Terms for Vessels in Arabic and Coptic Documentary Texts and Their Archaeological and Ethnographic Correlates

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Introduction

Both papyri and material remains provide insights into the consumption and construction of pottery in early Islamic Egypt by various members and groups of the population. This paper will focus on terms for jars in Arabic and Coptic documentary papyri in the early Islamic period (7th–10th centuries) and their possible archaeological correlates in pottery, metal, glass, and parchment. There have been previous attempts to link jar terms, particularly in Greek papyri (and occasionally in Coptic) with actual objects, but the Arabic evidence has remained largely unstudied in this regard. Archaeologists, however, have tried to link pottery from all periods found in their Egyptian excavations with ethnographic examples and to provide the pottery with Arabic names that come from nineteenth- and twentieth-century pottery.

This paper will try to remedy this by offering a comparison of actual objects with contemporary Arabic and Coptic names for vessels in order to better understand consumption patterns in the early Islamic period in Egypt. First, the archaeological evidence for different types of jars and containers from early Islamic Egypt will be examined. Then the papyrological evidence will be compared with the ethnographic attestations of jars. Early Islamic period Arabic papyrological terms for jars will subsequently be discussed in detail, including, where it is possible to determine, the types of material from which these jars were manufactured and what types of objects they contained. Finally, the Arabic, Coptic-Arabic, and Coptic papyrological and ethnographic evidence will be combined in order to provide possible names for the archaeological objects.

Archaeological Evidence for Vessels

When one begins to examine vessels from early Islamic Egypt, one is presented with a bewildering array of different forms, types, and materials, scattered

through a variety of publications in different languages. The types of jars that will be examined here are storage jars, as the references in papyri are generally to these kind of containers which are either being sent by the writers of the documents or being received by them. This limits the research to vessels that were sealed in some way and excludes therefore wide mouthed jars. The vessels could be made from different types of materials including pottery, glass, metal, and parchment. The vessels contained different types of goods (both edible and non-edible) and were shipped in boats¹ and by pack animals² to their destination. Sturdier vessels were tied with rope to attach them to saddles of pack animals, while more fragile items were carefully packed in cloth sacks or baskets.³ References in the Coptic ostraca to “camels of wine,” “camels of dates” and “camels of wheat” suggest that items were transported in sacks that weighed very little.⁴

The most common type of jar used in the early Islamic period was made of the clay amphora. The ubiquity of amphorae in the early Islamic period is not surprising, since they had been the primary transport jars used throughout the Hellenistic, Roman, and Byzantine periods. Their use simply continued in the early Islamic period. Amphorae could contain a wide variety of liquid, semi-liquid, and solid objects, including grain, olive oil, wine, *garum*, cheese, and honey, which were transported on a wide scale throughout the Mediterranean. The majority of the goods shipped in the amphorae have not survived in the archaeological record, although there is some evidence of oil residue, grape seeds, and pitched interiors. Determining the contents of these vessels remains a challenge for archaeologists. Trace analysis has been applied to some vessels, particularly to amphorae. It has usually been assumed that if an interior of a pottery vessel is pitched, it would have contained wine or wine vinegar, while non-pitched vessels would contain other liquids such as olive oil or dry

1 For depictions of boats carrying amphorae from early Byzantine Syria and Palestine, see Decker, *Food* 77, fig. 4.5; Kingsley, *The economic impact* 52, 61, no. 48.

2 Cohen, *Kissufim* 255.

3 For an example of this type of packing, see Petrie Museum UC65051, two glass bottles wrapped in textile. For the difficulties in shipping these types of objects see, for example, *O.Mon.Claud.* 128–129 (early 2nd century C.E.) In the first ostrakon the writer asks for baskets to protect water skins. Apparently he did not get them as he explains in the next letter that the skins have become useless. In *P.Oxy.* 1294 (late 2nd/early 3rd century CE) the writer asks for a bread basket with a lock that contained four flasks. Shipping objects was not without a certain amount of risk, however. Individuals could and did injure themselves when loading full wine amphorae (Mango, *Beyond* 96).

4 Heurtel, *Écrits* 143–144.

goods, such as cereals.⁵ As the tests from Fustāt have indicated, however, it is dangerous to assume that pitched amphorae always contained wine. It is clear that pitched amphorae could in fact also contain other liquids such as oil, sauces, honey, fish, or cheese.⁶ In general, the papyrological evidence from the Hellenistic-Islamic periods suggests a large variety of commodities that were transported in amphorae in Egypt.⁷

It is clear from the texts that orders for jars were either in bulk or small quantities. The choice between these two options clearly depended on what the individual was planning to use the jar(s) for. Individuals who were involved in the production of liquid or solid goods that would be transported in vessels would often order these containers in bulk. In *O.EdfouFAO* 107, which dates to the seventh century, for example, a potter promises to deliver 2070 jars (κοῦφον from Greek κοῦφα) without default. The word used for jar in this instance means empty and this is a term that is used by transporters to refer to the delivery of jars that were not filled with any goods. Often the delivery of jars was by the thousands or at least hundreds although sometimes the numbers were smaller.⁸ In the first part of the eighth century the correspondence of the west-Theban anchorite Frange provides interesting details about the ordering of containers that may have been fairly typical of individuals purchasing jars for their own use. In this case Frange is ordering a jar that is essentially made to order for him. In text no. 53, he asks an intermediary to order him a jar (κωτων, see discussion below) and demands that it should be of good quality, that it should have a thick base (at the end of the text he reiterates that he wants a large base) and that the two handles should be fitted securely.⁹

5 Peacock and Williams, *Amphorae* 2, 31; Greene, *The archaeology* 162; Curtis, *Garum and Salsamenta* 35, 39; Bailey, *Gaza jars* 295–296; Whitbread, *Greek transport* 19; van Alfen, *New light* 203, 208; Formenti and Duthel, *The analysis* 84; Blakely, *Ceramics* 38; Alcock, *Food* 14, 83, 86–87; Decker, *Food* 76, 80; Ballet, *Un atelier d'amphore* 363–364; Kingsley, *The economic impact* 51; Mayerson, *Pitch*.

6 Vogt et al, *Notes* 76.

7 Curtis, *Garum and Salsamenta* 134–136; Chouliara-Raños, *L'abeille* 74; Kruit and Worp, *Geographical* 98, 107–108; Mayerson, *Radish oil* 109, 113, 117.

8 Diethart, *Neue papyri* 80; Mayerson, *A note*; Mayerson, *The knidion* 166, no. 1; Mayerson, *Enigmatic*; Bacot, *Le vin* 719; Bacot, *Ostraca* 10, 144 (Diethart is incorrectly cited here as Palme, whose article on corrections to Edfu ostraca appears in the same volume and is also used by this author). For attestations in Coptic, see Förster, *Wörterbuch* 440–441.

9 *O.Frangé* 10. For the dating of the texts, see Boud'hors and Heurtel, *Les ostraca coptes* 70–71. In another text Frange orders a small limestone ⲥⲁⲣ made for him to place a jar on (*O.Frangé* 113, notes on no. 120.22–32). For a discussion of Islamic stone jar stands, see Knauer *Marble*. The jar stands discussed in this article are elaborately decorated and made of marble, with a

In the early Byzantine period, the ubiquitous LRA1 amphorae were produced in Syria, Cyprus, Cilicia and elsewhere along the Turkish coast.¹⁰ They have been found in large numbers throughout Egypt and the rest of the Mediterranean,¹¹ while imitation LRA1 amphorae were also produced in Egypt.¹² This amphora had a cylindrical form with a capacity of between 16.54 and 26.44 liters.¹³ The current archaeological evidence indicates that LRA1 amphorae disappeared in Egypt during the course of the seventh century, particularly during the second part of the seventh century after the Islamic conquest.¹⁴ The use of these amphorae seems to have continued, however, at least in a limited way, into the eighth century in Syria-Palestine.¹⁵ Imitation LRA1 amphorae continued to be produced in Egypt, presumably to fill the gap left by the decrease in import, into the eighth century. Again, however, the production centers were limited. Such imitation amphorae have been found in late seventh/eighth-century contexts at Kellia, Saqqara (where the excavator dates it no later than the seventh century), Tod (dated to mid-8th/9th centuries), and Deir el-Naqlun as well as the Sinai.¹⁶ Another popular type of amphorae in the early Byzantine

basin that allowed the water filtering through the jars to be collected and used later. Knauer also discusses some other jar stands, including some that are simpler than the Islamic ones, which she describes as being Coptic (Knauer, *Marble* 91–93).

- 10 Empereur and Picon, *Les régions* 224–225, 231–232, 236–243; van Alfen, *New light* 210; Decker, *Food* 76–78; Manning et al, *Late Roman* 233–258; Opait, *On the origin*.
- 11 There are numerous sites where LRA1 amphorae are found and a few examples are given here: Egloff, *Kellia* 111; Ballet and Picon, *Recherches* 23; Gempeler, *Elephantine x* 52; Engemann, *À propos* 154; Ghaly, *Pottery* 168, 170; Majcherek, *Roman amphorae* 217; Bailey, *Marsa Matruh* 80; Hayes, *The pottery* 121; Heidorn, *Pottery* 39; Tomber, *Pottery* 244; Gascoigne, *Amphorae* 164; Lecuyot, *Amphores* 377, 380–381. For discussion of the distribution of LRA1 in general, see Decker, *Food*, 76–77.
- 12 Ghaly, *Pottery* 168, 170; Bailey, *Excavations* 122; Dixneuf, *Amphores* 136, 174–175.
- 13 Decker, *Food* 76.
- 14 Egloff, *Kellia* 110, 114–115; Górecki, *Deir el-Naqlun* 58–59; Gempeler, *Elephantine x* no. 198; Sidebotham, Bernard, and Pyke, *Late Roman* 215; Vogt, *Les céramiques* 257; Guidotti and Pesi, *La ceramica* 33 (dates the LRA1 amphorae to the 6th/7th century but is not more specific); Marchand and Dixneuf, *Amphores* 319; Dixneuf, *Amphores* 174–175. The picture may, however, be more complex. See Majcherek, *Alexandria's* 235 who states that the LRA1 amphora imports continued into the early Islamic period at Alexandria and were stable from the end of the Byzantine period (although he does not give an exact date) and Rousset and Marchand, *Secteur nord* 409 and Marchand and Dixneuf, *Amphores* 319 who state that the number of amphorae drops considerably between the first and the second half of the seventh century at Tebtunis and Bawit.
- 15 Orssaud, *De passage* 197.
- 16 Ghaly, *Pottery* 168, 171; Bonnet 1994, 363; Godlewski, Derda, and Górecki, *Deir el Naqlun*

period was the LRA4, the so-called Gaza/Ashkelon amphora (see below), which is common at sites in Egypt. This type of amphora is cylindrical in shape and had a liquid capacity of between 16 and 26.5 liters. According to Kingsley, it is only produced in southern Palestine but it enjoyed a large circulation throughout the Mediterranean.¹⁷ The date when this form of amphorae stopped being produced is still unclear but its production seems to extend into the eighth century.¹⁸ Therefore, while the chronology of these amphorae remains to be studied in more detail, the use of the vessels does seem to extend into the early Islamic period but to disappear from Egyptian sites in the course of the seventh century, much as LRA1 amphorae.¹⁹

