Wading Through Jerusalem's Garbage: Chronology, Function, and Formation Process of the Pottery Assemblage of the City's Early Roman Landfill[1]

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Most scholars would agree that garbage constitutes a large portion of the source of materials discovered in archaeological excavations[2]. Official garbage disposal areas (landfill) from the past, however, have rarely been studied by archaeological methods[3]. In this article, we wish to present a unique pottery assemblage that originates from what was minimally a 7 m thick accumulation of alternating soil layers that we interpret as Jerusalem's official landfill during the Early Roman period[4].

Study of the pottery sherds found in the landfill can help frame the time the landfill was operational and facilitate the understanding of how it was formed. Furthermore, the landfill assemblage reflects the pottery usage, trade relations and social status and values of the people living in Jerusalem at a most dramatic moment in its history—the 1st century CE.

The Early Roman period, especially the days of Herod the Great and the rule of the procurators that followed (late 1st century BCE to 1st century CE), saw Jerusalem reach its zenith as an urban centre[5]. Monumental and complex building projects completely altered the city landscape and new neighborhoods grew up around the old core. Coupled with the influx of Jewish pilgrims who made their way to the city three times a year, Jerusalem must have hustled and bustled with people, activities and ideas.

It is against this background that we evaluate the dedication of the western slope of the Kidron Valley to garbage disposal during the Roman Period. In what follows we introduce the dig and its methodology, emphasizing how the pottery was collected, along with an illustration of the dramatic effect the different sifting procedures had on the quantitative composition of vessel types within the assemblage. Based on typological analysis and by comparison with

1 The excavations in Area D3 were directed by Yuval Gadot on behalf of the Sonia and Marco Institute of Archaeology at Tel Aviv University and the Israel Antiquities Authority (license no. G-4/2013). The excavation team included: H. Machline (area supervisor), O. Moshevich (wet-sifting supervisor), N. Earon (pottery drawing and preparing plates), N. Nehama and R. Abu-Halaf (administration), A. Peretz (photography), V. Essman and Y. Shmidov (surveying and drafting), and S. Adalah (metal detection). We wish to thank M. Polack and N. Ben-Melech for their assistance in preparing the manuscript.

2 Schiffer 1983; Rathje – Murphy 2001.

3 Shaw 2012.

4 Gadot 2014; Gadot – Adler 2015; Spiciarich et al. 2017; see also Reich – Shukron 2003; Bar-Oz et al. 2007; Reich 2011, 219–224.

5 Levine 2002.

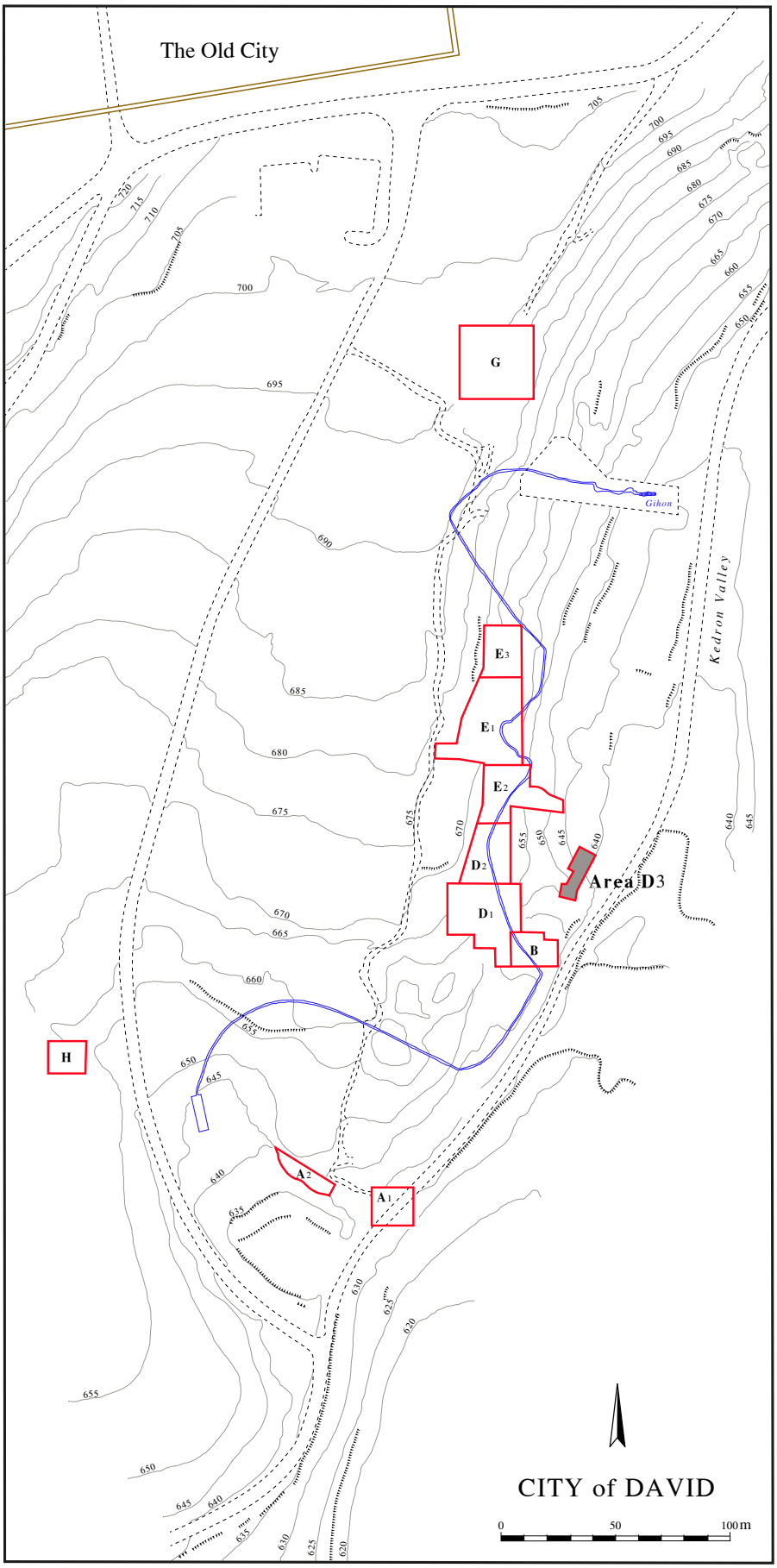

Fig. 1:
Plan of the City of David ridge, marking the location of Area D3.

additional well dated assemblages from other parts of the city, we attempt to determine the time span the landfill was operative. We then analyze the vessels' functional roles and the relative frequencies of the different functional groups. We attempt to understand the nature of the assemblage and possibly its origin. Finally, by recording the state of the ceramic fragments, we illustrate how pottery sherds aid in illuminating landfill formation processes.

Context and Methodology

In October 2013, we began a long-term excavation project on the eastern slopes of the Southeastern Hill, the Lower City also known as the City of David and Silwan (Area D3, **fig. 1**). The area chosen for excavation is in the vicinity of Areas B, D1 and D3 of Y. Shiloh's excavations, and just above Nahal Kidron[6]. The area is a 40 m long × 25 m wide section, oriented west–east into the occupational level of the site (**fig. 2**). The first two seasons were primarily devoted to understanding the minimally 7 m thick layer of debris covering the eastern slope of the City of David ridge leading down to Nahal Kidron. These layers of debris, from the Temple Mount in the north to the Siloam Pool in the south, were documented by previous researchers. All had noted the enormous volume of everyday artefacts found in these deposits: ceramic sherds, bones, seeds and charcoal, chalkstone vessels, coins and metal objects[7].

Two adjoining sections were marked for excavation:

- The northern section (Section M–N/10-11) is 12 m long (west–east) and 9 m wide (north–south; **figs. 3–4**).
- The southern section (Section M–N/14) which is 7 m long (west–east) and 4 m wide (north–south; **figs. 5–6**).

Over the course of excavations, it became clear that the landfill is composed of distinct layers that slope sharply downwards from west to east (**fig. 3**). Each layer is on average 0.30 m thick, although this fluctuates from one location to another. The layers were found to slope downwards to the north as well, which probably reflects the natural topography of the bedrock buried below the debris. Two types of layers, deposited in alternating order, were noted: layers rich with finds and layers dominated by soil[8].

The character of these deposits posed two major challenges: the steep slope of these layers proved difficult to excavate stratigraphically, and the sheer volume of the material culture items, from which these layers were composed, was so overwhelming that conventional recovery and registration techniques were impractical. In order to overcome these obstacles but at the same time collect data in a fashion that would allow us later on to study the landfill and its content, a specially designed sampling strategy was implemented in four consecutive stages:

1. Two 4 × 6 m squares were excavated from the surface down and one out of every 20 buckets of fill removed was subjected to wet-sifting (using a 0.5 mm mesh) in order to recover all finds that might be associated with human activity. Finds collected at this stage are representative of the entire depth of the garbage layer, without distinction into sub-layers. A metal detector was employed regularly at this stage.
2. The sections of the square were sketched and photographed, and the layers were marked with string to serve as guidelines for the subsequent stage of excavation.
3. Careful stratigraphic excavations were conducted on 1.5 × 0.5 m segments of these sections. The finds recovered from each sub-layer were registered separately.
4. Twenty buckets from each sub-layer were subjected to wet-sifting (using a 0.5 mm mesh) and the remainder was dry-sifted (using a 1–2 mm mesh).

6 Ariel 2000. See the map in Levine 2002, xii.

7 Bar-Oz et al. 2007, Table 1.

8 Gadot 2014.

Fig. 2: Section of the landfill.

Following the excavations, 21 loci were chosen for further analysis. Most of them are from the layers dug separately using intensive sifting (Stages 3 and 4, Loci 1050–1060 and Loci 1046–1048. 1061–1072). Also included were Loci 1022 and 1035 that were dug in Stage 1. These Loci hold clean pottery originating from the landfill but were not separated into distinct layers. Locus 1044 represents an earth fill layer buried under the earliest layer of the landfill.

Eleven thousand five hundred and thirty-one sherds from the above-mentioned loci were classified according to their morphological and functional attributes. Quantification was conducted by counting only diagnostic sherds: the rim for bowls, cooking pots, jugs and storage jars; the neck for juglets, flasks and unguentaria; the nozzles for oil lamps. Estimation of minimum number of complete vessels was conducted using the method employed by Mazar and Panitz-Cohen[9]. It includes an estimation of the size of the rim's circumference, and a calculation of the relative size of a rim fragment in units of one-eighth of the complete circumference. Where the entire circumference was preserved, the number 8 was registered. A small sherd (less than one-eighth of the diameter) was registered as 1. Thus, all the sherds were measured on a circumference key sheet and given numbers between 1 and 8. This procedure was conducted for the loci dug in Stages 3 and 4, where a reliable sample of pottery types was achieved.

9 Mazar – Panitz-Cohen 2001, 12–13.

Fig. 3: The layers of the landfill in the northern cut.

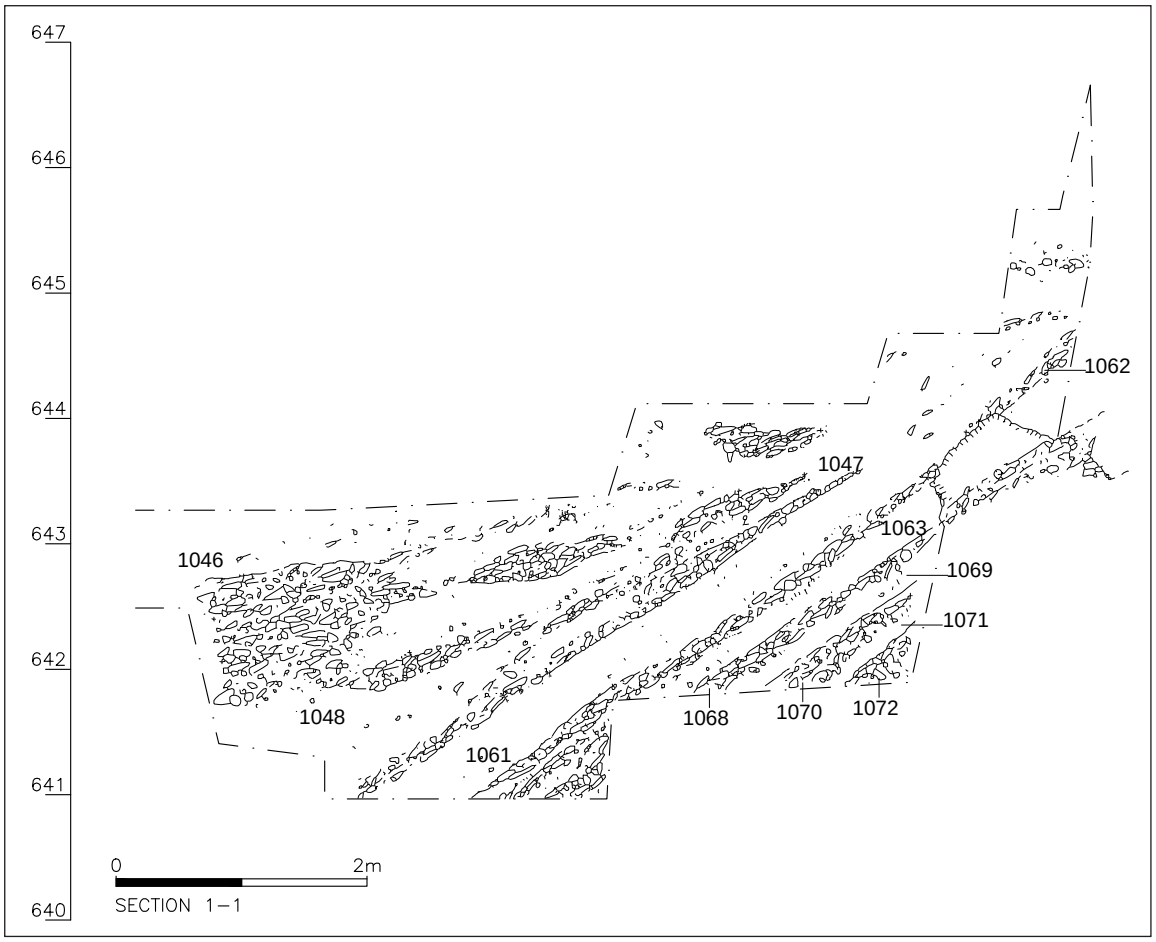

Fig. 4: Drawing of the northern section.

