Hippos* 2008, p. 69 and *Hippos* 2004, p. 155-156.

5 On the terminology of unguent type vessels see: Fontaine and Fontaine-Hodiamont 2012.

6 Harden 1958, no. 11, fig. 22h; Weinberg and Stern 2009, p. 152-153, no. 367, Pl. 32; Sagui 1993, p. 130, Fig. 10a.

7 And further parallels therein.

8 Israeli 2008, p. 376, no. 76; Weinberg and Goldstein 1988, p. 47-48, Fig. 4-7.

9 Dussart 1998, p. 75.

10 For the chronology of the Odeion, see Segal, *Hippos Summary Report I*, p. 189-190; cf. also *Hippos* 2009, p. 48-49.

11 Młynarczyk, *Hippos* 2009, p. 111.

correspond to Type AI of the Vessberg typology which dated them not earlier than the second century (1956, 196, Fig. 42: 18-21). Further to the West, parallel bowls are represented by the Isings Form 96a, which ranges from the third through fifth centuries, with peak occurrence during the fourth century (1957, 113).

5. Bowls with an unworked rim (cracked/cut-off rims)

This is rather an un-homogenous small group of vessels with shapes that vary considerably and have the single common feature of an unworked rim (cracked-off and cut-off).

a. Large deep bowl (Ill. 6: 6)

A parallel bowl is known from Tell Tanninim (Pollak 2006, 170, Fig. 133: 79), and another one, dated to 551-575, was found in Berytus (Jennings 2006: 101, Fig. 5.14 :4). In Heliopolis/Baalbek, a similar large bowl is dated to the fifth century (Hamel and Greiff 2014, Fig. 16.4: 6).

b. Large shallow bowl (Ill. 5:10)

A similar bowl was found in Berytus, where it is dated to c. 551 (Jennings 2006, 99-100, Fig. 5.12: 7).

c. Medium and small plain convex bowl (Ill. 4:8; 5:8-9)

Bowls of this kind correspond to the type B1.221 in Jordan (Dussart 1998: 61-62, Pl. 4: 22-31). Parallels were found at Jerash, dated to the Byzantine period (Meyer 1987, 189, 197, Figs. 6: E; t: gg-ii), Tell Tanninim (Pollak 2006, 170, Fig. 133: 77-78). At Caesarea almost identical bowls date from the fourth century AD. (Israeli 2008: 381, nos. 131-132). In Heliopolis/Baalbek they were found in a fifth century context (Hamel and Greiff 2014, Fig. 16.4: 4).

d. Globular deep bowl with very short upright neck (Ill. 10: 8)

Possibly a hanging lamp, a type which appeared in the mid-fourth century, for example in a burial cave in 'Dominus Flevit' on the Mount of Olives in Jerusalem (Bagatti and Milik 1958, 148, Fig. 35: 12; Barag 1970, 183-184, Type 13: 10). Such bowl-lamps are well known in a Byzantine context from Pella (Smith and Day 1989, 110, Pl. 51: 23), Tiberias (Amitai-Preiss 2004, 181-183, Fig. 11.3: 22, 23), Beth-Shean (Winter 2011, 350, Fig. 12.2: 24, 25), Caesarea Maritima (Peleg and Reich 1992, 155-156), Berytus, from the fourth century (Jennings 2006, Fig. 5.4: 6), and Heliopolis/Baalbek, from the fourth century ((Hamel and Greiff 2014, Fig. 16.4: 3). An intact lamp from Nessana is dated to the Abbasid period (Harden 1962, 85-86, PLS. XX: 58, XXVIII: 56).

III. Drinking vessels

A considerable amount of glass finds comprise items that can be classified by the general term of 'drinking vessels'. There is some ambiguity arising from the application of several specific names such as cup, beaker, goblet, wine glass, chalice, etc. These names can be safely used only with respect to wholly preserved or fully restorable vessels, since the main difference between them lies in their type of bottom. Thus, a beaker is a flat-bottomed vessel without a stem (and without handle). A goblet is generally composed of three parts, the bowl, stem, and foot, and each of them may take different forms, and may appear in various combinations with other parts. A goblet is often called a wine glass (although

other beverages could be served as well) or a chalice. The latter term usually refers to goblets which bear a unique or rare kind of decoration and/or were found in a specific context suggesting their religious connotations, for example drinking during an Eucharistic ceremony.

Such uncertainty in using of one of the above-mentioned names is particularly felt when dealing with small rim fragments. The same form of a fragmented rim can be assigned, for example, either to a beaker or a goblet.¹² However, some fragments seem to be distinctive enough to tell with a certain degree of probability to what type of drinking vessels they belong. In the case of other doubtful examples, we decided to leave the options open and to use the general but convenient term – drinking vessel.

We also avoided another term which sometimes appears for the designation of a drinking vessel, namely a cup. Its characteristic feature is a single, vertical handle attached below the rim or in the middle of the body, e.g. the Isings Form 37 (1957, 52). None of the finds discovered until 2009 was sufficiently preserved to allow for such classification.

It should also be noted that several simple, medium-size rims may also be confused either with small drinking vessels or with the mouths of larger bottles, flasks or jars.

1. Simple rounded rim, straight or slightly incurved; profile of the bowl varies from slightly convex to tapering down (e.g. Ills. 3: 2, 3; 5: 11-13).

1a is a variant with out-folded, tubular rim (Ill. 12: 13).

2. Simple rounded, sometimes slightly thickened flaring rim; profile of bowl can vary from cylindrical through bell-shaped to conical. There are several variants of stem (hollow, solid, knobbed), and base (pushed-in, tubular ring, flat disk or slightly concave disk). Examples: Ill. 8: 12-13; 13: 7, 10; 15: 19.

Both types belong to a large family of drinking vessels which used to be classified as goblets, wine goblets or wineglasses. A great number of such vessels were found at various sites throughout the Byzantine and Umayyad periods. Here we just refer to some parallels from: Beirut (Jennings 2006: Figs. 1.6-1.9), Pella (Smith and Day 1989: Pl. 60: 9), Jerash (Kehrborg 1986: 375, Fig. 9: 25-28; Meyer 1987: Fig. 10: V, X-Z), Amman (Dussart 1998: 114, Pl. 26: BVIII.3321: 27-33 with further parallels therein), Beth-Shean (Hadad 2005: Pl. 21: 400-411), Horbat Castra (Gorin-Rosen 2013: 99, Fig. 24: 7), Beit Ras (Burdajewicz forthcoming).

Outside the Syro-Palestinian region, stemmed goblets are known, among others, from Karanis (Harden 1936: Pl. XVI: 479-484) and Sardis (Saldern 1980: 53-60).

This type corresponds to the Isings Form 111 (1957: 139-140).

3. This type is a variant of the previous type with a bell-shaped bowl, solid stem and base. The characteristic feature is a rounded rim turned out and upwards (Ill. 13: 9 15: 18).

A similar goblet, dated to the late Byzantine-early Umayyad periods was found in Cave 1071 at Horbat Castra (Gorin-Rosen 2013, Fig. 24: 7). Dated to the same periods are goblets from the Bishop Isaiah

Church in Jerash (Meyer 1987, 211, Fig. 11: X, Y, Z). Other parallels came from the Umayyad period at Beth-Shean (Hadad 2005, pl. 21: 400) and from Beit Ras/Kapitolias (Burdajewicz, forthcoming).

4. Drinking vessels with a horizontal trail.

Some fragments preserved a decoration consisting of a single horizontal trail beneath the rim (Ill. 3: 19; 4: 5; 8: 19; 9:3). They probably represent a specific type of cylindrical beaker/goblet with a rounded, slightly thickened rim, a straight or slightly concave body profile and a thick solid base, either flat or concave. In several examples, the upper half of the vessel, beneath the rim, is adorned with a horizontal trail wound around the wall.

This type of drinking vessel, already known from contexts dated to the second half of the third century, was common especially in the fourth-fifth centuries, and continued also into the sixth century. The distribution of finds seems to indicate that the type was confined mainly to Phoenicia, northern Palestine and north-western Jordan. One of the centres of its production was undoubtedly the glass factory at Jalame, dated to the second half of the fourth century (Weinberg 1987, Figs. 14 and 15; Weinberg and Goldstein 1988, 60-61, Fig. 4-23). The other one dated to the same period, is Khirbet el-Ni'ana (Gorin-Rosen and Katsnelson 2007, 93, Fig. 8: 3-9). Other parallels can be referred from Khirbet el-Shubeika (Gorin-Rosen 2002a, Fig. 9: 3), Sumaqa on Mount Carmel (Jacobson 1999, 335, Fig. 2: 17; Pl. B: 12), Hammat Gader (Cohen 1997, 410, Pl. III: 14-19), Beth-Shean (Katsnelson 2014, Fig. 14: 6; Winter 2011, Fig. 12.4: 1), Samaria (Crowfoot 1957, Figs. 94: 14; 95; 20), Ramat Hanadiv (Cohen 2000, 168, Pl. II: 14, 17), Caesarea Maritima (Israeli 2008, nos. 91-93). Syro-Jordanian parallels include finds from Bosra (Coscarella 1990, Tav. VIII: b, c), Beit-Ras/Kapitolias (Burdajewicz forthcoming), Jerash, 'Ain ez-Zara (Dussart 1998, Pl. 21: 18-41), Iraq al Amir (Dussart 1991, 304, Fig. 38: 42-47), Khirbet es-Samra (Dussart forthcoming). See also parallels in collections of the Israel Museum and the Royal Ontario Museum.¹³

Such vessels correspond to Barag's Types 4.6 and 4.7 (1970, 142) and Dussart's Type BVIII. 121 (1998, 96-98).

IV. Oil lamps

1. Bowl-shaped suspended lamps

The type is characterized by three vertical handles attached to the rim and body of the bowl. There are some variants concerning the shape of the bowl and its rim:

a. Bowl-shaped lamp with narrow to broad, flat folded rim, cylindrical walls.

b. Bowl-shaped lamp with narrow to broad, flat folded rim, sloping walls.

c. Bowl-shaped lamp with narrow to broad folded, tubular rim.

Bowl-shaped suspended lamps made their appearance toward the end of the fourth century and continued without major changes throughout the next centuries in a wide area of the Near East during the Byzantine and Umayyad periods and even later on (Gorin-Rosen

and Winter 2010, 172-175).

In order to present some lamps of this type, we can refer to the following ones: from Beirut (Jennings 2006, 148-149, Fig. 62: 1-6), Tiberias (Lester 2004, 7.11: 131-133), Pella (Smith and Day 1989, 115, Fig. 32; Pl. 60: 4), Hammat Gader (Cohen 1997, 402-403, Pl. II: 13-15; Beth-Shean (Hadad 2005, Pl. 22: 413-422), Jerash (Meyer 1987, 205, Figs. 11: N-Q; 12: P-Q; cf. also Baur 1938, Fig. 20: 17), Petra and Jabal Harûn (Keller 2006, Taf. 18: e-h; 19: a-c; Keller and Lindblom 2008, 336-337, Types SL 1-SL8). Such lamps belong to the Dussart Type BVI (1998, 78-86 and with further parallels therein).

D. Keller and J. Lindblom in their excellent studies on glass material from a monastic complex at Jabal Harûn near Petra, tried to trace the typological/chronological sequence of glass lamps discovered at this site. The detailed analysis has shown that, during the period between the first half of the fifth - eight/ninth centuries, suspended type lamps evolved there from small lamps with rounded folded rims through lamps with narrow (6 to 8 mm) flat folds and then larger lamps with a folded medium (9 to 16 mm) or broad (16-22 mm) flattened rims.¹⁴ By comparison, the folds of suspended lamps at Hippos do not exceed 15 mm. However, it is difficult to state whether or not we may apply a similar evolution of suspended type lamps from Jabal Harûn to those discovered at other sites and in more remote regions.

This type of bowl-shaped suspended lamps corresponds to Dussart's general Type BVI. 12 et sub-types (1998: 30, 82-86).

Bowl-shaped lamps with three handles appear also as standing lamps with a flat or concave (omphalos-shaped) bottom, sometimes provided with a central wick-tube.¹⁵ Examples are known, among others, from Jerash during the Umayyad period (Meyer 1987, 212, Fig. 12: P, Q), Samaria (Crowfoot 1957, Fig. 99: 2, 3), from Jerusalem (Gorin-Rosen and Winter 2010, Fig. 1), and from the Northern Church at Rehovot-in-the-Negev (Patrich 1988, 134, Pl. XII).

It should be mentioned that some of the bowls with a cracked-off rim and handles usually attached below the rim were used as lamps, see Type II.5d above.

2. Stemmed hanging lamps

The characteristic feature of this type of lamp is a stem which allows for putting them into circular opening/s of a special lighting device. Thin and delicate walls of lamp bowls could take various profiles: cylindrical, conical, rounded, bell-shaped; rims could be straight or flaring, simple or rounded, sometimes slightly thickened. This type of lamp can be further subdivided according to the kind of stem, which, at the same time, is the sole means of identification for hanging lamps among the preserved fragmented glass material.

a. Oil lamp with hollow stem

1. Short cylindrical or conical hollow stem

2. Long cylindrical or conical hollow stem

3. Long S-shaped stem, narrowing at junction with bowl

b. Oil lamp with solid stem

¹³ Israeli 2003, p. 162, no. 167; Hayes 1975, p. 104, nos. 375-377.

¹⁴ Lindblom 2005; Keller and Lindblom 2008, 336-337, 356-358.

¹⁵ Crowfoot and Harden 1931, Pls. XXVIII: 7; XXX: p. 40-42.

¹² Or even, a bowl, bottle, flask, etc. It occurs quite often in many publications concerning glass finds.

1. Plain stem with knob at the end
2. Multi beaded/knobbed stem
3. Stem with remains of tooling and twisting at its lower end; sometimes at the end there is a single knob-shaped thickness.

Stemmed lamps correspond to the general Dussart Type BVI. 2 and sub-types (1998, 30, 86-88). They made their first appearance in the fifth century and, alongside suspension bowl-lamps, were the most frequent type of light devices throughout the Byzantine and Umayyad periods and even later on.

Stemmed lamps were placed in the openings of metal chandeliers, that is multiple-lamp holders (polycandela, palamai, stephanitai¹⁶) equipped with three chains and suspended from the ceiling.

Many such light devices were found in churches, synagogues and other buildings, e.g., in the Bishop Marianos Church at Jerash (Gawlikowski and Musa 1986, 153, Figs. 9-10), the North-Western Church at Hippos (Burdajewicz 2011, 36, Fig. 8), the synagogue at Beth-Shean (Zori 1967, Fig. 11.5), and the House of the Fountains, Beirut (Jennings 2006, Figs. 6.27-6.28). Another way of using the stemmed lamps was to place them in the metal holders attached to the wall (Hadad 2003, 194).

It should be noted that apart from the two major lamp types, there are some bowls with a cracked-off rim, already mentioned above (Ill. 5: 23). This type occurs mainly in the fifth century, and only a few examples at Hippos have been identified.

V. Kohl tubes

This characteristic and fairly diversified type of toilet/cosmetic vessels was common during the late Roman and early Byzantine periods (IV-VI w.). Kohl was a black pigment used to make the contour of eyes more visible. In some of the intact vessels coming from tombs, remnants of kohl have been preserved, sometimes even with a metal (usually bronze) stick inside.¹⁷ Kohl tubes belong mainly to the category of grave-group artifacts and are represented relatively rarely in the glass repertoire of habitation contexts. This is also true in the case of Hippos. Two types of kohl vessels were found.

1. Single tube (Ill. 11: 17-18)

The only two examples of this type were unearthed in the NWC and both of them are characterized by a tubular in-folded rims and vertical handle(s) running from the rim to the cylindrical body.

2. Multiple tubes (Ill. 3:10; 5: 20; 6: 9)

The preserved lower part of the body and bottom of kohl vessel from the Forum belongs to a smooth, undecorated double tube type (Ill. 3: 10). It can be identified with Dussart Types either BXIII. 211 or BXIII. 2211, both dated to the fourth-sixth centuries (1998,

173, Pl. 57 and Jordanian parallels therein). A similar vessel, dated to the fourth century, is kept in the Royal Ontario Museum (Hayes 1975, 101, no. 359, Pl. 28: 359).

