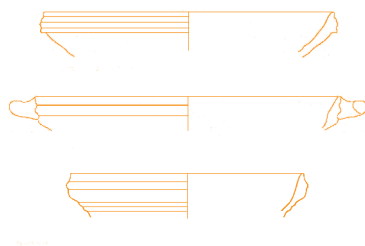


Cooking ware from Northern Jordan: preliminary report on the pottery



Abstract: Cooking vessels collected during three surveys that took place in 2014 and 2015 around the ancient settlements of Abila, Gadara and Umm al-Jimal in the north of Jordan are the subject of this paper. The fragmentation and poor surface preservation of the sherds from this assemblage resulted in the study being focused on an analysis of clay fabrics in relation to vessel forms and their provenance. An examination of fabrics grouped into wares and cooking vessel forms demonstrated an apparent shift from wares produced in the region around Lake Tiberias, which had dominated at the sites of Abila and Gadara until the 4th century CE, to wares produced from the 5th century on most likely in Gerasa. Thus, the results of pottery studies from the three sites located at the core of the Austrian Decapolis survey project shed light on the pattern of changes in regional ceramic trade in the Decapolis and adjoining regions.

Keywords: survey, Jordan, Decapolis, pottery, fabric, cooking ware

INTRODUCTION: THE SURVEYS

The pottery discussed here was collected during three surveys, which were the main archaeological component of a larger international project, entitled “Historical

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Acknowledgments

The surveys could not have been carried out without the generous support and permission of the Department of Antiquities of the Hashemite Kingdom of Jordan. In addition to the project staff, a number of colleagues contributed to the success of the fieldwork, in particular Sufyan al-Karaimah (Umm Qays, Leiden), Muafaq Hazza (Umm al-Jimal), Bert de Vriest (Umm al-Jimal) and M. Shunnaq (Irbid).

land-use and landscape change in the Decapolis Region”, which was generally aimed at reconstructing historical land use and landscape change from the Bronze Age to modern times in the Decapolis region in northern Jordan. The project combined archaeological, historical and natural science methods, and for that purpose the three main project partners: the Institute of Geography of the Friedrich-Alexander-Universität Erlangen, the Annemarie Schimmel Kolleg for Mamluk Studies of the University of Bonn and the Institute of Classical Archaeology of the University of Vienna, worked together. The Vienna unit input comprised:

1. development of the survey methodology;
2. survey of chosen areas;
3. Identification and interpretation of classical finds (in a broader sense), especially in terms of past land use.

The three surveys were conducted around three prominent settlement sites in Northern Jordan. The first season, in June 2014, was dedicated to Abila, the next took place in February 2015 in and around Umm al-Jimal, and the third, in September 2015, in the area surrounding Gadara/Umm Qays (for the history of Decapolis cities in general see Kennedy 2007). The selection of survey areas was determined by multiple factors, most importantly the climatic conditions, such as rainfall, the amount of which varies (and did so in the past) across the region, from the well-watered and hence fertile highlands, like Umm Qays/Abila, to arid steppe around Umm al-Jimal. These factors would have affected agriculture and land use in general (for the climate in the Decapolis see

Lucke 2008). Non-climatic factors most probably impacting land use included the shape and character of urban sites: the less monumental cities or towns of Roman times like Abila and Umm al-Jimal vs. the well-equipped Roman Gadara.

From the point of view of spatial coverage, all of the surveys were conceptualized as linear transect surveys, radiating out from the city center. The main objective was to study the intensity of agricultural land use around the settlements in question. Other research objectives concerned the historical land-use development and the relation between agricultural practices and distance from the settlements. The applied survey methodology comprised the following key features (for these see, e.g., Given and Knapp 2003; Bintliff, Howard, and Snodgrass 2007; Kaptijn 2009): collecting and studying both on-site and off-site material, choosing a sample area big enough for performing statistical analyses, mapping geomorphological units, accounting for geomorphological processes influencing the survey universe, and—most importantly—using material culture, especially pottery, as evidence for past behavior. Collection within individual survey plots concerned all of the pottery sherds, glass fragments, metal objects and flint tools. Artifacts from each plot were counted and bagged separately. This gave a comprehensive picture of the distribution of material culture within a certain radius around Abila, Umm al-Jimal and Gadara. Pottery sherds were by far the most common category of finds, and they formed a solid foundation for detailed interpretations and analyses. [G.S.]

POTTERY ASSEMBLAGE

The pottery sherds collected from around the sites of Abila, Gadara and Umm al-Jimal form a study assemblage dating roughly from the end of the 4th century BCE (early Hellenistic) to the 8th century CE (reign of the Umayyads).¹ Of the 48,648 sherds collected during the surveys, 33,432 have been examined so far [Table 1]. The present study is based on 5253 diagnostic sherds from this collection representing different functional categories [Fig. 1].

The ceramics were identified as cooking ware only if they could be clearly recognized as such, either by shape or other characteristics like traces of heating effects. The latter, however, are rarely easy to detect because there is practically no soot-blackening or other indications of

use in connection with fire on most of the sherds. Discolorations or a crazed surface, which is suggestive of secondary heat effects, appears on a handful of sherds.