One of the most common amphorae found in the early Islamic period are of the LRA7 type. These amphorae were made in different parts of Egypt from the seventh to the eleventh centuries and are found throughout Egypt at sites such as Tebtunis, Dayr al-Baḥrī, Fuṣṭāṭ, Tod, Bawit, and Alexandria. This type of amphora has a spindly form that is only 10 cm in width and 60–70 cm in length. It is 7 to 8 liters in volume, considerably smaller than the other amphorae, and is often pitched on the inside. Archaeologists have suggested, based upon their shape, that the amphorae were probably meant to transport a fluid such as wine, oil, or *garum*. When such amphorae from Fuṣṭāṭ were tested to determine their contents, however, they turned out to have contained fat, although a vine branch was found embedded in the resin. At Kellia, an LRA7 amphora was found containing fish bones. These might of course have been wine amphorae that were re-used,²⁰ but this is not clear.

Another type of amphora found commonly in Egypt is LRA5/6. These are the so-called baggy amphorae which date from between the seventh and twelfth centuries (continuing from earlier types). The amphorae are found primarily in

232, 256 (Figs. 21.2–3); Ballet, *La céramique* 164; Ballet, 'Uyūn Mūsā 622–624; Marchand and Dixneuf, *Amphores* 316; Dixneuf, *Amphores* 178–179.

17 Kingsley, *The economic* 49, 53.

18 Egloff, *Kellia* 117; Bailey, *Excavations* 123–124.

19 Majcherek, *Alexandria's* 235; Marchand and Dixneuf, *Amphores* 310.

20 Górecki, *Deir el-Naqlun* 56, 61, 64; Vogt, *Les céramiques* 258–259; Rousset and Marchand with Laisney and Robert, *Tebtunis* 185–262, 206; Rousset and Marchand, *Secteur nord* 409; Rousset and Marchand, *Secteur nord* 2000 424, fig. 14.s-t, 435, 445, 458, fig. 40c and 460, fig. 420; Vogt et al, *Notes* 241, 65–80. 66–67, 76; Ballet and Dixneuf, *Ateliers d'amphores* 72; Lecuyot and Pierrat-Bonnefois, *Corpus* 166, no. 87–88; Bavay, *Les amphores* 391–393; Gascoigne, *Amphorae* 166; Marangou and Marchand, *Conteneurs* 269–270; Marchand, *Les amphores* 176, 179; Marchand and Dixneuf, *Amphores* 312–314; Wilson and Grigoropoulos, *The west* 283; Simony, *Étude* 178; Dixneuf, *Amphores* 154–173 (with a list of find spots in Egypt).

Lower Egypt and the Fayyūm (Abu Mina, Tebtunis, Tod, Kellia, Fustāt, Alexandria, and Pelusium), although they are also found in Upper Egypt, at Elephantine and Ashmūnayn for example and in Middle Egypt at Amarna. In addition, they are found in Palestine including in Jerusalem, Khirbet al-Mafjar, Nessana, and Usais. The amphorae can be divided into two types: those made in Palestine and those made in Egypt.²¹ Indeed, archaeologists working in Palestine have argued that the Egyptians imitated these amphorae because they hoped to profit from the reputation of the Palestinian goods, particularly wine,²² often transported in the amphorae. On the other hand, because they do not have resin coating on the inside it has been argued that they probably were not used to transport wine.²³ The popularity of imitated LRA 5/6 and LRA1 in this period may explain why fewer imported LRA1 and LRA4 were found in Egypt after the Islamic conquest.²⁴ Also in a later period amphorae produced in Egypt imitating the LRA2 type that date from the ninth to the twelfth centuries were far more popular than the imported LRA2 types.²⁵

In addition to the more common amphorae that would have been used to transport goods over large distances and which were not all made in Egypt, there are also other amphorae (some of which were quite small), flasks, and jars.²⁶ These types seem to have had a far more local distribution and were, in fact, probably all produced in Egypt. At virtually every site such storage jars have been found that would have been produced and traded throughout the local area or even within Egypt at large. These include the ovoid amphorae (6th–8th centuries) and small amphorae (mid 7th–mid 8th centuries) found at Tod.²⁷ Other amphorae are only found at Kellia (mid 7th–mid 8th centu-

21 Ballet, Un atelier 355, 357, 361; Rousset and Marchand with Laisney and Robert, Tebtynis 397; Gempeler, *Elephantine* x κ766 200; Egloff, *Kellia* 117–118; Orssaud, De passage 198; Bonnet, Le matériel 365–372; Vogt, Les céramiques 257–258; Bailey, *Excavations* 123, 136–137; Kingsley, The economic impact 50; Majcherek, Alexandria's 61, 63; Ballet, La céramique 142, 206; Lecuyot and Pierrat-Bonnefois, Corpus 176, no. 131; Majcherek, Alexandria's 235; Faiers, A corpus 174, no. 438; Mouny, Note 632–633, pl. 1(4); Ballet, Un atelier; Gascoigne, Amphorae 166; Marangou and Marchand, Conteneurs 269; Marchand, Les amphores 176, 179; Marchand and Dixneuf, Amphores 316–317; Wilson and Grigoropoulos, *The eest* 283; Dixneuf, *Amphores* 142–153 (with a list of find spots in Egypt).

22 Kingsley, The economic impact 57.

23 Ballet, Un atelier 363–364.

24 Ballet, De l'Égypte 35–37.

25 Górecki, Deir el-Naqlun 61, 64; Bailey, *Excavations* 122; Ballet, De l'Égypte 37; Majcherek, Alexandria's 61, 63.

26 Egloff, *Kellia* 119, 128–129.

27 Lecuyot and Pierrat-Bonnefois, Corpus 175, no. 122–123.

ries),²⁸ and jars are found at Tebtunis.²⁹ Some of these smaller jars have a local distribution such as the spheroid amphorae which have been found at Kellia and Abu Mina and which date to the end of the seventh/beginning of the eighth century.³⁰ This is also true of other flasks and jars, which would also have been used to store and send objects probably at a local level. Nevertheless, it is clear that the producers of these small jars, flasks, and amphorae were the same potters as those who made the LRA5/6 amphorae.³¹ There were also Aswan amphorae that were found primarily in the Syene region and further south dating to between the middle of the sixth and the middle of the eighth centuries. They are also common in Nubia, but rarely found north of Aswan, except at a few sites in Middle Egypt such as Esna, Tod, and Ashmūnāy. Despite the fact that the amphorae are not common north of Aswan, imitations were nonetheless produced, probably at Edfu which have been found at Thebes. Again the reason for imitating these amphorae seems to have been their association with the wines of Syene, which had a good reputation.³²

In addition, there is one type which is not only extremely long-lived (the earliest examples date to either the late pharaonic or Ptolemaic period) but which is found at a variety of sites. This is the horizontal pilgrim jar which is asymmetric and has a short neck. It was found in Armant and was identified by the archaeologists as being a water vessel adapted to be slung on each side of a donkey.³³ This type of pottery was also found at Dakhla dating to the Islamic period, where it is also identified as a water jar.³⁴ The jars have also been found in Upper Egypt at Tod (dated to the 11th–12th centuries or

28 Egloff, *Kellia* 117.

29 Rousset and Marchand with Laisney and Robert, Tebtynis fig. 42 m–o, 458, fig. 40c and 460, fig. 420; Lecuyot and Pierrat-Bonnefois, *Corpus* 175, no. 124.

30 Egloff, *Kellia* 117–118. Interestingly, Egloff reports that a similar amphora was found in Jerusalem.

31 Rousset and Marchand with Laisney and Robert, Tebtynis 409.

32 Jacquet-Gordon, *Céramique et objets* 6, pl. CXC; Ballet, Mahmoud, Vichy and Picon, *Artisanat de la céramique*, 140–141; Pierrat, *Essai* 187, fig. 59; Gempler, *Elephantine* x 191, Abb. 121, 12–122, 1–5, Taf. 38,6; Bailey, *Excavations* 136, pl. 85; Lecuyot and Pierrat-Bonnefois, *Corpus* 199, no. 227; Aston, *Amphorae* 432; Bavay, *Les Amorphes* 394–395, fig. 59.

33 Mond and Meyers, *The Bucheum* 82, pl. LXIV. 90. See Class 90. See also Aston, *Amphorae* 441; Ballet, *Les amphores* 482; Marchand, *Les conteneurs* 491–492, 495.