The two others vessels are decorated with trail applied around the lower part of the tubes (Ill. 5: 20; 6: 9). They correspond to the Dussart Type XIII. 2212 (1998, 174, Pl. 57). Similar decorated double tube vessels are known from Pella (McNicoll et al. 1982, Pl. 136: 6), the Royal Ontario Museum (Hayes 1975, 116, no. 449, Pl. 28: 449). The double and multiple tubes were common during the period from the fourth to fifth centuries, but some vessels occurred in the later Byzantine period as well.¹⁸

A fragment from HLC 3 (Ill. 6: 9) comes from a context dated by pottery to the sixth century.¹⁹ A complete kohl tube was found in a tomb located near the eastern city gate, and dated to the fourth-sixth centuries.²⁰

SOME SELECTED GLASS VESSELS AND GLASS ASSEMBLAGES

The East Gate, the Decumanus Maximus and the Forum areas (Ills. 1-3)

The area of decumanus maximus yielded only a few diagnostic glass sherds: two bases of bottles (?), a rim and a neck of a bottle and four stems of goblets/wine glasses: three of them were found in the western doorway (L103), the other one in the area west of the Forum. All the items are typical to the period between the Late Roman and Umayyad times.

It should be recalled that in one of the two built tombs (Northern Tomb) situated in the area above the east city gate (EGT), two complete glass vessels were found.

One of them is a hexagonal jar with a basket handle with moulded decorations, dated to the sixth-seventh century.²¹ Four of its sides are adorned with geometrical patterns, the two other sides – with a human face (or a mask?).

A jar of almost identical shape and with a basket handle, but decorated with geometrical patterns, is in the collection of The Toledo Museum of Art. This jar, probably of Syrian origin, is dated from the sixth to the early seventh century.²²

The other intact item is a kohl type vessel consisting of two tubes, and adorned with threads. Excavators date these finds to the fourth-sixth centuries.²³

The glass assemblage from the Forum area seems to be quite accidental, which is understandable in view of the public character of this find-spot. There are fragments mainly of bowls, bottles and drinking vessels. Their dating ranges from the Roman to the Byzantine period. However, the presence of a bowl-shape suspended

lamp (Ill. 3: 1) is rather unusual in an open space. The same is true, although to less degree, in respect to fragment of a cosmetic vessel of kohl type (Ill. 3: 10).

Hellenistic Compound (Ill. 4-6)

The vast area of HLC yielded some interesting finds which deserve more of our attention.

1. Bowl with scalloped rim

Ill. 5: 6 shows an interesting fragment of a bowl (Type II.2b) with a horizontal rim folded inwards. Judging by the preserved fragment, the bowl, which was either shallow or deep, probably had a polygonal opening and therefore its diameter cannot be precisely calculated. Its characteristic feature is a wide, horizontal rim with a pinched projection shaped like a scallop shell or a star. It is a relatively rare type of bowl, and only a small number of similar vessels are known, or at least published so far.

Such a type of rounded bowl has been recently found in Beit Ras/Kapitolias. The pottery context allows us to date it to the fifth century (Burdajewicz forthcoming). A parallel example to this type can be found in the late fourth/early fifth century context in Beirut (Jennings 2006, 77, Fig. 4.9: 1). A similar fragment, found in a Byzantine monastery at Khirbet es-Suyyagh, is dated to the late Byzantine/early Umayyad period (Taxel 2009, 145, Fig. 1: 1). Such a rim was unearthed also in En-Gedi, strata II-III, from the Late Roman-Byzantine period (Jackson-Tal 2007, 483, Pl. 6:1, and additional parallels therein). The rim, with a turned down pinched projection from Karanis in Egypt, is dated to the fourth-fifth centuries (Harden 1936, Pl. XIV: 259). Other parallels can be found in Cyprus, at Ayios Philon VI of the Roman period (du Plat Taylor and Megaw 1981, Fig. 46: 7), in Carthage, and in Rome of the fourth century (cited after Jennings 2006, 77).

2. Polygonal vessel

The body of a polygonal jug or jar is sufficiently preserved to classify it as eulogia type of vessel, jug or juglet (Ill. 5: 21). The preserved decoration consisting of a palm branch and cross motifs indicates that this vessel belonged to the group of pilgrim vessels used by Christians, that is to say, to vessels of Category A in Barag's classification (1970, 38-48).

Although this fragment was found in a disturbed, unsealed context of HLC, it can be dated, by comparison to other such vessels, to the sixth-seventh centuries (Israeli 2003, 270-282; Stern 1995, 247-269).

3. Vessel with grape pattern

Two fragments, of a sloping shoulder and of a concave base (Ill. 6: 2), belong certainly to the same vessel since they come from the same context and they are made of the same characteristic dark amber glass, very rare at Hippos. The shoulder fragment is decorated with bubbles representing a stylized pattern of grapes. Bottles and jugs with such a decoration were fairly common between the second and fourth centuries, mostly in the third century (Stern 1995,

190-195, nos. 119-128), which corresponds roughly with dating of pottery types from this area (HLC 2).²⁴ Whole vessels with grape decoration are kept, among others, in the Israel Museum and the Royal Ontario Museum (Israeli 2003, 310, nos. 413, 414; Hayes 1975, no. 91).

Building HLC 10-13 and 15 (Ill. 7)

The glass finds from this area are fairly numerous. One of the most interesting is a fragment of a wall with an obviously internal stick (Ill. 7: 11). It belongs to a rather rare and enigmatic type of vessel, probably of a globular or barrel-shaped bottle/flask. Similar fragments have been found at Khirbet el-Shubeika (Gorin Rosen 2002a, Fig. 65) and at El-Kabri (Smithline 2004). In the south, fragments of walls with internal sticks come from the vicinity of Be'er Sheva and from the church at Ostrakine (Gorin-Rosen and Winter 2010, 175).

Two examples of whole vessels with internal threads come from Cyprus. One of them, dated to the seventh century, was unearthed in the Basilica at Kourion (Young 2007, 503, no 94, Fig. 16.7: 94); the second bottle without provenance is kept at the Cyprus Museum in Nicosia (Vessberg 1952, 134, Pl. 7: 21).

Other examples are known from the following museum collections: Newark Museum (Auth 1976), Wolf Collection (Stern 2001), the British Museum, and the J. Paul Getty Museum (Lees-Causey 1983, 154, Fig. 3; Wight 2011, 63, Fig. 46).

The function of vessels with internal sticks still remains unknown. According to K.B. Wight, such vessel "may have contained a liquid that needed to be agitated in order to blend – something like oil and vinegar, perhaps – and the interior threads aided in that agitation".²⁵

This kind of bottle has been recently discussed by Gorin-Rosen and Winter, who date them to the late sixth-seventh centuries.²⁶

The rest of the glass material consists of typical table ware. The most numerous vessels are those intended for drinking such as wine glasses and/or goblets (Ill. 7: 1-2, 20-26, 34-35), which are the most characteristic type of vessels of the Byzantine Period. There are some variants between them as far as the feet and stem are concerned.²⁷ Some of them are characterized by a solid, bulged stem and a flat or slightly concave base. Others have a short solid stem and a folded base.

The next numerous category of vessels are bottles, which were used to serve liquids (Ill. 7: 4-18). There are various types: with a rounded rim and a funnel mouth, with a long or short neck, cylindrical or widening towards the body; bottles with wide necks; and bottles with a constriction at the lower part of the neck. Most of them are decorated with applied thin trails on or below the rims and necks.

There are also examples of plates, dishes and bowls which were used to serve food (Ill. 7: 3, 12-19, 38). They differ in size, depth and rim profiles as well. Most of them belong to the type with an out-folded rim. However, there are also some examples of simple, slightly everted rims. No. 38 is characterized by an upright double

¹⁶ On the terminology of the Byzantine lighting devices, see Bouras 1982, p. 480.

¹⁷ Seligman, Zias and Stark 1996, p. 50, 59, Fig. 17:2.

¹⁸ Israeli 2008, p. 380.

¹⁹ Młynarczyk, *Hippos 2008*, p. 64.

²⁰ Segal, *Hippos 2007*, p. 16, Fig. 21b.

²¹ Segal, *Hippos 2007*, p. 16, Fig. 21a.

²² Stern 1995, p. 260-261, no. 179.

²³ Segal, *Hippos 2007*, p. 16, Fig. 21b.

²⁴ Młynarczyk, *Hippos 2007*, p. 109, 119.

²⁵ Wight 2011, p. 63.

²⁶ Gorin-Rosen and Winter 2010, p. 175-176, Fig. 6.

²⁷ For a useful typology of wine glasses, see: Saldern 1980, P. 53.

tubular rim.

The whole glass assemblage can be completed by fragments of oil lamps (Ill. 7: 27-31, 36-37), which are represented by both suspended and stemmed types.

The Odeion

From the Odeion area, two items are worthy of mention. One of them is a fragment of a bowl with a rim folded out and downwards. Applied to the rim edge is a vestigial horizontal ‘grip’ imitating a handle (Ill. 8: 11). Doubtlessly, the second handle was on the opposite side.

This type of bowl with crimped handles corresponds with the Isings Form 43 (1957, 59), the Barag Type 2.6 (1970, Pl. 30); the Dussart Bl. 1322 a, b (1998, 59), and the Vessberg Types BIIy2 (shallow bowl) and BIβ3 (deep bowl) (1956, 133 Figs. 42: 16; 43: 6 respectively).

Parallels can be cited from: Nabratein (Fischer 2009, 310, Pl. E: 8), Capernaum (Loffreda 1984, 400, Fig. 6: 10-12, 14²⁸), Bethsaida (Rottloff 2009, 219-220, no. 78), ‘Ein ez-Zeituna (Winter 2006, 78, Fig. 1: 14, 16), Jalame (Weinberg and Goldstein 1988, 54-55, Fig. 4-16: 118, 119), Amman (Dussart 1998, Pl. 3: 31-33), Jerash (Meyer 1987, Fig. 5: G, H), and Beirut (Jennings 2006, 73-75, Fig. 4.5: 2).

Several crimped rim fragments were found at Sardis in Turkey (Saldern 1980, 21, Pls. 4: 96, 97, 21: 94). Similar examples are known from Paphos (Cyprus), dated to the period between the mid-first and the mid-second century (Mazanek 2014, 296-297, Fig. 7 and further Cypriote parallels therein). In the West, such types appears, among others, in Carthage and Rome, in the fourth century.²⁹ See also the second or early third century vessel from the Royal Ontario Museum (Hayes 1975, 66, Fig. 6: 195). For Western parallels and general distribution, see Isings (1957, 59) and Roffia (2000, 37-41).

This fragment of a drinking vessel (Ill. 8: 19) probably represents a variant of Type III.4 (see above), that is to say, a short sack-shaped beaker/goblet with a horizontal trail. Such vessels can be provided with different types of bases: low tubular ring, flat thickened, slightly rounded, or pushed-in (instead of solid disc base characteristic rather for long cylindrical beakers/goblets).

It was found on the floor of the building (beneath the chapel) which possibly predates the Roman Period.³⁰ However, parallels are found, among others, from the third to early fourth century burial cave at Iqrit (Vitto 2010, Fig. 11), the third century burial cave D at Hurfeish (Gorin-Rosen 2002b, 154-156, Figs. 10 and 11: 44-46), and the third to early fourth century Hanita Tomb XV (Barag 1978, Fig. 14: 60-65).

The Southwest Church (Ill. 10)

The Southwest Church was unearthed only partially during the sixth season: the external apse and the eastern third or so of the nave

and both aisles.³¹ Consequently, the finds, including the glass items, are not numerous. There are examples of two bottles/flasks with funnel-shaped mouths and in-folded rims. Lamps are represented mostly by the suspension bowl-lamp type with out-folded broad and flattened rims. One fragment with a cracked-off rim and convex sides may represent another suspended bowl-lamp type. The almost fully restorable lamp No. 7 is a hanging lamp (two non-joining parts) with a solid, knobbed stem. Inside the bowl, below the rim, there is a horizontal groove. Such lamps were placed in a polycandelon or single metal holder (see discussion below). Apart from parallel lamp stems from Hippos itself, a similar lamp was found in the church at Kursi.³² The fragment of a stem with a lower part of the bowl (Ill. 10: 14) comes either from a drinking vessel/goblet or a stemmed lamp like the one previously discussed. The rest of the finds comprises three simple rims belonging to small bowls or bottles/flasks, and a single pushed-in foot of a goblet.

The glass items from the Southwest Church are typical of the Byzantine and early Umayyad periods. However, it may be possible to indicate their ante quem date. The church was destroyed by a heavy fire and subsequently abandoned. The absence of Umayyad period pottery³³ suggests that the destruction took place in the early seventh century and it is tempting to associate this event with the Persian Sassanian invasion in 614. Many churches in those days were destroyed, including the nearby church at Kursi.³⁴

The assemblage of glass, although relatively small, is of some interest due to its specific sacred context. All types of glass from the church appear also in the repertoire of glassware finds from the Northwest Church (see below).

The Northwest Church Compound (Ill. 11-15)

The Northwest Church Compound includes the basilica itself, the southern wing (diakonikon), the atrium, the wine cellar and the northern annex (winery). The glass items from the NWC were very numerous, constituting one third or so of the total amount of glass finds uncovered in the areas presented in this study. The particular context of some of the glass items, specifically those coming from the church interior, enables the undertaking of a more detailed study concerning their possible liturgical significance and emplacement within the church. Moreover, they may contribute considerably to the more general issue, which is the equipment of the churches during the Byzantine and especially the Umayyad periods. In the case of the NWC, we are in a favorable situation since that part of the building continued to function as a church until the very end of city’s existence, that is until the fatal 749 earthquake.

Basilica

There is no doubt that the miniature vessel (Ill. 11: 1) kept in the left compartment of a marble sarcophagus-type reliquary from the northern apsis of the NWC, constitutes by itself a kind of reliquary.

This is attested to by the presence of tiny fragments of human bones inside the vessel. According to the recently published typology of Levantine reliquaries by M.-C. Comte, the vessel from NWC belongs to Type VI, that is: “en verre, en forme de fiole à panse arrondie”.³⁵

Two other examples of small vessels represent Type VI. One of them comes from the St. John Church in Khirbet Samra; it was found inside a loculus under the altar, placed upon another limestone sarcophagus-shaped reliquary. Both of these items in Khirbet Samra are dated to the period before 638.³⁶ Another glass reliquary was also found inside in a loculus under the altar in the church at Ras el-Basit/Posideion on the north Syrian coast; it is roughly dated to the period between the end of the sixth and beginning of the seventh century.³⁷

Although all three glass vessels were probably used for the same religious purpose, there is a clear difference in the type of neck and rim between the reliquary from NWC on one hand and the earlier reliquaries from Khirbet Samra and Ras el-Basit on the other.

It should also be noted that probably all these glass reliquaries were used in a somewhat different way. The reliquary from the NWC held pieces of bones inside it, and therefore it merely served as a container for true relics of an unknown saint or martyr. According to the excavators, the ampule from Khirbet Samra originally served as a container for collecting oil which earlier had become sanctified through the contact with the holy relics. Comte would like to see it as the second reliquary protecting the relics. It is not quite clear how the pot-reliquary from Ras el-Basit was used. It only contained pure earth and had some stains on the interior walls.³⁸

Furthermore, according to Comte, all these vessels correspond with or fit into the Dussart Group BVII labeled as “Pots” (Comte 2012, 66, n. 6; Dussart 1998, 182, Schéma XV, Pl. 16-20). Actually, this term comprises a wide range of types of small or medium-size containers used for unguents, perfumes, balsam, oil, and other precious substances. With the rapid development of the Christian worship of saints and martyrs, small vessels of this type began to be used by the faithful for religious purposes, such as containers for relics or for oil either sanctified through the contact with relics, or taken from lamps which were lit at the martyria.