The problem of identifying severely fragmented pieces or elements of vessels, like handles or bottoms, was solved to

Table 1. Pottery sherds from the 4th century BCE to the 8th century CE, broken down by survey area

Site	Sherds collected	Sherds examined
Abila	17,936	10,368
Umm al-Jimal	5375	5375
Gadara	25,337	17,689
Total	48,648	33,432

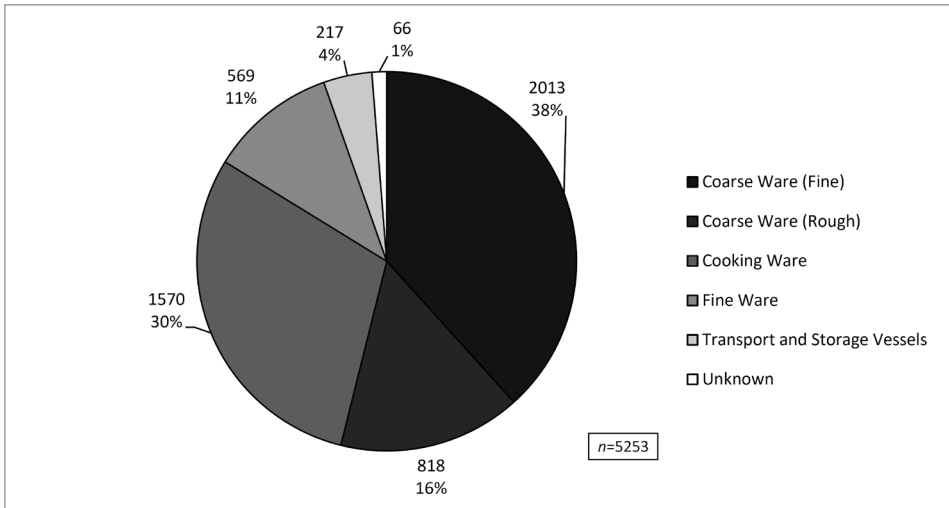


Fig. 1. Cooking ware assemblage broken down by functional categories

1 The following remarks are based on the interim results of Nora Voss's doctoral research within the frame of the "Historical land use and landscape change in the Decapolis Region" project, carried out at the Institute of Classical Archaeology, University of Vienna. The Islamic period (8th–20th century CE) pottery from the survey was the subject of a doctoral dissertation by H. al-Sababha written at the Annemarie Schimmel Kolleg Center for Advanced Studies on the Mamluk Period in Bonn.

a large extent by looking at the fabric: a fabric is considered common in cooking ware production if it has been recorded with suitable frequency in forms associated with cooking. Consequently, handles, bottoms or badly preserved pieces that cannot be clearly assigned to a specific shape, but share a specific fabric, can at least be identified with considerable certainty as cooking vessels (this assumption holds for two of the

wares discussed below). These criteria were used for identifying 1570 cooking ware sherds (30%) [see *Fig. 1*]. Moreover, it is safe to assume that a certain percentage of the 16% fragments considered as the rough variant of coarse ware (characterized by larger inclusions in the matrix and a rougher surface, compared to the fine variant with a fine to medium-fine matrix) will be reclassified as cooking ware upon further analysis.

METHOD

The fragmentation and poor preservation of the ceramics, as well as the surface character of the finds, directed the research toward a study of fabrics and their provenance. The pottery has been examined under an incident light microscope with 40x magnification. Inclusions were recorded in terms of color, size, shape and frequency. The frequency of voids within the matrix as well as its structure and properties of fresh breaks were also registered.

Standardized and comprehensible fabric descriptions were achieved using widely accepted standards for ceramic analysis: *Munsell Soil Colour Charts* (2009) for color determinations, and the estimates of Andreas Kinne (2006: 28–30) and assessments made by Clive Orton and Mike Hughes (2013: 236–237) for inclusion and void shape, sorting and frequency.

Color by itself, while recorded for the whole sherd, is not considered as decisive for determining either fabric or ware. It is

the examination of clay composition and identification of inclusions that can allow some of the defined fabrics to be assigned to a specific production site. This method has led to the identification of a number of wares. Each ware consists of several fabrics with similar characteristics.² They are provisionally classified using a letter from the Latin alphabet. Where applicable, designations commonly used in the literature have been cited in correspondence. The results presented here are of a preliminary nature pending the publication of archaeometric investigations. Accordingly, no chronological framework for the identified wares is presented here, this having to wait for a comparative analysis of ceramics from contexts coming from archaeologically stratified excavations. Previous research has shown that most of the pottery (mainly imported fine wares, such as Eastern Sigillata A) dates from the 1st to the early 7th centuries CE, with a clustering in the 2nd through

2 'Fabric' refers to clay appearance and composition, whereas 'ware' refers to fragments grouped by microscopic characteristics, bringing together fabrics with similar inclusions. Ware subgroups can be distinguished assuming that certain groups of fabrics are close but differentiated by additional features (Tomber and Dore 1998: 4; Gassner 2003: 26).

5th centuries CE. An exception to this is a large group made in what is designated

here as Galilean ware,³ which is restricted to the Imperial period.

FABRICS AND WARES

Altogether 274 fabrics were recognized with this method, and these were assigned to 25 different wares. Five of these—C, B, F, O, G—proved to be particularly common in the assemblage of cooking ceramics from the field surveys. A mere 131 sherds (about 2.5%), identified as cooking vessels based on recognized vessel shape, represented a fabric different from these five, which are discussed below in the order of their frequency in this set [Fig. 2].

WARE C

Ware C identified in the survey pottery assemblage [Fig. 3:A] is by far the largest group of cooking ware found in Abila and Gadara. It is easily identifiable by its intense, reddish-brown color and a very

distinctive design. This group, collectively referred to here as Galilean ware (see note 3), is described only briefly, it being actually well published by David Adan-Bayewitz (e.g., Adan-Bayewitz and Wieder 1992; Adan-Bayewitz 1993; as well as Ma'oz 2010).

Vessels made in this ware have a very fine, dark red to reddish-brown fabric with dark, angular inclusions and white, round ones (plagioclase) (Adan-Bayewitz 1993: 195; Herbert 1997: 41). The repertoire comprises mainly cooking vessels, such as pans and deep bowls with horizontal handles, casseroles and cooking pots as well as a few jugs and jars (Adan-Bayewitz 1993: 85–86).