34 Hope, *Dakhleh* 235–236. See also Ashton, *Comparative*. The surface survey also revealed Roman examples.

later),³⁵ but also on the Red Sea coast at Quṣayr al-Qadīm,³⁶ and in south Arabia.³⁷

Unlike the other pottery jars found, this type of jar is still made today at the Dakhla Oasis.³⁸ The early twentieth-century researchers, Mond and Meyers, found that the potters claimed they made Roman rather than Arab pottery when referring to the asymmetric water jars. The researchers also concluded: "In passing it may be remarked that this tendency has great advantages as the old conservative idea for cleanliness has been preserved there in face of the Arab and Turkish invasions."³⁹ Later twentieth-century observers suggested that hygiene might not have been the main aim as the jars are primarily used for carrying and short-term storage of water which may also have been the function of the jar in antiquity. In addition, the jars might have been used in order to store or transport wine.⁴⁰ It has also been suggested that they may have contained different types of agricultural products including wine, wheat, barley, dates, olive oil, and castor oil. At the site of 'Ayn Manawir, located in the Dakhla Oasis, the excavators found castor bean seeds in the excavations and also mentioned in the Demotic ostraca.⁴¹ The modern examples from Dakhla that are preserved in the Petrie Museum include undecorated forms and two smaller painted versions which may have been produced for a specific purpose or specific function.⁴²

In contrast to pottery, glass does not always survive well in the archaeological record, particularly not in large fragments. Glass is commonly found at archaeological sites but usually in small fragments, which makes such a reconstruction difficult. Further complicating the matter is the fact that glass is not always published in detail. This means that it is difficult to assess the types of glass storage jars that would have been used in the early Islamic period. The main publication is Scanlon and Pinder-Wilson's book on Islamic glass from Fuṣṭāṭ,⁴³ but some glass bottles have also been published from other sites. The finds pub-

35 Pieerat, *Essai* 174; Lecuyot and Pierrat-Bonnefois, *Corpus* 169, no. 97, 176, no. 132.

36 Johnson and Whitcomb, *Pottery pls.* 36h, 47j (suggests this was a water bottle); Whitcomb, *Islamic pl.* 50n–p.

37 Rougelle, *Excavations* 295–297, fig. 9/8–11.

38 Mond and Meyers, *The Bucheum* 82, pl. LXIV. 90; Hope, *Dakhleh* 235–236; Henein, *Poteries* 120–125.

39 Mond and Meyers, *The Bucheum* 82, pl. LXIV. 90.

40 Hope, *Dakhleh* 235–236.

41 Marchand, *Les conteneurs* 491.

42 Ashton, *Comparative*.

43 Scanlon and Pinder-Wilson, *Fustat*.

lished include a wide variety of glass bottles that could easily contain the types of materials noted in the papyri. The surviving glass bottles which have been found at Fustāt are not very large, however.⁴⁴ Similarly, the two glass flasks, now in the Petrie Museum, from Oxyrhynchos that date to the early Islamic period are also rather small. These two flasks were found in a cloth bag presumably to protect the glass from being broken while being transported.⁴⁵ Depictions and other finds of glass in situ show the different methods of protection, such as baskets and cloth bags.⁴⁶ A mosaic and a painting, both from the 2nd century C.E. from Carthage, show glass bottles in baskets⁴⁷ and a 4th-century CE jug preserved in a basket is now in the Corning Museum of Glass.⁴⁸ The design of some miniature amphorae even mimicked the basketry that would have contained actual glass vessels.⁴⁹ Another example of glass stored in a basket as well as goblet shaped baskets (one of which also contained its goblet) come from the grave assemblage of Thaïas from Antinoe and are now in the Louvre.⁵⁰ The

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- 44 Lamm, Taf. 3. 34–35; Scanlon and Pinder-Wilson, *Fustat* Figs. 11–13. Most of the surviving pieces are between 10 and 11 cm high. The exception to this is 13b, which is 18.5 cm high. A similar piece, 18.2 centimeters high, comes from Midum (Kröger, *Islamische* no. 10).
- 45 UC65051. The two dark green vessels were wrapped in textiles (<http://www.petrie.ucl.ac.uk/index2.html>).
- 46 Meredith, *Evaluating* 196, no. 17, who states that glass was typically transported in leather cases or basketry specifically produced for this purpose.
- 47 Foy and Nenna, *Tout feu* 114.
- 48 Corning Museum of Glass no. 77.1.3. See N.A., *Recent Important* no. 10. This glass is 25.2 cm in height.
- 49 Stern, *Roman* 154, no. 4, cat. no. 59 (first half of 1st century).
- 50 Foy and Nenna, *Tout feu* 115, nos. 136–137; Calament, *La révélation* 374; Bénazeth and van Strydonck, *Carbone* 52, 55, 57, fig. 5. The dating of this material is problematic as carbon 14 dates of the individual pieces from the assemblage are not in accordance with one another. Thaïas herself seems to have been buried in 660, while it has been argued that some pieces are too early or too late to be part of the assemblage. The goblet in the small basket dates between the end of the seventh and the ninth century (Bénazeth and van Strydonck, *Carbone* 55, 57). The current state of publication is somewhat confusing on these pieces. In Bénazeth and van Strydonck, *Carbone*, on the one hand, it is claimed that there are four small baskets and only one large goblet, while it is the other way around in Foy and Nenna (*Tout feu* 115, nos. 136–137). Calament, supporting the statement of Foy and Nenna, gives a list of the objects displayed with Thaïas in 1898, which states that there were four goblet cases and two other baskets. Calament identifies the times mentioned in this list with four goblet shaped baskets and a basket containing a goblet in the Egyptian collection at the Louvre and notes a goblet shaped basket conserved at Rennes (Calament, *La révélation* 374). Gayet, on the other hand, describes six baskets and one other basket (which seems

most important piece for reconstructing the transport of items of glass in this period, however, is a 32.2 cm high glass bottle found at Tebtunis which dates to the beginning of the tenth century. This bottle, like the LRA7 amphorae, is very spindly and therefore not very stable. The bottle is likely to have been used to transport liquids similar to those transported in amphorae. It has been suggested that this piece had a funerary aspect⁵¹ but this seems unlikely. It should be kept in mind, however, that not all glasses found in baskets were for transport. A second-century CE glass from the Fayyūm, found in a basket together with its lid, is said to be a funerary urn.⁵²

In the papyri, there are a number of examples where jars are being shipped in baskets, although the jar's material is not clear. In some cases, it is merely stated that a "basket" of wine should be sent, which infers that there is a jar in basket. In other cases, however, the texts explicitly mention that the wine is to be sent in the baskets.⁵³

The other main type of material used for transporting goods was metal. Metal is even more problematic to assess than glass, because it tends not to survive well and is often not published unless it is decorated. Therefore, one is far more dependent on museum collections. Most of the metal objects from Egypt are ewers or buckets and very little is known about metalwork in general dating from the early Islamic period. In addition to these objects, there are metal flasks that date from the seventh to the tenth centuries.⁵⁴ It has been claimed that, after the Islamic conquest, Egyptian metalwork, which had been traded all over the Mediterranean even ending up in the Sutton Hoo treasure in England, declined drastically because the population was heavily taxed and was not in a position to offer fine metalwork.⁵⁵ The metal bottles found in

to be the goblet shaped basket) (Gayet, *Antinoë* 53, engraving of goblet shaped basket 55, engraving of a basket containing goblet 56).

51 Foy, Secteur nord 480–481. no. 151, Musée égyptien du Caire inv. J. 41879. Despite the fact that this piece is published in a study of the glass of the current Tebtunis excavations, it was found between 1909 and 1910.

52 Hassel, Glasamphore 908–999, Abb. 94.

53 Crum, *A Coptic* 777a; Crum, *The monastery* 75; Husselman, Coptic documents 68–69; Bacot, Du nouveau 158. The texts where this is clear are *P.Mon.Epiph.* 90, *O.CrumST* 132, and *O.Crum* 160.

54 Fehérvári, *Islamic* no. 2, 33–34, 41–42, 46, nos. 20–22; Baer, *Metalwork* 84–87, 90; Allen, Concave 132; von Gladiss and Kröger, *Islamische* no. 139; Allen, *Metalwork* 16–17; Ward, *Islamic* 42. The recent publication of bronze vessels from the Coptic museum mentions some small bronze bottles whose chronology was difficult to establish (Bénazeth, La vaisselle 103).

55 Ward, *Islamic* 42.

the eastern Islamic empire in Sardis and Nishapur, but also in Syria provide an indication of the types of containers that could have been used in this period. The types seem to be long-lived, dating from the seventh to the eleventh centuries. Some of these bottles are described as being “amphoresque.”⁵⁶

In addition to the flasks of other materials, there were parchment flasks, but their survival is very rare. One found at Tell Idfū excavations is a small flask with a straw grill covered with transparent parchment.⁵⁷ This is an exceptional piece that would have probably transported something very light in weight. It may be a type that was far more common but simply has not survived well in the archaeological record.

Papyrology and Ethnography

The archaeological evidence shows that a wide variety of different types of storage jars made of different materials was in use amongst the inhabitants of early Islamic Egypt. It is therefore not surprising that the jars are frequently mentioned in documentary papyri recording Egyptians’ daily life concerns and activities. There are a variety of names attested in Coptic and Arabic papyri and these can be compared to ethnographic works from nineteenth- and twentieth-century Egypt that record Arabic terms for jars. There have been attempts in the past to link the jars mentioned in the papyri with the jar names from nineteenth- and twentieth-century Egypt,⁵⁸ and with archaeological and ethnographic terms,⁵⁹ but there have been no attempts to join these three data sets making connections between the archaeological and Arabic papyrological terms. It has, however, been attempted for Greek papyri, with the study of jar names that are derived from geographical locations. Greek geographical jar names such as Rhodian and Gazan can indeed be linked to specific jar types.⁶⁰

Even when it has been suggested that certain amphorae were identical to jars mentioned in the papyri, making exact correlates can be problematic. There is one instance, however, where it is possible to do so. The term “Aswan plate” appears in Coptic-Arabic and Coptic spells as well as written on a plate

56 Allen, *Nishapur*; Waldbaum 1983; Mango, *Beyond* fig. 5.7; Pitarakis 2005; Mango, *Tracking Byzantine* 230–231, fig. 15.5.

57 Henne, *Rapport* 9, 36

58 Karabacek. *Papyrus Erzherzog*; Lane, *Manners* 152, 155; Grohmann, *From the world* 10, fig. 1; Grohmann, *Einführung* 9, Abb. 2.