Fig. 5: Picture of the southern section.

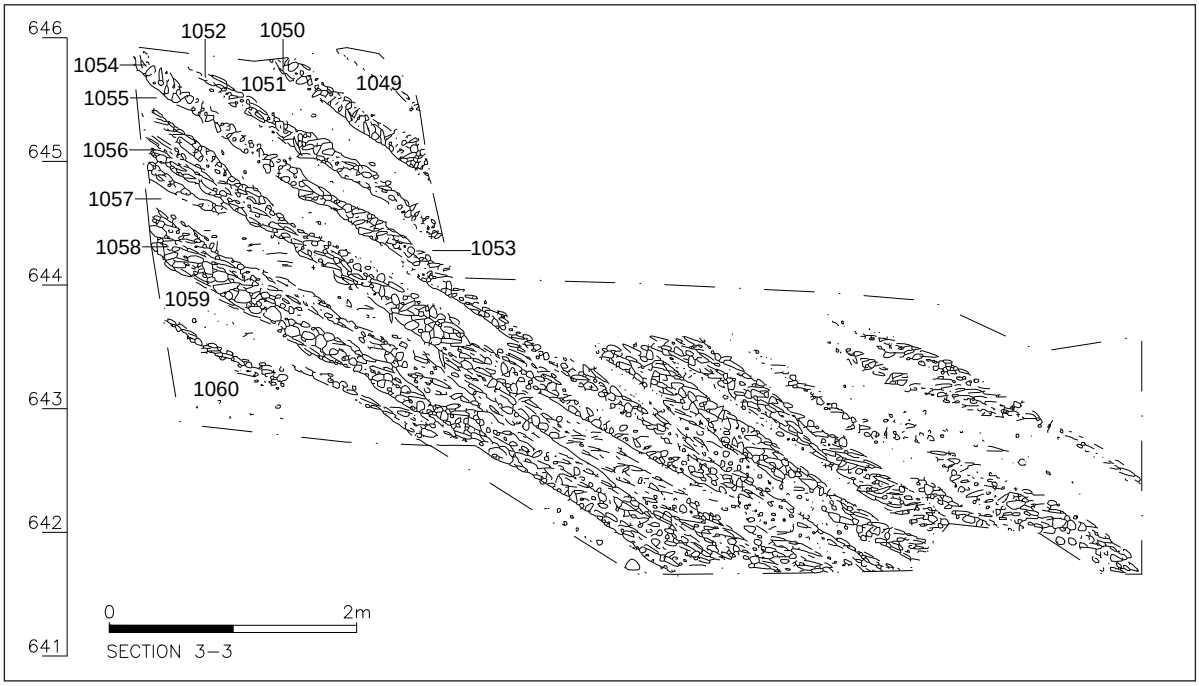

Fig. 6: Drawing of the southern section.

Table 1

The four local ceramic phases and their relative and absolute chronology compared to the chrono-stratigraphy of the JICC site and the Jewish Quarter excavations.

(See Berlin 2005 for the ceramic phases at the JICC site;
Geva – Rosenthal-Heginbottom 2003 for the stratigraphy of Area A in the Jewish Quarter and
Geva 2010 for the stratigraphy of the Burnt House in Area B.)

Ceramic Phase 1: late 2nd century BCE to early 1st century BCE Corresponds to Stratum 6 in Area A of the Jewish Quarter	**D3-Phase 1**
Mid-1st century BCE to late 1st century BCE Corresponds to Ceramic Phase 1–2 at the JICC site and to Stratum 5-4 in Area A of the Jewish Quarter	**D3-Phase 2**
Early 1st century CE to mid-1st century CE Corresponds to Ceramic Phase 3 at the JICC site and to Stratum 3 in Area E of the Jewish Quarter	**D3-Phase 3**
Mid-1st century CE to 70 CE Corresponds to Ceramic Phase 4 at the JICC site and to Stratum 2 of Area B in the Jewish Quarter	**D3-Phase 4**

Typology and Chronology

The pottery of Jerusalem from this period is well known from previously excavated parts of the city. Parallels were drawn from Jerusalem's Early Roman well stratified dwelling quarters in the vicinity, mainly in Jewish Quarter excavations[10], the Armenian Garden excavations[11], the Giv'ati Parking Lot excavations[12] and at the Jerusalem International Convention Center workshops site (henceforth JICC)[13]. When needed, parallels from further away sites such as Jericho and Masada are also included[14]. Some cooking pot types have parallels only in the Galilee at Kfar Hanania, and on the coastal plain at Caesarea Maritima[15].

The majority of the vessels are made of plain fabric. The paste is fired light brown, gray or pinkish-brown, or orange-brown with a small amount of white grits. In general the clay is similar in appearance to clay made from the Moza formation. The clay of most of the cooking ware vessels is similar to that of the cooking vessels from the kilns at the JICC site[16]. The clay is warm red-brown in colour, and the fabric is smooth, with a moderate amount of small and medium rounded and subangular white grits.

The deposits include ceramic types that belong to a multitude of domestic activities, ranging from meal preparation and consummation, food storage and illumination. The abundance of vessels made of stone found together with those made of clay leads us to suggest that the vessels come from a quarter inhabited by a Jewish population[17]. It is interesting to note

10 Geva 2003; Geva 2010; Geva – Rosenthal-Heginbottom 2003; Geva – Hershkovitz 2006.

11 Tushingham 1985.

12 Tchekhanovets 2013.

13 Berlin 2005; Hershkovitz 2005.

14 Bar-Nathan 2002; Bar-Nathan 2006.

15 Johnson 2008, 75.

16 Berlin 2005.

17 Gadot – Adler 2016.

the marginal presence of imported vessels: open and closed vessels and lamps from western Asia Minor, the Gulf of Iskenderun, the Levant and Italy. In terms of the maximum number of vessels counted in D3, 0.15 % was imported. However, in terms of the minimum number of vessels counted, the proportion changed: in the northern and southern cuts, we found 0.52 % imported vessels, essentially Sigillata wares. It does, however, not fit the profile documented for the habitation levels of the Upper City where Sigillata wares and other imported tableware can be associated with the growth of the Jewish urban elite[18].

It is generally accepted that the repertoire of pottery vessels dating to the Early Roman period is primarily composed of types that do not change from the mid–late 1st century BCE to 70 CE. Berlin's study of the pottery from JICC site shows four main chronological ceramic phases and places special emphasis on recognizing the few but important typological types that can be attributed to one of the four phases[19]. In order to determine the time span during which the landfill was operational, and also, if possible, to determine the chronology of each layer independently, we tried to fit our ceramic typology into her phases. In most cases we could only determine if a certain type belongs to Berlin's Phases 1–2 or 3–4. In addition, the assemblage includes pottery types that are earlier than her Phase 1. We therefore defined four local chronological phases which we label here as D3-Phase 1 (the earliest) to D3-4 (the latest) (see **table 1**).

Following is a description of the pottery types that comprise the assemblage. We focus on seven main functional vessel groups: tableware (bowls, cups, kraters), pouring vessels (jugs, flasks); small containers/small bottles (juglets, unguentaria), cooking ware (cooking pots, casseroles, cooking jugs), large storage vessels (storage jars), oil lamps (mold-made lamps, wheel-made, knives-pared lamps) and utensils (ladles and stands).

We first describe the types that, based on Berlin's chrono-typology, are chronological markers that allow a fine-tuned chronology. This is followed by a short description of the remainder of the repertoire.

A. Chronologically Significant Pottery Types

Markers for D3-Phases 1–2 (2nd–mid / late 1st century BCE)

- Type BL1 Bowl (**fig. 7, 1**), D3-Phases 1–2
  This bowl has a shallow, rounded body and a simple rim, with a circular and flat base. It is known from 2nd and 1st century BCE strata in the Jewish Quarter excavations but is missing from assemblages that date to the 1st century CE[20]. It is difficult to differentiate this type of bowl from Types BL2 and BL3 if the whole profile does not exist. We therefore refrained from quantifying its presence in the different layers.

- Type BL6 Bowl (**fig. 7, 18–21**), D3-Phase 2
  This type of small deep bowl or cup has straight or nearly straight walls and a slightly everted rim. The paste is fired light brown and is usually red-slipped internally and externally. Some vessels have rouletted decoration while others are incised. The fragment on **fig. 7, 21** has a band of gray slip on the exterior from the rim to the external ridge. The texture of the vessel is very soft. The fabric was termed ›Palestinian red slipped ware‹ and ›red-slipped ware‹ in the Upper City repertoire[21] or ›local red-slipped tableware‹ at the

18 Rosenthal-Heginbottom 2014, 397. To date, no conclusive evidence is available for Judea, as the imports to Jericho and Masada await publication.

19 Berlin 2005.

20 Geva – Rosenthal-Heginbottom 2003, pls. 6.1, 16; 6.3, 1–2; 6.10, 33; Geva – Rosenthal-Heginbottom 2003, 188.

21 Hayes 1985, 183; Rosenthal-Heginbottom 2003, 210–211.

Table 2
The presence of chronological diagnostic pottery types in the diagonally dug loci.

		S	S	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N
Type/ Locus	**Phase**	**1044**	**1060**	**1059**	**1072**	**1058**	**1071**	**1057**	**1070**	**1056**	**1068**	**1055**	**1063**	**1054**	**1062**	**1053**	**1061**	**1052**	**1048**	**1051**	**1047**	**1050**	**1046**
BL6	D3-2							3	2	3				1			1			1			
JG1	D3-1	3																					
UN1	D3-1-2				1		1																
SJ1	D3-1-2	19				2		2	2	2	1												
CP1	D3-1-2	2		2		1				1													
LP2	D3-2		1																				
BL4	D3-3-4		9	12		5		10	5			2	2			2	2	1		3	1	5	2
KR	D3-4		4	3						2	1												
FK	D3-3-4	16		10	3	4	2	1		3	2			7	1		6	4	1	6	5	4	6
CJG1	D3-3-4	2	1		2	2	1	3	3	2	1		1	4	6		3	2			4	5	5
CS1	D3-3-4				1	4		1		2		3	1	10	7	2	2	2	7		24		31
LP1	D3-3-4	7		8	3	7	3		3	15		10	2	15	15	6	4	4	2	8	21		21

Hasmonean palace complex at Jericho, where it is dated to 85/75–31 BCE and is missing from the Herodian Palaces[22].
Fragments of this type are rare in the assemblage and, as can be seen in **table 2**, they were mostly found in the lower loci that make up the landfill.

- Type JG1 Jug (**fig. 8, 1**), D3-Phase 1
  This jug has a straight, narrow neck with everted rim and a spherical body. In the Jewish Quarter, this sub-type is found from the 2nd century BCE until the beginning of the 1st century BCE[23]. Jugs of this type are rare and were found only in Locus 1044, which predates the creation of the landfill (**table 2**).

- Type UN1 Unguentarium (**fig. 9, 10–11**), D3-Phases 1–2
  The fusiform unguentarium is the tall version characterized by a long and very thin foot and neck, and a small fusiform body. It has a sharpened-everted rim and is the latest Hellenistic form of unguentaria in general. The fusiform unguentarium is particularly popular in Jerusalem. In the Jewish Quarter excavations, this sub-type appears first in the 2nd century BCE but becomes more common in the 1st century BCE[24]. Additional parallels are known from the Giv'ati Parking Lot excavations[25] and from Jericho[26].
  Only an extremely small number of unguentaria of this type were found (**table 2**), hence they seem to represent a type that had already fallen out of use when the landfill became operational.

- Type SJ1 Storage Jar (**fig. 10, 1–7**), D3-Phases 1-2
  This jar type has a square-sectioned or rounded-thickened, everted rim. It can be divided into three sub-types: the first has a square shaped rim and a long or short neck (**fig. 10, 1–5**). Although most typical of the 2nd century BCE, this jar still appears in assemblages of the 1st century BCE. It remained in use during the first part of the 1st century CE. Parallels in Jerusalem are found at the JICC site in a 1st century BCE context[27]. It is also found in the excavations at the Giv'ati Parking Lot[28], in the Jewish Quarter[29] and the Armenian Garden[30].
  The second sub-type has a low, out-curving neck and a rounded and out-folded, thickened rim (**fig. 10, 6**). This is a characteristic feature of the late-2nd century BCE, and the form remained in use during the 1st century BCE[31]. The third sub-type has a simple everted rim and a high neck (**fig. 10, 7**). Examples from the 1st century BCE are found in the Jewish Quarter excavations[32].

22 Bar-Nathan 2002, 119–121.

23 Geva – Rosenthal-Heginbottom 2003, pl. 6.5, 12.

24 Geva 2003, pl. 5.2, 48–49; 5.7, 29; Geva – Rosenthal-Heginbottom 2003, pl. 6.2, 7–14; Geva – Hershkovitz 2006, pls. 4.4, 1–4; 4.7, 3–4; 4.9, 4; 4.10, 8; 4.12, 2.

25 Tchekhanovets 2013, figs. 5.4, 6–10; 5.8, 13–16; 5.13, 17–20; 5.18, 19–22.

26 Bar-Nathan 2002, Type J UN1.

27 Berlin 2005, 30.

28 Sandhaus 2013, fig. 4.2, 2 Type SJ1b; Tchekhanovets 2013, figs. 5.11, 12; 5.16, 2–6.

29 Geva 2003, pls. 5.1, 7; 5.2, 19. 27–29; 5.4, 5 Type SJ1; Geva – Rosenthal-Heginbottom 2003, pl. 6.1, 3. 18. 21. 22. 24; Geva – Hershkovitz 2006, pl. 4.3, 1. 2. 4. 9.