Southern wing of the NWC: diakonikon (Ill. 13)

The finds from the diakonikon constitute one of the richest assemblages of artefacts from the NWC. These mostly consist of pottery vessels, but there are also objects made of metal and stone and glass vessels. The group of glass finds is relatively small, and consists exclusively of fragments belonging to various types of bottles and drinking vessels. It should be stressed that not even a single fragment of a glass lamp was found. This is rather strange due to the fact that a bronze polycandelon designed for holding nine lamps was found leaning against the eastern wall of the diakonikon.

One of the vessels deserves particular attention (Ill. 13: 6). Along

with three iron knives for cutting grapes, it was kept inside one of the cooking pots standing along the southern wall of the diakonikon room 209E. Similar to the miniature glass reliquary from the northern apsis, this vessel may also be included to the group of unguent-pots. In terms of general shape and size, this vessel is very close to the earlier mentioned glass reliquaries from Khirbet Samra and Ras el-Basit on one hand, and two vessels classified by Dussart as Type BVII. 2422a on the other. One of them comes from the Fiq necropolis, and is, in her opinion, similar to the vessels from the Royal Ontario Museum and the tomb of Zabda in Palmyra (Dussart 1998, 91, pl. 18: 10; see also Hayes 1975, 66, no. 198, Pl. 20).³⁹ The second pot of Type BVII 2422a mentioned by Dussart is from the Bosra Museum (1998, Pl. 18: 11); it has been originally published by A. Coscarella, who compared it with small pots of the third – beginning of the fourth century from Samaria, Tyre and Cyprus (2004, 396-398, Tav. III: c; cf. also Hayes 1975, 80, no. 294; Crowfoot 1957, 409, Fig. 94.5).

However, despite the general similarity of all these vases, in terms of shape and size, there is also a significant difference between the vessel from diakonikon and the other unguent pots mentioned as parallels. The difference lies in the type of rim: a simple, rounded rim of the vessel from NWC versus flaring, out-folded rims of the remaining vessels. This probably reflects a typological change in this kind of vessel over the course of time, moving from the third-fourth centuries pots characterized by a more elaborate flaring and out-folded rim, to the more simplified forms from the first half of the eighth century at Hippos, Beth-Shean, Jerash, and elsewhere.

The last intriguing questions concern the original function of this vessel, before it was put in the cooking pot, and the kind of relationship between the vessel and the iron agricultural knives found with it. For the time being it is better to leave these questions open.

Bottles are represented by the funnel-shaped mouth type.

Drinking vessels are represented only by stemmed goblets with a solid base, bell-shaped and cylindrical bodies, flaring rim and then turned inward. One fragment decorated with a single thread (Ill. 13: 3) and another one with an out-folded rim, may belong either to beakers or bottles.

To sum up, the group of glass vessels from the diakonikon consists of ordinary types widespread in Palestine during the Umayyad Period. What makes this group interesting is its context of discovery. These vessels are only a small part of finds in the diakonikon, which should be viewed not as an assemblage of single items but as a coherent group of artefacts strictly connected with religious activity. Most of the finds (like pottery vessels with traces of food) are interpreted as gifts brought by the faithful to the church and stored in the diakonikon. However, some of the objects doubtlessly belonged to the liturgical equipment of the church, such as a bronze jug (decanter) for wine and/or water, a pyxis and a bell. In our opinion,

28 Published also by Roffia 2000, Tav. XIII-XV; Tav. 1: 1.

29 Cited after Jennings 2006, p. 77.

30 Segal, *Hippos* 2008, p. 35.

31 Segal and Eisenberg, *Hippos* 2005, p. 15-22, Fig. 7.

32 Barag 1983, p. 37, Fig. 9: 10.

33 Młynarczyk, *Hippos* 2005, p. 21.

34 Tsaferis 1983, p. 4.

35 Comte 2012, p. 66.

36 Comte 2012, p. 237-238, Fig. 195b.

37 Comte 2012, p. 352, Fig. 336; Beaudry 2005, p. 117-118, Fig. 15.

38 Comte 2012, p. 352.

39 For the vessel from the Tomb of Zabda at Palmyra, dated to ca. 150, see Michałowski 1959, p. 199, no. 36, Fig. 223; Gawlikowska and As’ad 1994, p. 9, no. 6, and Pl. I 3.

the glass vessels should also be included in this group. Bottles as water/wine containers, and stemmed goblets as chalices, could have been used during the Eucharistic celebrations. The fact that glass goblets played the role of chalices during the church celebration in Palestine, Syria and Egypt, is well documented in written sources since the fourth century.⁴⁰

Atrium - Northern Portico - Cistern 2546

Cistern L2546 yielded a large quantity of glass finds, among which about 150 fragments have been recognized as diagnostic. The repertoire of glass vessels from this cistern is rather limited and consists of three main types: oil lamps (both suspended and stemmed), bottles, and the most frequent group, wine glasses. All of these shapes are typical for the Byzantine-Umayyad Period in Palestine.

It is an interesting question why so many broken vessels were thrown into the cistern. It is well known that glass fragments were often re-melted. However, it would not be convenient to retrieve the glass from the cistern later on for re-melting process. Rather, the broken glass in the cistern was actually saved from their recycling (see below).

A parallel discovery was made in the Sanctuary of Lot at Deir 'Ain 'Abata, on the eastern coast of the Dead Sea. There, a large quantity of glass, mostly of broken lamps, was found in a cistern adjacent to and beneath the church.⁴¹ Deposits of never re-used broken glass are also known from other churches (or their close vicinity) in Byzantine/Umayyad Palestine, for example: in locus 70 of the 'Civic Complex Church' in Pella;⁴² in Jerash, a deposit of glass was found in a passageway between the 'Fountain Court' and S. Theodore's Church, the other one was from the room under the north stairs connecting this passageway with the 'Fountain Court';⁴³ rooms L 11:7 and L11:3 of the church at Khirbat al-Karak contained large heaps of broken glass;⁴⁴ in store-rooms of the church at Horvat Karkur Illit (Negev) were found mostly fragments of lamps;⁴⁵ in At Petra, apart from glass finds from the church itself, the considerable quantity of broken glass was unearthed in a tower room located in the courtyard.⁴⁶ These finds have been usually interpreted as deposits of glass stored for future re-melting. This, however, never did happen.⁴⁷ M. O'Hea put forward a hypothesis, that heaps of broken glass found in the church areas were preserved from recycling due to the "special significance of church glass fittings in the minds of the congregation and clergy in Late Antiquity".⁴⁸

We have already suggested elsewhere, that the glass from Cistern 2546 belonged specifically to the church equipment and some of them could even have been used as liturgical vessels, even as vasa sacra for the Eucharistic rite. From the early Christian and medieval writers such as Gregory of Nyssa (fourth century), Jacob of Edessa (seventh century) and Michael of Damietta (twelfth century), we learn that it was forbidden to sell broken liturgical vessels to glass workshops for re-melting. Instead such vessels had to be buried in the ground.⁴⁹

In this context, it seems worth mentioning another example relevant to the discussed topic. An interesting discovery was made in the East Church Complex at Labraunda (Karia).⁵⁰ In the centre of the church apse, on its east-west axis, a well-built channel was found. A detailed stratigraphical analysis revealed that both the church and the channel belong to one building phase. In the channel, apart from some pottery, bone fragments, coins and fragments of marble revetments, about 200 glass fragments were found. They belonged to approximately 40 different vessels, mainly small cups or beakers, but also to stemmed lamps of the polycandela type. J. Blid considers that the character of the find-spot and the material (glass) indicate here the practice of depositing broken liturgical vessels. In his opinion, vessels while being cleaned in the thalassa, could have been broken and, in consequence (and in accordance with the recommended practices), were intentionally deposited in the channel under the apse.⁵¹

To sum up, if these particular glass assemblages from the NWC and from other churches discussed above, reflect in fact the practice of intentionally depositing broken liturgical vessels, then we can state that there was no strict rule for choosing such a place in a sacred precinct. The requirement of "burying" vessels which went out of use, could have been fulfilled in different ways: in a cistern, in an auxiliary room, or even, as in the case of the church at Labraunda, in a drainage channel connected in some way with the thalassa.

Atrium - Western Portico - Locus 549

Of some interest are glass finds from Locus 549 N in the western portico of the atrium: two intact bottles and one bottle with missing rim (found upside down in a broken pottery juglet), fragments of a bottle neck decorated with threads (Ill. 15: 1-4), flat glass (windowpane?) and bracelet (not illustrated). These items constitute part of a larger assemblage of artefacts which included also a hoard of ten copper Umayyad coins (anonymous fullūs),⁵² an ornamented bronze buckle, two iron handles of situlae, bone pins, fragments of

iron pins or needles, and several tools of iron and bronze, including an iron pruning hook with remains of a wooden handle.

The discovery context suggests that these objects must have been originally placed on a higher level, probably a shelf on the wall, from where they fell down, which can also be inferred from the upside-down position of a broken jar.⁵³ The three well dated bottles, eight century jug, and coins indicate that it happened probably during the 749 earthquake.

Atrium - Northern Portico: Cellar

A wine glass from the cellar in the north-western part of the atrium (Ill. 15: 19) is of particular importance. It is made in the mould-blown technique and the shape is a standard one: bell-shaped bowl, with flat, solid base, and a simple short stem. The wine glass is adorned with a delicate net pattern. Such a combination of shape, net pattern and mould-blown technique remains almost unparalleled. It is therefore possible that this vessel had some special function, perhaps a liturgical one.⁵⁴

There is a lack of exact parallels among the group of wine glasses of the Byzantine-Umayyad Period in Palestine. The only similar object decorated with mould-blown diagonal ribs is known from Tomb 3 in nearby Khirbat al-Karak which is dated to the sixth or early seventh century.⁵⁵ A parallel for the mold-blown relief net design is found in the cemetery church in Horvat Karkur (Northern Negev), but it appears on a vessel which is hexagonal in shape, and is dated to the Late Byzantine-Umayyad Period.⁵⁶

Summary

An analysis of forms and fabrics (the majority is bluish green, olive green, light blue) led to the conclusion that the Hippos glass vessels fall within the general picture of glass production in the area of Syro-Palestine and Jordan. The closest parallels to the Hippos glass finds come from the contemporary sites of the Decapolis region. Comparative study does not reveal any major differences in glass repertoires of particular sites. In general, these repertoires consist mainly of tableware, like various types of drinking vessels, bowls and dishes, bottles and jugs, all of which were used to serve the food and liquids. Particular homogeneity can be observed in the case of lighting devices, as well cosmetic vessels, although the latter are rather rare finds at Hippos. This brings us to the next question, whether the glass vessels discovered in Hippos were made in the city itself?

The common opinion is that the cities in the Roman and Byzantine Near East, produced their own glass vessels. And indeed glass workshops, both of primary and secondary production, are known from Jerusalem, Beth Eli'ezer, Beth She'arim, Beth-Shean, Jalame, Ramla.⁵⁷ Moreover, there are many sites in Israel that can be

identified as glass production centres. As for the other cities of Decapolis, the evidence of a sixth to seventh century glass industry has been found at Bosra, Pella, Jerash, and Beit Ras.⁵⁸ In the case of Hippos, some interesting finds come from the area adjoining the Forum. These are a few clean green glass chunks and fragments of the debris from the very bottom part of the glass furnace. These fragments are of great importance because they constitute the first evidence of preparing glass from raw materials and possibly also the production of the glass vessels. Both glass chunks and remains from the furnace suggest local glass production in Hippos.⁵⁹

To sum up, the glass finds from Hippos presented above constitutes an assemblage important for a better understanding the history of glass in Roman, Byzantine and Early Islamic Palestine. Hippos is now one of a few cities of the Decapolis where the glass vessels represent an entire settlement period.⁶⁰ Together with already published assemblages of Roman to Early Islamic Period glass vessels from Jerash, Pella, Beth-Shean, as well as from recent excavations at Beit Ras/Kapitolias, Hippos offers a coherent picture of glass-making in some sites of the Decapolis region.

40 For more on this subject, see Burdajewicz 2011, p. 35-38.

41 O'Hea 2012, p. 294; O'Hea 2007, p. 247.

42 Smith and Day 1989, p. 49, 70-71.

43 Baur 1938, p. 514-515.

44 Deloguaz and Haines 1960, p. 49.

45 Katsnelson 2004, p. 268.

46 O'Hea 2001, p. 370; O'Hea 2007, p. 247.

47 O'Hea 2007, p. 247.

48 O'Hea 2007, p. 247.

49 Burdajewicz 2011, p. 39 with references. See also Keller and Lindblom 2008, p. 333-334.

50 Blid 2012, p. 193-199.

51 Blid 2012, p. 199.

52 Cf. Coin Report by Berman, *Hippos* 2006, p. 151-152; Solarewicz, forthcoming.

53 Młynarczyk and Burdajewicz 2006, p. 53.

54 Burdajewicz 2011, p. 38; see also Idem 2006, 130, Fig. 1: 15; 5.

55 Gorin-Rosen and Winter 2010, p. 177; Barag 1970, p. 54; 148, Pl. 33, 9.

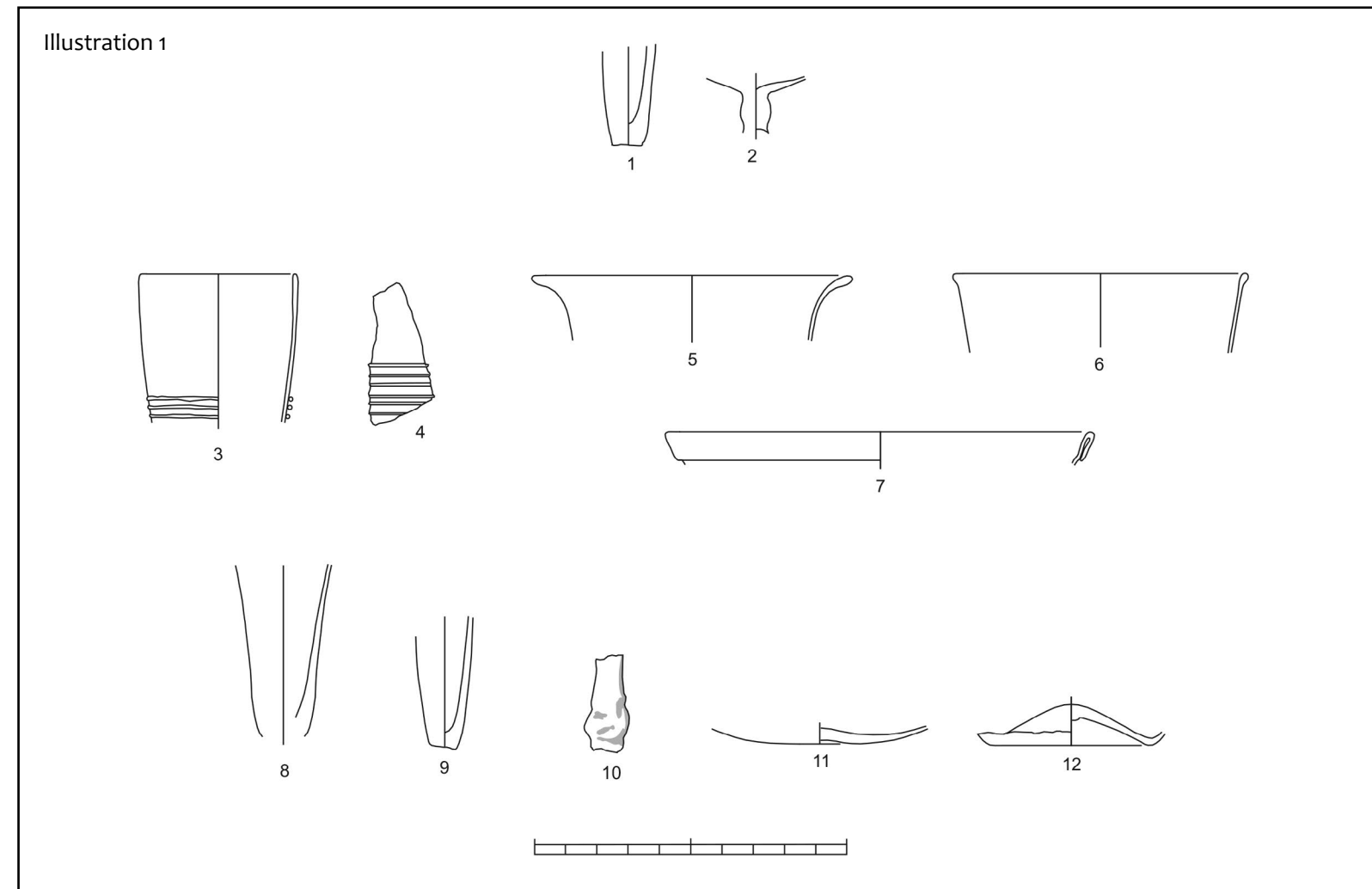
56 Katsnelson 2004, p. 282, Fig. 63: 12, 14.