59 Bailey, *Excavations* 75.

60 Kruit and Worp, *Geographical* 65, 72–75, 98, 105, 107, 140.

in the British Museum.⁶¹ The piece is described by Hall as being a “part of a moulded red-faced imitation Arrentine ware bowl.”⁶² One of the spells, however, Inv. no. 515, mentions *white* Aswan bowls.⁶³ The word used for the vessel is in this instance different from the word used in the other two texts. This makes it likely that a different type of bowl or plate is being referred to here. The qualification “white” added to “Aswan” might thus have referred to a specific type of vessel.⁶⁴ The same term for plate also appears in Coptic texts elsewhere and it has been suggested that it is not an ordinary plate.⁶⁵ It is clear from this example, however, that even when the identification between vessel and name seems to be straightforward, it is always more complicated. Furthermore, the texts generally do not tell us whether the objects are made from glass, ceramics, or metal, and only by looking at archaeology can it become clear what types of objects might be actually meant in the texts.⁶⁶ All of this must be kept in mind when examining the terms for vessels. Both Arabic and Coptic terms will be considered here. There are far more Coptic terms known than Arabic ones, but this should not be considered surprising: far more Coptic ostraca and papyri have been published than Arabic texts. In addition to papyri, a considerable amount of information about consumption in the early Islamic period comes from the commodities listed on glass vessel stamps. Glass vessel stamps are known in Egypt in the Byzantine period,⁶⁷ but are found in larger numbers in the early Islamic period.⁶⁸ The glass stamps would have been applied to vessels while still hot and they have been found attached to several glass cups, including one from the American excavations at Fustāt.⁶⁹

61 See van der Vliet, *Varia* 224–225. The Arabic-Coptic bilingual spell and one Coptic spell are published in Bilabel and Grohmann, *Griechische* no. 123 (PSR Inv. no. 500/1), line 1 (Arabic), no. 131 (PSR Inv. no. 518) line 19 (the reading is according to Bilabel and Grohmann somewhat uncertain, but they do restore it, although they do not translate it). Another Coptic spell is published in Stegemann, *Neue Zauberei* 78, l. 55–56 (PSR Inv. no. 518). The inscribed plate is published (with a drawing but no photo) in Hall 1905, pl. 38.1 (BM 27718). I would like to thank J. van der Vliet for the reference to his article.

62 Hall, *Coptic* pl. 38.1 (BM 27718).

63 White bowls, without the appellation “Aswan,” also appear in a Coptic text now in Leiden.

64 Van der Vliet, *Varia* 224.

65 Bacot and Heurtel, *Ostraca coptes* 24.

66 Mossakowska-Gaubert, *La verrerie* 1443–1444.

67 Lane-Poole, *Catalogue* xviii–xix; Ross, *Byzantine* 83; Sams, *The weighting* 202–230, 210.

68 Bates, *The function* 63–92, 63–64; Bacharach, *Introduction* 5. For glass stamps from outside of Egypt, see Morton, *A catalogue* 39; Heidemann, *Katalog* 195–196.

69 Scanlon and Pinder-Wilson, *Fustat glass* fig. 37. The glass would have been for dried plums.

The glass vessel stamps give different types of information, including contents, measures, and weight and occasionally the name of the person who authorised the issue of these stamps. It used to be assumed that glass vessel stamps indicated commodities that would have been used in pharmaceuticals or even more general weights.⁷⁰ There has been a growing understanding, however, that glass vessel stamps are likely to have indicated items consumed or used on a daily basis. The commodities include oil (olive oil, etc.), fat, dairy products (milk, cheese, clarified butter), lentils (black lentils and skinned lentils), spices (coriander, fenugreek, mustard, cumin), lupines, sesame, peaches or plums, honey, jujubes, palm fruit, cooked noodles, wine, beer, millet beer, henna, garlic, meat.⁷¹ This information can be combined with the information from the amphorae to see the wide variety of different food stuffs attested.

The amount that a vessel might hold is often difficult to determine. Even when there is information about this in texts, it is not always straightforward. The authors of the papyri did not specify weights; it is to the literary texts that one must turn in order to gain information about how much a particular vessel might have carried or how large a particular measure was. The authors of these texts, however, do not always agree, and it is clear that the contents, weight and size of measures differed per region. Even within Egypt, the size of a particular measure was not always the same.⁷² The differences were not only determined by where a particular measure came from but also by the type of liquid or dry goods that it was used for. Wine, oil, and honey all required different measures; an equal volume of honey has a greater weight than a similar amount of wine, while wine and oil are quite compatible.⁷³

70 Lane-Poole, *Catalogue*, vii, xvii, xxii–xxiv; Miles, *Contributions* 384. This affects how Miles translated the names of particular commodities (Miles, *Egyptian glass* 384–389). Balog, *Umayyad* 10, 12, 29; Eldada, *Glass weights* 113; Hamarneh and Awad, *Glass vessel* 168.

71 Miles, *Contributions*; Miles, *Egyptian glass* 386–387; Balog, *Umayyad* 30; Bacharach, *Introduction* 117, 147; Eldada, *Glass weights* 113, 117; Hamarneh and Awad, *Glass vessel* 167, 169–171, 174, no. 5.

72 Sauvaire, *On a treatise* 291–292, 297–299; Rogers 1878, 98–112, 110; Sauvaire, *Arabic metrology* 253–284, 253–254, 256.

73 Sauvaire, *Arab metrology* 495–524, 495. Ms. Madrid ms. arabe gg. 57.

Arabic Terms for Vessels

There is a number of terms for vessels that appear in Arabic papyri, some of these words were borrowed from Coptic (possibly to describe vessels that the Arabs were not familiar with).⁷⁴ One of the most common terms was *jarra* (جرة), which is attested in papyri dating to between the eighth and tenth centuries. Those papyri of which the find spots can be determined come from Medīnat al-Fayyūm (one example) and Edfu (two examples). The *jarra*s are said to have contained a large variety of commodities such as honey, wine, sugar syrup, grape syrup, and water.⁷⁵ David-Weill published a papyrus from the Louvre mentioning a *jarra* containing oil made, in his translation, from eggplant seeds.⁷⁶ This seems an unlikely translation as not much oil can be extracted from eggplant grains. While the contents of the *jarra* are varied, this also held true for the size of a *jarra*. According to the literary sources, a *jarra* of Antioch held 23 kg, a large *jarra* 11 kg, and a small one 1.9 kg.⁷⁷ The term may also be attested in a Coptic text. Crum reports that in Bibliothèque Nationale ms. 55 there is mention of ⲧⲁⲓⲁ (صاغة) (1 var. جرة). In Coptic, this appears to be ⲭⲟⲣⲃⲉⲥ, which Crum translates as a small (?) vessel.⁷⁸ Again, there is no material specified, but the size suggests that the *jarra* was made of pottery and it could easily be connected with one of the amphorae found at the archaeological sites. Therefore, at least some *jarra* could be LRA7 or LRA 5/6 which is found so frequently at early Islamic sites and which seem to have been used for the same goods that the papyri mention in relation to the *jarra*. If small *jarra*s are being referred to in the papyri, then they might be the small flasks, made from glass or metal, that have been found at archaeological sites. In illuminated manuscripts, vessels identified by *jarra* are drawn as two handled jars apparently made of metal.⁷⁹

When one turns to the ethnographic attestations of the *jarra*, however, the picture is very different. The papyrological evidence suggests that the

74 It should be kept in mind, however, that amphorae have been found in Arabia. See, for example, Sedov, *New archaeological* 113–114.

75 Grohmann, *From the world* commentary on *P.Cair.Arab.* IV 339.9; Grohmann, *Einführung* 1954, 170–171; Marrow, *Two Arabic Inv.* no. 36.2; Rāḡib, *Quatre papyrus* III recto 8; *P.Khalili* I 7.3.6; *P.Vind.Arab.* I 4.7.

76 David-Weill, *Papyrus arabes* no. 12.

77 Grohmann, *Einführung* 170–171.

78 Crum, *A Coptic* 785B.

79 Hill, *The book* 49, 54, 72, 78, 80, 82, 84, 88, 100, 113–114, 130 (Models 4, 7, 19–22, 32, 38–39, 46).

jarra would be a rather large pottery jar used to transport liquids of all types. The ethnographic attestations of *jarra*, however, suggest that a *jarra* or *jar-rat al-mayya* (Eg.) *al-kabīra* is, in fact, the unusually shaped jar mentioned above that is still being produced at Dakhla. In Egyptian and Syrian/Jordanian colloquial a *jarra* is a clay water jar or pitcher.⁸⁰ In Syria and Jordan *jarra* is also used in more general terms for a storage jar.⁸¹ Water jars which are known in some areas as *jarra* are called elsewhere in Egypt *zūr*.⁸² The *jarra* in Egypt can also preserve cheese and the *jar-rat al-laban* holds milk.⁸³ Therefore, there seems to be two types of *jarra* in the nineteenth and twentieth centuries: unusually shaped flasks that hold water and cheese and milk jars. This suggests that the meaning of *jarra* has changed through time and that it has become a far more specific term than it was in the early Islamic period.

Another common term in the Arabic papyri is *qist* (قسط); the term is derived from the Greek measure ξέστης (coming to the Arabic either from Greek or from Egyptian via Coptic, where the term also occurs as the measure κᾰστῆς, Ⴡ, Ⴡცῑ, Ⴡცῑა, Ⴡცῑე, etc.).⁸⁴ In Arabic, however, the term may refer either to a vessel or a measure,⁸⁵ and it is difficult to determine which is meant. The term *qist*, after all, even when used as a measure, implies the use of a vessel to contain the object in question. The papyri mentioning *qist* date from between the eighth and tenth centuries and the find spots of most of the papyri cannot be determined, but where it has been established, they come from Arsinoe/Fayyūm. As for contents a variety of liquid and semi-liquid commodities have been determined: oil (olive, radish, linen, and sesame), honey, wine, vinegar, and butter. Many of the references in the papyri refer to parts of a *qist*, which could suggest that these refer to a measure rather than to a specific vessel.⁸⁶ In glass vessel stamps, the commodities mentioned include liquids such as wine and olive oil.⁸⁷

80 Hinds and Badawi, *A dictionary* 155.

81 Mershen, *Recent hand-made* 76, n. 7; Taniguchi, *Ethnoarchaeological* 144.

82 Henein, *Poterie* 161, 163; Ashton, *Comparative*.

83 Henein, *Poterie* 161, 163; Ashton, *Comparative*.

84 Miles, *Egyptian glass* 385; Kruit and Worp, *Metrological notes* 111 (who note there are over 1,000 Greek examples of the word used as a measure); Förster, *Wörterbuch* 555. Grohmann, however, thinks it came from Aramaic into Arabic (Grohmann, *Einführung* 167).