So far, two of the three subgroups that were defined by Adan-Bayewitz (1993:

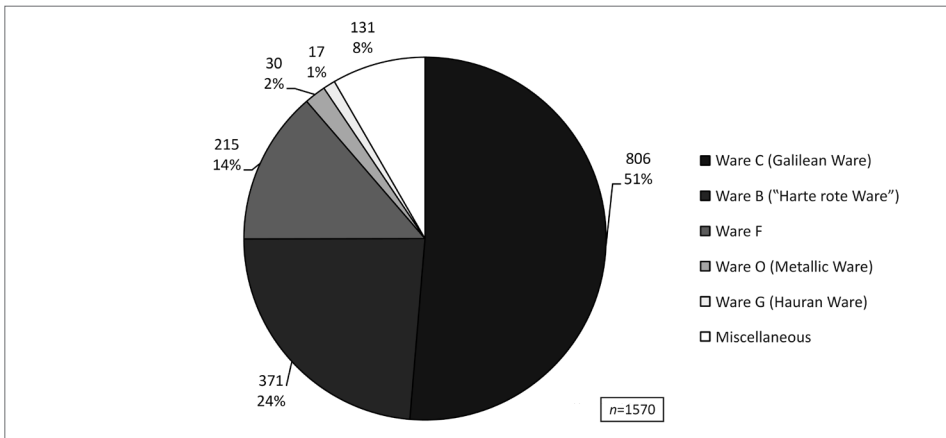


Fig. 2. Percentage share of wares represented in the assemblage

3 The term 'Galilean Ware' is used here as a collective term for the Kefar Hanaya pottery, Competing Ware and Golan Ware as described by Adan-Bayewitz. A clear assignment of the fabrics to a production site must remain speculative due to a lack of detailed archaeometric analyses.

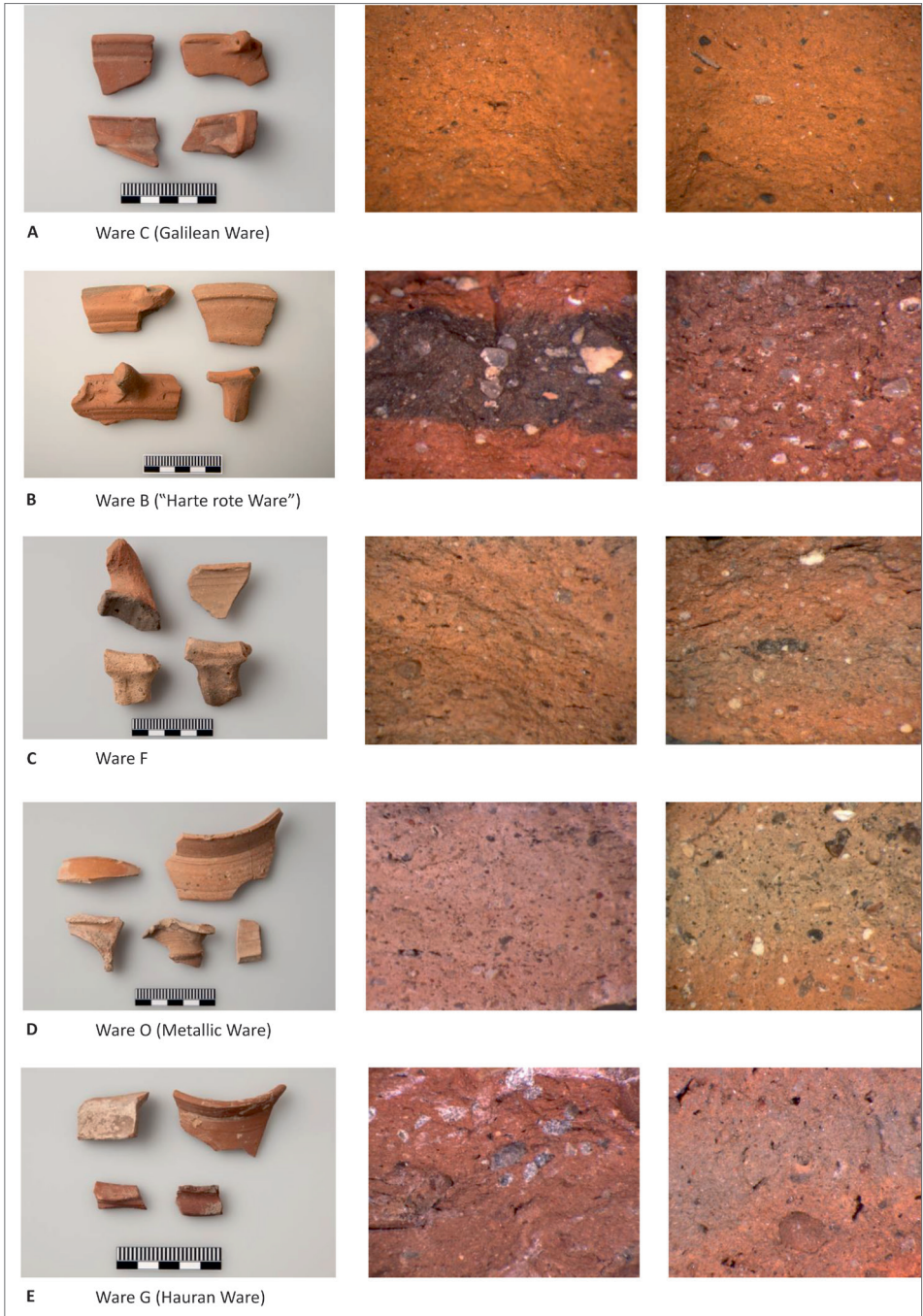


Fig. 3. The five most common wares: from top, C, B, F, O and G, illustrated by microscopic images of the two most characteristic fabrics for each ware, magnification 16x (Photos K. Klein and V. Böck, Institute of Classical Archaeology, University of Vienna, and N.-M. Voss)

60–78)⁴ have been identified in the material from Gadara and Abila. The largest by far is the set representing fabrics subsumed in the Kefar Hananya ware (the other is the Competing ware). It is characterized by a fine-textured clay matrix, with fine dark and white inclusions and few voids. Its production around the site of Kefar Hananya on the northwestern shore of Lake Tiberias in ancient Galilee has been established beyond doubt (Adan-Bayewitz 1993: 85–86), the findings backed up by neutron activation analyses of the clay and ceramics found in the region. The workshops at Kefar Hananya are known to have been in operation from 50 BCE until 430 CE, with production intensifying clearly between the early 2nd and the end of the 3rd century CE (Adan-Bayewitz 1993: 148).