57 Tal, Jackson-Tal, and Freestone 2000; Gorin-Rosen and Katsnelson 2007; Gorin-Rosen 2000.

58 Abd-Allah 2010; Dussart 2000; O'Hea 1992; Burdajewicz forthcoming.

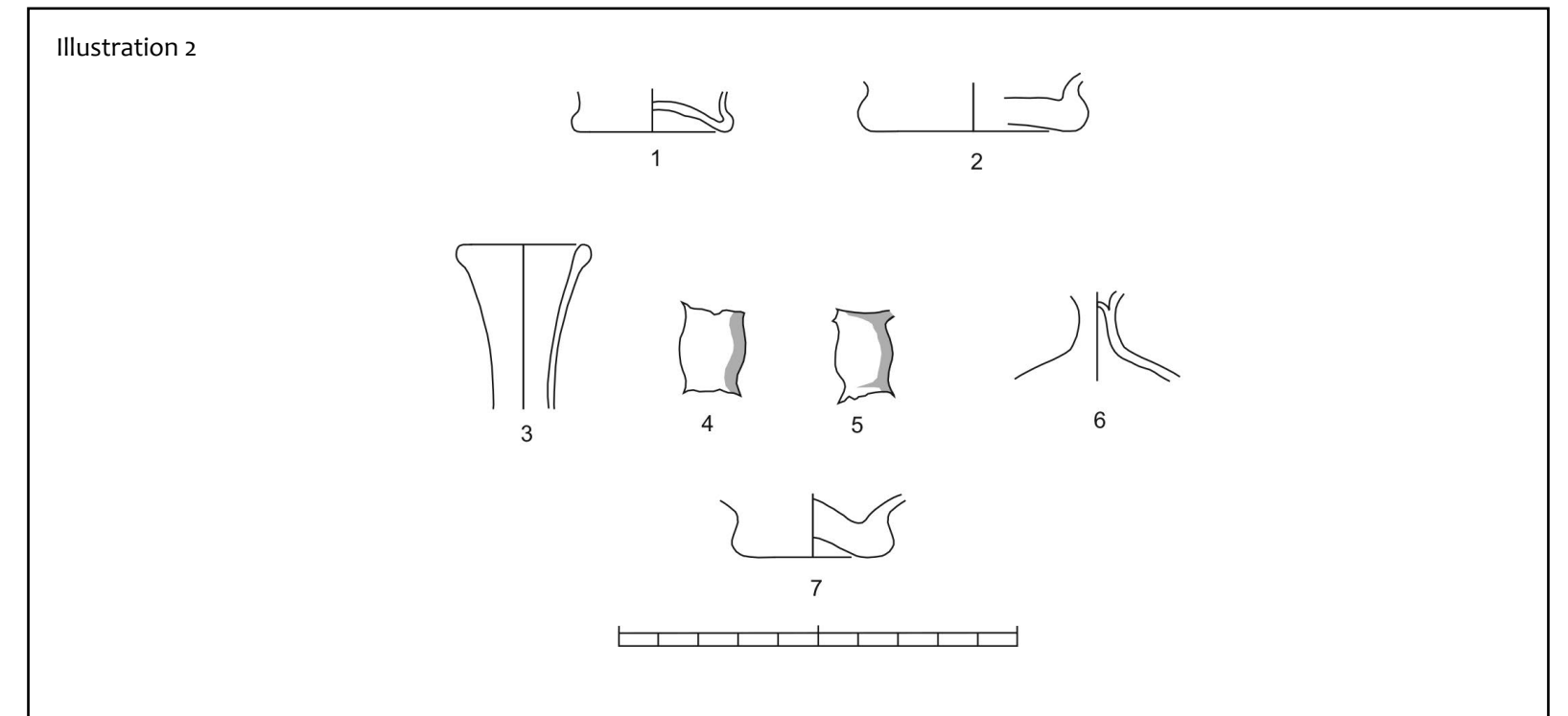
59 Burdajewicz 2011, p. 39.

60 Hellenistic and Early Roman cast bowls discovered at Hippos, and not included in this publication, will be the subject of further research.



III. 1 The East Gate

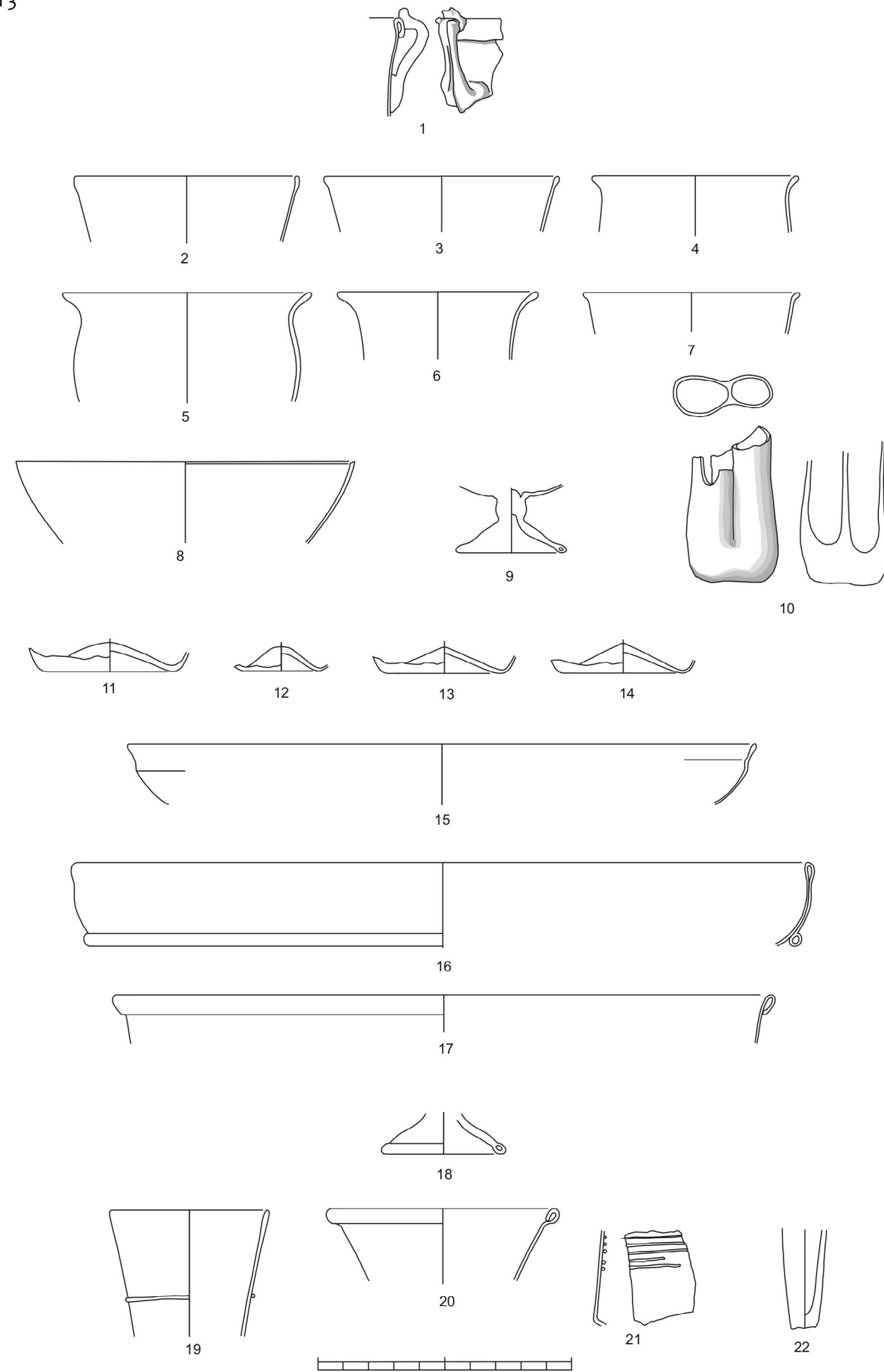
No.	Area	L/F/W	Basket	Type	Vessel	Description
1	EGT	650	4034.1	IV.2a	Lamp	Light olive green
2	EGT	650	4043.2	III/IV	Stemmed goblet/lamp?	Green
3	EGT	658	5291.1	I.1	Bottle	Light green
4	EGT	658	4043.6	I	Bottle	Light green
5	EGT	658	4043.4	III.2	Drinking vessel	Light green
6	EGT	658	4042.2	III.1	Drinking vessel	Light blue
7	EGT	658	5293.1	IV.1	Bowl lamp	Light olive green
8	EGT	658	4043.1	IV.2a	Lamp	Light green
9	EGT	658	4042.1	IV.2a	Lamp	Light green
10	EGT	658	4036.1	IV.2b3	Lamp	Green
11	EGT	658	4042.3		Thickened flat base	Light green
12	EGT	658	4043.3		Thickened concave base	Light yellowish green



III. 2 Decumanus Maximus

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	DME	101	1225.1		Concave base - goblet	Light green
2	DME	101	1225.2	III	Solid flat base	Green
3	DMW	103	1204.1	I.1	Bottle	Light bluish green
4	DME	103	1204.2	III/IV	Stemmed goblet/lamp?	Greenish blue
5	DME	103	1204.3	III/IV	Stemmed goblet/lamp?	Greenish blue
6	DME	103	1204.4	III	Stemmed goblet	Light olive green
7	DME	1605	4402.1		Solid concave base	Green

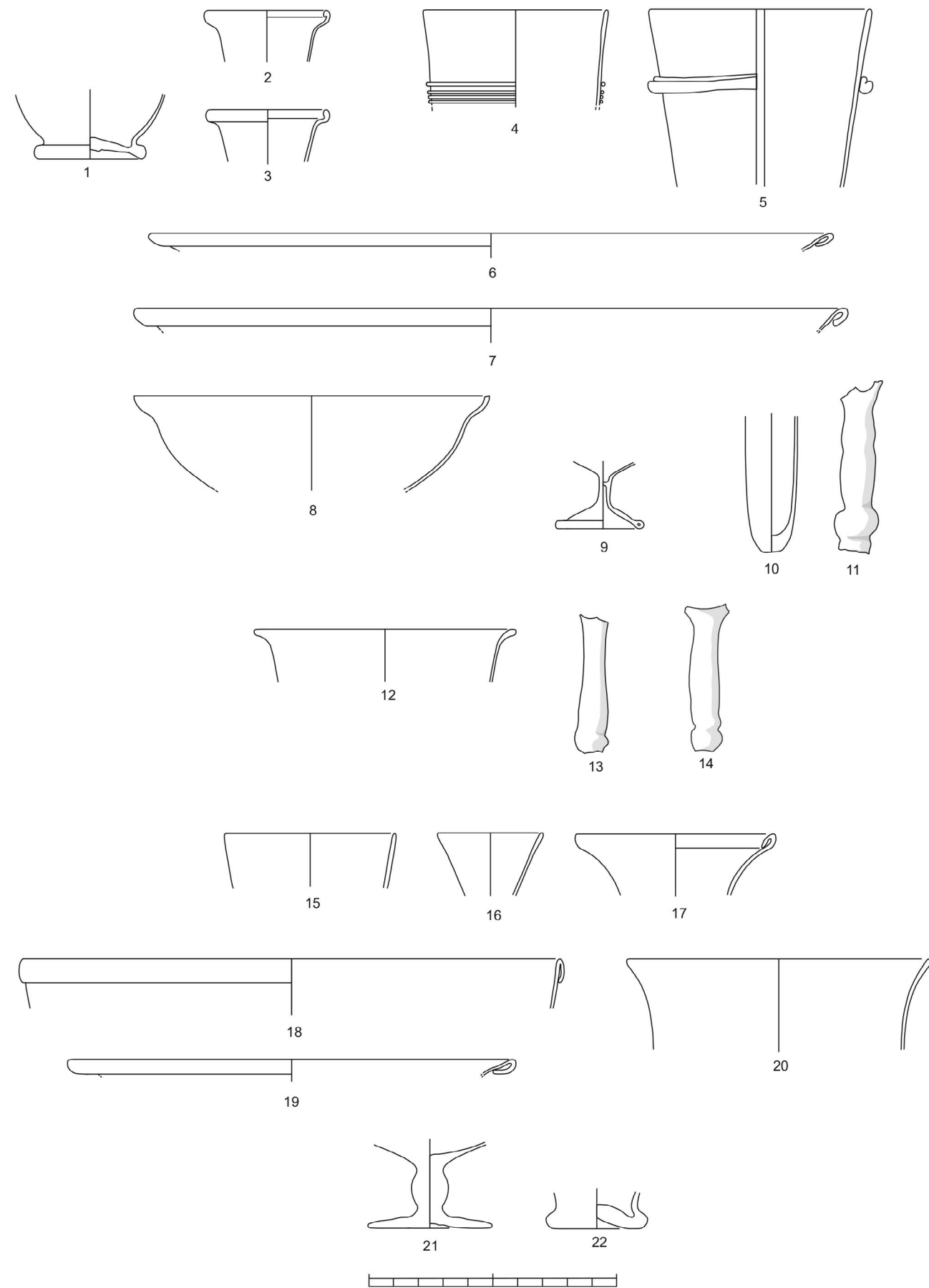
Illustration 3



III. 3. The Forum

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	FRM	382	3519.1	IV.1	Lamp	Light greenish blue
2	FRM	385	3525.1	III.1	Drinking vessel	Light green
3	FRM	385	3525.2	III.1	Drinking vessel	Light green
4	FRM	385	3525.3	II.4	Bowl	Light green
5	FRM	385	3521.14	II.4	Bowl	Light green
6	FRM	385	3521.13	III.2	Drinking vessel	Light green
7	FRM	385	3521.11	III.2	Drinking vessel	Light green
8	FRM	385	3518.4	II.1a	Bowl	Light olive green
9	FRM	385	3521.7	III	Stemmed goblet	Light bluish green
10	FRM	385	3572.1	V.2	Kohl tubes	Olive green
11	FRM	385	3521.1		Concave base	Light green
12	FRM	385	3521.2		Concave base	Light blue
13	FRM	385	3221.3		Concave base	Light bluish green
14	FRM	385	3521.4		Concave base	Light blue
15	FRM	388	3534.1	II.1	Bowl	Light green
16	FRM	388	3534.2	II.3	Bowl	Light green
17	FRM	388	3534.3	II.2	Bowl	Light green
18	FRM	396	3521.6	III	Stemmed goblet	Light greenish blue
19	FRM	3009	3713.1	III.4	Goblet	Light bluish green
20	FRM	3009	3707.1	I.3	Bottle	Light greenish
21	FRM	3009	3709.5	I	Bottle	Light bluish
22	FRM	3009	3707.4	IV.2a	Lamp	Greenish blue