30 Tushingham 1985, fig. 18, 2–4. 12–13. 15–17.

31 Sandhaus 2013, 90 figs. 4.2, 6; 4.9, 15.

32 Geva 2003, 124 Type SJ4; Geva – Rosenthal-Heginbottom 2003, pl. 6.1, 6. 32.

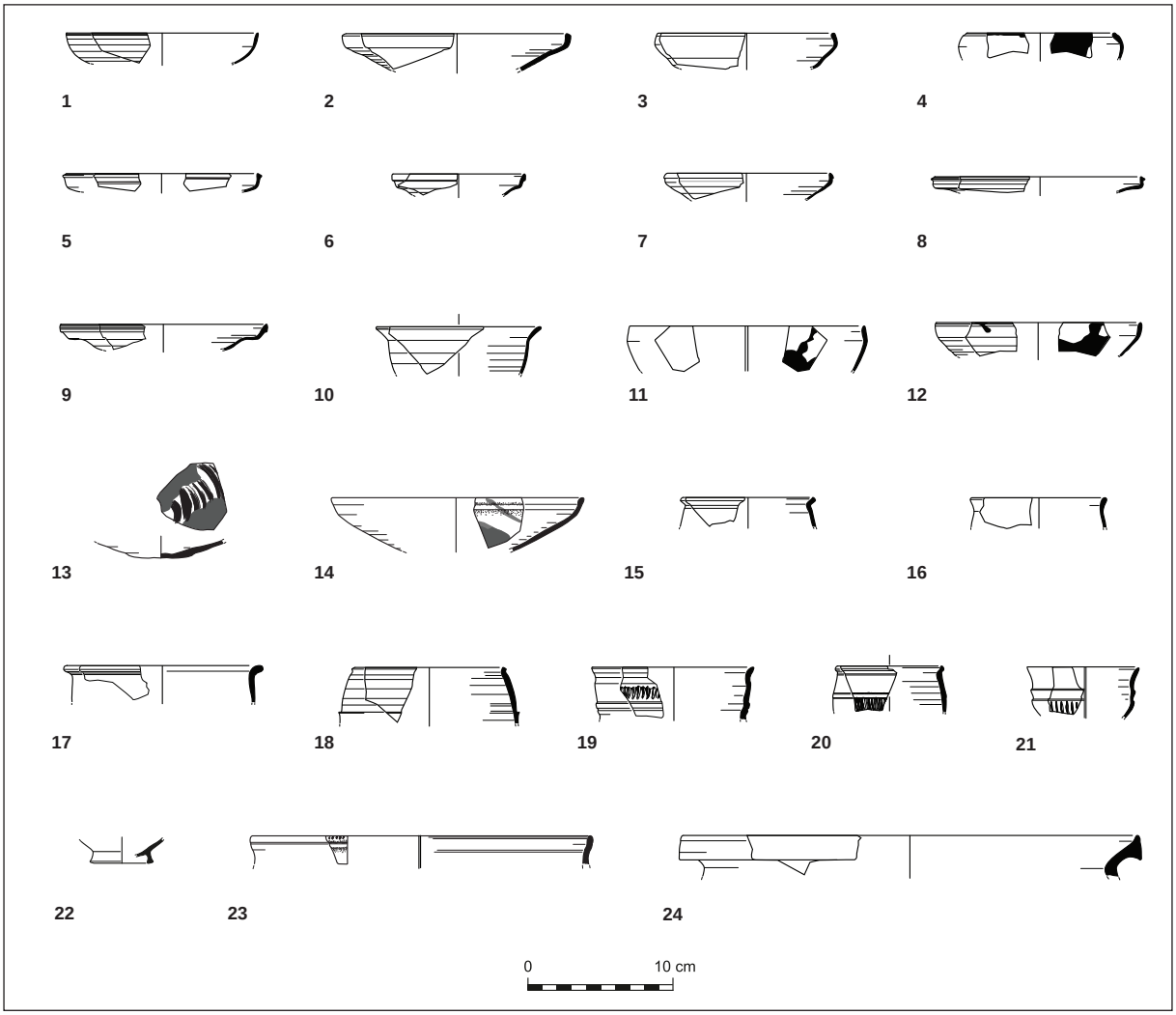

Fig. 7: Typology: bowls and kraters (see **table 7**).

As can be seen in **table 2**, this type of storage jar was common only in layers that predate the creation of the landfill. The few items that were found in lower layers of the landfill were probably residual.

- Type SJ2 Storage Jar (**fig. 10, 8–9**), D3-Phases 2–3
  This jar type is characterized by a collared rim and a high neck. Changes in the form of the collared rim have chronological significance. The earlier types have a shorter, everted collar, which over time became thicker[33] and longer[34]. At the JICC site, they are found in contexts dating to the 1st century BCE. The jars with long and slightly concave collar rims (**fig. 10, 8**) date mainly from the 1st century BCE[35]. Some jars have high, upright convex necks with short squared collar rims (**fig. 10, 9**). Parallels found in the Jewish Quarter excavations date from the first half of the 1st century BCE[36].

33 Gitin 1990, 239 Type 161.

34 Bar-Nathan 2002, 28–31.

35 Geva 2003, pl. 5.9, 8 Type SJ3b; Geva – Rosenthal-Heginbottom 2003, pl. 6.1, 25. 28; Geva – Hershkovitz 2006, pls. 4.3, 13–14; 4.9, 3; 4.10, 3; Tchekhanovets 2013, figs. 5.2, 6; 5.12, 4–8.

36 Geva – Hershkovitz 2006, pls. 4, 9; 4.10, 1; Geva 2003, 123–124 Type SJ3a; Geva – Rosenthal-Heginbottom 2003, 177 pl. 6.1, 24–26.

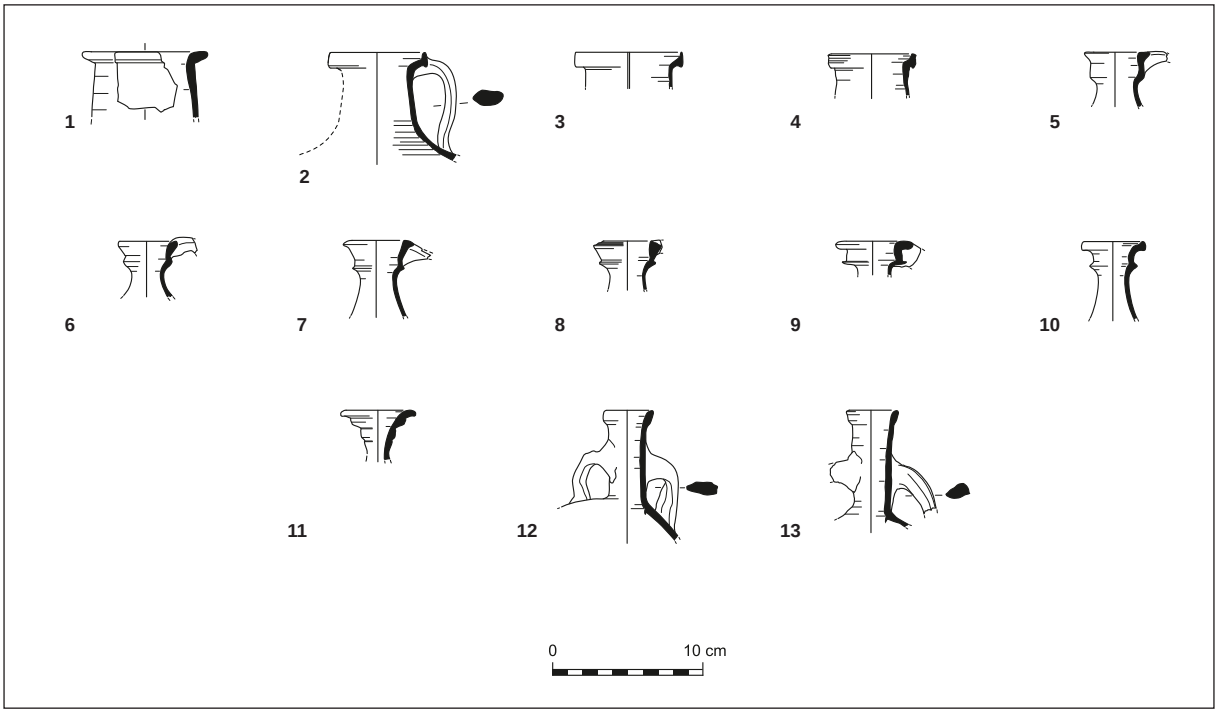

Fig. 8: Typology: jugs and flasks (see **table 7**).

Fragments of SJ2 storage jars that do not have a complete rim and neck profile are similar to SJ3 storage jars and so were not counted separately.

- Type CP1 Cooking Pot (**fig. 11, 1**), D3-Phases 1–2
  Cooking pots of this type have a straight, relatively high everted neck and a globular body. They are thin-walled, and their handles extend from rim to shoulder. Their rim is rounded or pointed. Chronologically this type is represented in the first phases of the workshop at the JICC site, dated to the 1st century BCE. Production of this sub-type terminated in the 1st century CE[37]. This cooking pot is found in the Upper City only in Area A, Stratum 638.
  Only a few CP1 fragments of vessels of this type were counted. Some were recovered in Locus 1044, a pre-landfill layer, the others in the lowest layers of the landfill (**table 2**).

- Type LP2 Lamp (**fig. 12, 13**), D3-Phase 2
  This lamp type is the Judean radial mold-made, with an incised-lines motif. Finds at Jericho indicate that it was introduced at the end of the Hasmonean period, during the second half of the 1st century BCE[39]. A locally produced lamp of this type is known from the Jerusalem's Upper City[40].
  Only two fragments of this type of oil lamp were found in the entire counted assemblage (not only the diagonally dug layers), and only one of them was found in the lower-most layer of the landfill. Either this type of oil lamp was not produced when the landfill was operational or it was not popular with the people producing the waste studied here.

37 Berlin 2005, fig. 3.

38 Geva – Rosenthal–Heginbottom 2003, pl. 6.2, 20–24.

39 Bar-Nathan 2002, Type JLP4.

40 Avigad 1983, 88; Rosenthal-Heginbottom 2003, 219 pls. 6.8, 4; 6.9, 43; 6.10, 21; Geva – Hershkovitz 2006, pls. 4.6, 2–4. 6–8; 4.8, 15–18.

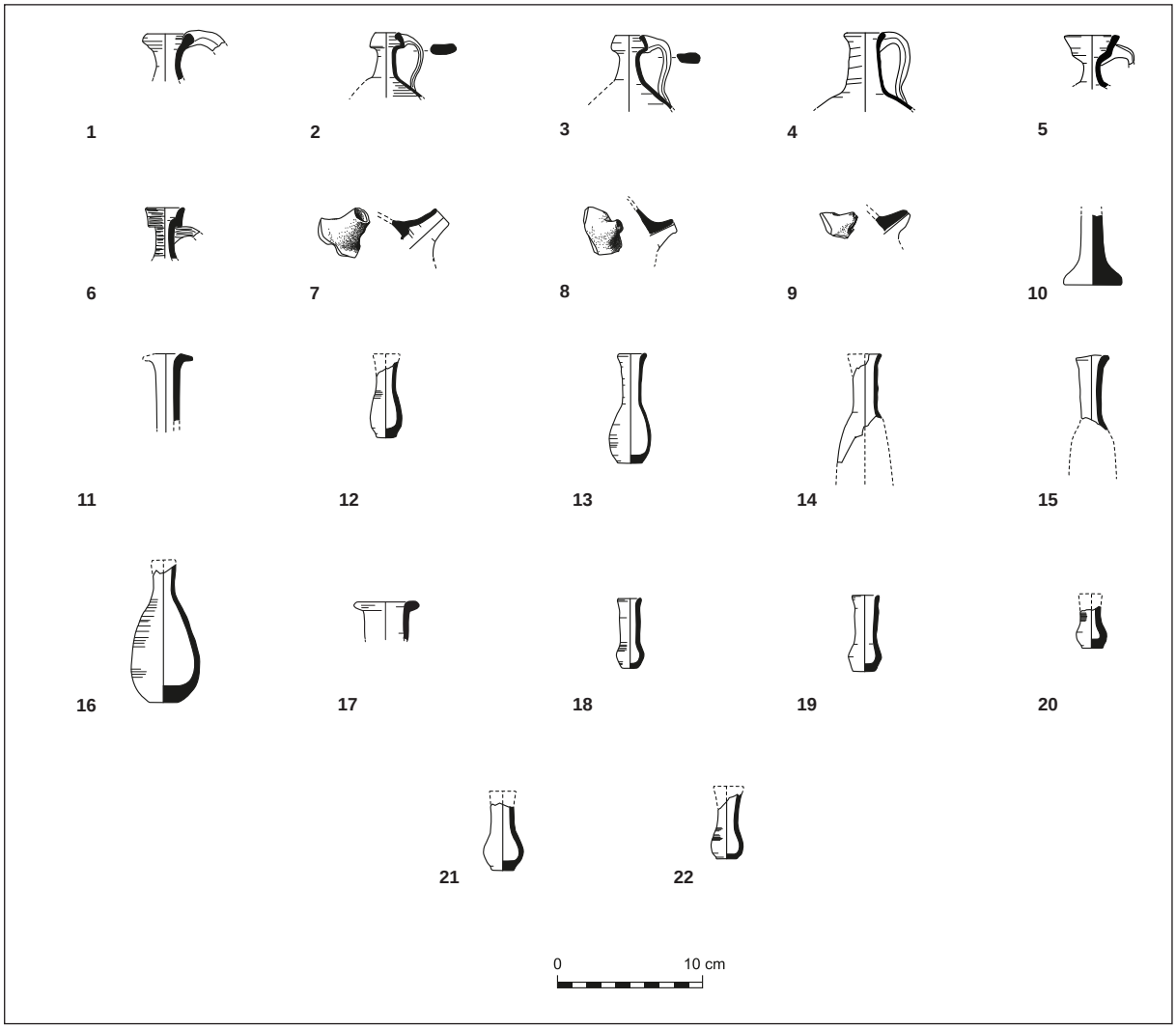

Fig. 9: Typology: juglets and unguentaria (see **table 7**).