According to Adan-Bayewitz, the ware was distributed from Tell Anafa in the north to Tell Shalem in the south. Examples of vessels in this ware were found on the coast in Caesarea Maritima, as well as in Gerasa, which used to be the easternmost findplace (see Adan-Bayewitz 1993: Fig. 11) until Abila yielded some specimens, thus extending the distribution of the ware another 21 km to the east.

The second group, which Adan-Bayewitz referred to as the Competing ware, represents fabrics produced at the

same time and similar in appearance, function and the range of shapes spectrum, but different in clay composition (Adan-Bayewitz 1993: 155). The matrix of this group contains a high proportion of quartz sand that is absent from the other fabrics. These properties suggest a production site in the Galilee Highlands, between the Jordan Valley and the coastal area (Adan-Bayewitz 1993: 156). Unlike the Kefar Hananya ware, this ware is rarely found during the Roman period. The picture, however, changes in the late 4th and early 5th centuries CE, when the Competing ware becomes common in Galilee (Adan-Bayewitz 1993: 155).

WARE B

Ware B [Fig. 3:B], is characterized by a hard-fired fabric of dark red color, often with a dark, reduced core. The tempering consists of coarse quartz particles and, occasionally, a small amount of lime and very fine mica. This fabric, described by Susanne Kerner (Kerner and Maxwell 1990: 241) as “Harte rote Ware”, has yet to be linked with a specific workshop facility in Gerasa/modern Jerash, but the obvious similarity to fabrics of Ware F (see below) opens the field to some ideas.

The fabric is found only in cooking vessels, mainly casseroles/bowls with a very distinctive rim,⁵ and cooking pots. The rim

4 The main groups are composed of several small subgroups, which can be attributed to a production site based on the results of neutron activation analyses and examination of thin sections. Since clay samples are not available for every group, a comparative analysis of subgroups can attribute them only on a regional level. The three main groups are established based on distinctive features, such as different inclusions.

5 Open-vessel forms—eight key forms in all—display very homogeneous rims, while cooking pots present a larger number of variants. In most cases, the rim, with a rounded or slightly overhanging lip, merges into the handle. The pieces listed here as “miscellaneous” are almost exclusively handles; their attribution to a specific vessel shape is uncertain, but based on their shape and size, they could have been part of closed vessels.

is vertical, with a pinched top and grooves on the outside (Kerner and Maxwell 1990: 246, Fig. 37, No. 15; Vriezen and Wagner-Lux 2015: 133, 319, Fig. XII.22, Nos 11–14). Kerner dates this ware to the Late Roman and Byzantine periods based on vessel forms (Kerner and Maxwell 1990: 241).

WARE F

Ware F [Fig. 3:C] consists of three fabric subgroups, the most found in this study. Common to all these subgroups is transparent, colorless to greyish mineral tempering, which is most likely quartz. Depending on the subgroup, the fabrics might also include small amounts of lime, red or dark particles (Osinga 2017: 166). Nevertheless, the matrix is so similar that the described fabrics can clearly be attributed to a single ware. The color varies from yellowish brown to reddish yellow. Some pieces have a self slip. Casseroles, bowls and cooking jars are the most common shapes among the cooking vessels of this ware. Sherds assigned to subgroups of Ware F fabrics with larger inclusions in the matrix demonstrate the highest frequency, especially subgroup Fb, which contains a certain amount of red particles.

The fabric description in the case of Ware F reveals striking similarities to the so-called Jerash Bowls described by Pamela Watson, Alexandra Uscatescu and Elizabeth Osinga (for a summary, see Osinga 2017: 166–167), which have been studied comprehensively as a group (Watson 1989; Uscatescu 1995; Csitneki 2017). Since Jerash Bowls were surely produced in Gerasa, one could well place a production site of Ware F there (Watson 1989: 234). Based on the published evidence of

kilns from Gerasa and the most common vessel forms found there, the ware should be dated to the 6th–8th centuries CE (Osinga 2017: 166). In contrast to Wares C and B (see above), fragments identified as representing Ware F belonged mainly to closed vessels.

WARE O

Ware O [Fig. 3:D] has a pinkish to bright reddish-brown color with a bright red to reddish-grey slip. The tempering consists of a great number of quartz, grus and black rounded particles together with lime grits. The ware corresponds to the so-called Metallic Ware already described by Rob Falkner (Kennedy, Freeman, and Falkner 1995: 63; Osinga 2017: 163). The designation reflects the great hardness of these sherds, as well as the clear-cut and thin-walled forms and occasional metallic-luster slip. The large variety of shape of the cooking vessels produced in this ware is remarkable: so far, cooking pots, cooking bowls with a groove for a lid, lids and numerous trefoil juglets.

The similarities with the Ware F and Jerash Bowls fabrics are striking enough to attribute this ware to Gerasa as the production site, but other provenances are also currently under consideration. Vessels of this ware were found nearly exclusively around Umm al-Jimal. Accordingly, Ware O vessels, together with vessels of Ware F, constitute the bulk of the cooking ware at Umm al-Jimal.

WARE G

With a few exceptions Ware G, called also Hauran Ware (see Kennedy, Freeman, and Falkner 1995: 63) [Fig. 3:E], was represented only among the finds

from the Umm al-Jimal area. The color is a characteristic dark red with black inclusions, basaltic for the most part, often revealed on the surface. Together with isolated lime particles, they make up the largest part of the temper. The basalt indicates a production site in the Hauran region, where this kind of rock was easily accessible. Accordingly, Sī in southern Syria has been proposed as a possibility (Osinga 2017: 161–163). The vessel repertoire of Ware G includes mainly cooking pots, as

well as jars and large storage vessels, but also bowls with overhanging rims.

Closing this description of wares and fabrics, one should add that “Harte rote Ware” and “Galilean Ware” appear only with cooking pottery, which indicates a specialisation specifically in cooking wares. Wares like O and F display a much wider range of forms, including other functional groups such as tableware, and therefore the workshops that produced them were probably less specialised.