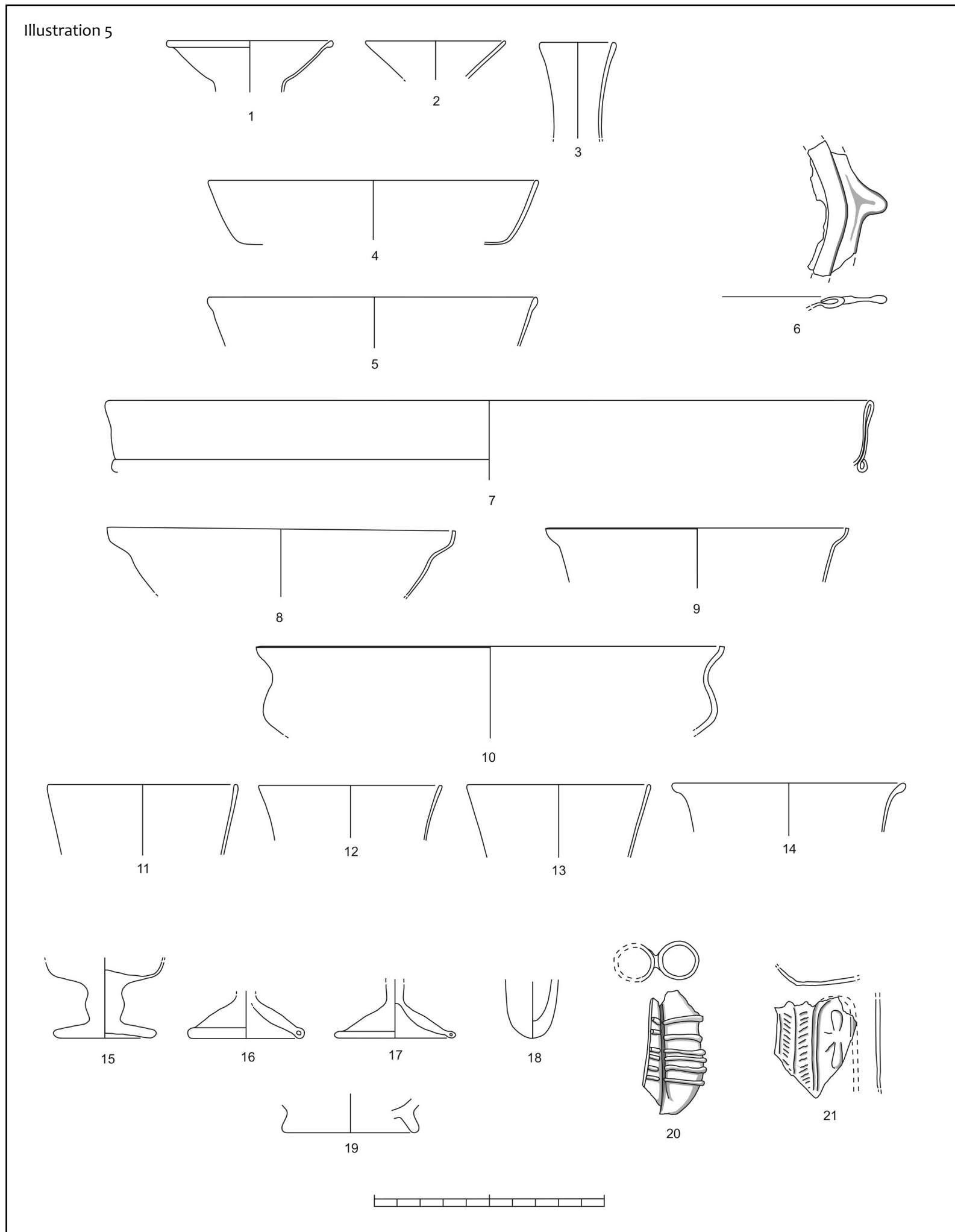
Illustration 4



III. 4. Hellenistic compound (nos. 1-11: 2001-2003; nos. 12-14: 2004; nos. 15-22: 2005)

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	HLC	165	1536.1	III	Thickened concave base	Greenish blue
2	HLC	415	1621.8	I.2	Bottle	Light green
3	HLC	415	1621.6	I.2	Bottle	Light green
4	HLC	460	1779.2	I.1	Bottle	Light green
5	HLC	418	1671.1	III.4	Drinking vessel	Light bluish green
6	HLC	914	2539.1	II.2	Bowl	Light bluish green
7	HLC	913	2532.1	II.2	Bowl	Light bluish green
8	HLC	930	2565.1	II.5.c	Bowl	Light greenish blue
9	HLC	464	1767.2	III.4a	Stemmed goblet	Light greenish blue
10	HLC	913	2534.5	IV.2a	Lamp	Light green
11	HLC	460	1750.1	IV.2b1	Lamp	Greenish blue
12	HLC	902	3693.2	III.2	Drinking vessel	Light bluish green
13	HLC	964	3639.1	IV.2b3	Lamp	Dark amber/yellow
14	HLC	996	4201.1	IV.2b3	Lamp	Greenish blue
15	HLC unsealed	1131	1321.1		Bottle? Drinking vessel?	Light bluish green
16	HLC unsealed	1131	1321.2	I.3	Bottle	Light bluish green
17	HLC unsealed	1127	1308.1	I.3	Bottle	Light greenish blue
18	HLC	1135	1320.2	II.2a	Bowl	Light bluish green
19	HLC	1142	1332.1	II.2b	Bowl	Light bluish green
20	HLC	1147	1341.1	III.2	Drinking vessel	Light greenish blue
21	HLC	1147	1338.1	III	Stemmed goblet	Greenish blue
22	HLC	1147	1341.2	III	Solid concave base - goblet	Green

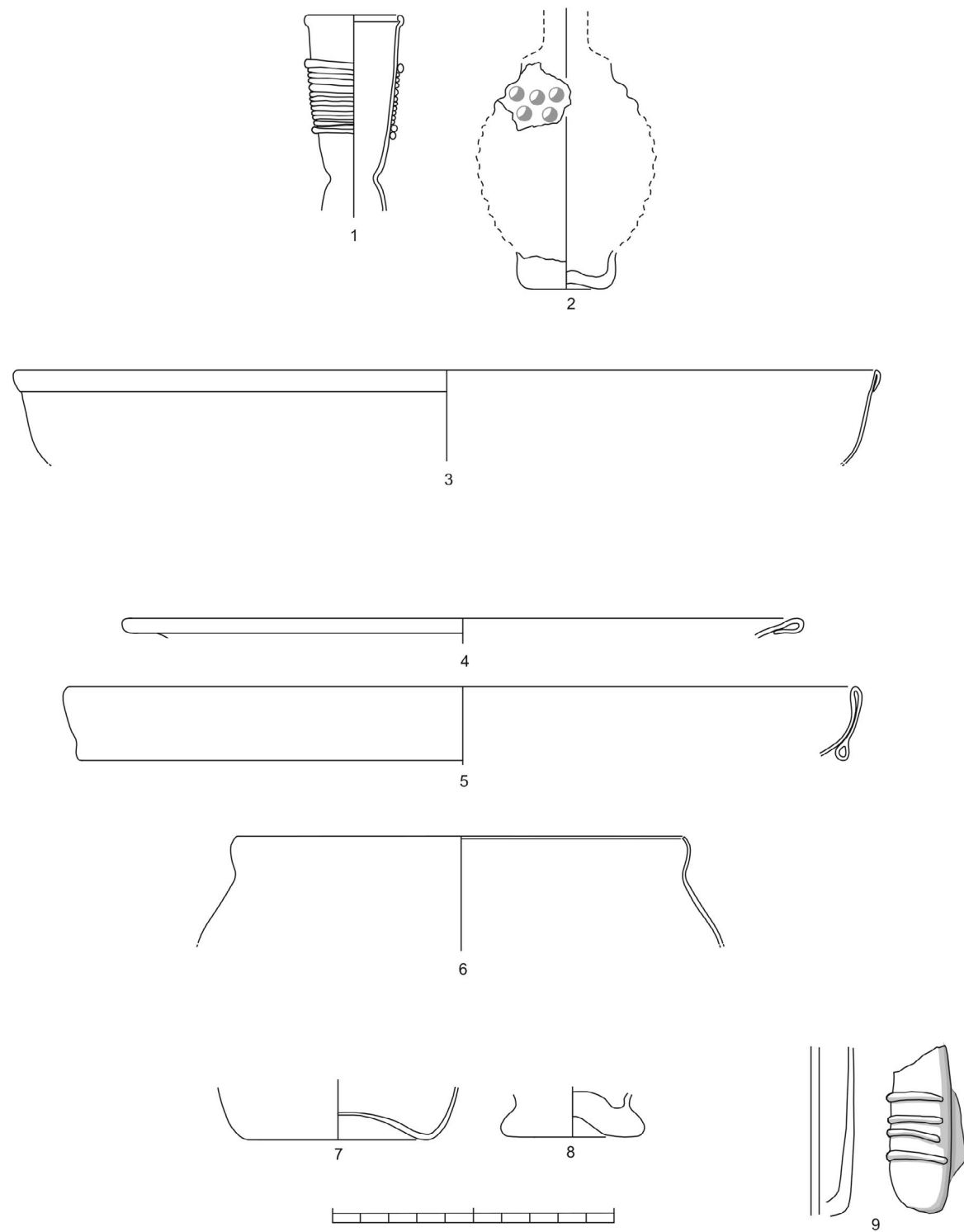
Illustration 5



III. 5 Hellenistic compound 2006

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	HLC	1202	4230.2	I.3	Bottle	Light olive green
2	HLC	1182	4052.2	I.3	Bottle	Light olive green
3	HLC	1203	4539.2	I.1	Bottle	Light olive green
4	HLC	672	4224.1	II.1	Bowl/dish	Colorless with purple tinge
5	HLC	672	4224.2	II.1	Bowl/dish	Light greenish blue
6	HLC	1202	4230.1	II.2b	Bowl	Light green
7	HLC	1185	4096.1	II. 3	Bowl	Light green
8	HLC	1188	4092.4	II.5c	Bowl	Light greenish blue
9	HLC	1188	4085.4	II.5c	Bowl	Light greenish blue
10	HLC	1188	4092.5	II.5b	Bowl	Light bluish green
11	HLC	1188	4092.7	III.1	Drinking vessel	Light greenish blue
12	HLC	1198	4211.1	III.1	Drinking vessel	Light blue
13	HLC	1198	4211.2	III.1	Drinking vessel	Light green
14	HLC	669	4216.1	III.2	Drinking vessel	Light bluish green
15	HLC	1182	4049.1	III	Stemmed goblet	Olive green
16	HLC	1188	4085.6	III	Stemmed goblet	Greenish blue
17	HLC	1198	4208.1	III	Stemmed goblet	Light green
18	HLC	1198	683.3	IV.2a	Lamp	Light green
19	HLC	1208	4248.3		Ring base	Green
20	HLC	669	4216.6	V.2	Kohl tubes	Light olive green, green trails
21	HLC	671	4221.1		Bottle	Light greenish blue

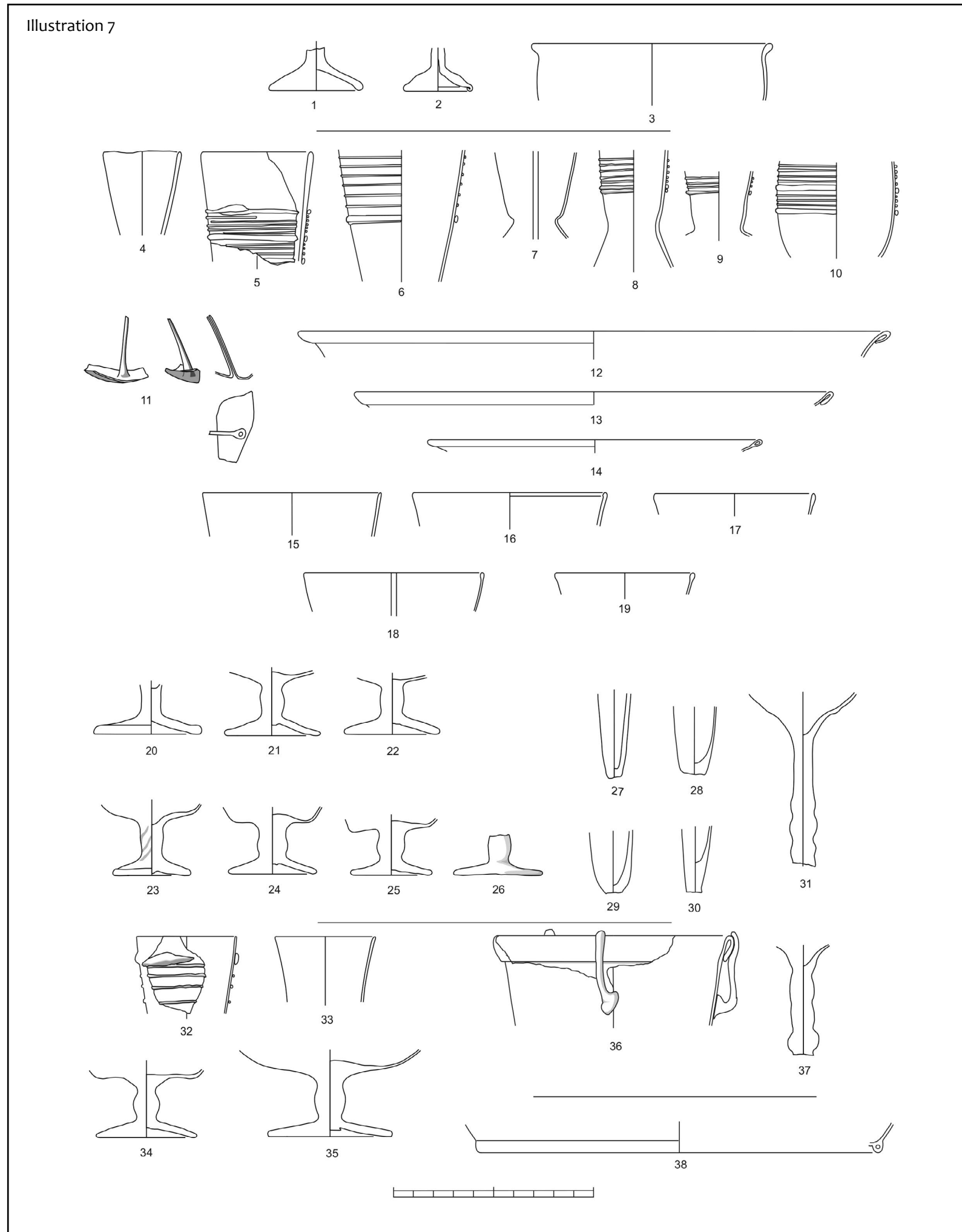
Illustration 6



III. 6 Hellenistic compound 2007-2008

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	HLC 4	1352	5377.1	I.5	Bottle	Light olive green
2	HLC 2	1339	5358.3-4		Bottle	Dark amber
3	HLC	1306	5305.2	II.2a	Bowl	Light greenish blue
4	HLC 3	692	5690.6	II.2b	Bowl	Light bluish green
5	HLC 1	1399	5837.6	II.3	Bowl	Light greenish blue
6	HLC 1	1391	5833.2	II..5.1	Bowl	Light greenish blue
7	HLC 1	693	5699.4		Thin concave base	Green
8	HLC 1	693	5699.3	III	Solid concave base - goblet	Green
9	HLC 3	697	5695.2	V.2	Kohl tubes	Light olive green, green trails