Markers for D3-phases 3–4 (mid / late 1st century BCE to 70 CE)

- Type BL3 Bowl (**fig. 7, 5–10**), D3-Phases 3-4

  This type of bowl has an outturned and slightly thickened rim and a thin wall with a carination close to the rim. It appears at the beginning of the 1st century CE up to 70 CE at the JICC site[41]. At Jerusalem's dwelling sites it appears during the mid-late 1st century BCE and becomes common during the 1st century CE, lasting until 70 CE. Parallels are found in all the main Early Roman excavation sites in Jerusalem: the Jewish Quarter[42], the Armenian Garden[43] and the Giv'ati Parking Lot[44]. It is very difficult to differentiate this type of bowl from Types BL1 and BL2 when the whole profile does not exist. We therefore refrained from quantifying its presence in the different layers.

41 Berlin 2005, fig. 17, 7–9.

42 Geva – Rosenthal-Heginbottom 2003, 188 pls. 6.3, 14; 6.6, 22–23. 30–31; 6.9, 28; Geva – Hershkovitz 2006, pl. 4.13, 12.

43 Tushingham 1985, fig. 20, 28.

44 Tchekhanovets 2013, figs. 5.1, 3; 5.5, 10; 5.15, 5.

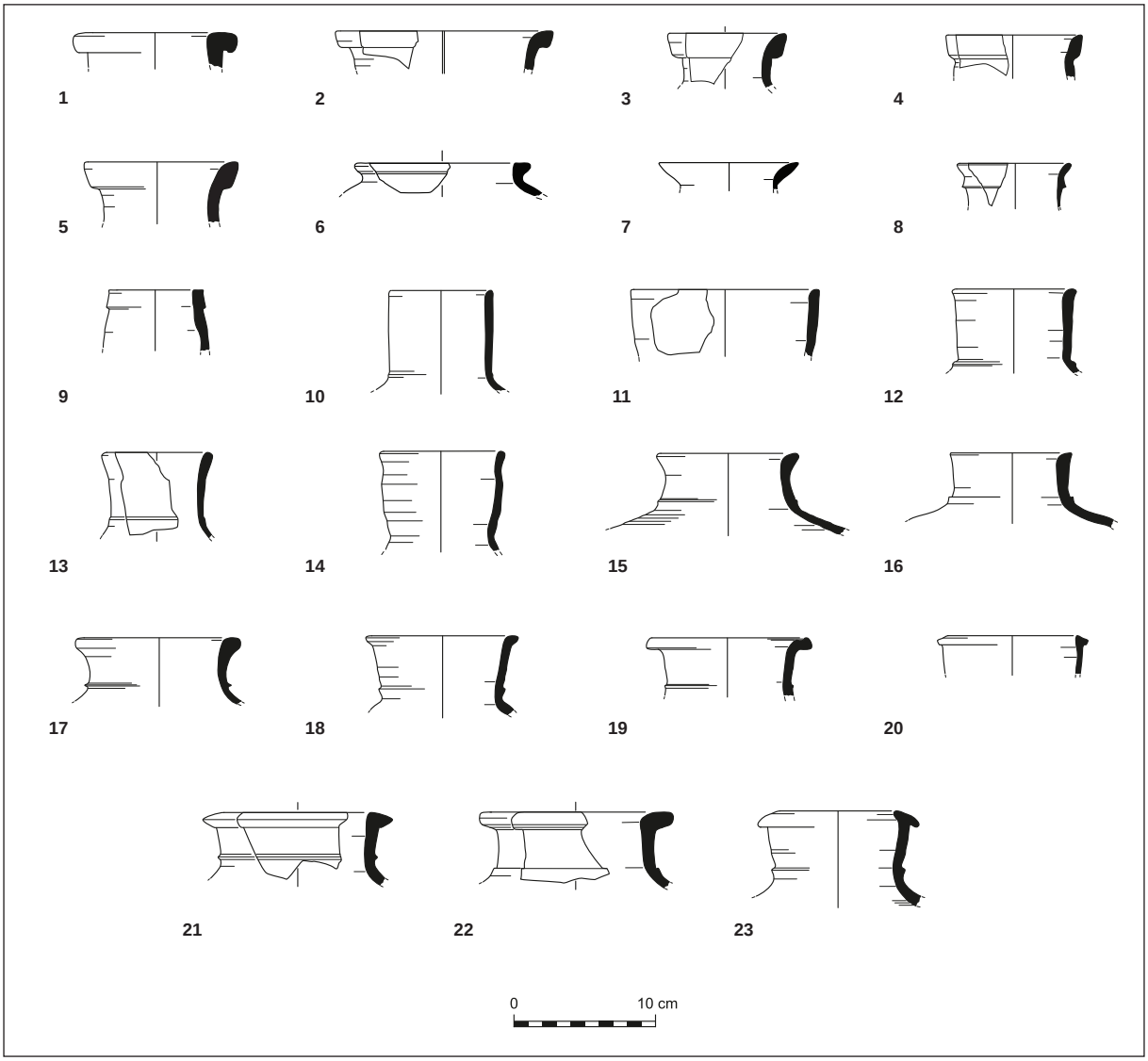

Fig. 10: Typology: storage jars (see **table 7**).

- Type BL4 Bowl (**fig. 7, 11–14**), D3-Phases 3–4

  This type of bowl has simple or everted rims and its body is slightly curved with a round base and very thin walls. The fine fabric, different than the fabric used for other contemporary vessels, is fired pinkish-brown, forming a very light and hard ware. On the external or internal rim the bowls have a red or brown paint band. The interior is also decorated with red-brown paint. The interior of the bowls has both stylized floral patterns and chains of adjoining oval shapes.

  This type of bowl was named ›Jerusalemite painted bowl‹ by Avigad, and it is part of a group of painted vessels common in the ceramic repertoire of the second half of the 1st century CE in Jerusalem and Judea[45]. Neutron Activation Analysis has shown that these bowls were manufactured in Jerusalem and that Avigad's attribution was correct[46].

45 Avigad 1983, 117. 185–186; Hershkovitz 2003; Bar-Nathan 2006, 268–278.

46 Perlman et al. 1986, 78.

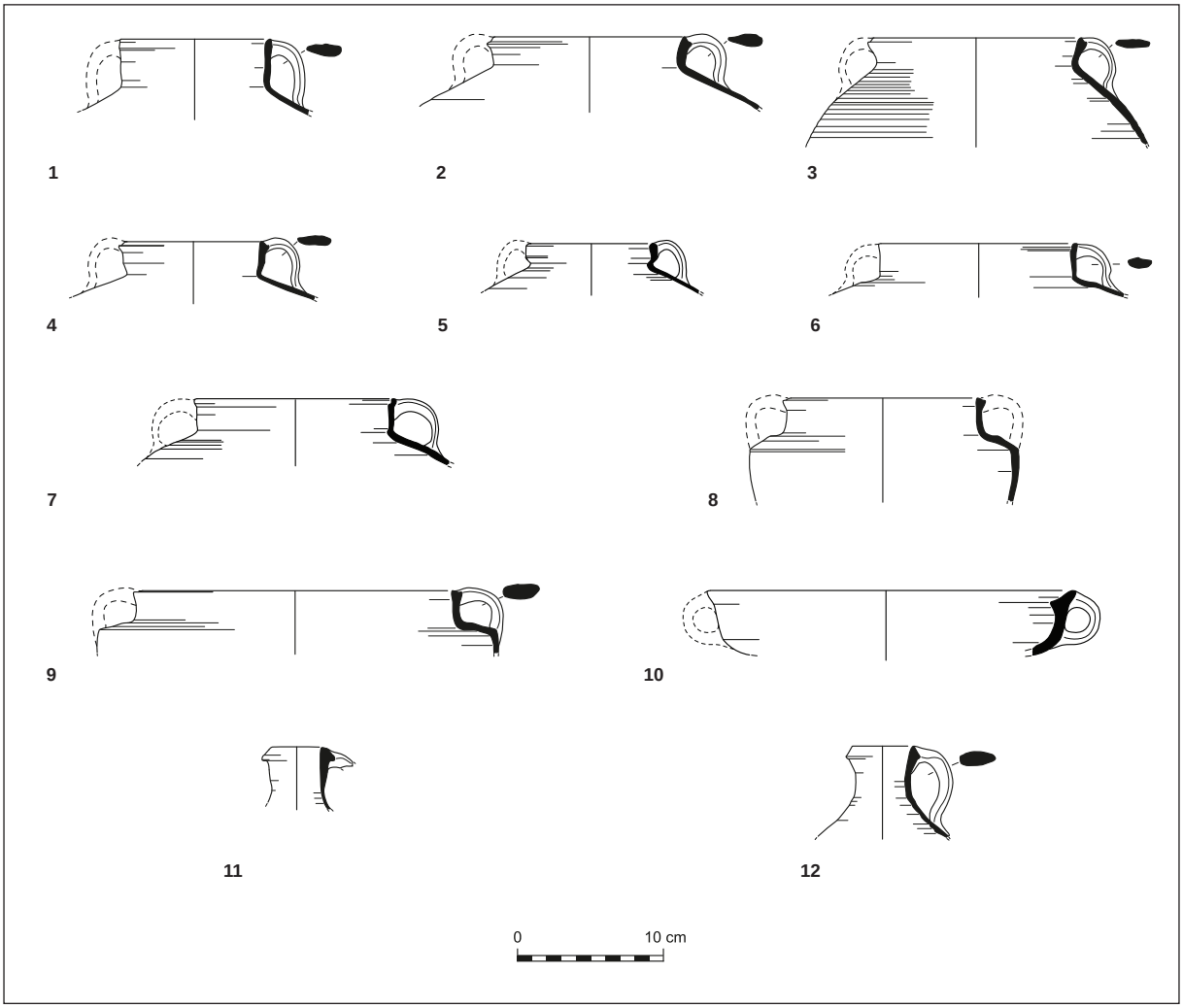

Fig. 11: Typology: cooking vessels (see **table 7**).

Parallels are found in the excavations in the Jewish Quarter[47], at the Giv'ati Parking Lot[48], the Citadel[49], to the south and west of Temple Mount and in the Armenian Garden[50]. Outside of Jerusalem the bowls were recorded in the Judean Desert at Herodium[51] and Jericho[52].

As can be seen in **table 2**, bowls of this type occurred in all the layers of the landfill. They were not present at all in Locus 1044, a pre-landfill fill layer. Their number seems to diminish in the upper layers of the landfill.

47 Geva – Rosenthal-Heginbottom 2003, pls. 6.9, 29–30; 6.10, 34–35; Geva – Hershkovitz 2006, pl. 4.13, 15.

48 Ben-Ami – Tchekhanovets 2011, fig. 7, 6. 8; Tchekhanovets 2013, figs. 5.1, 6–8; 5.5, 16–23; 5.10, 6–7; 5.15, 8–9.

49 Amiran – Eitan 1970, pl. 6, C.

50 Tushingham 1985, fig. 20, 36.

51 Bar-Nathan 1981, 62–63 ill. 91 and pl. 7, 1–8.

52 Bar-Nathan 2002, pl. 20, 335; for parallels outside of Jerusalem, see De Vaux 1959, fig. 2, 7; Kaplan 1963, 13 fig. 4, 13; Perlman et al. 1986, 82 fig. 1.

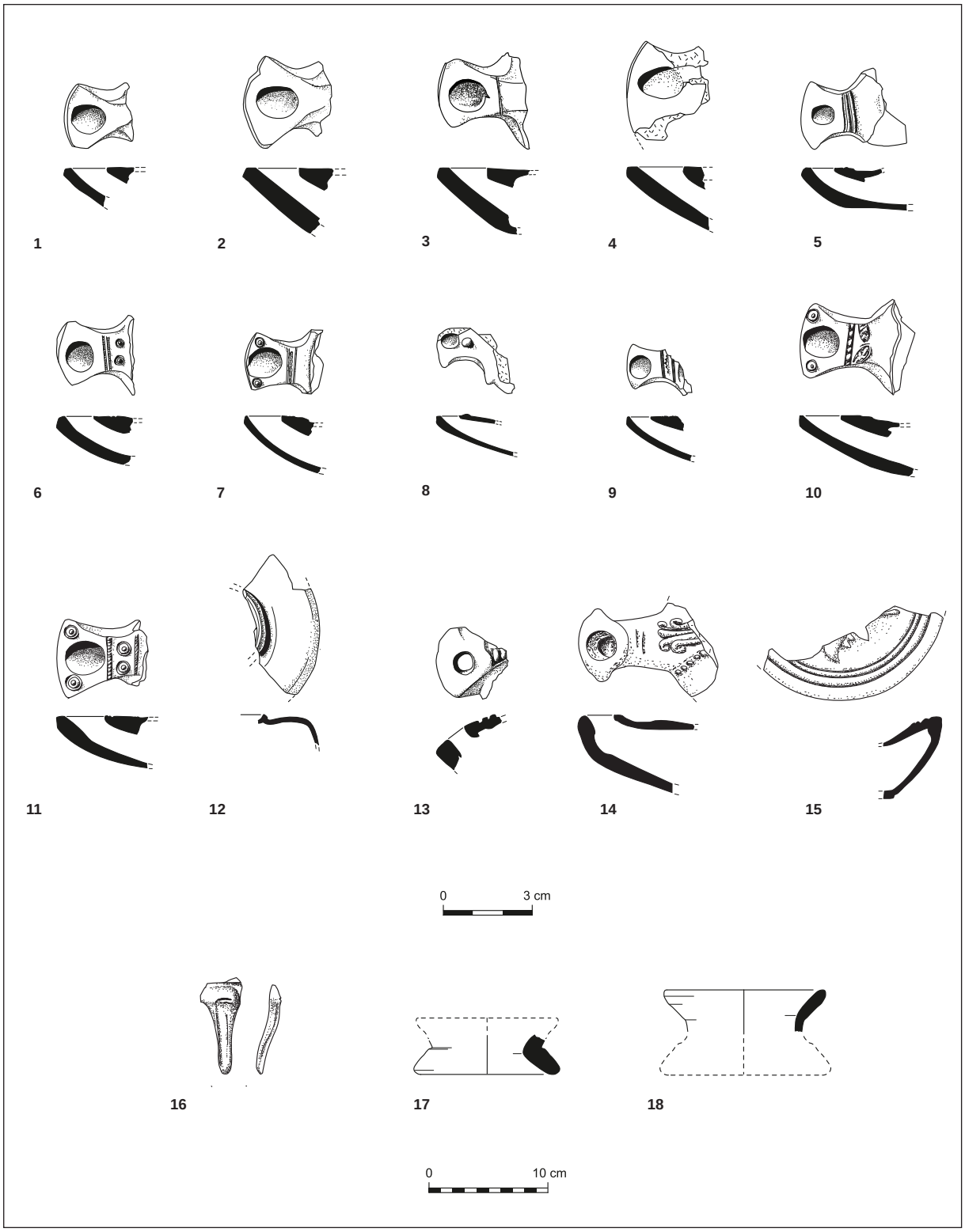

Fig. 12: Typology: oil lamps and utensils (see **table 7**).