TYOLOGY OF KEY FORMS

An analysis of vessel shapes has produced an equally surprising picture of homogeneity [Fig. 4]. The following is a brief presentation of the most common forms—so-called “key forms” with generally the

same characteristics despite slight differences—developed based on rim shape (a discussion of a separate typology for the handles is beyond the scope of this paper).

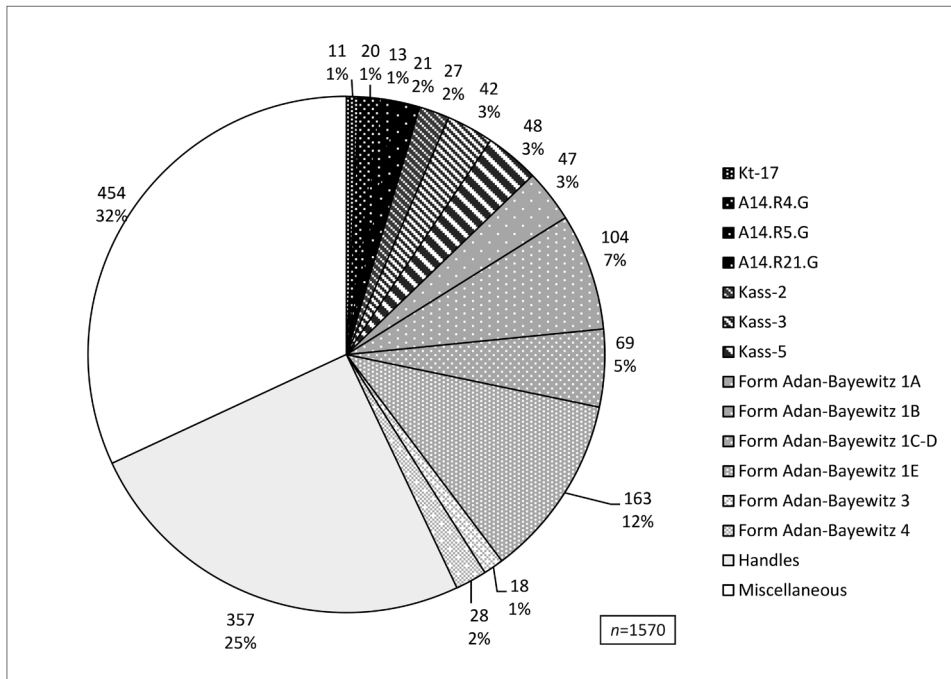


Fig. 4. Common key forms identified in the assemblage

KEY OPEN FORMS

The present classification of Galilean ware follows the typology developed by Adan-Bayewitz (1993: 83–179). Form Adan-Bayewitz 1 is a cooking bowl/pan particularly common in the studied assemblage (variants 1B.5 and 1B.13; Adan-Bayewitz 1993: 91–98; and 1E.2/3 and 1E.5; Adan-Bayewitz 1993: 103–109). The vessel has a mostly flat body with practically vertical side walls and a flat bottom. The rim develops from a slightly overhanging with two grooves to a gently thickened with a round to angular lip, which can also have a lid fold (rim form changes gradually from the mid-3rd century CE with forms Adan-Bayewitz 1D and 1E). This form represents around 50% of the total count of cooking vessels.

Form Adan-Bayewitz 3 (Adan-Bayewitz 1993: 111–124) is much rarer. This is

an open cooking pot or casserole, with a wide opening at the slightly rounded shoulder or a pronounced break just below the rim. The overhanging rim is slightly tilted upwards or horizontally aligned. Both forms often have handle knobs or small loop handles attached to the rim.

Form Adan-Bayewitz 4 (Adan-Bayewitz 1993: 124–135) is composed of closed cooking pots with variously-shaped rims. Here, the slightly outwardly placed rims with lid folds are common until the mid-2nd century CE. The later cooking pots usually have a slightly overhanging rim with two grooves on the lip.

Open forms, like casseroles and cooking bowls, also occur in the “Harte rote Ware” [Fig. 5]. Again, three forms are particularly common. The key forms Kass-3 and Kass-5⁶ are quite similar.

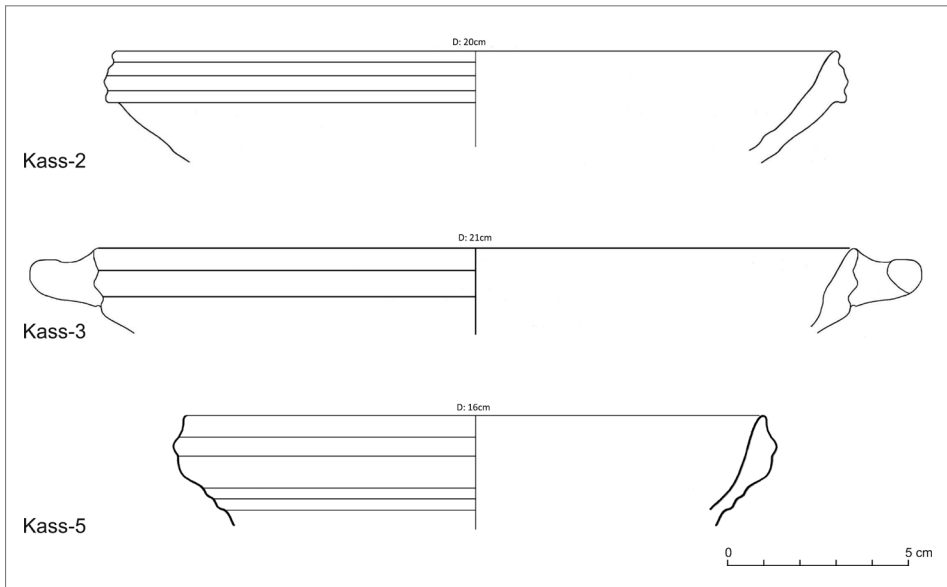


Fig. 5. Key open vessel forms (Drawing N.-M. Voss)

6 The designations of key forms come from the author’s doctoral dissertation.

Both have a vertical rim with differently pronounced grooves on the exterior and small loop handles. The two forms differ in rim shape and orientation. The rim of form Kass-3 is clear-cut and often concludes with a pronounced bulge at the lower end. Hence, the transition between rim and body is bolder than in the case of form Kass-5, the shape of which is generally smoother.