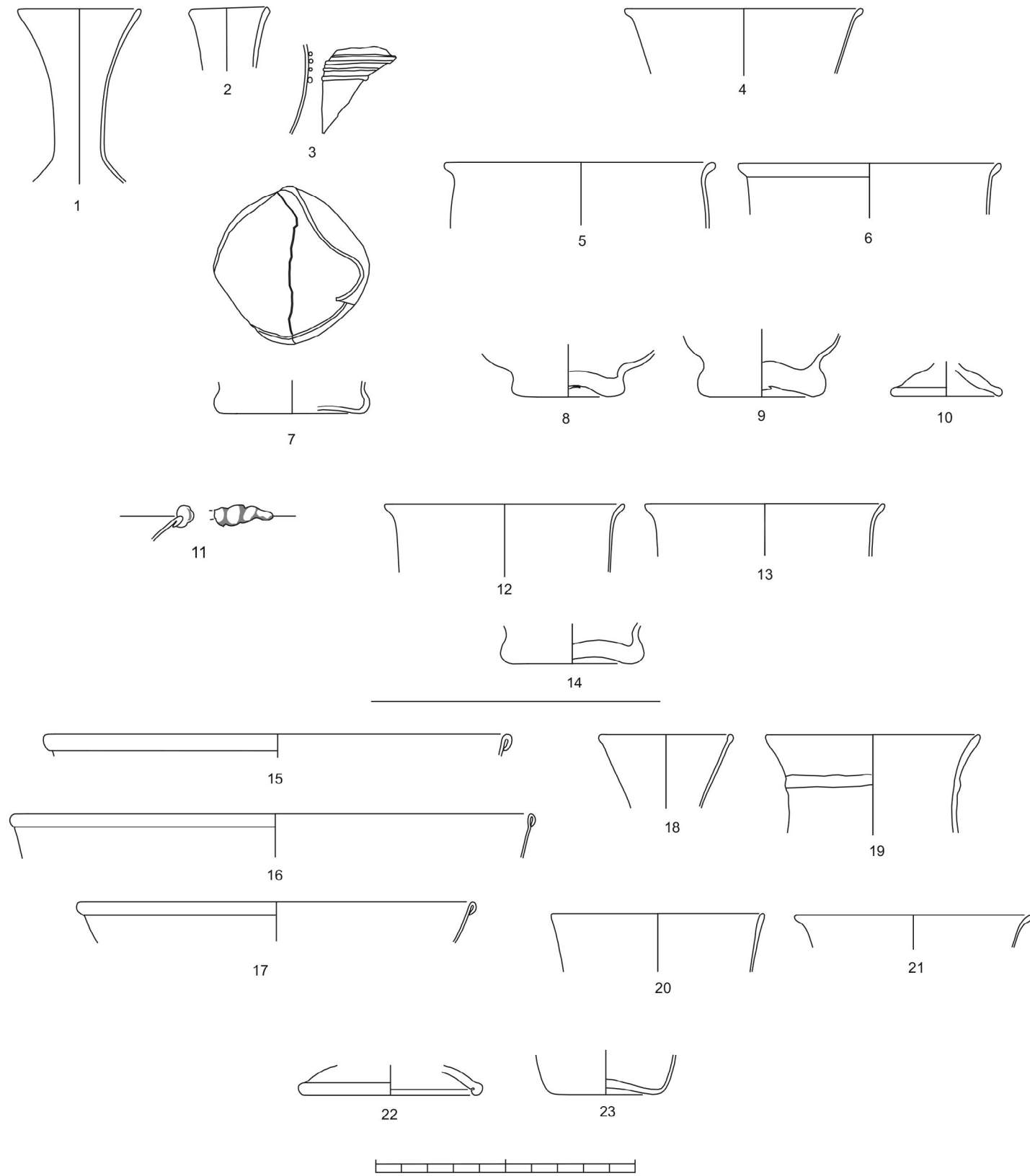
Illustration 7



III. 7 Hellenistic compound 2009 (nos. 1-3: top soil; nos. 4-31: fill/first stratigraphical unit; nos. 32-37: destruction deposits/second stratigraphical unit; n. 38: under the floor of HLC 13)

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	HLC 10	1867	6301.3	III	Stemmed goblet	Green
2	HLC 10	1867	6301.6	III	Stemmed goblet	Green
3	HLC 10	1867	6306.1	II.4	Bowl	Light bluish green
4	HLC 10	1868	6310.5	I.1	Bottle	Light bluish green
5	HLC 12	1875	6319.3	I.1	Bottle	Light bluish green
6	HLC 12	1875	6323.1	I	Bottle	Light bluish green
7	HLC 12	1875	6319.3	I.5	Bottle	Light bluish green
8	HLC 12	1875	6319.2	I.5	Bottle	Light bluish green
9	HLC 12	1875	6319.4	I.5	Bottle	Light bluish green
10	HLC 12	1875	6323.3	I	Bottle	Light bluish green
11	HLC 10	1868	6311.24		Bottle	Light green
12	HLC 12	1875	6327.10	II.2	Bowl	Light bluish green
13	HLC 10	1868	6311.14	II.2	Bowl	Light bluish green
14	HLC 10	1868	6311.15	II.2	Bowl	Light bluish green
15	HLC 10	1868	6311.17	III.1	Drinking vessel	Light bluish green
16	HLC 10	1868	6311.19	III.1	Drinking vessel	Light bluish green
17	HLC 10	1868	6311.16	III.1	Drinking vessel	Light bluish green
18	HLC 10	1868	6311.18	III.1	Drinking vessel	Light bluish green
19	HLC 10	1868	6317.5		Bottle? Drinking vessel?	Light bluish green
20	HLC 10	1868	6310.1	III	Stemmed goblet	Light olive green
21	HLC 12	1879	6331.5	III	Stemmed goblet	Light blue
22	HLC 11	1874	6318.3	III	Stemmed goblet	Green
23	HLC 12	1875	6319.7	III	Stemmed goblet	Green
24	HLC 11	1874	6318.4	III	Stemmed goblet	Green
25	HLC 11	1874	6318.2	III	Stemmed goblet	Green
26	HLC 12	1875	6319.8	III	Stemmed goblet	Light blue
27	HLC 10	1868	6317.3	IV.2a	Lamp	Light green
28	HLC 10	1876	6325.1	IV.2a	Lamp	Light green
29	HLC 10	1876	6332.1	IV.2a	Lamp	Light green
30	HLC 10	1876	6337.1	IV.2a	Lamp	Light green
31	HLC 10	1868	6311.1	IV.2b2	Lamp	Light green, deep green stem
32	HLC 13	1886	6339.2	I.1	Bottle	Light bluish green
33	HLC 12	1883	6336.4	I.1	Bottle	Light bluish green
34	HLC 12	1883	6336.2	III	Stemmed goblet	Light blue
35	HLC 15	2001	6376.1	III	Stemmed goblet	Green
36	HLC 11	1878	6335.1	IV.1	Lamp	Light green
37	HLC 12	1883	6336.1	IV.2b2	Lamp	Light green, deep green stem
38	HLC 13	2010	6381.1	II.3	Bowl	Light bluish green

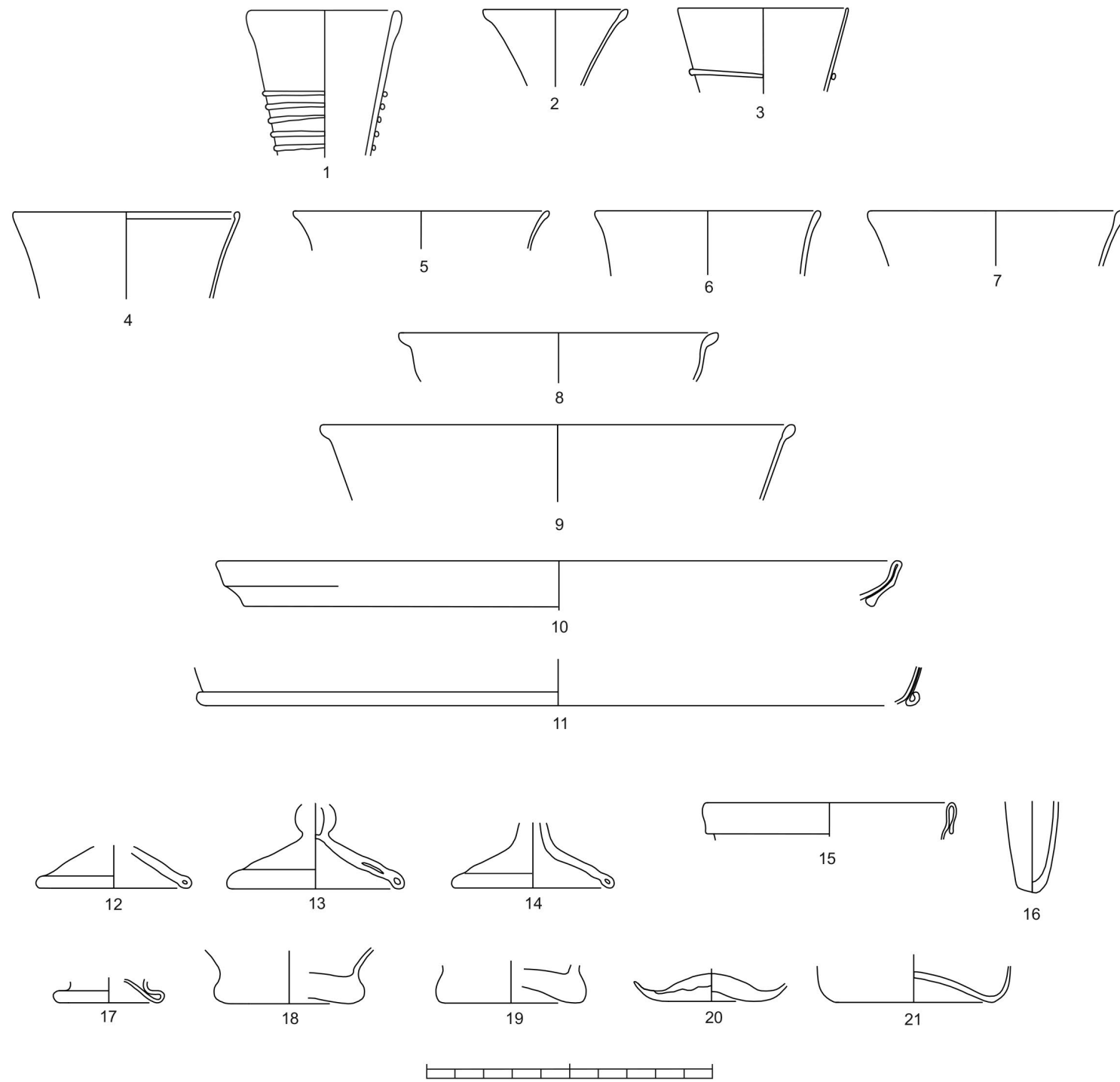
Illustration 8



III. 8 The Odeion

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	Odeion	1678	4661.2	I.3	Bottle	Light green
2	Odeion	3109	4685.1	I.1	Bottle	Light bluish green
3	Odeion	1747	4588.6	I	Bottle	Light green
4	Odeion	1663	4609.1	III.1	Drinking vessel	Light bluish green
5	Odeion	3112	4688.2	II.4	Bowl	Light greenish blue
6	Odeion	1652	4613.1	III.2	Drinking vessel	Light bluish green
7	Odeion	3128	6040.2.		Base - square bottle	Light green
8	Odeion	1654	4590.1	III	Solid base - goblet	Green
9	Odeion	1678	4661.1	III	Solid base - goblet	Green
10	Odeion	1701	4627.1	III	Stemmed goblet	Light bluish green
11	Odeion/destruction	1747	4574.1		Bowl	Green
12	Odeion/destruction	1747	4579.1	III.2	Drinking vessel	Light bluish green
13	Odeion/destruction	1747	4579.3	III.2	Drinking vessel	Light bluish green
14	Odeion/destruction	1747	4574.2	III	Solid base - goblet	Olive green
15	Building	1736	4558.3	II.2a	Bowl	Light bluish green
16	Building	1739	4562.3	II.2a	Bowl	Light greenish blue
17	Building	1737	4559.2	II.2a	Bowl	Light bluish green
18	Chapel	1711	4552.2	I.3	Bottle	Light greenish blue
19	South of the Chapel	1742	4566.2	III.4	Drinking vessel	Light greenish blue
20	Building	1713	4529.1	III.1	Drinking vessel	Light greenish blue
21	Building	1736	4558.2	III.2	Drinking vessel	Light greenish blue
22	Building	1737	4559.1	III	Stemmed goblet	Light bluish green
23	Building	1739	4562.2	III	Thin base - goblet?	Light green

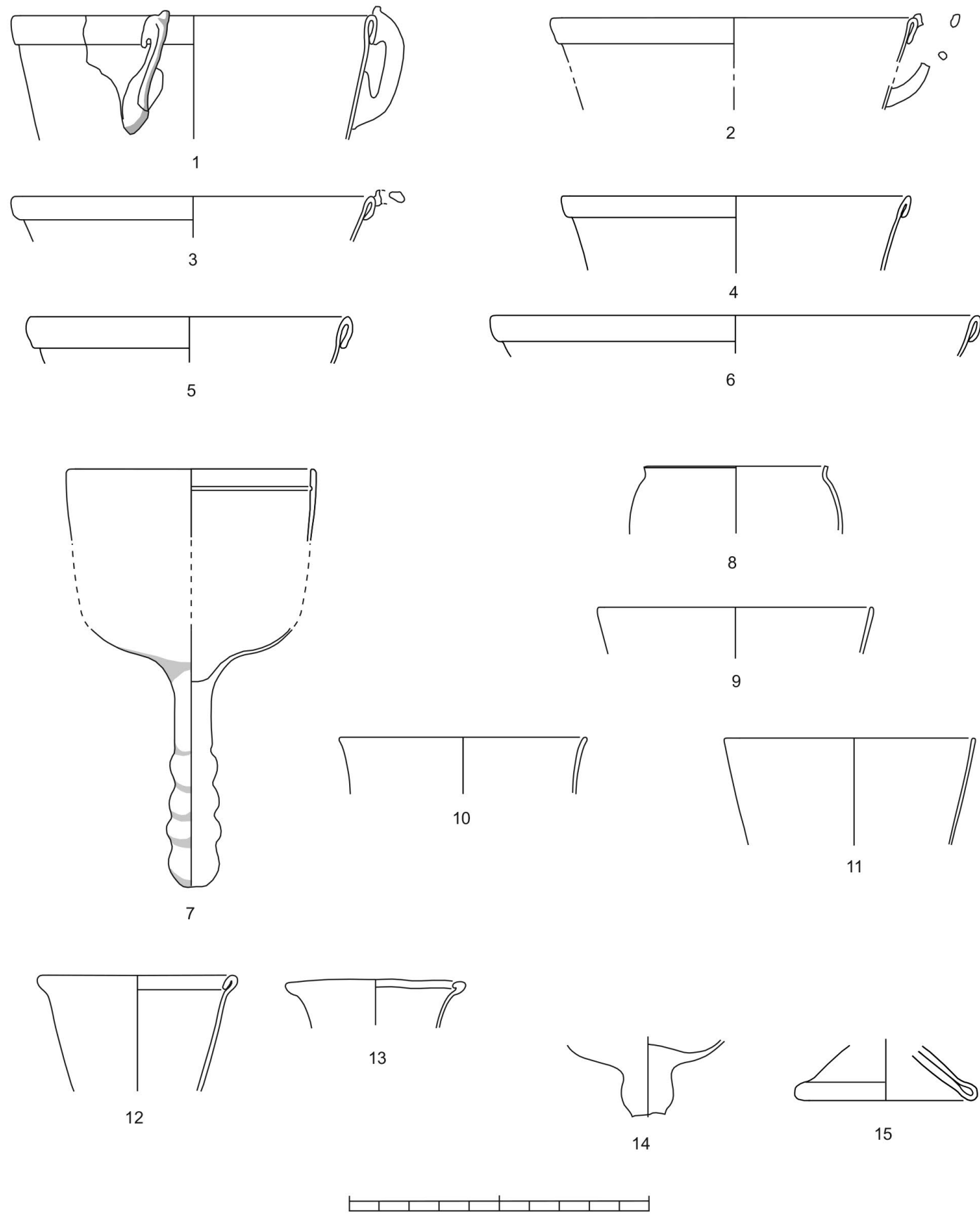
Illustration 9



III. 9 The South Wall

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	SWL II	845	5145.1	I.1	Bottle	Light green
2	SWL II	845	5145.2	I.3	Bottle	Light green
3	SWL II	293	1442.2	I? III.4?	Bottle? Drinking vessel?	Light bluish green
4	SWL II	845	5145.3	III.1	Drinking vessel	Light blue
5	SWL II	196	1565.1	III.1/2	Drinking vessel	Light greenish blue
6	SWL II	1424	4315.2	III.1	Drinking vessel	Light greenish blue
7	SWL II	1425	4357.7	III.1	Drinking vessel	Light greenish blue
8	SWL II	1431	4359.1	II.4	Bowl	Light green
9	SWL II	1425	4316.2	II.1	Bowl	Light greenish blue
10	SWL II	1423	4309.1	II.3?	Bowl	Light green
11	SWL II	198	1597.2	II.3	Bowl	Light green
12	SWL II	293	1437.1	III	Stemmed goblet	Green
13	SWL II	293	1599.1	III	Stemmed goblet	Green
14	SWL II	845	5145.4	III	Stemmed goblet	Light green
15	SWL II	298	1507.3	IV.1c	Bowl/lamp	Light greenish blue
16	SWL II	289	1580.1	IV.2a	Lamp	Light green
17	SWL II	877	5130.1	III	Concave tubular base	Green
18	SWL II	877	5130.2	III	Solid base - goblet	Green
19	SWL II	877	5130.3	III	Solid base - goblet	Olive green
20	SWL II	877	5137.1		Thickened concave base	Light green
21	SWL II	645	5145.5		Thin concave base	Light green