85 Grohmann, *Einführung* 167; Morton, *A catalogue* 31.

86 Grohmann, *Einführung* 167–170.

87 Morton, *A catalogue* 31.

In one instance, the *qisṭ* is a bronze vessel,⁸⁸ while in others it is made from glass.⁸⁹ It is clear that there are a variety of sizes of *qisṭ*. In P.Cair.B.E. inv. no. 326.4 there is a reference to a large *qisṭ* (a term which also occurs in glass weights) and to a *qisṭ al-layṭī*. In the papyri, *qisṭ*s are referred to as whole, half, quarter, and eighth. According to literary evidence a small *qisṭ* was 1.19 kg and a large *qisṭ* 2.4 kg. On the basis of this information Grohmann suggested that one *qisṭ* was equal to 1.4 liters while Miles interpreted it to be a pint in size.⁹⁰ This could suggest that the *qisṭ* was a relatively small-sized vessel, but the evidence makes clear that the *qisṭ* measure was not fixed. Indeed, both small and large *qisṭ*s are attested.⁹¹ The side of a glass cup from the Metropolitan Museum of Art has been stamped with the words: *qisṭ waḡṭī* (full measure). The glass cup holds 50 cubic centimeters, but this does not compare with the *qisṭ*s attested in the literature. It has been suggested that the glass measure must be incorrect and should have read half of a quarter of a *qisṭ* as fractions of a *qisṭ* are common in glass weights,⁹² but it seems more likely that in glass measures, as in the papyri, the size of a *qisṭ* measure differed significantly.

Once again, when one attempts to find archaeological correlates to a *qisṭ*, one is confronted with the possibility that it may refer to different vessels, in particular when it is used as a measure. The *qisṭ* seems to have been much smaller than the *jarra*, referring to smaller pottery, glass, and metal vessels. It is interesting that the *qisṭ* seems to have evolved from a measure to a term that meant both a measure and a vessel. In Coptic, this process also seems to have occurred. While almost all the references to the term in Coptic appear to be measures, there is one exception to this, *O.Medin.Habu Copt* 5.11, where a list of goods is given and the word ⲟⲩⲗⲉⲥⲧⲏⲥ appears. The editors do not comment on this, they merely translate it as *xestes*. In the context of the list, the meaning of the word appears to be for a vessel rather than a measure.⁹³

In modern Egyptian Arabic a *qisṭ* is used for a metal can (such as milk man's churn)⁹⁴ and an oil pitcher.⁹⁵ Rogers, in his study of weights and measures,

88 Grohmann, *Einführung* 167.

89 Day, *An Umayyad* 259; Miles, *Egyptian glass* 385, 387–388.

90 Grohmann, *Einführung* 167–170; Hinz, *Islamische* 50; See Grohmann's commentary on *P.Cair.Arab.* iv 342; Miles, *Egyptian glass* 385; Balog, *Umayyad* 30.

91 Sauvaire, *A treatise* 113; Morton, *A catalogue* 31.

92 Day, *An Umayyad* 259; Miles, *Egyptian glass* 385, 387–388; Balog, *Umayyad* 31.

93 See, for example, *P.Ryl.Copt.* 238.41 is a list (8th century) that has a half *xestes* of or for oil (ⲟⲩⲡⲁⲱⲗⲉⲥⲧⲏⲥ) and *P.Ryl.Copt.* 240.4 (ⲟⲩⲗ[ⲉ]ⲥⲧⲏⲥ ⲛⲥⲱ).

94 Hinds and Badawi, *A dictionary* 699.

95 Spiro, *An Arabic-English* 486.

noted the presence of a *qist* on glass weights and made enquiries in Cairo about the object. He found evidence in 1878 for a vessel called an oil *qist* that was used to dip into oil jars (قسط الزيت), which did not have a specific size. He stated that the word was not used anymore for a fixed measure of capacity.⁹⁶ Unlike other terms that appear in ethnographic studies, the *qist* is not a term that appears in separate pottery studies. This is probably due to the fact that by the nineteenth and twentieth centuries the term had come to refer to a metal vessel. The use of the term apparently changed through time, losing its meaning as a measure and becoming used exclusively to refer to a metal vessel.

The third common term in Arabic is the *qulla* (قلاة), which, like *qist*, comes from a Coptic word, but in this instance not originally coming from Greek. The Coptic root is κελωλ, κογλωλ, κολολ, which means pitcher or jar for water,⁹⁷ originally from hieroglyphic and known as *krr* in demotic.⁹⁸ The term was then used in Greek as κρωρι⁹⁹ and became very common in Greek in the fifth century CE and later (κουρι).¹⁰⁰ Kruit and Worp suggest that it is equivalent to Greek/Coptic κόλλαθον,¹⁰¹ but this is not the case. Despite the fact that *qulla* comes from the Coptic word *kelal*, it appears in several manuscripts as the equivalent to the Arabic words *qist* and *kūz*,¹⁰² which suggests that the authors of the papyri were not aware of the equivalence between the two terms.

The term is attested in Arabic texts dating from between the eighth and ninth centuries but no provenance for the papyri can be determined. The types of contents of this jar include liquid and semi-liquid contents: wine (including date wine), butter, cheese, molasses, raw sugar, oil (Palestinian olive oil and radish oil), soap, and black olives (which although being solid would have

96 Rogers, Unpublished glass 112.

97 Crum, *A Coptic* 104a. For some reason Alcock only gives the meaning “pitcher,” although he does note its etymology, which is neglected by Crum (Alcock, Coptic terms 2). Another possible spelling in Coptic may be κογλε as it appears in *O. Frangé* 253.9 referring to a jar. Boud’hors and Heurtel, *Les ostraca* suggest that this is perhaps the word κελωλ κογλωλ or κλε κελη (Crum, *A Coptic* 102a) which is a vessel for liquids such as honey and oil.

98 Černý, *Coptic* 56.

99 According to Bilabel, there is a papyrus that comes from the Hibeh cartonnage (Heidelberg 414) which contains a Greek Demotic glossary, with the Demotic written in Greek letters. Therefore: λεκάνιον-κρωρι (Bilabel 1938, 79). Quecke suggests after a recent re-study of the papyrus that κωρι means τ(ά)λαντον, talent (Quecke, *Eine griechische-ägyptische* 72–73).

100 Kruit and Worp, *Metrological* 110–111.

101 Kruit and Worp, *Geographical* 138.

102 Crum, *A Coptic* 104a.

probably been stored in oil). Diem also suggested that one of the jars referred to in Grohmann's publication of PERF 769 may have held mixed pickles rather than the water that Grohmann suggested.

There are at least four sizes of *qulla* jars in the papyri: an ordinary *qulla*, which could be either a half or whole *qulla*, a large *qulla*, a small *qulla*, and a hip *qulla*.¹⁰³ Although Grohmann assumed that the *qulla* was a large jar that would have stored 55 kg,¹⁰⁴ the papyri show that there was a variety of different sizes. Further, a *jarra* is apparently smaller than a *qulla* because one *qulla* is said to have contained six *jarra*.¹⁰⁵ In Coptic the term κεωλ is often found in lists of metal vessels etc., without any sort of object contained within it.¹⁰⁶ The fact that Palestinian olive oil is attested in one of the papyri as being contained in the jar could argue for the idea that the *qulla* is actually the LRA 5/6 which was produced in Palestine and Egypt and would have contained olive oil.¹⁰⁷ If a jar was likely to be imported to Egypt containing olive oil, the chances that it was the LRA5/6 is quite high. The smaller version of the jar may be made from metal, as suggested by the Coptic variants. If Grohmann's hypothesis is correct the *qulla* might have been a very large storage jar, perhaps far larger than any of the amphorae.

The term *qulla* is known from a variety of ethnographic sources, already noted early on in *Description de l'Égypte*. Indeed, when Karabacek discusses PERF 710, he thinks that the *qulla* in the papyrus is the same as the one illustrated in *Description de l'Égypte*.¹⁰⁸ He did not discuss the correlation in great detail, however. Edward William Lane stated that the *qulla* was used in nineteenth-century Cairo as a water bottle and glass sherbet cup.¹⁰⁹ This suggests that the term could refer to a wide variety of vessels both large and quite small. In Morocco it is thought to be an oil measure which in Casablanca contains 30 kg of oil and in Mazagan 17 kg. This suggests oil would have been stored in a large jar in this period, perhaps not unlike the type seen by Lane in Cairo in the nineteenth century.¹¹⁰ Further, the term appears to have remained popular into the twentieth century, when it continued to mean a jar that contains

103 Grohmann, *From the world* 164; Grohmann, *Einführung* 171; *P.Khalili* I 3; *P.Vind.Arab.* I 16.5. Hip: *P. Khalili* I 7.5.

104 Grohmann, *Einführung* 171.

105 Grohmann, *Einführung* 171.

106 *P.Ryl.Copt.* 238.31; 242.4.

107 *P.Berl.Arab.* II 40.6.

108 Karabacek, *Papyrus* PERF 710.

109 Lane, *Manners* 155.

110 Grohman, *Einführung* 171.

liquids, such as water.¹¹¹ In Egyptian Arabic a *qulla* is an earthenware jug¹¹² or a water bottle.¹¹³ Pots found in the Kellia excavations have been associated with the modern *qulla*,¹¹⁴ while other archaeoglogical material has also been connected to the ethnographic evidence of the *qulla*.¹¹⁵ Once again, there seems to be a change that has occurred between the attestations in the papyri and the ethnographic attestations. There are some *qulla* which seem to be quite large while others are very small.

In addition to these three fairly common terms for vessels in the Arabic papyri, there are two less common ones. One of these is the *iqnīz* (إقنيز). The word *iqnīz* comes from Greek κνίδιον, which also occurs in Coptic texts as κνικιλί, κνικιλί, and κοινάου and is equivalent to the Coptic word λακοοτε.¹¹⁶ The term is very popular in both Greek and Coptic papyri, although it is rare in the Arabic papyri. Indeed, the term *knidion* is the most widely attested amphora name in the late antique period, although attestations first begin in the Ptolemaic period, then stop and begin again in the second century CE and continue into the ninth century. The Greek attestations of *knidion* jars indicate that it contained large amounts of wine and olive oil, but also other items such as honey, cheese, money, grapes, cheap wine or vinegar, mixed honey and wine, and honey and water drinks, *garum*, sweet olives, olives, pickles, and pickled calf meat.¹¹⁷ It has been argued that in the Byzantine period *knidion* jars ceased to be identified with a specific form or type, but rather referred generally to jar. This seems to be supported by the archaeological evidence as there are no imitation jars from Knidos produced in Egypt in the Byzantine period and in several Coptic texts *knidion* jars are equated with Coptic measures.¹¹⁸ Texts describe *knidion* jars to have been produced in Egypt. This suggests that the term continued to represent both the wine jar and a

111 Blackman, *The fellahin* 140; Mond and Meyers, *The Bucheum* 84; Brissaud, *Les ateliers* 217; Golvin, Thiriot, and Zakariya, *Les potiers* 27, no. 1, 28; Henein, *Poterie* 104, 154; Nicholson, *Deir Mawas* 142.