- Type BL5 Bowl (**fig. 7, 15–17**), D3-Phases 3–4

  This bowl type has straight walls and a ledge rim. Called cup in many publications, it is sighted in Jerusalem from the mid-late 1st century BCE to 70 CE. Parallels are found in the Jewish Quarter excavations[53]. This type cannot be distinguished from other typological shapes based on small fragments, and thus these bowls were not counted individually.

- Type KR Krater (**fig. 7, 24**), D3-Phase 4

  This type of krater has a triangular rim and an out-curved mouth. It is usually red-slipped. Parallels are found in the Jewish Quarter excavations only in the 1st century CE[54]. Similar kraters also dated to the 1st century CE came to light in Jericho and its cemetery[55].
  Only a small number of kraters of this type were retrieved from the diagonally dug layers. It should be pointed out that although dated to the 1st century CE, they do appear in the lowest layer of the landfill (see **table 2**).

- Type UN4 Unguentarium (**fig. 9, 18–22**), D3-Phases 3–4

  This type of unguentarium has a small rounded or carinated body and a high cylindrical neck. Common in the 1st century CE in Jerusalem's Upper and Lower City[56] and at Jericho and Masada[57], Bar-Nathan terms it ›Judean kohl bottle‹ and, based on its size, suggests the use as receptacle for cosmetics or medicinal products; at Masada three kohl sticks were found close to an unguentarium in a Zealot context[58].

- Type FK Flask (**fig. 8, 12–13**), D3-Phase 3–4

  This flask, made in plain fabric, has a tall, straight neck with two flat and twisted handles vertically attached to the neck and to the body. The complete forms found in Jerusalem show an asymmetrical and globular body. At the JICC site this type belongs to the 1st century CE[59]. Other parallels were found there[60] as well as in the excavations in the Jewish Quarter[61], at the Giv'ati Parking Lot[62] and in the Armenian Garden[63].
  Flasks of this type are common in almost all the layers of the landfill (**table 2**). Their presence in Locus 1044 is puzzling as it is the only late type that appears in this fill layer, which is understood to predate the landfill.

- Type CP3 Cooking pot (**fig. 11, 5**), D3-Phase 4

  This type of small cooking pot with a globular body and a short neck has a rim diameter that ranges from 7 to 9 cm. Its walls are thin. According to estimates made by A. Berlin its capacity is one third of that of the cooking pot with triangular rim (CP2)[64]. The

53 Geva – Hershkovitz 2006, pls. 4.4, 17; 4.12, 12.

54 Geva – Hershkovitz 2006, pl. 4.4, 16.

55 Pritchard 1958, pl. 58, 8–9. 15; Killebrew 1999, fig. III, 57.

56 Geva 2010, pl. 4.4, 13–14; Tchekhanovets 2013, fig. 5.18, 2–3.

57 Bar-Nathan 2002, pl. 26, 459–461 Type J-UN3; Bar-Nathan 2006, pl. 34, 20–31 Type M-UN4.

58 Bar-Nathan 2006, 205–206.

59 Berlin 2005, fig. 16.1, 2. 4.

60 Hershkovitz 1987, fig. 1, 7–8.

61 Geva – Rosenthal-Heginbottom 2003, 183 pls. 6.1, 44–46; 6.5, 16–19; 6.9, 9–10; Geva – Hershkovitz 2006, pls. 4.4, 15; 4.7, 20–21; 4.9, 11; 4.10, 13; 4.11, 11–12.

62 Tchekhanovets 2013, figs. 5.3; 5.7, 12–15; 5.13, 3–6; 5.18, 1–6.

63 Tushingham 1985, figs. 20, 17; 21, 22–26; for more parallels see Bar-Nathan 2002, pl. 10, 120–122 and ill. 52; Bar-Nathan 2006, pl. 22, 70–73 Type M-FL1.

64 Berlin 2005, 42.

production of this type of cooking pot at the JICC site began only in the mid-1st century CE (Convention Center phase 4)[65]. It is absent from Area A in the Jewish Quarter excavations, but is well represented in Judea in the 1st century CE at sites like Jericho[66], Herodium[67] and Qumran[68].
Only few CP3 cooking pot fragments have been observed in the landfill assemblage, none of them in the diagonally dug layers. This may be the result of the size of the sherds but may also be significant chronologically as it may suggest that the landfill fell out of use at the time these cooking pots were produced in mass numbers.

- Type CJG1 Cooking jug (**fig. 11, 11–12**), D3-Phases 3–4
  This cooking jug has a high neck, globular body, and one strap handle extending from the rim to the shoulder. The rim is sometimes grooved or triangular. Production of this jug began in the late 1st century BCE and increased during the 1st century CE until 70 CE[69]. A substantial number of 1st century CE parallels Jerusalem are recorded in the excavations at the Giv'ati Parking Lot[70], in the Jewish Quarter[71] and the Armenian Garden[72].
  Cooking jugs of this type are common in all the layers of the landfill, and a few items already appear in Locus 1044, the fill below the landfill (**table 2**).

- Type CS1 Casserole (**fig. 11, 8–9**), D3-Phases 3
  This type of casserole has a wide mouth, marked by a sharp carination between the shoulder and body. The shoulder is almost flat and the rim is vertical. The vessel is absent from the Late Hellenistic stratum of Areas W and X2 of the Jewish Quarter. At the JICC site it was produced starting in the 1st century CE[73]. Parallels in Jerusalem were found only in Area A, Stratum 5 of the Jewish Quarter excavations[74] and in the Giv'ati Parking Lot excavations[75].
  Fragments of this type appear in large numbers mostly in the upper layers of the landfill and they are most frequent in the upper layer of the northern section excavated (**table 2**: Loci 1047 and 1046). They are absent from Locus 1044.

- Type CS2 Casserole (**fig. 11, 10**), D3-Phase 4
  This casserole, sometime termed ›pan‹, has a ledge rim. It is rare in Jerusalem with parallels found at the JICC site, appearing only between the mid-1st century CE to 70 CE[76]. One example was found in the Armenian Garden excavations[77].
  Not even a single example of this casserole came to light in the diagonally dug layers and very few examples at other loci. It seems that the landfill was not active when this type of casserole became common.

65 Berlin 2005, 42 fig. 9, 1–8.
66 Bar-Nathan 2002, pl. 26, 484–485 Type JCP2d.
67 Bar-Nathan 1981, 54 and pl. 5, 78.
68 De Vaux 1953, fig. 3, 7; Yellin et al. 2001, fig. 3.9.
69 Berlin 2005, 39 fig. 6.
70 Tchekhanovets 2013, figs. 5.1, 18; 5.6, 9–10; 5.11, 8.
71 Geva – Rosenthal-Heginbottom 2003, pls. 6.9, 19; 6.10, 13.
72 Tushingham 1985, fig. 25, 8.
73 Berlin 2005, fig. 7.
74 Geva – Rosenthal-Heginbottom 2003, pl. 6.5, 44.
75 Tchekhanovets 2013, figs. 5.1, 16; 5.6, 8; 5.11, 2–6.
76 Berlin 2005, 50–51 fig. 19, 5.
77 Tushingham 1985, fig. 22, 24.

- Type LP1 Lamp (**fig. 12, 1–12**), D3-Phase 3–4

  This lamp type is wheel-made and knife-pared. In most of cases, it has one nozzle and sometimes two (**fig. 12, 4**). The examples shown in **fig. 12, 8–9** are very small lamps of this type, while generally the reservoir is standard in its size and only the size of the nozzle varies (e.g., **fig. 12, 2**). Some of the oil lamps are decorated by one, two or three incised lines on the nozzle or by rouletted dots and one or two concentric circles.
  The wheel-made and knife-pared lamp's first appearance should be dated to the end of the 1st century BCE[78]. Bar-Nathan noticed the absence of this type of lamp in the repertoire of Area E in the Jewish Quarter excavations, which is a stratum well dated until about 20–10 BCE. In the later phases the lamp becomes popular, probably until 70 CE[79]. At Jericho's Herodian palaces such oil lamps appeared first in a context dating to 15 BCE – 6 CE[80].
  Dark gray fabric lamps (**fig. 12, 10–11**) show a variant that is covered with a shiny black slip. The nozzle is decorated with a bow-shaped rouletted pattern between a rouletted line and stamped circles. Parallels were found in the Jewish Quarter[81]. Neutron Activation Analysis of similar lamps from the Jewish Quarter shows that these black lamps were produced in the Jerusalem area[82].
  Lamps of this type were found in almost all the layers of the landfill and also in Locus 1044, below the landfill (**table 2**). They appear in significantly higher numbers in the upper layers of the northern section.

- Type LP4 Lamp (**fig. 12, 15**), D3-Phase 3

  The fragment belongs to the early Imperial volute lamps with decorated discus, resting on a flattened disc base. The discus motif can no longer be identified. The very fine fabric is light brown, almost white without any visible grits. Fabric and flat base suggest the lamp's provenance from a Levantine workshop, producing Roman-type lamps of Broneer Types XXII–XXIII / Bailey Types A–B from late 1st century BCE and 1st century CE[83]. Only sporadic oil lamps of this type came to light in the Upper City, probably because these lamps were not superior to the locally produced wheel-made and mold-made lamps and the figurative subjects could not be tolerated by Jews[84]. Too few fragments of this type were found to make its frequency chronologically significant.

B. Other Pottery Types

B1. Tableware

- Type BL2 Bowl (**fig. 7, 2–4**), D3-Phases 2, 3, 4

  This type is a small, deep and slightly carinated bowl with in-turned rim and thin walls. It is made of plain fabric. It is common at the JICC site in the time span from the early 1st century CE to 70 CE[85]. In the Upper City such bowls are »common during the 2nd and

78 Adan-Bayewitz et al. 2008, 39.

79 Geva – Hershkovitz 2006, 114.

80 Bar-Nathan 2002, 112–113.

81 Rosenthal-Heginbottom 2003, pl. 6.12, 17.

82 Yellin 1994, 109.

83 Broneer 1930; Bailey 1980; Sussman 2012, 10.

84 Rosenthal-Heginbottom 2014b, 381–382.

85 Berlin 2005, 49.

1st century BCE, and they were found in abundance at the beginning of the 1st century CE, until 70 CE«[86].

- Type BL7 Bowl (**fig. 7, 22. 23**), D3-Phases 1, 2, 3

  For coherence and quantitative analysis (see below), we grouped all imported bowls and cups under Type BL7. The vessels are described individually.
  Fig. 7, 22: The fragment can be attributed to an Eastern Sigillata A cup (ESA) with ring foot, probably *Atlante* Form 46, dated to the beginning of the 1st century CE. In the Upper City occasional imports were retrieved in late Hasmonean times. Under Herod the Great imports increase and continue up to 70 CE[87]. Recent research suggests that the workshops were located in the Gulf of Iskenderun[88].
  Fig. 7, 23: The fragment belongs to an Italian Sigillata plate (ITS) and is a small version of *Conspectus* Form 18. By 15/10 BCE imports from Italy reached the markets in the eastern Mediterranean regions; there was a boom during the years 10–50 CE, yet as a whole the trade volume with the East was minimal[89].

B2. Pouring vessels

- Type JG2 Jug (**fig. 8, 2–4**), D3-Phases 2, 3, 4

  This jug type has a narrow neck, an everted triangular rim and an inner ledge. The handle extends from the rim to the shoulder, and the body shape is piriform. The jug became the leading type in the 1st centuries BCE and CE in Jerusalem. It is found in the Jewish Quarter[90] and the Giv'ati Parking Lot excavations[91].

- Type JG3 Jug (**fig. 8, 5–10**), D3-Phases 2, 3, 4

  This jug type is known by the term ›cup-shaped rim‹[92]. It has a large ridge in the middle of its neck, and its handle extends from the ridge to the shoulder. Complete forms found in Jerusalem show a globular to piriform body. It is made of plain fabric. The type appears from the middle of the 1st century BCE to 70 CE. It is found in the Jewish Quarter[93] and the Giv'ati Parking Lot excavations[94].

- Type JG4 Jug (**fig. 8, 11**), D3-Phases 2, 3, 4?

  This jug type is made of a fine unidentified gray ware and is black-slipped; the paste is fired light brown with no visible grits. A similar jug, but with a filter, was found in the Jewish Quarter in a layer dating to the end of the 1st century BCE and the beginning of the 1st century CE[95]. Apart from that, no parallels were found in Jerusalem and environs.