Both forms, Kass-3 and Kass-5, were also found in other contexts, for example, in Pella (McNicoll et al. 1992: 164, 173, 199, Figs 109:9, 109:10; Nielsen, Andersen, and Holm-Nielsen 1993: 186, Figs 171–173; Segal et al. 2009: 113, Fig. 9 No. 154), and date to the Late Roman and Byzantine periods (Kerner and Maxwell 1990: 246). However, Kass-2 imitates the shape of Adan-Bayewitz 1B, which is common in

the Kefar Hananya ware. Form Kass-2 is dated to between the late 1st and the mid-4th century CE (Adan-Bayewitz 1993: 91–97). It has a wide T-shaped rim with two grooves on the top.

KEY CLOSED FORMS

The following key forms of common closed cooking pots were distinguished: Kt-17, A14.R4.G, A14.R5.G and A14.R21.G [Fig. 6]. Unlike the open vessels, they occur in different fabrics associated with cooking. They can all be found in fabrics grouped in Wares B and F. Only the thin-walled Kt-17 occurs in a third kind of ware classified here as Ware O.

Kt-17 has a short, bulging neck with a slightly thickened rim. The shoulder is plunged, the body often lightly ribbed. By comparison with similar cooking

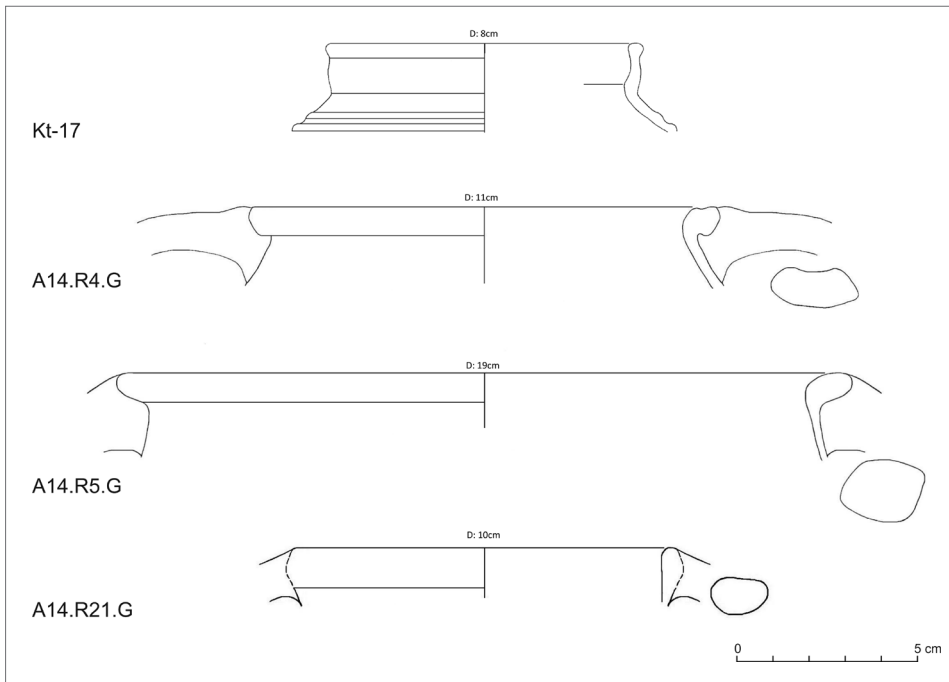


Fig. 6. Key closed vessel forms (Drawing N.-M. Voss)

pots from Hippos-Sussita on the Golan Heights and Pella, it can be dated to the mid-4th through 5th centuries CE (McNicoll et al. 1992: 173, Fig. 108:4; Segal et al. 2009: 128, Fig. 7 No. 113).

Compared to Kt-17, the rims of A14.R4.G and A14.R5.G are much more massive in appearance. A14.R4.G [see Fig. 6] has a strongly thickened, outwardly turned rim with a distinctive groove on the top. The massive handle is mounted almost horizontally on the rim. The short neck continues without a shoulder into the rounded vessel body. Parallels can be found in Pella and inside Gadara's settlement proper; there, this type of cooking pot was dated to the Byzantine period (early 6th to early 7th century CE) (Kerner and Maxwell 1990: 246, Fig. 37:11; McNicoll et al. 1992: 135, 139–141, 146–147, Figs 92:8, 98:12). In turn, A14.R5.G, has a slightly thickened, overhanging rim with a rounded, slightly inward-sloping lip, which merges with the strongly inclined handle [see Fig. 6]. Parallels have yet to be found for this shape, but since it occurs only in Wares B and F, it should be dated to the Byzantine period and beyond.

The rim of A14.R21.G [see Fig. 6] is almost vertical and arched out gently. The lip is rounded and slightly slanting inwards, while the adjoining handle is slightly inclined. This cooking vessel is also dated to the Byzantine period.

Similar pieces were found in Gadara and Capernaum (Loffreda 1974: 46–47, Fig. 10.6; Nielsen, Andersen, and Holm-Nielsen 1993: 178, Fig. 20).

COOKING BOWLS/CASSEROLES

Numerous open forms found in the assemblage can be identified as cooking bowls/casseroles or respective, associated lids. In both cases, the vessels are characterized by the same pointed, straight, inward-sloping rim with a horizontal handle. Since these particular vessels were made in one piece and then cut in half (for an illustration of the shape see Uscatescu 1996: 106, Fig. 30), the small size of the fragments often makes it impossible to determine, based on the rim alone, whether it is from the upper or lower part.

HANDLES

Numerous though they are, handles are not included in this analysis, mainly because they are usually too fragmentary to be assigned reliably to any given vessel shape. It is equally impossible to estimate either maximum or minimum numbers of individual vessels. Most of these handles probably belonged to closed vessels, but in some cases, the overall shape suggested a horizontal attachment to the vessel body, thus pointing with a greater likelihood to an open vessel shape.