112 Hinds and Badawi, *A Dictionary* 716.

113 Spiro, *An Arabic-English* 500.

114 Henein, *Poterie* 104, 154. See also Ashton, *Comparative*.

115 Egloff, *Kellia* 128.

116 Bell, *Metrology* 22; Crum, *A Coptic* 111b; Grohmann, *Einführung* 170, no. 5; Černý, *Coptic* 59; Alcock, *Coptic terms* 1–2; Kruit and Worp, *Geographical* 72–75.

117 Clackson, *Coptic* 27, 157; Kruit and Worp, *Geographical* 104–105, 108; Mayerson, *The knidion* 165–166; Mayerson, *Enigmatic knidion* 205–209.

118 For Coptic measures, see Kruit and Worp, *Geographical* 72–75; Černý, *Coptic* 59; Alcock, *Coptic terms* 2.

measure in the late Roman/Byzantine period,¹¹⁹ and presumably this would hold true for the early Islamic period as well. Whether or not the term *knidion* retained its geographical meaning in Coptic, it is clear that the term ceases to refer to an actual jar but rather becomes an extremely common wine measure in the early Islamic period.¹²⁰ It was also used to measure other substances, such as pickles.¹²¹

In Arabic the term seems to refer to actual jars, rather than to a measure. This suggests that the term may be adapted from the Greek rather than the Coptic and hence it retained its original meaning. The Arabic texts date to between the seventh and eighth centuries and, where find spots can be determined, come from the Fayyūm and from Khirbat al-Mird in Palestine (one). The containers primarily contain liquids and semi-liquids such as wine (the most popular), but fat and soap are also attested.¹²² There is some evidence for the type of material that the objects were made of. The vessel from Khirbat al-Mird is made of bronze¹²³ and Grohmann suggests that this is a small vessel,¹²⁴ but there is no evidence for its actual size. The fact that it was in one instance made of metal suggests that metal was used in other instances too, although the carrying of liquid contents may also suggest amphorae.

The term does not survive in modern Egyptian Arabic and therefore is not attested in ethnographic studies or in dictionaries. This may have to do with the fact that it is a measure in Coptic and was rare in Arabic. The only excavators to discuss a possible equivalence for the term *knidion* are those who worked at Ashmūnayn. They suggested that a LRA7 type found there and dating to at least the eighth century can be identified as the *knidion*.¹²⁵ The LRA7 is generally dated to a later period than this, while it was not made in Knidos, even though the geographical association might have been lost by this time. There is another problem, however, namely that the object found at Ashmūnayn does not correlate with the known sizes of *knidion* jars in the texts.¹²⁶

119 Mayerson, *Enigmatic* especially 205, 209.

120 Bell, *Metrology* 22; Clackson, *Coptic* 26–27; Bacot, *Le vin* 714–715. See also Wipszycka, *La Fonctionnement* 170–171.

121 Bell, *Metrology* 23. *O.Sarga* 87.

122 Karabacek, *Bemerkungen*; Grohmann, *Einführung* 170.

123 *P.Mird* 41. For these papyri see Cotton and Millar, *The papyrology* 215, no. 8.

124 Grohmann, *Einführung* 170.

125 Bailey, *Excavations* 129–130; Pyke 2005, 217.

126 Bavay, *Les amphores* 391.

The least common Arabic jar name in the papyri seems to be a *barnīyya* (برنية). This jar appears in A. Ch. 2924.7, which dates to the tenth century. Diem suggests that the jar contained several truffles,¹²⁷ which seems a somewhat unusual content. The jar is not attested anywhere else, which makes it difficult to speculate about what it was. In colloquial Egyptian, however, *barnīyya* means an earthenware pot or dish glazed on the inside.¹²⁸ This could suggest that ethnographically it is a jar that would normally hold liquids or be used in cooking. More attestations of this jar are needed in the papyri, however, before we can make more in depth statements about what it might be. This demonstrates, however, the evolving nature of the evidence in Arabic papyri for jar terms. There are more jar names attested in the ethnographic studies than have been found in the papyri, suggesting that there were more Arabic jar names in the early Islamic period than what we have found so far.¹²⁹

Coptic Terms

The Coptic terms that have correlates in the Arabic papyri have been discussed above, but there are also terms that only appear in the Coptic. As mentioned above, due to a discrepancy in the publication record, there are many more terms known from Coptic papyri than from the Arabic. In spite of the abundance of this evidence, the treatment of Coptic jar terms has been limited to discussing the degree to which they constitute Greek loan words (such as discussed by Förster and Kruit and Worp) or ‘genuinely’ Coptic terms (such as discussed in Alcock, which is essentially a list from Crum’s Coptic dictionary with a few additions¹³⁰). A more complete discussion of all the Coptic terms is a *desideratum* and it is hoped that this article will stimulate further discussion on this topic that will examine all occurrences of the different jar names in detail and publish more texts concerning jars. Such a study may reveal whether or not certain jar names predominate in certain regions, as has been suggested for some measures which seem to predominate in the Edfu, Theban, and Oxyrhynchite areas.¹³¹ Here, the jar names under discussion will be divided into two

127 *P.Vind.Arab.* 1 4.7. Cf. Diem’s discussion of the term in the commentary to this text (p. 26).

128 Hinds and Badawi, *A dictionary* 70.

129 See, for example, Wassef, *Pratiques* 400–402.

130 Alcock, Coptic terms 1.

131 Bacot, *Quelques* 35, 37–38; Bacot, *Le vin* 716. Bacot suggests that the local measures at Edfu are λαρε, βαλκυονητ, ταρωε, and αλχ. The term βαλκυονητ also appears at Bawit. Another

categories: those that are attested commonly (both Greek loan words and those that are Coptic) and those which are more rarely attested. Attestations from texts that date generally to the sixth/seventh century will also be included in the discussion here because they may in fact date to after the Islamic conquest.

Several Greek loanwords that are attested in Coptic and Arabic texts, such as *knidion*, have already been discussed, and we will now turn to those other Greek words for jars that are attested as loanwords only in Coptic and that are very common in the papyri and the ostraca. The term ἀρρ, ἀρρεῖν, or ἀρρεν, comes from the Greek ἀγγεῖον, and means jar.¹³² In Coptic texts from western Thebes the jar contained vinegar or oil (early 8th century),¹³³ while Greek texts mention it containing wine (from 6th/7th-century Hermopolis/Ashmūnayn,¹³⁴ late 7th-century Edfu¹³⁵ and 8th-century Bawit).¹³⁶ The contents are therefore similar to those mentioned in pre-Islamic documents from early seventh-century Apollonopolis Heptakomias, namely wine.¹³⁷ All these texts have thus a middle or upper Egyptian provenance and refer to measures holding liquids.

Another jar term which is common is καιος from Greek σκεῦος, which occurs frequently in Coptic texts.¹³⁸ The καδος from κάδος in some cases contained wine.¹³⁹ The ασκαλωνε, from the Greek ἀσκαλῶνιον, might refer to an actual jar or a measure in this period. Most scholars, such as Bell, Hasitzska, and

local term from Edfu is ϣνταεε, ϣενταεε, which occurs as a wine measure, and as a measure for vinegar and herbs in the wider Theban area outside of settlements such as Djeme. It can also be found at Hnes, Ashmūnayn, and Wadi Sarga. It also appears in Greek texts as ψινθ () from Edfu with salt, boiled wine concentrate, must, and wine (*PApoll.* 93.A. 11, 12, 17 and 93.B.2.3.11, 23). See Crum, *A Coptic* 573b; Bacot, *Du nouveau* 153; Worp, *Notes* 571. Another local term is λακοοτε, which especially occurs in Middle Egypt (Bell, *Metrology* 23). The measure λαη appears in Greek and Coptic, but while the Coptic term appears at a variety of sites such as Edfu and Bawit, in Greek papyri it is almost entirely limited to the Oxyrhynchite nome (Worp, *Notes* 565; Bacot, *Ostraca* 10, 65).

132 Förster, *Wörterbuch* 6–7.

133 Förster, *Wörterbuch* 6–7. For ἀρρεν: See *O.Frangé* 118.7, 120.23, 343.13–14 (mentions an amphora of vinegar), ἀρρι: see *O.Frangé* 82.7: jar(s) of oil.

134 *SB* 18.13585–6, 13589; *P.Lond.* III 1036.

135 *PApoll.* 97.

136 *O.Bawit/FAO* 33.2. 36. 2, and possibly 38.4 (the contents are not clear in the last text).

137 *P.Grenf.* 1, 63, *P.Drexel*, and *Par.suppl.gr.* 1291.1. For more on *P.Gren.* 1, 62, its dating, and the provenance of Apollonopolis Heptakomias (Kom Isfāht) rather than Edfu, see Benaissa, *Two bishops* 179–180. For *P.Drexel* and *Par. suppl. gr.* 1291.1, see Bainassa, *Two Bishops* 184–187, 187–191. The monastery of Bawit is located in the vicinity of this city.

138 Bell, *Metrology* 25; *P.Mon.Epiph.* 3; Förster, *Wörterbuch* 735–737.

139 Förster, *Wörterbuch* 357–358.

Förster, believe that it is a measure but Kruit and Worp treat it as a jar. In Coptic, the term is primarily attested at Ashmūnayn, but also appears commonly at Wadi Sarga. It appears in the Coptic texts very frequently as either a measure or container for cheese¹⁴⁰ although wine is also attested.¹⁴¹ Mayerson suggested that ἀσκαλῶνε was a form of amphora from Palestine. He noted that this type of jar contained wine, sweetmeats, fish sauce and cheese in the papyri which he felt would fit with an amphora in general. He did not discuss either the jars or the papyri in detail, but identifies ἀσκαλῶνιον and γαζίτιον to LRA 4 jars.¹⁴² Once again, the jar name seems to have lost its meaning as a container and to have become a measure.