86 Geva – Rosenthal-Heginbottom 2003, pl. 6.9, 26; Geva – Hershkovitz 2006, pls. 4.5, 7–9; 4.8, 2; 4.9, 14–15; 4.10, 12.

87 Rosenthal-Heginbottom 2014b, 387–389.

88 Lund et al. 2006.

89 Reynolds 2004, 123. 125.

90 Geva – Rosenthal-Heginbottom 2003, pls. 6.9, 8; 6.1, 9. 38–39.

91 Ben-Ami – Tchekhanovets 2011, fig. 8.2, 4; for more parallels, see De Vaux 1956, fig. 1, 5; Gitin 1990, pl. 41, 20–21; Loffreda 1996, Group 19, fig. 20, 1–5; Bar-Nathan 2002, pl. 8, 52–58.

92 Geva – Hershkovitz 2006, 105.

93 Geva – Hershkovitz 2006, pls. 4.4, 7; 4.7, 7; 4.9, 6; Geva – Rosenthal-Heginbottom 2003, pl. 6.1, 42.

94 Ben-Ami – Tchekhanovets 2011, fig. 8.5–6, 7; for more parallels, see Bar-Nathan 2002, 42–43; pl. 9, 70–71 Type J-JG4B; Bar-Nathan 2006, pl. 19, 24–31 Type M-JG9.

95 Rosenthal- Heginbottom 2014a, pl. 4.5, 9.

The jug might be imported from an eastern Mediterranean workshop, possibly located at Ephesos, Knidos or on Cyprus[96].

C. Small Containers

- Type JT1 Juglet (**fig. 9, 1**), D3-Phases 2, 3, 4

  This juglet is characterized by an everted and thickened rim, a short neck and a strap handle extending from the rim to the shoulder. Parallels are found in the Upper City[97], where the type appeared during the 1st century BCE. During the 1st century CE it became more popular in the Giv'ati Parking Lot assemblage[98].

- Type JT2 Juglet (**fig. 9, 2–3**), D3-Phase 2, 3, 4

  This juglet type has a cupped rim with a squarish (**fig. 9, 2**) or a rounded section (**fig. 9, 3**). Made in plain fabric it has a single strap handle attached from rim to shoulder. The type appears in the mid-late 1st century BCE and becomes the most popular type in Jerusalem during the 1st century CE. Parallels were found at the JICC site[99] as well as in the excavations at the Giv'ati Parking Lot[100], in the Armenian Garden[101] and the Jewish Quarter[102].

- Type JT3 Juglet (**fig. 9, 4**), D3-Phases 2, 3, 4

  This juglet has a long, straight neck and a flaring rim. A single strap handle extends from the rim to the shoulder. The type is well known in the Upper and Lower City[103] and at Jericho in contexts dating from the 1st centuries BCE and CE[104].

- Type JT4 Juglet (**fig. 9, 5**)

  This juglet has a large cup-shaped rim with a short, narrow neck and a strap handle that extends from below the rim to the shoulder. The paste is fired pinkish-brown. No exact parallel was found.

- Type JT5 Juglet (**fig. 9, 6**), D3-Phase 2, 3, 4

  This gray / black juglet has a cup-shaped rim with a squarish section, a narrow neck and a handle that extends from below the rim to the shoulder. It is made of very fine gray fabric. No close parallel has been found, but it looks very similar to the ›gray jug‹ found at the Giv'ati Parking Lot excavations[105]. Most probably, it is an import from a workshop located at Ephesos, Knidos or on Cyprus like the jug illustrated in **fig. 8, 11**.

96 Pers. comm. R. Rosenthal-Heginbottom.

97 Geva – Hershkovitz 2006, pls. 4.4, 10; 4.13, 7.

98 Tchekhanovets 2013, fig. 5.13, 14.

99 Berlin 2005, fig. 15, 1–8.

100 Ben-Ami – Tchekhanovets 2011, fig. 8, 8.

101 Tushingham 1985, figs. 21, 27–30; 23, 16–17.

102 Geva – Rosenthal-Heginbottom 2003, pls. 6.2, 3–4; 6.9, 12; for more parallels, see Bar-Nathan 1981, pl. 4, 24; Bar-Nathan 2002, pl. 10, 85–87 Type J-JT1A1; Kelso – Baramki 1955, pl. 24, A137.

103 Geva – Hershkovitz 2006, pl. 4.13, 7; Tchekhanovets 2013, figs. 5.4, 4; 5.8, 10.

104 Bar-Nathan 2002, 157–158 Sub-type J-JG3B1, defined as jug.

105 Tchekhanovets 2013, figs. 5.3, 10; 5.7, 18.

- Type JT6 Juglet (**fig. 9, 7–9**), D3-Phases 2, 3, 4

  This spouted juglet is termed ›lamp filler‹ at Masada[106]. Several small spouts belonging to such a juglet were found in the assemblage. Parallels are known mainly from the excavations in the Jewish Quarter[107] and at Jericho[108].

- Type UN2 Unguentarium (**fig. 9, 12–16**), D3-Phases 2, 3, 4

  The piriform unguentarium has a thin wall, a high narrow body, a cylindrical, upright neck, an everted flaring rim and a flat base. It appears in the mid-1st century BCE and was used together with the fusiform unguentarium and gradually replaced it in the 1st century CE[109]. This observation is supported by the finds in the Jewish Quarter excavations[110] and at Jericho[111].

- Type UN3 Unguentarium (**fig. 9, 17**)

  This unguentarium is made of a fine gray / black fabric with no visible grits. The imported vessel could originate from Asia Minor, possibly from Ephesos as gray platters and Ephesos-type lamps were imported into the Upper City[112].

D. Storage Vessels

Typological differences, the result of chronological developments, enable the division of the jars into three main types (SJ1-SJ2-SJ3) and a number of sub-types. The typological division is based on rim variations. The rim is simple; in the earlier types it is thick and over the time lengthens. The earlier jars have a collared neck, to which later a ridge at the lower neck is added.

- Type SJ3 Storage jar (**fig. 10, 10–23**), D3-Phases 2, 3, 4

  This type has a ridge at the base of the neck and is the latest in the typological series of the Second Temple period. It is very common in the 1st century CE and found in the 70 CE destruction layers of the Jewish Quarter, and even continues in the 2nd century CE[113]. The first sub-type has a simple straight rim and a long, convex (**fig. 10, 10–13**) or concave (**fig. 10, 14**) neck with a small ridge at its base. Parallels from the last third of the 1st century BCE and 1st century CE are found in all of Jerusalem's excavated locations of that period such as the JICC site[114], the Giv'ati Parking Lot[115], the Jewish Quarter[116] and the Armenian Garden[117].

  A second sub-type has a vertical neck, sometimes out-curving, beveled rim, and a ridge at the base of the neck (**fig. 10, 15–18**). Parallels were found in the Jewish Quarter

106 Bar-Nathan 2006, pl. 33, 15 Sub-type M-JT2.

107 Geva – Rosenthal-Heginbottom 2003, pl. 6.5, 37; Geva – Hershkovitz 2006, pl. 4.7, 9.

108 Bar-Nathan 2002, pl. 10, 90–91 Type J-JT2.

109 Anderson-Stojanović 1987, 110.

110 Geva – Hershkovitz 2006, 108 pls. 4.7, 13. 15; 4.10, 10; 4.11, 9–10; Geva – Rosenthal-Heginbottom 2003, pl. 6.5, 25–27.

111 Bar-Nathan 2002, 165–167 Type J-UN2A.

112 Rosenthal-Heginbottom 2014b, 384.

113 Geva – Rosenthal-Heginbottom 2003, 177.

114 Berlin 2005, 30 fig. 1, 9; Hershkovitz 2005, fig. 1, 1–2.

115 Tchekhanovets 2013, figs. 5.2, 10; 5.16, 20 Type SJ3b.

116 Geva – Rosenthal-Heginbottom 2003, pls. 6.9, 1–2; 6.10, 4–5.

117 Tushingham 1985, fig. 23, 32.

excavations[118]. A third sub-type is a storage jar with a vertical neck, triangular rim and ledge rim and with a ridge at the base of the neck (**fig. 10, 19–22**). This sub-type is dated to the 1st century CE in the Jewish Quarter[119] and at Giv'ati Parking Lot excavations[120]. A fourth sub-type also has a vertical neck, triangular, ledge rim on the outside and inside. It has a ridge at the base of the neck (**fig. 10, 23**). At the JICC site, it is occurs in the 1st century CE[121]. Additional parallels were found in the Jewish Quarter excavations[122].

E. Cooking Ware

The cooking vessels are all thin-walled and well fired, made of reddish brown to dark brown ware. Black soot covers the lower part of most of the cooking pots found. The vast majority of the cooking vessels are similar to the cooking vessels produced in a single workshop at the JICC site[123]. The source of a few of the types, however, is from other workshops outside of Jerusalem.

- Type CP2 Cooking pot (**fig. 11, 2–4**), D3-Phases 2, 3, 4

  The CP2 type cooking pot has a triangular rim and a short neck. It is a closed pot with a globular body and a rounded bottom. It generally has a gentle wheel ridging on the shoulder, although at times the ridging is over the entire body. The handles extend from the rim to the shoulder. The neck is everted.

  Production of this type in the workshop at the JICC site began at the end of the 1st century BCE. During the 1st century CE production of the high neck cooking pot ceases and production of the triangular rim cooking pots continues until 70 CE[124]. The triangular rim cooking pot is the most popular vessel among the cookware and it is very common in the Upper and Lower City[125].

- Type CP4 Cooking pot (**fig. 11, 6–7**), D3-Phases 2, 3, 4

  These cooking pots have an inner groove on the rim and are morphologically similar to Kefar Hananya Cooking Pot 4A. The neck may be concave or straight on the interior. Its red clay fabric has many small black grits and minute to small white grits. It differs from other Jerusalem cooking pots. Two flattened coil handles are attached to the rim and extend to the shoulder. This type is dated between the mid-1st century BCE and the mid-2nd century CE. It is common at Kfar Hananya[126] and at Caesarea Maritima[127]. Its form is not known in the Jerusalem cooking pot typology of the Early Roman period.

118 Geva – Rosenthal-Heginbottom 2003, pl. 6.5, 4–6.

119 Geva – Rosenthal-Heginbottom 2003, pl. 6.9, 6; Geva 2010, pl. 4.1, 1.

120 Tchekhanovets 2013, figs. 5.3, 1; 5.7, 7; 5.12, 15 Type SJ4a.

121 Berlin 2005, 47 fig. 14.

122 Geva – Rosenthal-Heginbottom 2003, pls. 6.5, 7–9; 6.9, 5; 6.10, 7.

123 Berlin 2005, 30.

124 Berlin 2005, 36–38 fig. 4.

125 Tushingham 1985, figs. 19, 36; 22, 3; Geva – Rosenthal-Heginbottom 2003, pls. 6.2, 25; 6.5, 40; 6.9, 17–18; Geva – Hershkovitz 2006, pls. 4.5, 19–20; 4.8, 9; 4.9, 18; Tchekhanovets 2013, figs. 5.1, 12; 5.6, 4; 5.10, 14–16; 5.15, 12–13.

126 Adan-Bayewitz 1993, 125–126.

127 Johnson 2008, 68 cat. no. 776.

F. Oil Lamps

- Type LP3 Lamp (**fig. 12, 14**), D3-Phases 2, 3, 4

  A nozzle fragment of this lamp type was found. It is short and splayed at the ends, unslipped, and decorated with a relief pattern. Parallels with different relief patterns are found in Jerusalem in a context dating to the 1st century BCE and the 1st century CE[128]. Rosenthal-Heginbottom suggested that this type of oil lamp is a regional imitation of the Knidian type[129].

G. Utensils

- Type LD Ladle (**fig. 12, 16**), D3-Phases 2, 3

  The cup-shaped vessel with a long vertical handle, made in plain fabric, is termed ladle, clay spoon, or cup with twisted handle in reports of contemporary sites. It is found in Jerusalem during end of the 1st century BCE and 1st century CE[130].

- Type ST Stands (**fig. 12, 17–18**), D3-Phases 2, 3, 4

  The ring stands are approximatively 4 to 6 cm. tall and have a diameter of 10 cm. They are made of a fabric similar to that of the cooking vessels found at Jerusalem. According to Berlin, who reported on finding 207 fragments of this type at the JICC site, this stand is connected to the manufacturing process of pottery, probably functioning »as drying supports for vessels after manufacture but before firing«[131]. Chronologically it appears in all ceramic phases, from the middle of the 1st century BCE to 70 CE. It was noted at the Giv'at Hamivtar workshop as well[132]. In domestic assemblages ring stands occur in limited quantity[133].

Chronological Conclusions

As stated above, the ceramic repertoire primarily dates to the Early Roman period and is very like the material found at other contemporary excavated sites. In our overview of the chronology of the landfill, before we related to each layer individually, we noted the overwhelming uniformity of the assemblage (**table 3**). We did not find even one ceramic type of post-70 CE date during the entire excavation. Less than 1 % of the whole cataloged ceramic material belonged to the repertoire of the late 2nd century BCE – early 1st century BCE (our D3-Phase 1) while 93 % of the ceramics belonged to types that appeared at the end of the 1st century BCE and continued to appear until 70 CE (D3-Phases 2 and 3). The remaining 6 % of the ceramics belonged to the latest types, which appeared only during the 1st century CE (D3-Phase 4).

Pottery collected from an earth fill layer that is below the landfill and considered as pre-dating the landfill (Locus 1044), contains a large proportion of early types that date to the Late Hellenistic period. Among all the jugs from 1044, 50 % are from that period. Thirty-two percent of all the storage jars from 1044 are also Late Hellenistic. In contrast, in Loci 1050–1060 (the layers of the southern section, located physically above L1044), less than 1 % of the cooking

128 Rosenthal-Heginbottom 2006, 145 pl. 5.1, 5; Rosenthal-Heginbottom 2014a, pl. 4.2, 3; Howland 1958, Type 40A; Bailey 1975, 127–128.