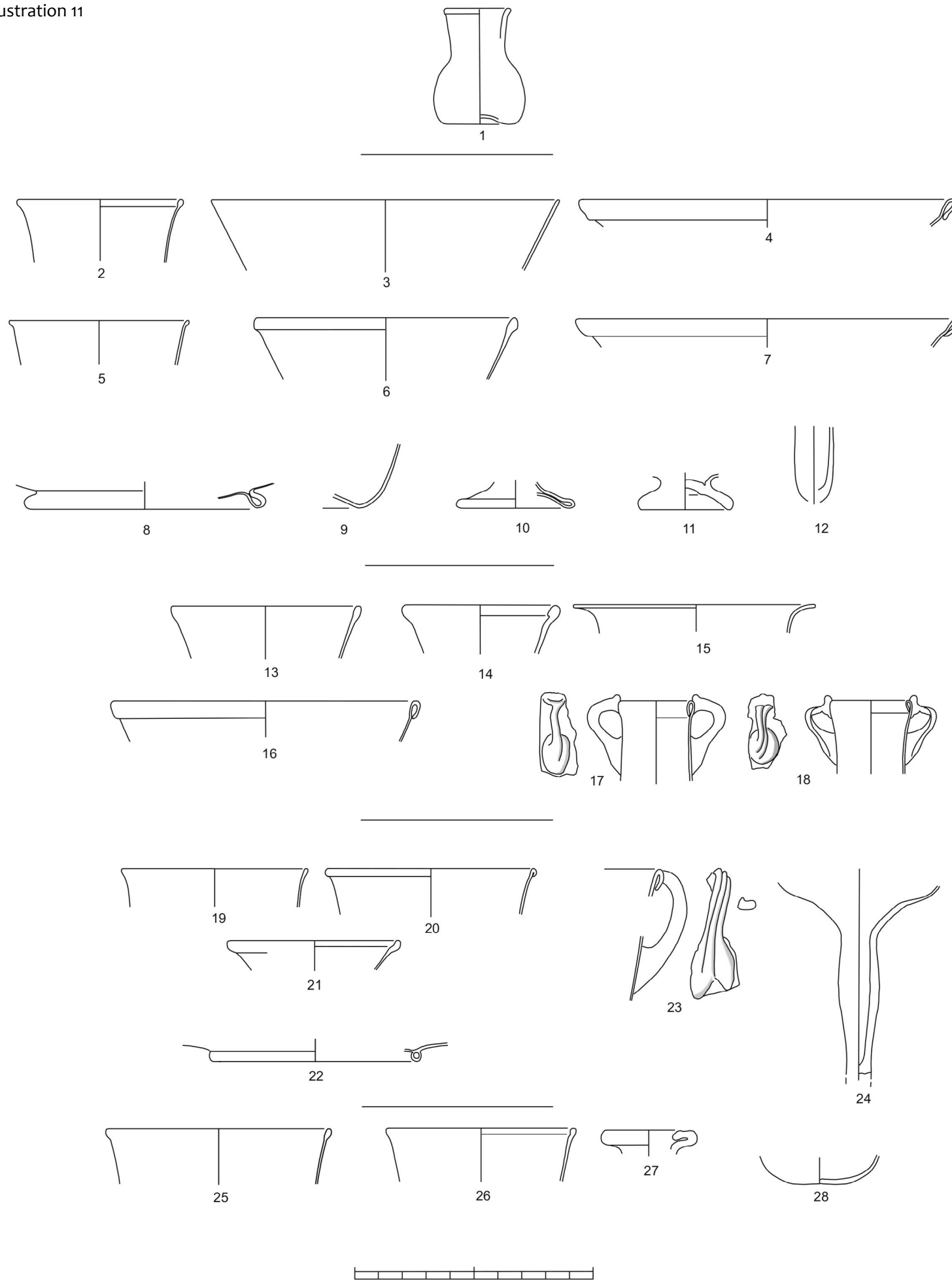
Illustration 10



III. 10 The Southwest Church

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	SWC	823	3047.1	IV.1c	Lamp	Light greenish blue
2	SWC	842	1572.3+4	IV.1b	Lamp	Light greenish blue
3	SWC	842	1572.2	IV.1c	Lamp	Light greenish blue
4	SWC	823	3050.2	IV.1b	Bowl lamp	Light bluish green
5	SWC	840	1564.2	IV.1c	Bowl lamp	Light greenish blue
6	SWC	826	3051.1	IV.1c	Bowl lamp	Light greenish blue
7	SWC	831	3073.1	IV.2b2	Lamp	Light bluish green, blue stem
8	SWC	842	1572.1	II.5d	Bowl lamp	Colorless with greenish tinge
9	SWC	833	3086.3	III.1	Drinking vessel	Colorless with greenish tinge
10	SWC	833	3086.1	III.1	Drinking vessel	Colorless with bluish tinge
11	SWC	840	1564.1	III.1	Drinking vessel	Colorless with bluish tinge
12	SWC	833	3086.2	I.2a	Bottle	Colorless with greenish tinge
13	SWC	818	3042.1	I.2a	Bottle	Light green
14	SWC	823	3050.1	III/IV	Stemmed goblet/lamp	Light blue
15	SWC	831	3065.1	III	Stemmed goblet	Green

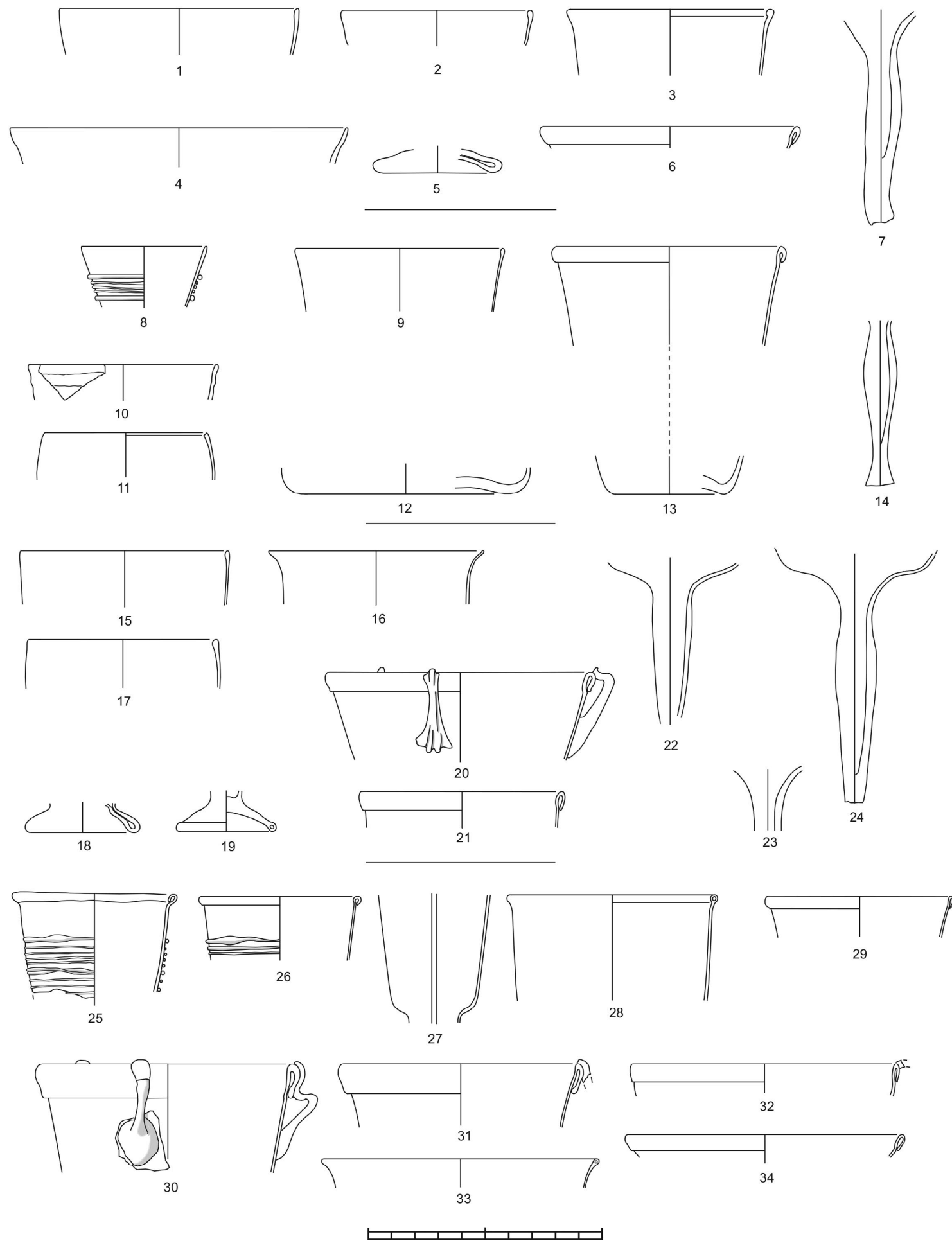
Illustration 11



III. 11 The Northwest Church

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	N Apsis	218	1008.1	I.6a	Small bottle	Green
2	N Aisle	203 W	1024.2	III.1	Drinking vessel	Light greenish blue
3	N Aisle	203 WW	1036.1	II.1a	Bowl	Light green
4	N Aisle	203 C	1026.2	II.2b	Bowl	Light greenish blue
5	N Aisle	203 W	1024.3		Bottle? Drinking vessel?	Light bluish green
6	N Aisle	203 C	1029.1	II.1a	Bowl	Light green
7	N Aisle	203 E	1027.2	II.2b	Bowl	Light greenish blue
8	N Aisle	203 E	1027.1	II	Low base ring	Light green
9	N Aisle	203 E	1027.4		Thin concave base	Light greenish blue
10	N Aisle	203 E	1027.3	III	Stemmed goblet	Light greenish
11	N Aisle	203 N	1024.1	III	Thickened concave base	Light green
12	N Aisle	203 N	1024.4	IV.2a	Lamp	Light green
13	Pastophorion	207	1009.1		Bottle? Drinking vessel?	Light green
14	Pastophorion	207	1025.2	I.2a	Bottle	Light greenish blue
15	Pastophorion	207	1025.3		Bowl? Drinking vessel?	Light green
16	Pastophorion	207	1028.3	II.2b	Bowl lamp?	Light greenish blue
17	Pastophorion	207	1028.2	V.1	Kohl tube	Light green
18	Pastophorion	207	1028.1	V.1	Kohl tube	Light green
19	Presbitery	205 N/E	1016.1	III.1	Drinking vessel	Light greenish
20	Presbitery	205 W	1046.2	III.1	Drinking vessel	Light greenish
21	Presbitery	205	1047.1	I.3	Bottle	Light green
22	Presbitery	205 W	1046.1	II	Low base ring	Light greenish
23	Presbitery	205	1075.1	IV.1c	Lamp	Light greenish blue
24	Presbitery	205 W	1046.3	IV.2a3	Lamp	Light green
25	Synthronon	206+219	1049.2	III.1	Drinking vessel	Light greenish
26	Synthronon	219	1015.1	III.1	Drinking vessel	Light green
27	Synthronon	206+219	1049.1	I.2b	Bottle	Light green
28	Synthronon	206+219	1049.4		Thin flat base	Light bluish tinge

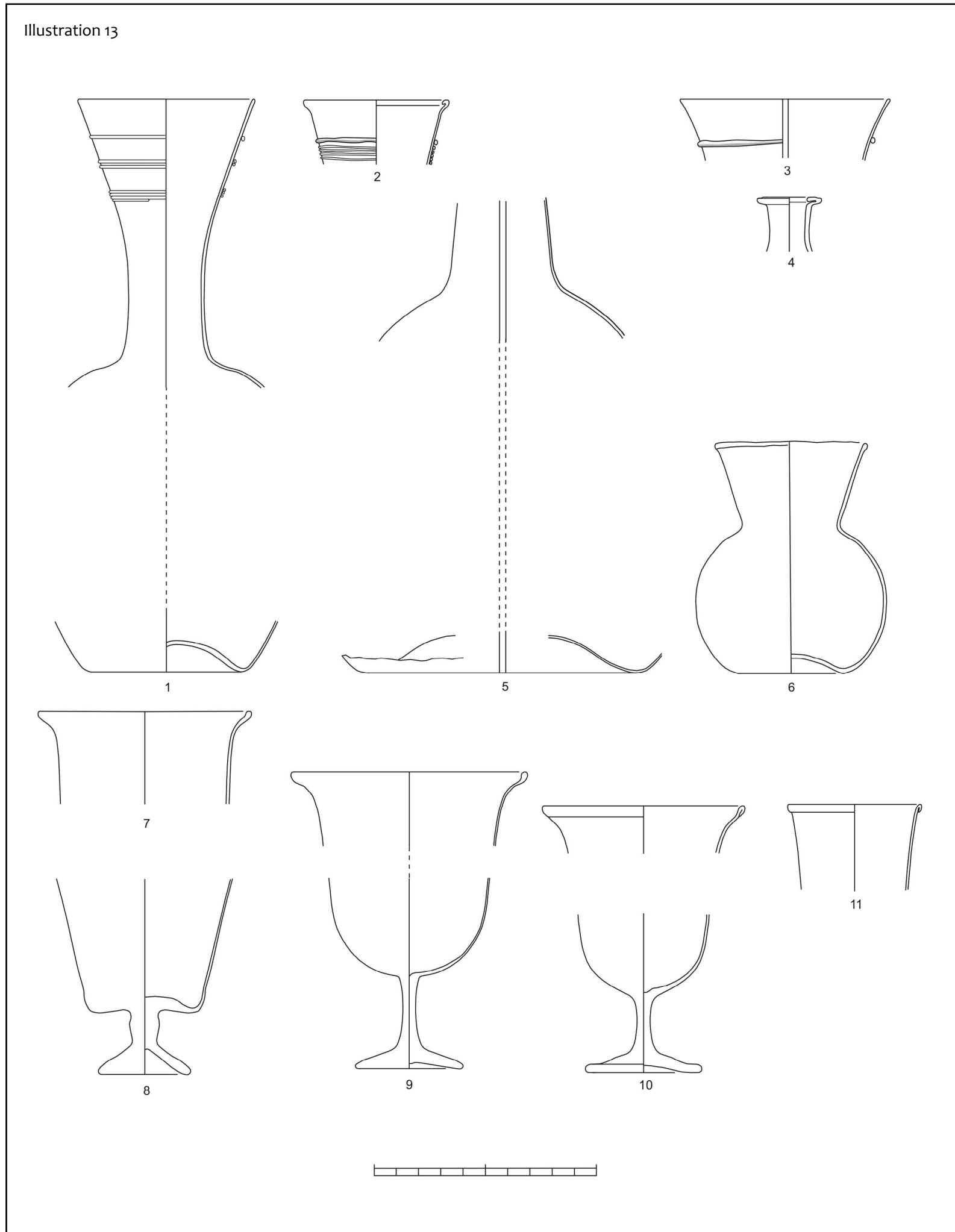
Illustration 12



III. 12 The Northwest Church

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	Nave	201 W	1001.1	II.1	Bowl	Light green
2	Nave	201 W	1006.1	III.1	Drinking vessel	Light green
3	Nave	201 W	1006.2	III.1	Drinking vessel	Light greenish blue
4	Nave	201 W	1038.1	II.1	Bowl	Light green
5	Nave	202 E	1043.1	III	Stemmed goblet	Deep olive green
6	Nave	202 E	1043.2	II/IV	Bowl/ lamp?	Light green
7	Nave	202 E	1045.1	IV.2a3	Lamp	Green
8	S Aisle	204 C/E	1048.1	I.1	Bottle	Light green
9	S Aisle	204 E	1050.1	III.1	Drinking vessel	Light greenish
10	S Aisle	204 W	1042.1	III.1	Drinking vessel	Light green
11	S Aisle	204 W	1032.1	II.5d	Bowl	Light bluish green
12	S Aisle	204 W	1035.4	I	Thickened base	Green
13	S Aisle	204 E	04.5, 6	III.1a	Drinking vessel	Greenish-blue
14	S Aisle	204 W	1035.1	IV.2a3	Lamp	Light green
15	Martyrion	208	1053.1	III.1	Drinking vessel	Light greenish blue
16	Martyrion	208	1066.2	III.2	Drinking vessel	Light greenish blue
17	Martyrion	208 E	1061.2	III.1	Drinking vessel	Light greenish blue
18	Martyrion	208	1066.6	III	Stemmed goblet	Light green
19	Martyrion	208 W	1052.2	III	Stemmed goblet	Green
20	Martyrion	208 W	1052.1	IV.1c	Lamp	Light green
21	Martyrion	208	1053.2	IV.1	Bowl lamp	Light greenish blue
22	Martyrion	208 S	03.1	IV.2a2	Lamp	Light green
23	Martyrion	223	04.9	IV.2a	Lamp	Bluish green
24	Martyrion	208 S	03.2	IV.2a3	Lamp	Light green
25	Mortuary Chapel	T 295	1101.1	I.2a	Bottle	Light bluish green
26	Mortuary Chapel	T 295	1101.10	I.2a	Bottle	Light greenish blue
27	Mortuary Chapel	T 295	1101.7	I.4	Bottle	Bluish green
28	Mortuary Chapel	T 294	1095.2	III	Drinking vessel	Light bluish
29	Mortuary Chapel	T 294	1095.5		Bottle? Bowl lamp?	Light greenish
30	Mortuary Chapel	209 W	1094.1, 2	IV.1c	Lamp	Light bluish
31	Mortuary Chapel	T 295	1101.11	IV.1c	Lamp	Light greenish
32	Mortuary Chapel	T 295	1101.3	IV.1b	Lamp	Light bluish/greenish
33	Mortuary Chapel	T 295	1101.6	II.1	Bowl	Light greenish tinge
34	Mortuary Chapel	T 294	1095.6	IV.1c	Bowl lamp	Light greenish