VESSEL REPERTOIRE

Considering vessel shape in general, about half of the cooking vessels in this ensemble are of the open kind: cooking bowls, casseroles, open cooking pots and pans [Fig. 7]. Form Adan-Bayewitz 1

dominates by far [see Fig. 4] with 383 (27%) sherds being attributed to the Galilean ware; another 27 imitate Form Adan-Bayewitz 1B, but made in the “Harte rote Ware”. Form Adan-Bayewitz 3 is slightly

underrepresented with 18 fragments. Both forms, 1 and 3, were produced until the mid-4th century CE. The casserole types Kass-3 and Kass-5 in "Harte rote Ware", which appeared in the Byzantine period (about the mid-5th century CE) (McNicol et al. 1992: 164, 173), seem to have replaced cooking utensils from Galilea at some point.

A similar development can be traced in the case of cooking pots. Production of cooking pots in the region around Lake Tiberias ceased at the end of the 4th century CE, whereas it started (Wares B and F) in Gerasa at the beginning of the Byzantine period, intensifying in the 5th and 6th centuries CE. This is an evident shift of the main production area. With a slight delay, the cooking pots from Gerasa apparently replaced pots made around Lake Tiberias [Fig. 9].

The material from Umm al-Jimal demonstrates a similar phenomenon [Fig. 8 bottom]. Here, too, imports from Gerasa apparently dominated the repertoire of cooking ware from the Late Roman period, pushing out the Ware G

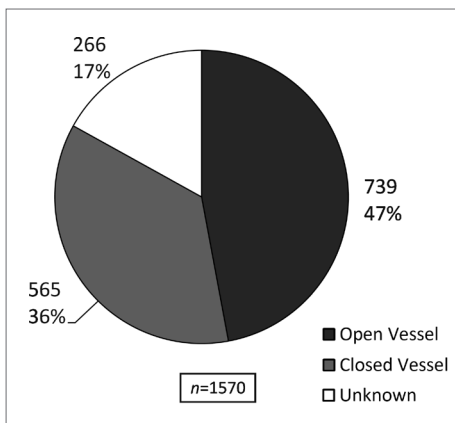


Fig. 7. Percentage share of open and closed cooking vessel shapes

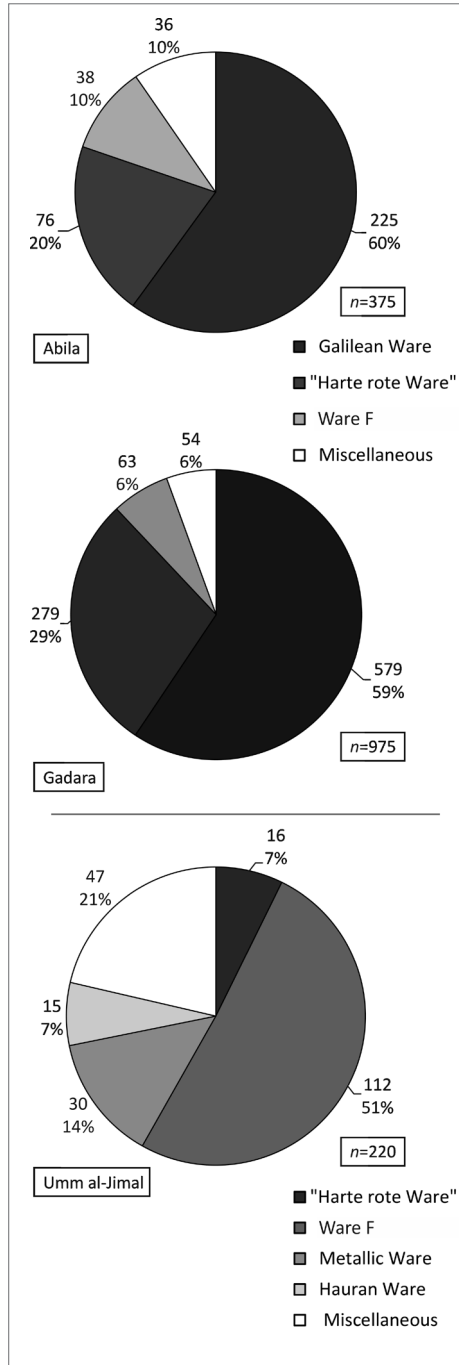


Fig. 8. Percentage share of cooking wares in the survey areas, from top, Abila, Gadara and Umm al-Jimal

(Hauran Ware) pots. This shows that Umm al-Jimal imported pottery (and other products as evinced also by the various other studied material categories) from the north before the middle of the 4th century CE. By contrast, Abila and Gadara sourced their pottery from the western region around Lake Tiberias. Whether this had solely geographical reasons, or whether political and historical relations were at play as well,⁷ cannot be

deduced from the ceramics alone, but should be included in an analysis of the regional trade network.

From the Late Roman period on, ceramics produced at Gerasa clearly dominated all three sites: Abila, Gadara, and Umm al-Jimal. Noting this phenomenon at other sites in the region would be a revealing observation for understanding the mechanisms shaping regional trade in northern Jordan.