129 Rosenthal-Heginbottom 2014a, 179.

130 Geva 2010, 128 and pl. 4.6, 10–11; Tchekhanovets 2013, fig. 5.14, 3.

131 Berlin 2005, 45 fig. 11, 1–25; for earlier finds see Hershkovitz 2005, fig. 3, 9–11.

132 Abu Raya 1997, 100.

133 Geva 2010, 128 with references.

Table 3
Maximum numbers of the total diagnostic sherds counted and attributed to the chronological phases

Periods	N	%
Pottery fragments from D3-Phase 2, 3, 4: mid-1st century BCE–70 CE	10707	92.85
Pottery from D3-Phase 3–4: belonging only to the early 1st century CE – 70 CE	720	6.24
Pottery from D3-Phase 1–2: late 2nd century BCE to late 1st century BCE	104	0.90
Total	***11531***	***100***

Table 4
Proportions of early types (D3-phases 1-2) among the cooking pots, storage jars and jugs

Hellenistic types of ceramic:	Cooking Pots	Storage Jars	Jugs
All loci	0.65 %	2.35 %	1.81 %
Loci 1050–1060	0.27 %	0.90 %	0 %
Locus 1044	0.89 %	32.2 %	50 %

pots and storage jars are of this period (**table 4**). At the same time the finds from L1044 also include a significant number of later dating pottery types such as the flasks (FK) and oil lamps of Type LP1 (**table 2**). Their presence indicates a late date for the soil layer under the landfill and therefore places the initiation of the landfill in the 1st century CE.

This conclusion is supported by two further observations:

1. An examination of **table 2** shows that pottery types belonging to Phases D3-3 and 4 is present in all the layers that comprise the landfill, even the lowest ones.
2. Pottery fragments of earlier types are present in very sporadic numbers in all the loci dug diagonally; in some cases, in numbers that suggest these fragments are residual and the manufacturing of vessels had already ceased (for example UN1, SJ1, CP1 and LP2). The amount of pottery from these types never exceeded 1.7 % of the whole pottery assemblage found in each locus. On the other hand pottery that serves as a chronological marker for D3-phases 3–4 is present in higher quantity and represents from 3 % up to 25.64 % of the material found in each locus.

A further chronological observation may help in determining when the landfill fell out of use. It seems that pottery types that were defined by Berlin as indicative of the years before the destruction (our Phase D3-4) are becoming rare again. This observation is true for the kraters (KR), for cooking pots of Type CP3 and casserole CS2.

Finally, when comparing between the pottery types found in the southern and northern cuts it seems that a slight chronological difference exist between the two. Pottery types that are

Table 5
Comparison of the two digging/sifting methods
Locus 1022 *: Maximum number and %

Locus 1022	Bowls	Cooking vessels	Storage jars	Juglets	Lamps	Flasks	Jugs	*Total* *
0.5 mm sifting and picking: 12 baskets	N 370 50.89 %	N 214 29.43 %	N 100 13.75 %	N 32 4.40 %	N 8 1.10%	N 2 0.27%	N 1 0.13%	***N 727 100%***
1 or 2 mm sifting and just picked by hand: 25 baskets	N 13 1. 69 %	N 408 53.05 %	N198 25.74%	N 55 7.15%	N 38 4.94%	N 56 7.28%	N 1 0.13%	***N 769 100%***

indicative of the earlier period are present in slightly higher numbers in the southern cut (see for example Bl6 and CP1). On the other hand, in the northern section the higher layers contain many more items of types indicative of the later phase, for example CS1 and LP1.

Based on the contribution of the pottery for determining the chronology of the landfill, it is quite safe to claim that the landfill in Area D3 was mainly active during the 1st century CE and that it fell out of use before the city was destroyed by the Romans in 70 CE. An initial survey conducted by Y. Farhi of the close to 1000 coins that were collected from the landfill support the conclusions reached by the study of the ceramic typology. Most of the coins date to the time of Agrippa II (king from 53–66 CE) and the Roman procurators. Coins dating to the Great War (66–70 CE) were not retrieved, and the latest dated coin is of the year 54 CE[134].

Functional Analysis

The deposits include ceramic types belonging to a multitude of domestic activities, ranging from meal preparation and consummation, to storage and lighting.

A methodological note on the effect of sifting with thin net on the assemblage composition

Before an estimation of the relative frequency of the different functional types can be achieved, there is a need to evaluate how the different sifting procedures affect pottery retrieval. In order to do that we compared two different assemblages:

1. Soil buckets were wet sifted with a 0.5 mm net and then picked.
2. Soil buckets were dry sifted with a 1 or 2 mm net. Ceramics were also picked by the diggers quickly, during the excavation.

Both methods were used on the same locus / layer. The results show that the two techniques led to two drastically different ratio patterns of the vessels types collected (**table 5**).

In one locus (1022), we noticed that while using a 1or 2 mm net for dry sifting, bowl rims constitute 1.69 % of the entire assemblage. The use of 0.5 mm nets and wet sifting brings the bowls ratio to just over 50 %. Clearly the accuracy of vessel frequencies is imperative for the conduct of functional analysis of assemblages and the results here illustrate the importance of high resolution sifting procedure in relevant cases.

We could also notice the predominance of cooking pots and juglets in the units sifted with 1 or 2 mm, without picking after digging time. Most of the sherds of cooking pots and

134 Pers. comm. Y. Farhi.

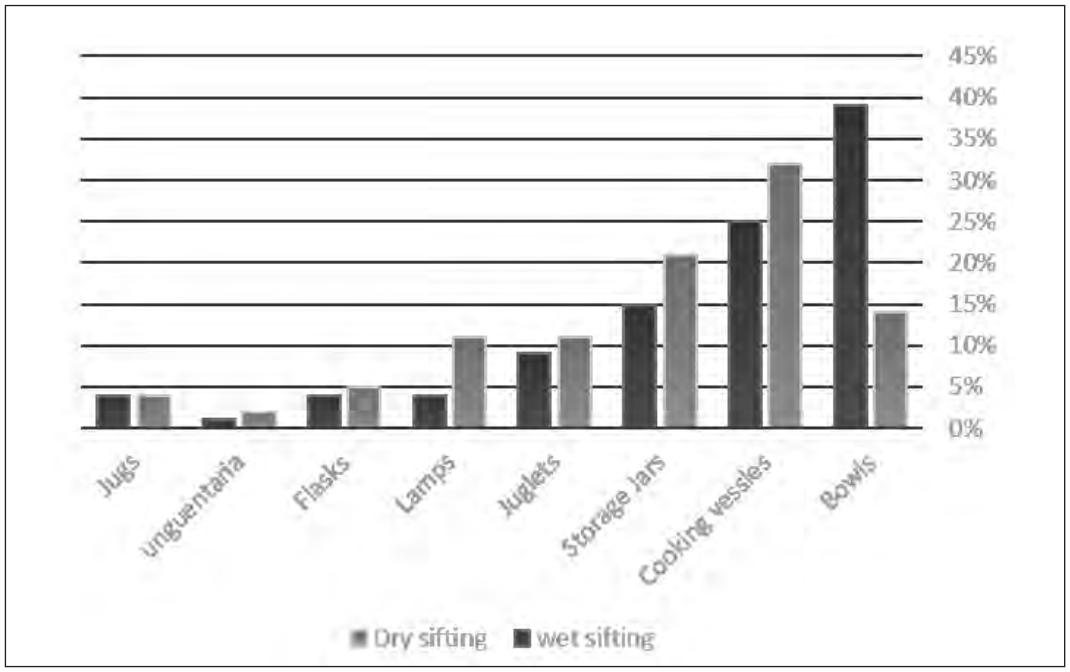

Fig. 13: Changes in pottery types frequencies caused by using different sifting procedures.

juglets are broken with a handle; by instinct, the digger picks these fragments because they are larger and easy to see, and they possibly throw away the small fragments of ceramics barely visible in the brown earth.

Similar results were obtained when we compared vessel frequencies in the loci excavated diagonally that were mostly wet-sifted but occasionally were also dry sifted (**fig. 13**). When the earth is wet sifted, the bowls are the first category, occupying almost 40 % of the whole assemblage. When using 1–2 mm net dry sifting, the bowls, in the same layers dug carefully using the same method, occupy only 14 % of the composition of the ceramic assemblage.

Following the results presented above we concentrated in the functional analysis on the pottery retrieved using wet sifting only in 0.5 mesh. The results (**table 6**) show that serving dishes, mainly bowls, are the most frequent vessels (38 %) followed by cooking ware (32 %), large storage jars (15 %) and smaller containers (14 %). Over all this assemblage seems to represent a mixed household assemblage. However, to date we have no contemporary household that was excavated and published using similar methods that will allow a valid comparison[135].

We were able to compare the results from Area D3 to other contemporary assemblages collected in other excavations (**table 6**). In a previous publication Bar-Oz et al. presented a counting of pottery functional types from a study of the landfill content from a section located farther north of Area D3. In this study the scholars noted the high percentage of cooking vessels and deduced from this that vessels were used by Jewish pilgrims tenting outside the city[136]. Comparing between the two assemblages shows very clearly that in Area D3 there is a higher quantity of bowls. Providing that this difference is not the result of methodological issues and that both excavations used the same procedure, then this significant difference is reflective of a different origin of the garbage. It is interesting to note that differences in the garbage composition were also noted in the study of the faunal remains and Chalk stone vessels[137].

135 The pottery assemblage from the Burnt House in Area B in the Upper City (Geva 2010) does not represent a systematically collected assemblage and a quantification study cannot be conducted.

136 Bar-Oz et al. 2007.

137 Spiciarich et al. 2017; Gadot – Adler 2016.

Table 6
Comparison with other dump area near the current excavation
(minimum numbers 1/8 of vessel type, ceramic sub-types from the other area of excavation)
**Reich – Shukron 2010; ** Reich – Shukron 2003*

Pottery type	Northern and southern cuts D3 units dug in diagonal, sifted with a 0.5 mm net in D3		Locus 205 (Channel dump)*		Stepped street*		City Dump (lower part, Location A)**	
	N	%	N	%	N	%	N	%
Bowls, cups, large bowls	155.65	38.01	21.9	6.3	3.8	1.7	22.75	6.32
Unguentarium	4.62	1.11	46	13.3	5.3	2.3	34.5	9.60
Flasks	14.82	3.66	27	7.8	9	4	12.5	3.47
Lamps	18.125	4.48	61	17.7	22.3	9.9	52	14.47
Jugs and juglets	50.8	12.55	66.6	19.3	32.5	14.5	49.25	13.70
Storage jars	60.86	15.04	82.9	24	130.9	58.2	54.875	15.27
Cooking vessel	101.5	25.08	39.6	11	21.1	9.4	113	31.44
Ladle							14	3.87
Total	***406.375***	***100***	***345***	***100***	***224.8***	***100***	***359.25***	***100***

Future studies of primary locations such as destruction assemblages will hopefully enable understanding of the meaning behind the differences.

Site Formation and Ceramic Index of Breakege

In order to understand how the landfill was formed and to reconstruct the line of activity, whether human-induced or natural, that brought the pottery sherds and other broken artefacts to the landfill in a myriad of superimposed layers, we have examined and indexed the ceramic sherd breakage.

Several archaeological investigations have exploited sherd size distribution as a trace of trampling by people, animals and machines. They proved that trampling reduces artefact size in predictable ways[138] and sorts artefacts by size[139].

138 Kirkby – Kirkby 1976, 236–238.

139 Behrensmeyer – Boaz 1980, 80; DeBoer – Lathrap 1979, 133; Gifford 1978, 82; Gifford 1980, 101; Schiffer 1977.

Fig. 14: Sampling of pottery from the section for indexing breakage percentage.

Following Schiffer's experiment we measured the longest length of 396 ceramic fragments[140]. The samples were picked from different points of the diagonal layers, from the top of the slope at the western extremity, to the lowest eastern point of the slope, in two trenches, and from several layers (**fig. 14**).

The ceramic fragments discussed here present many traces of uses. Some of the cooking pots and storage jars are deeply worn on the handles. Soot marks are noticed on most of the cooking pots bases, and the nozzles of the oil lamps. Some traces of repair (little holes performed next to the lips) have also been observed on few bowls, storing jars and cooking pots.

There are almost no complete or even semi-complete vessels in the assemblage, the only complete vessels being small ceramic bottles (unguentaria). In addition, the sherds making up the assemblage comprise a mixture of countless numbers of vessels and restoration is impossible. Primary deposits should include fragmented vessels with a length much higher than the mean of those usually found on the floors in abandoned sites[141]. Obviously the landfill vessels are not deposited in their primary dump, i.e. »the place in which they were discarded at the end of their life cycle«[142].

On the other hand, the results show that the entire assemblage is not broken into little pieces, and the longest side of most of the majority of the ceramic fragments is larger than 5 cm. In most cases the broken sides of the sherds are acute, which makes it difficult to believe

140 Schiffer 1983.

141 Ilan 1999, 115–117.

142 Schiffer 1983, 679.

that the material rolled with water or wind. We were also able to notice that in the lowest part of the layers, the length of the sherds was bigger, and the size variable from 2 to 12.5 cm. with an average of approximatively 5 cm.

These quantified observations lead us to suggest that this accumulation of sherds not often trampled upon and that the sherds were brought to the landfill very quickly following their brakeage. There is no reason to suggest, for example, that the garbage layers documented by Reich and Shukron found on contemporary street pavements was the source of the garbage that made up the landfill[143]. Rather, the garbage was brought directly to the landfill. The sherds show no signs of weathering by being exposed to wind or water, and so it is most likely that once they were discarded, they were quickly buried under other soil layers. A similar conclusion was reached in a study of the faunal remains from the landfill[144]. We can therefore exclude the possibility that the layers were formed by natural forces and strengthen the assessment that they are the result of human activity.