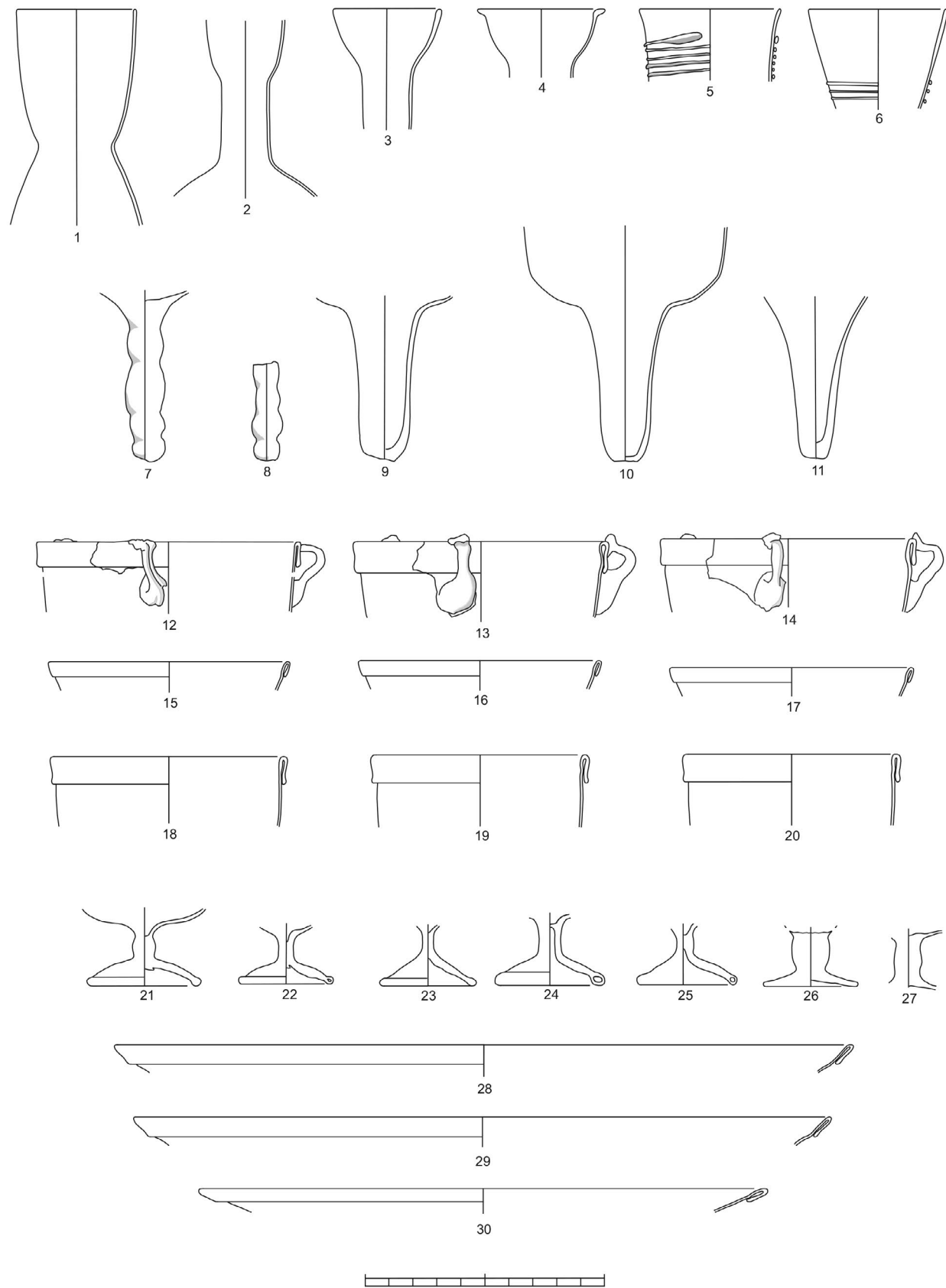
Illustration 13



III. 13 The Northwest Church

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	Diakonikon E	230	1080.1, 2	I.3	Bottle	Light bluish green
2	Diakonikon C	225	1065.4	I.2a	Bottle	Light bluish green, green threads
3	Diakonikon C	225	1065.1		Bottle? Drinking vessel?	Light green
4	Diakonikon C	225	1065.2	I.2b	Bottle	Light green
5	Diakonikon C	225	1060.1, 2	I	Bottle	Light bluish green
6	Diakonikon E	230	1086.1	I.6b	Bottle	Light green
7	Diakonikon C	225	1082.1	III	Drinking vessel	Light bluish green
8	Diakonikon C	225	1082.2	III	Stemmed goblet	Light bluish green
9	Diakonikon C	225	1082.3, 4	III.3	Stemmed goblet	Light bluish green
10	Diakonikon C	230	1086.6, 4	III.3	Stemmed goblet	Light greenish blue
11	Diakonikon C	230	1086.5		Bottle? Drinking vessel?	Light greenish blue

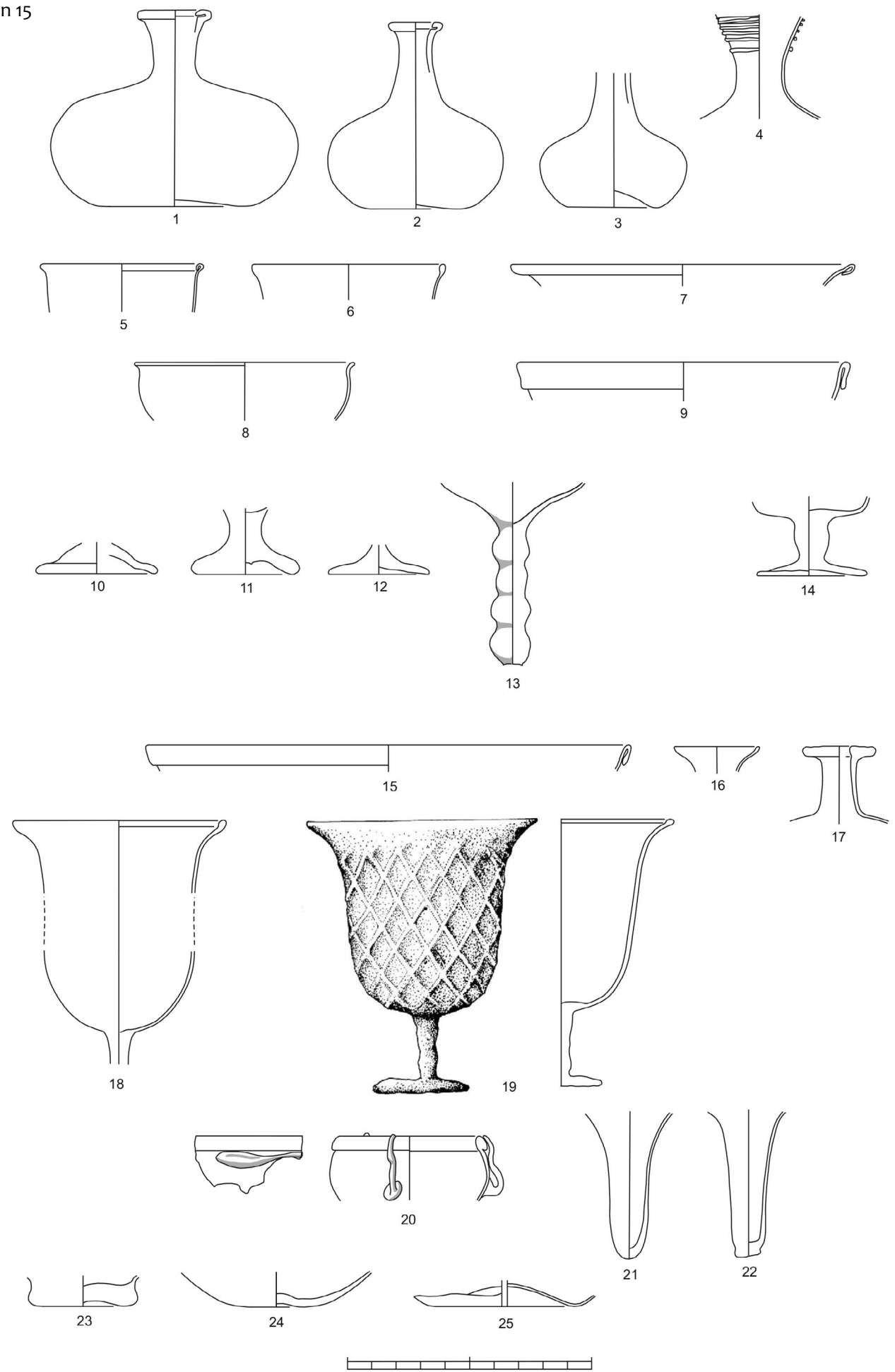
Illustration 14



III. 14 The Northwest Church

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	N Portico/Cistern	2546	3297.24	I.5	Bottle	Colorless with greenish tinge
2	N Portico/Cistern	2546	3297.34	I.4	Bottle	Colorless with bluish tinge
3	N Portico/Cistern	2546	1286.41	I.4	Bottle	Colorless with bluish tinge
4	N Portico/Cistern	2546	3297.8	I.4	Bottle	Colorless with bluish tinge
5	N Portico/Cistern	2546	1286.43	I.1	Bottle	Light greenish blue
6	N Portico/Cistern	2546	3297.13	I.3	Bottle	Light bluish green
7	N Portico/Cistern	2546	1286.1	IV.2b2	Lamp	Light bluish green
8	N Portico/Cistern	2546	1286.2	IV.2b2	Lamp	Light greenish blue
9	N Portico/Cistern	2546	1286.3	IV.2a1	Lamp	Light greenish blue
10	N Portico/Cistern	2546	1286.4	IV.2a1	Lamp	Light green
11	N Portico/Cistern	2546	1286.5	IV.2a1	Lamp	Light blue
12	N Portico/Cistern	2546	1286.59	IV.1b	Lamp	Light greenish blue
13	N Portico/Cistern	2546	1286.60	IV.1c	Lamp	Light greenish blue
14	N Portico/Cistern	2546	1286.61	IV.1b	Lamp	Light greenish blue
15	N Portico/Cistern	2546	1286.82	IV.1b	Bowl lamp?	Light greenish blue
16	N Portico/Cistern	2546	1286.83	IV.1b	Bowl lamp?	Light greenish blue
17	N Portico/Cistern	2546	1286.84	IV.1b	Bowl lamp?	Light greenish blue
18	N Portico/Cistern	2546	1286.68	IV.1a	Bowl lamp?	Light greenish blue
19	N Portico/Cistern	2546	1286.71	IV.1a	Bowl lamp?	Light greenish blue
20	N Portico/Cistern	2546	1286.74	IV.1a	Bowl lamp?	Light greenish blue
21	N Portico/Cistern	2546	1286.15	III	Stemmed goblet	Light greenish blue
22	N Portico/Cistern	2546	1286.17	III	Stemmed goblet	Light green
23	N Portico/Cistern	2546	1286.18	III	Stemmed goblet	Light green
24	N Portico/Cistern	2546	1286.19	III	Stemmed goblet	Light greenish blue
25	N Portico/Cistern	2546	1286.22	III	Stemmed goblet	Light bluish green
26	N Portico/Cistern	2546	1286.23	III	Stemmed goblet	Light greenish blue
27	N Portico/Cistern	2546	1286.26	III	Stemmed goblet	Light olive green
28	N Portico/Cistern	2546	1286.96	II.2a	Bowl	Light greenish blue
29	N Portico/Cistern	2546	1286.95	II.2a	Bowl	Light greenish blue
30	N Portico/Cistern	2546	1286.87	II.2a	Bowl	Light greenish blue

Illustration 15



III. 15 The Northwest Church

No.	Area	L/F/W	Basket	Type	Vessel	Description
1	W Portico	549 N	1169.1	I.2b	Bottle	Light olive green
2	W Portico	549 N	1169.2	I.2b	Bottle	Light blue
3	W Portico	549 N	1169.3	I.2b	Bottle	Light blue
4	W Portico	549 N	1169.4	I.3	Bottle	Light greenish blue
5	W Portico	214 C/N	1267.4		Bottle? Drinking vessel?	Light green
6	W Portico	214 C/N	1267.7	III.1	Drinking vessel	Light green
7	W Portico	570 C	1275.5	II.2b	Bowl	Light greenish blue
8	W portico	214 C/N	1267.5	II.4	Bowl	Light greenish blue
9	W Portico	214 S	1197.1	IV.1b	Bowl lamp	Light greenish blue
10	W Portico	570 C	1275.2	III	Stemmed goblet	Light green
11	W Portico	570C	1275.3	III	Stemmed goblet	Olive green
12	W Portico	570 S	1273.2	III	Stemmed goblet	Green
13	W Portico	570 C/N	1276.1	IV.2b2	Lamp	Green
14	N Portico	215	1172.1	III	Stemmed goblet	Green
15	Cellar	552 W	1189.11	II.2b	Bowl	Light greenish blue
16	Cellar	552 W	1189.4	I.3	Bottle	Light green
17	Cellar	552 W	1189.1	I.2b	Bottle	Light green
18	Cellar/crypt	553	1269.8, 9	III.3	Stemmed goblet	Light greenish blue
19	Cellar	552 E	1192.1, 2	III.2	Stemmed goblet	Light greenish blue
20	Cellar/Cistern	559	1259.4	IV.1	Lamp	Light green
21	Cellar/Cistern	559	1259.1	IV.2a2	Lamp	Light bluish green
22	Cellar/Cistern	559	1259.8	IV.2a2	Lamp	Light greenish blue
23	Cellar/Cistern	559	1259.2	III	Solid base - goblet	Light olive green
24	Cellar/Cistern	559	1259.3	I	Thickened flat base	Light bluish green
25	Cellar/Cistern	559	1259.6	I	Thin concave base	Very light greenish blue

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