There are several other words that appear in Coptic whose actual origin is disputed. The word κοεic, which Crum, following Krall in *CPR* 11, suggests is also borrowed from Greek κόις, has been thought by Worp to be a word which comes from Coptic as it is only found once in Greek. Again, however, this jar type seems to refer to quite varied types and while it normally contains wine and vinegar, it can also contain solids. At Ashmūnayn a κοεic maker is attested in the seventh century promising to deliver new κοεic jars.¹⁴³ It is attested in the Theban region, Bawit¹⁴⁴ and at Edfu.¹⁴⁵ Bacot suggests that κοεic, κολοβον, and πγpp[oc] are jars attested at Edfu that contain wine although confusingly she also calls them measures.¹⁴⁶ This might be the same as ποπο, which is

140 *O.Sarga* 196, 198, 203 from Wadi Sarga; *P.Lond.Copt.* I 1044, 1085, 1126 from Ashmūnayn; *CPR* XII 30.26.

141 *O.Sarga* 237 and 275. Bell, *Metrology* 20; Hasitzska, *CPR* XII 40; Mayerson, *The Gaza Kruit and Worp*, *Geographical* 100 (their list provides only some of the Coptic examples); Förster, *Wörterbuch* 114.

142 Mayerson, *The Gaza* 79–80; Zemer 1977, Peacock and Williams, *Amphorae* 197–199; Kruit and Worp, *Metrological* 97; Kruit and Worp, *Geographical* 100–101; Gorzalczy, *A baptismal* 116–117. There are various varieties of southern Palestinian amphorae (Majcherek, *Gazan amphorae*; Fabian and Goren, *A new type*; Ward, *From provincia arabia* 199–209).

143 *CPR* II 223 = *CPR* IV 35.

144 See Krall commentary on *CPR* II 223; Crum, *A Coptic* 120a; Worp, *Notes* 568. The exact size of this jar is unknown but it is probably smaller than a *knidion* jar (Kruit and Worp, *A seventh-century* 49).

145 *O.EdfouFAO* 29; 70.

146 Bacot, *Quelques* 35; Bacot, *Le vin* 716; Bacot, *Ostraca* 10, 56. Kruit and Worp, *A seventh-century* 49 treat κοεic as a jar. For κολοβον, see Kuentz, *Remarques* 199, who argues that it is a wine measure. Bell, *Metrology* 22 merely states that it has an obscure meaning but includes it in his metrology discussion, suggesting he believes it is a measure as well. Crum, *A Coptic* 28 also discusses it as a measure although he refers in his dictionary to it as a vessel. Kruit and Worp, *A seventh-century* 49 also believe this is a vessel.

attested in *O.CrumST* 117 and is defined by Crum as a jar holding oil.¹⁴⁷ πγρρ[oc] comes from the Greek word πυρρόν, red, and is equivalent to Coptic τάρωε, which in turn is derived from the ancient Egyptian *sd dšr*, red vase. The term appears not only at Edfu, but also at Jeme/Medinet Habu and the Monastery of Phoebammon.¹⁴⁸ Kruit and Worp note that Edfu pottery includes both brown and brown with red slip ware.¹⁴⁹ Because red is one of the most common colors in pottery this does not particularly assist in finding any archaeological correlates for this type at Edfu.

In addition to these more common loan words from Greek, there are some less frequently attested ones, such as κεραμ[α], from κεράμια¹⁵⁰ and πιθος from πιθος¹⁵¹. Additionally, there are two words for jars that may in fact not come from Greek at all: αλιτε, which in the Frange material (spelled καλιτε), refers to a vessel filled with oil or simply as a vessel.¹⁵² It also appears in the Wadi Sarga texts as a vessel also filled with oil.¹⁵³ Another term possibly referring to a storage vessel is οπρον, which holds many different types of foodstuffs.¹⁵⁴ The word κωτων, which may come from the Greek word κώθων has been attested at Edfu, and elsewhere where it contains honey, wine, and pickled food.¹⁵⁵

147 Crum, *A Coptic Dictionary* 268a.

148 Kruit and Worp, A seventh-century 51. As noted by Heurtel, this word does not appear in the Coptic dictionary. Two attestations of this word which suggest that it is a measure or container (Heurtel, *Reçus* 151). See also Bacot, *Quelques* 35; Bacot, *Le vin* 716; Bacot, *Ostraca* 11, 66.

149 Kruit and Worp, A seventh-century 51.

150 Förster, *Wörterbuch* 405.

151 Förster, *Wörterbuch* 643.

152 Oil: no. 88.12. Vessel: nos. 328.10 and 329.6.

153 In the dictionary Crum suggests that it is the form of κόλλαθον in Coptic, but he acknowledges in his commentary on *O.Sarga* 91 no. 4 that it does not look very similar. Bell, however, accepts the idea that the two are the same, but Förster has a question mark (Bell, *Metrology* 22; Crum, *A Coptic* 813a; Förster, *Wörterbuch* 428–429). Occurrences of the Greek measure κόλλαθον in Coptic are very frequent.

154 Bell, *Metrology* 25. Bell argues it was a dry measure, for cheese as well as wine and pickles. He suggests that it comes from the Greek ὄργανον. See, however, Förster, *Wörterbuch* 586, no. 7. The latter argues that this equivalence with the Greek is questionable. It is not always a vessel, however. See Crum's commentary on *P.Mon.Epiph.* 312, no. 1. There he states that it is a mill, wine press, or instrument.

155 Edfu: *P.Mon.Epiph.* 532.15 and 543.7 (in a list). Crum commentary on *P.Mon.Epiph.* 543; Boud'hours and Heurtel, *Les ostraca* 71–72.

There are also Coptic names for jars such as ⲩⲟⲩⲟⲩⲩ, which is found at Wadi Sarga and the Theban region referring to a large jar containing wine.¹⁵⁶ It may be related to the word ⲩⲁⲩ, which Crum defines as a vessel or measure for wine. In three cases, the jar holds the wine of Tiloj. In one case, the papyrus probably comes from the Fayyūm as it was given to the British Museum by Graf,¹⁵⁷ while the other text, an ostrakon cited by Crum, is a Theban account and another is a list of wine jars from Wadi Sarga.¹⁵⁸ This suggests that the wines of Tilodj (Nilopolis/Dallās) were well known outside of their production center, namely the Fayyūm.¹⁵⁹

Other jar names include ⲙⲣⲱⲩⲉ/ⲙⲣⲱⲩⲉ, which Crum defines as a vessel of clay,¹⁶⁰ ⲟⲩⲛⲉ, which is both a measure and a vessel,¹⁶¹ ⲗⲟⲕ or ⲗⲁⲕ, which is a small pot (about 1/2 liter in size) that contains pure honey or oil in the Frange correspondence and is referred to as a jar at Jeme without any contents listed,¹⁶² ⲩⲟⲩⲩ,¹⁶³ and ⲩⲱⲩⲉ which is a jar but also seems to be a measure or jar for bread.¹⁶⁴ Another example is ⲉⲕⲱⲛⲉ, which in the texts of Frange is a vessel filled with oil.¹⁶⁵ It is described elsewhere as a bronze vessel or as a vessel or

156 Crum, *A Coptic* 609a; Bacot, *Du nouveau* 158–159. For some reason Alcock misspells it as ⲩⲟⲩⲟⲩⲩ (Alcock, *Coptic terms* 5).

157 *P.Lond.Copt.* 1 697.

158 *o.Sarga* 135.

159 Crum commentary on *P.Lond.Copt.* 697 (where he is not certain what the word means); commentary by Crum on *O.Sarga* 135 (where he translates the text as wine jars of (?) for Tiloj); Crum, *The monestary* 162, no. 5; Crum, *A Coptic* 604b–605a. For the city of Tilodj, see Timm, *Das christlich-koptische* 498–502.

160 Crum, *A Coptic* 184a; Crum commentary on *P.Mon.Epiph.* 549. See also Schäfer, *Ein Trichter* 152. Crum thinks it may have been a strainer in this context. This is followed by Wilfong, *Women's* 216, who notes the original editors of the *O.Medin.HabuCopt.* 5 translated it as vessel.

161 Crum, *A Coptic* 256a.

162 *O.Medin.HabuCopt.* 5; *O.Frangé* 100.9 (where it refers to a jar of pure honey), 236.3 (jar of oil), 237.11, 633.10 (jar of honey), 770.18. Crum, *A Coptic* 138a–b, defines it as a bowl or cup or a measure for oil.

163 Crum, *A Coptic* 727a. This is a jar or a pot. It is attested in *O.Sarga* 66 as containing cheese, 186 as holding vinegar and pickles, and 344 as containing wine. See commentary of Crum on the Wadi Sarga texts on p. 148, no. 2.

164 *O.Frangé* 93.7, 11, 24 (Frange asks for a ⲩⲱⲩⲉ of bread), 328.9 and 329.4 (where it seems to be a jar). Crum, *A Coptic* 722a, states that it is a vase name. This is not to be confused with ⲩⲛⲗⲉ, which is also a measure or container for bread (Crum, *A Coptic* 667a; Wilfong, *Women's* 217, who suggests that the iron ⲩⲗⲗⲉ and wooden ⲩⲗⲗⲉ mentioned in *O.Medin.HabuCopt.* 85 are not furniture but rather bread containers or measures).

165 Nos. 87.7–8, 327.11.

tank of metal or wood.¹⁶⁶ It is apparently an object used in the kitchen, as it appears in a list of kitchen objects from the Theban area.¹⁶⁷ It also may be related to a word κηνε or κηνε, which is found in a list of vessels.¹⁶⁸

There is evidently borrowing from Coptic into Greek as well. One word is *κελμαί*, which seems to refer to a metal vessel.¹⁶⁹ The word *κογνχογ* refers to metal or clay vessels¹⁷⁰ and is attested in Greek as *κόντσου*.¹⁷¹ There are at least two sizes referred to as a *μεγάλη* and *μικρόν κόντσου*.¹⁷² *κορογτον*, *κιρωτον* is another common word in Coptic which usually refers to a vessel holding wine or vinegar, except in two cases when the contents may be explained as “filtered” wine.¹⁷³ Husselman suggested that it was a jar with a strainer on the top¹⁷⁴ but this would argue against it being a storage jar, as transporting anything in it would be difficult. Worp has tried to connect this word to the Greek *σιρώτ(ησ)/σιρωτόν/ν*. In his discussion of the term he begins by stating that it also looks similar to the Coptic word *cip*, but the relationship between *cip* and *κιρωτ* remains unclear.¹⁷⁵ *cip* has been connected to the Arabic *zīr* which is a common term for jar, basing his findings on a literary text.¹⁷⁶ This has been described as a Coptic loan word in Arabic,¹⁷⁷ although the Coptic use is limited to one attestation.¹⁷⁸ In Greek, the term was used exclusively for containers for wine and vinegar in texts from the sixth to the eighth centuries.¹⁷⁹ It also

166 *O.Medin.HabuCopt* 5.