Conclusions

The ceramic sherds represent the majority of the composition of the garbage deposit. They are also found together with large quantities of animal bones. Studies of the faunal remains showed that they represent a typical household assemblage, similar to the conclusion reached here[145]. It seems evident that at the end of their life cycle the pottery fragments were discarded here by people, before they were trampled or moved by water or wind, and during a specific period between the beginning of the 1st century CE and up to the decade that preceded the Great War. The abundance of stone receptacles found together with ceramic vessels points to the possibility that the vessels come from a quarter inhabited by a Jewish population[146]. To sum, the ceramics deposited in the landfill represent the material culture of Jerusalem and Judea until the destruction in 70 CE. The repertoire is essentially a late Hellenistic indigenous form tradition, and the paucity of imported pottery is striking. In comparison to the substantial amount of tableware retrieved in the habitation levels of the Upper City where Eastern Sigillata A and D, Ephesian gray ware platters and lamps, Italian Sigillata, Pompeian Red ware dishes and orlo bifido pans as well as a small number of Roman-type volute lamps came to light[147], the landfill assemblage most likely points to a different social stratum, namely a conservative traditional population different from Upper City's urban Jewish elite more open to the lifestyle of the Greco-Roman koine.

143 Reich – Shukron 2003.

144 Spiciarich et al. 2017, 108–109.

145 Spiciarich et al. 2017, 114.

146 Gadot – Adler 2016.

147 Rosenthal-Heginbottom 2014b.

Table 7
Catalogue for figs. 7–12

Fig.	Vessel	Type	Basket	Locus	Period
		Bowls and Krater			
7, 1	Simple shallow bowl	BL1	14588/2	1022	2nd–1st c. BCE
7, 2	Bowl with incurved rim	BL2	14590/3	1035	2nd c. BCE – 70 CE
7, 3	Bowl with incurved rim	BL2	13869/1	1045	2nd c. BCE – 70 CE
7, 4	Bowl with incurved rim	BL2	14068/1	1045	2nd c. BCE – 70 CE
7, 5	Bowl with outturned rim	BL3	13875/1	1035	Mid-late 1st c. BCE – 70 CE
7, 6	Bowl with outturned rim	BL3	14590/1	1035	Mid-late 1st c. BCE – 70 CE
7, 7	Bowl with outturned rim	BL3	14765/3	1057	Mid-late 1st c. BCE – 70 CE
7, 8	Bowl with outturned rim	BL3	14609/1	1047	Mid-late 1st c. BCE – 70 CE
7, 9	Bowl with outturned rim	BL3	14590/2	1035	Mid-late 1st c. BCE – 70 CE
7, 10	Bowl with outturned rim	BL3	14424/2	1046	Mid-late 1st c. BCE – 70 CE
7, 11	Jerusalem painted bowl	BL4	14424/1	1046	1st c. CE – 70 CE
7, 12	Jerusalem painted bowl	BL4	14612/2	1046	1st c. CE – 70 CE
7, 13	Jerusalem painted bowl	BL4	20053/1	1204	1st c. CE – 70 CE
7, 14	Jerusalem painted bowl	BL4	20034/1	1202	1st century CE – 70 CE
7, 15	Bowl with ledge rim	BL5	14612/1	1045	Mid-late 1st c. BCE – 70 CE
7, 16	Bowl with ledge rim	BL5	14306/3	1035	Mid-late 1st c. BCE – 70 CE
7, 17	Bowl with ledge rim	BL5	14590/4	1035	Mid-late 1st c. BCE – 70 CE
7, 18	Red-slipped ware	BL6	14307/1	1022	1st c. BCE
7, 19	Red-slipped ware	BL6	14287/1	1022	1st c. BCE
7, 20	Red-slipped ware	BL6	14337/1	1047	1st c. BCE
7, 21	Red-slipped ware	BL6	14306/4	1035	1st c. BCE
7, 22	Base of Eastern Sigillata A cup	BL7	13621/4	1035	Import beginning of 1st c. CE
7, 23	Italian Terra Sigillata plate	BL7	20032/1	1201	Import ca. 15/10 BCE – 50 CE
7, 24	Krater	KR	14081/2	1035	1st c. BCE

Fig.	Vessel	Type	Basket	Locus	Period
			Jugs and Flasks		
8, 1	Early narrow neck jug	JG1	14306/1	1035	2nd – 1st c. BCE
8, 2	Later narrow neck jug	JG2	13903/2	1035	1st c. BCE – 70 CE
8, 3	Later narrow neck jug	JG2	13621/8	1035	1st c. BCE – 70 CE
8, 4	Later narrow neck jug	JG2	14400/2	1046	1st c. BCE – 70 CE
8, 5	Ridged neck jug	JG3	13646/1	1022	Mid-late 1st c. BCE – 70 CE
8, 6	Ridged neck jug	JG3	13412/3	1035	Mid-late 1st c. BCE – 70 CE
8, 7	Ridged neck jug	JG3	13654/3	1035	Mid-late 1st c. BCE – 70 CE
8, 8	Ridged neck jug	JG3	13502/6	1035	Mid-late 1st c. BCE – 70 CE
8, 9	Ridged neck jug	JG3	13959/1	1035	Mid-late 1st c. BCE – 70 CE
8, 10	Ridged neck jug	JG3	14394/1	1046	Mid-late 1st c. BCE – 70 CE
8, 11	Gray ware jug	JG4	13497 /1	1022	Mid-late 1st c. BCE – 70 CE
8, 12	Flask	FK	13621/1	1035	Mid-late 1st c. BCE – 70 CE
8, 13	Flask	FK	13903/1	1035	Mid-late 1st c. BCE – 70 CE
			Juglets and Unguentaria		
9, 1	Juglet	JT1	13875/2	1035	2nd–1st centuries BCE
9, 2	Juglet	JT2	13621/5	1035	Mid-late 1st c. BCE – 70 CE
9, 3	Juglet	JT2	13412/1	1035	Mid-late 1st c. BCE – 70 CE
9, 4	Juglet	JT3	13957/1	1022	Mid-late 1st c. BCE – 70 CE
9, 5	Juglet	JT4	14145/1	1022	?
9, 6	Gray/black juglet	JT5	13822/1	1022	Import
9, 7	Spouted juglet	JT6	13828/1	1045	Mid-late 1st c. BCE – 70 CE
9, 8	Spouted juglet	JT6	14588/1	1022	Mid-late 1st c. BCE – 70 CE
9, 9	Spouted juglet	JT&	14307/2	1022	Mid-late 1st c. BCE – 70 CE
9, 10	Unguentarium (foot)	UN1	14538/1	1067	2nd – 1st c. BCE
9, 11	Unguentarium (rim)	UN1	14559/1	1067	2nd – 1st c. BCE
9, 12	Unguentarium	UN2	13739/1	1035	Mid-late 1st c. BCE – 70 CE
9, 13	Unguentarium	UN2	13628/1	1022	Mid-late 1st c. BCE – 70 CE
9, 14	Unguentarium	UN2	13848/1	1035	Mid-late 1st c. BCE – 70 CE

Fig.	Vessel	Type	Basket	Locus	Period
9, 15	Unguentarium	UN2	13875/3	1035	Mid-late 1st c. BCE – 70 CE
9, 16	Unguentarium	UN2	14068/2	1022	Mid-late 1st c. BCE – 70 CE
9, 17	Gray/black unguentarium	UN3	13412/4	1035	Import
9, 18	Unguentarium	UN4	13943/1	1035	1st c. CE – 70 CE
9, 19	Unguentarium	UN4	14542	1067	1st c. CE – 70 CE
9, 20	Unguentarium	UN4	13621/9	1035	1st c. CE – 70 CE
9, 21	Unguentarium	UN4	13502/1	1035	1st c. CE – 70 CE
9, 22	Unguentarium	UN4	13654/1	1035	1st c. CE – 70 CE
		Storage Jars			
10, 1	Thickened storage jar	SJ1	14143	1035	2nd – early 1st c. BCE
10, 2	Thickened storage jar	SJ1	14765/1	1035	2nd – early 1st c. BCE
10, 3	Thickened storage jar	SJ1	14765/2	1035	2nd – early 1st c. BCE
10, 4	Thickened storage jar	SJ1	14759/2	1062	2nd – early 1st c. BCE
10, 5	Thickened storage jar	SJ1	14607/2	1022	2nd – early 1st c. BCE
10, 6	Thickened storage jar	SJ1	14570/2	1054	2nd – early 1st c. BCE
10, 7	Thickened storage jar	SJ1	14588/3	1022	2nd – early 1st c. BCE
10, 8	Collared storage jar	SJ2	14759/1	1050	2nd – early 1st c. BCE
10, 9	Collared storage jar	SJ2	14584/1	1022	2nd – early 1st c. BCE
10, 10	Ridged storage jar	SJ3	13959/3	1035	Mid-late 1st c. BCE – 70 CE
10, 11	Ridged storage jar	SJ3	13875/5	1035	Mid-late 1st c. BCE – 70 CE
10, 12	Ridged storage jar	SJ3	13875/6	1035	Mid-late 1st c. BCE – 70 CE
10, 13	Ridged storage jar	SJ3	14433/1	1050	Mid-late 1st c. BCE – 70 CE
10, 14	Ridged storage jar	SJ3	13443/1	1035	Mid-late 1st c. BCE – 70 CE
10, 15	Ridged storage jar	SJ3	14400/1	1046	Mid-late 1st c. BCE – 70 CE
10, 16	Ridged storage jar	SJ3	13654/5	1035	Mid-late 1st c. BCE – 70 CE
10, 17	Ridged storage jar	SJ3	13654/4	1035	Mid-late 1st c. BCE – 70 CE
10, 18	Ridged storage jar	SJ3	13875/4	1035	Mid-late 1st c. BCE – 70 CE
10, 19	Ridged storage jar	SJ3	13491/1	1035	Mid-late 1st c. BCE – 70 CE
10, 20	Ridged storage jar	SJ3	14306/2	1035	Mid-late 1st c. BCE – 70 CE

Fig.	Vessel	Type	Basket	Locus	Period
10, 21	Ridged Storage Jar	SJ3	14392/1	1035	Mid-late 1st c. BCE – 70 CE
10, 22	Ridged Storage Jar	SJ3	13621/6	1035	Mid-late 1st c. BCE – 70 CE
10, 23	Ridged Storage Jar	SJ3	14398/1	1047	Mid-late 1st c. BCE – 70 CE
Cooking Vessels					
11, 1	High neck cooking pot	CP1	14155/1	1035	Late 2nd c. BCE – 1st c. CE
11, 2	Triangular rim cooking pot	CP2	13681/1	1035	Mid-late 1st c. BCE – 70 CE
11, 3	Triangular rim cooking pot	CP2	14559/2	1067	Mid-late 1st c. BCE – 70 CE
11, 4	Triangular rim cooking pot	CP2	14570/1	1035	Mid-late 1st c. BCE – 70 CE
11, 5	Small cooking pot	CP3	13435/1	1022	Mid-1st c. CE – 70 CE
11, 6	Grooved rim cooking pot	CP4	13502/1	1035	Mid-1st c. BCE – 2nd c. CE
11, 7	Grooved rim cooking pot	CP4	13567/1	1022	Mid-1st c. BCE – 2nd c. CE
11, 8	Casserole	CS1	13621/2	1035	Mid-late 1st c. BCE – 70 CE
11, 9	Casserole	CS1	13397/1	1035	Early 1st c. CE – 70 CE
11, 10	Casserole/pan	CS2	13843/1	1022	Mid-1st c. CE – 70 CE
11, 11	Cooking jug	CJG1	13502/2	1035	Mid-late 1st c. BCE – 70 CE
11, 12	Cooking jug	CJG1	13621/3	1035	Mid-late 1st c. BCE – 70 CE
Oil Lamps and Utensils					
12, 1	Wheel-made lamp	LP1	14223/1	1046	Mid-late 1st c. BCE – 70 CE
12, 2	Wheel-made lamp	LP1	13412/2	1035	Mid-late 1st c. BCE – 70 CE
12, 3	Wheel-made lamp	LP1	13903/3	1035	Mid-late 1st c. BCE – 70 CE
12, 4	Wheel-made lamp	LP1	13503/1	1035	Mid-late 1st c. BCE – 70 CE
12, 5	Wheel-made lamp	LP1	13397/3	1035	Mid-late 1st c. BCE – 70 CE
12, 6	Wheel-made lamp	LP1	13959/2	1035	Mid-late 1st c. BCE – 70 CE
12, 7	Wheel-made lamp	LP1	13654/2	1035	Mid-late 1st c. BCE – 70 CE
12, 8	Wheel-made lamp	LP1	13871/1	1045	Mid-late 1st c. BCE – 70 CE
12, 9	Wheel-made lamp	LP1	14224/1	1046	Mid-late 1st c. BCE – 70 CE
12, 10	Gray ware wheel-made lamp	LP1	13502/5	1035	Mid-late 1st c. BCE – 70 CE
12, 11	Gray ware wheel-made lamp	LP1	13502/7	1035	Mid-late 1st c. BCE – 70 CE
12, 12	Wheel-made lamp	LP1	14308/1	1045	Mid-late 1st c. BCE – 70 CE

Fig.	Vessel	Type	Basket	Locus	Period
12, 13	Judean lamp	LP2	13818/1	1045	Mid-1st c. BCE – late 1st c. BCE
12, 14	Knidian-type lamp	LP3	15777/2	1103	Mid-late 1st c. BCE – mid-1st c. CE
12, 15	Roman-type lamp	LP4	16567/1	1116	Regional early 1st c. CE – mid-1st c. CE
12, 16	Ladle	LD	13447/1	1022	Late 1st c. BCE – 70 CE
12, 17	Stand	ST	13502/3	1035	Mid-late 1st c. BCE – 70 CE
12, 18	Stand	ST	14081/1	1046	Mid-late 1st c. BCE – 70 CE

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