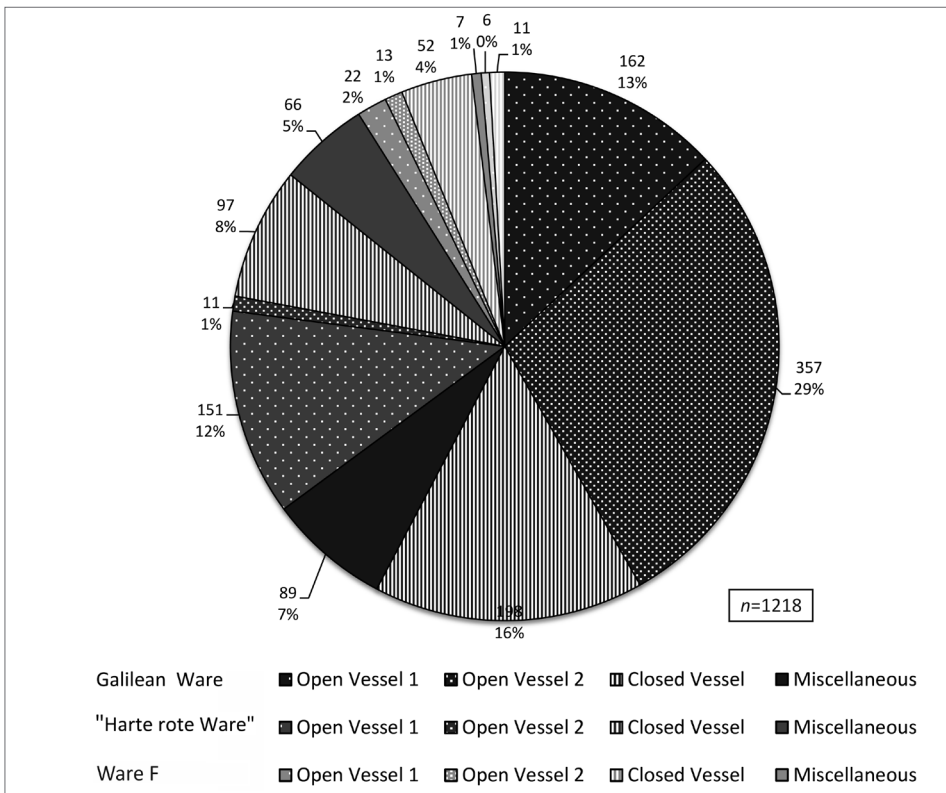


Fig. 9. Percentage of different vessel shapes in the different wares (open vessels: 1 – casseroles and deep bowls; 2 – bowls, lids and pans)

7 In the 1st century BC–1st century CE, Umm al-Jimal was under the influence of the Nabataean Empire, which reached from Petra to Bosra and even beyond (de Vries 1990: 8). Two fragments of Nabataean fine ware discovered at Umm al-Jimal are proof of connections with the Nabataean capital, which lay roughly 300 km to the south. More fragments of Nabataean wares were found inside the city (Osinga 2017: 175–178).

CONCLUSION

The group of wares used for cooking vessels is surprisingly homogeneous. More than 50% of all the vessels associated with cooking are made in the Galilean ware. The second largest group (38%) was produced in Gerasa (Wares B and F).⁸ By contrast, the percentage of miscellaneous fabrics, including Wares G and O, is strikingly small (11%) [see *Fig. 2*]. Nevertheless, Ware G (Hauran Ware) accounts for 7% of the cooking ceramics found in Umm al-Jimal. This can be explained primarily by the very different distribution of wares at the three sites. Accordingly, Umm al-Jimal varies significantly from Gadara and Abila [see *Fig. 8*].

The complete absence of Galilean ware, which is dominant in Gadara and Abila, is the most striking difference.⁹ Interestingly, Ware G (Hauran Ware) and Ware O (Metallic Ware) fabrics occur almost exclusively at Umm al-Jimal. Moreover, there is still a share of miscellaneous fabrics (21%), each represented by very few sherds (<10), which could not be attributed to any production site known so far. The share of such fabrics at Abila and Gadara is much lower (10% and 6%, respectively). This suggests that cooking ceramics at Umm el-Jimal were not imported from individual production sites to the same extent as they seem to have been at Abila and Gadara.

One conclusion deriving from the examination of the cooking ware is that open vessels, especially cooking bowls with fitted lids, can be shown to come

from the area around Lake Tiberias, whereas casseroles of later date, made in “Harte rote Ware”, were produced presumably at Gerasa. The same can be demonstrated for the closed vessel shapes. Cooking pots produced in Gerasa from the 5th century CE on are predominant, whereas only a relatively small number of cooking pots come from Galilee [see *Fig. 9*]. At Umm al-Jimal, the repertoire of forms and fabrics is much more diverse and has yet to be studied extensively before any similar conclusions can be drawn (for comparison with the urban area, see Osinga 2017).

Just as conspicuous as the homogeneity of the cooking ceramics from Abila and Gadara are the differences between the two cities and Umm al-Jimal. These differences in the composition of the ceramic repertoire can probably be traced back to the pronounced dissimilarities in the character of the settlements, their geographic location, and place in the road network. The cities of Abila and Gadara sit in the fertile highlands, not far from the rivers Jordan and Yarmuk. Their hinterland was used for agriculture. Gadara and Abila were both connected with an important east–west road from the Jordan Valley to southern Syria (Gregoratti 2011: *Fig. 2*). These roads connected them with the other cities of the Decapolis, like Pella, Gerasa and Philadelphia, as well as with the region around Lake Tiberias. By contrast, Umm al-Jimal was a rural settlement with limited land for agricultural

8 Ware O is not included here in view of tentative alternative locations of the production site.

9 A single sherd of Form Adan-Bayewitz 1A (mid-1st–4th century CE), found southeast of the ruins of Umm al-Jimal, is an exception.

cultivation, focusing primarily on animal husbandry, located in the inhospitable basalt region of the southern Hauran. The nearby *Via Traiana Nova* connected Aila on the Red Sea in the south with Bosra in modern southern Syria, and continuing further north (Gregoratti 2011: Figs 1–2).

This shows that the preferred trading partners of all three of the settlements are largely in line with the easily accessible cities in the vicinity of the settlements. Bosra and Gerasa could easily be accessed from Umm al-Jimal by the *Via Traiana Nova*, while Gadara and Abila were lo-

cated along a commercial road connecting Gerasa with production centers in the Sea of Galilee.

Analysing cooking wares from these three sites in northern Jordan is vital for understanding the regional ceramics trade, especially as they were probably not production centers in their own right (for Umm al-Jimal, see Osinga 2017, and for Abila and Gadara, an upcoming article by N.-M. Voss). Investigation of other pottery categories should help to verify and complement these considerations.

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