167 *SBKopt* II. 1048.6.

168 *P.Mon.Epiph.* 543; Crum, *A Coptic* 112a; *O.Frangé*, p. 72.

169 Crum, *A Coptic* 811a. See also Worp, Notes 570, who discusses this term in a Greek text of the sixth century.

170 Crum, *A Coptic* 113a; Alcock, Coptic terms 2. See also Stefanski and Lichtheim, commentary on *O.Medin.HabuCopt* 5 no. 7. At Edfu: *O.EdfouIFA* 127 is list of objects paid as wages including two jars: *κογνχογ* (here *κογχογ*). The word also appears elsewhere in the Theban area (*O.Frangé* 631.8).

171 *SB* I 1160 of unknown provenance and date (Torallas Tovar, Egyptian 169).

172 Worp, Notes 568–569.

173 Crum, *A Coptic* 148, no. 3. See commentary on *O.Sarga* 186.7.

174 Husselman, Coptic 68.

175 Worp, Notes 569–570.

176 Crum, *A Coptic* 353b; Worp, Notes 569, no. 28.

177 Bishai, Coptic 47.

178 Crum, *A Coptic* 353b.

179 Sixth century: *P.Prag.* 1.92.1, *SB* I 1960.6 = *O.Petr.* 452. Seventh century: *P.Apoll.* 93.A.5. Early seventh century from Arsinoites: *BGU* II 377.2. Seventh/eighth century: *P.Bad.* IV. 97.10.15.

appears in two Coptic-Greek texts from eighth-century Bawit referring to containers for vinegar.¹⁸⁰

In addition to these fairly common types, there are also a number of words that are found less commonly in Coptic. What follows are some of them. Ⲅⲁⲡⲉ has been suggested to be a small vessel.¹⁸¹ Ⲅⲁ or Ⲅⲁⲓ,¹⁸² Ⲅⲓⲟⲡⲉ,¹⁸³ and Ⲅⲗⲉ refer to a vessel for honey or oil.¹⁸⁴ Ⲅⲁⲓ is defined as a measure or a vessel.¹⁸⁵ ⲟⲣⲟⲓⲟ has been identified as a vessel possibly holding corn.¹⁸⁶ ⲉⲗⲗⲁⲉⲱⲙ may be a vessel.¹⁸⁷ ⲭⲓ seems to be a metal vessel or utensil.¹⁸⁸ ⲙⲟⲥⲛ(ⲉ) might be a vessel or dry measure.¹⁸⁹ ⲉⲁⲧⲙⲉ,¹⁹⁰ ⲉⲭⲁ are both described as a vessel or measure.¹⁹¹ ⲃⲟⲡⲉ seems to be a small vessel.¹⁹² Ⲅⲁⲡ or Ⲅⲁⲓ has been defined as a receptacle or measure for corn and honey.¹⁹³

In other cases, the meaning of the jars is not entirely clear. The word Ⲅⲁⲙⲧⲉ or ⲙⲛⲉ, for example, was defined by Crum as a pail or bucket in the dictionary but he has defined it as a vessel holding oil, dates, or grapes elsewhere.¹⁹⁴ Other containers are attested in the papyri such as a water bottle (ⲃⲁⲗⲗⲟⲓ),¹⁹⁵ bottle or tube (ⲡⲟⲛⲕⲓ),¹⁹⁶ and ampoule (ⲁⲙⲡⲟⲓⲗⲉ). This latter term appears twice in the correspondence of Frange who in one case asks that he be sent a large ampoule

180 *P.Bru.x.Bawit* 9, 13.

181 Crum, *A Coptic* 825b. This term is found primarily in literary texts, but it also appears in *P.Ryl.Copt.* 397. In note 10 to this text Crum suggests that it is perhaps the Coptic equivalent of the Greek word ἀγάρη but he seems to have abandoned this idea by the time he wrote the dictionary.

182 Crum, *A Coptic* 802a. In *BKU* 1 21 it holds boiling water.

183 Crum, *A Coptic* 82a. He suggests it is either a measure or vessel for oil.

184 Crum, *A Coptic* 102a

185 Crum, *A Coptic* 378b.

186 Crum, *A Coptic* 603a.

187 Crum, *A Coptic* 672b.

188 Crum, *A Coptic* 752a. This jar appears in list from Jeme/Medinet Habu where it was translated as a bronze vessel (*O.Medin.HabuCopt.* 27).

189 Crum, *A Coptic* 186b. See also *O.Crum* 216 (Cairo 8215). He translates it as a "small basket of olives" here. The dictionary entry does not explain why he changed his mind.

190 Crum, *A Coptic* 724a.

191 Crum, *A Coptic* 742b–743a.

192 Crum, *A Coptic* 825b.

193 Crum, *A Coptic* 113b; Crum commentary *P.Mon.Epiph.* 536, no. 2.

194 Crum, *A Coptic* 110b; Crum commentary *P.Mon.Epiph.* 551 n.

195 Crum, *A Coptic* 38a.

196 Crum, *A Coptic* 266a.

of fish sauce.¹⁹⁷ There are also words for which the meaning remains unknown such as ⲃⲏⲃ, which appears in lists of vessels¹⁹⁸ and ⲕⲏⲛⲉ.¹⁹⁹

The different products packed in these jars include wine, vinegar, honey, salted fish, *garum*, pickles, meat, salted preserves, herbs, olives, and cheese.²⁰⁰ The types of objects, and the foodstuffs they contain, that appear in the Coptic texts are similar to those attested in the Arabic papyri, but they are encountered more frequently and in more variety in the Coptic texts. It is not always clear from the papyrological evidence what type of material the vessels are made of. Sometimes the material is stated, namely pottery or metal,²⁰¹ but in other cases, this is not clear at all. In the case of the word ⲃⲗⲗⲁⲅⲧ, for example, which Crum defines as a pot,²⁰² the type of material is not specified. In the Frange letters published by Boud'hors and Heurtel, the word appears three times but only in one instance is it clear that a blacksmith is involved, leading the editors to suggest that it is a pot or cooking pot made from copper rather than a ceramic jar.²⁰³

As has been observed above, there have been few attempts to find archaeological correlates for the Coptic jar names. There is a large variety of different vessels attested in the texts and an equally large variety of objects attested in the archaeological record. The large numbers of terms in Coptic and a certain amount of uncertainty makes it necessary to examine these terms in considerable detail to try to determine whether certain objects are jars or measures, how they might be used and in what context. Moreover, many of the sites where a large number of texts have been recovered and studied have not been published archaeologically.²⁰⁴

The site of TT29, however, provides considerable information about pottery production and consumption, both from an archaeological and textual point of view. At the site, archaeologists have discovered the voluminous correspon-

197 *O.Frangé* 53.15 (commentary Boud'hors and Heurtel, *Les ostraca* 71–72); O.Bale inv. Lg Ae BJF 31c (commentary Boud'hors, *Pièces* 105–106).

198 Crum, *A Coptic* 28b.

199 Crum, *A Coptic* 112a.

200 Kruit and Worp, *Geographical* 138; Worp 2004, 558.

201 See, for example, *O.Medin.HabuCopt.* 27.1 and 7, which notes that the jar ⲃⲏⲗⲗⲁⲅⲧ is made of bronze. This term is not attested in Crum (Crum, *A Coptic* 113a, 184a; Alcock, *Coptic terms* 2). See also Stefanski and Lichtheim, commentary on *O.Medin.HabuCopt.* 5 no. 7; Crum commentary on *P.Mon.Epiph.* 549.

202 Crum, *A Coptic* 813b–814a.

203 *O.Frangé* 79.10–11 and commentary.

204 Bavay, *Les amorphes* 391.

dence of the anchorite Frange, as well as large amounts of pottery from the same context.²⁰⁵ This combined evidence provides information about what the anchorite ate and insights about the operations of exchange and transport which were conducted in order to keep him provisioned. The pottery dates to the first part of the eighth century and is very homogeneous which has led to the suggestion that the material might have belonged to the anchorite and those who lived around him. The pottery consists of LRA7 from Ashmūnayn (a type that also occurs frequently at the Monastery of Epiphanius), pottery that has similarities to jars found at Elephantine and Tod, amphorae from Aswan and local imitations of Aswan amphorae made in middle Egypt which are found frequently in the Theban area.²⁰⁶ But it is difficult to know which of the jar names used in Frange's correspondence can be connected to the amphorae found archaeologically. Once the ceramics from the site have been published, it will be interesting to make a detailed analysis of both the texts and the pottery.

Conclusion

A wide variety of different types of jars have been found at sites all over Egypt. Similarly, the Coptic, Greek and Arabic papyrological material contains numerous references to jars and containers. The difficulty is trying to understand how the archaeology and the papyri can be connected. The Arabic evidence remains small and there are not enough names known from the papyri to match the variety of archaeological attested material. Moreover, like the Greek and Coptic textual material the Arabic papyri lack exactitude and details in the descriptions needed for exact matching. This leads to a certain amount of confusion. It also means that it is difficult to make exact correlates. The appearance of new papyrological terms, especially from newly published Arabic material, has made it clear that there are doubtlessly many more attestations of jars in the papyri that are waiting to be published. The ethnographic evidence shows not only that there is a wide variety of different names for jars, but also how the names of jars have evolved through time and changed their meaning. The fact that there are different sizes of jars and that different types of materials are used for jars that carry the same name, suggests that the same term is applied to different types of vessels, something which also exists concerning the ethnographic terms.

²⁰⁵ *O.Frangé* 21.

²⁰⁶ Bavay, *Les amphores* 390–391, 394–397.

The Coptic documentary papyri provide a far more complete picture of the large number of jar names that exists although more work is needed before a clear picture emerges. The information available so far does indicate that many jars seem to have had their own specific names. Finally, the papyrological evidence provides a good corrective to the archaeological record. There is often the tendency in archaeology to assume that storage jars found on sites would have always contained wine. The large variety of commodities attested in the papyri shows that this need not be the case and that the picture is far more complex. Indeed, the attempts to correlate papyri and archaeology in general show that although we are sometimes limited by what has been published, this unique material is still the best way to help us to understand consumption patterns better in early Islamic Egypt.

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