Sealed amphora stoppers and tradesmen in Greco-Roman Egypt: archaeological, papyrological and inscriptive evidence

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Abstract

This paper focuses on sealed amphora stoppers and their stamps originating from Greco-Roman Egypt; the majority of the stoppers appear to belong to the Roman period. After a discussion of the technical aspects of the sealed stoppers, the stamps are dealt with. With the help of papyri, ostraka and inscriptions, some of the individuals mentioned on these stamps may be identified. In case of local trade, the (clay) stamps rather refer to the origin of the wine, whereas in case of international trade the (plaster) stamps record the businessmen involved in trade, among them people from the highest echelons of Egyptian society.

INTRODUCTION

The study of Egyptian amphora stoppers and sealings has long been neglected in favour of studies on the amphorae themselves and stamped amphora handles. Due to their poor state of preservation or to their supposed lack of esthetical value, sealed stoppers were either considered unworthy of publication or remained unnoticed in excavation reports or catalogues. In recent years, sealed amphora stoppers from Greco-Roman Egypt have attracted increasing interest. In two articles in 2000 G. Nachtergaele discussed wooden stamps used to impress amphora sealings. In 2005 Paola Davoli devoted a book to clay objects found in the temple area of the Fayum village of Bakchias, among these a whole series of sealings for closing amphorae. In an appendix of Davoli’s book Katelijn Vandorpe studied the sealings of containers in Greco-Roman Egypt, such as boxes, chests and amphorae.

The present article is the first to focus on the entire corpus of sealed amphora stoppers dating back to Greco-Roman times. The period offers a wide range of finds, mainly because of the expansion of trade: whereas the Ptolemies continued local trade and insured an increase of the Red Sea trade, the Romans facilitated trade towards the West and watched over the full exploitation of the country’s resources. The major part of the evidence originates from the fertile Fayum area and the Eastern Desert region, entrance to a wide Red Sea trade. The entire corpus of evidence is available through a database-driven website: <http://www.trismegistos.org/seals/>.

In the first part of this article the technical aspects of the closing devices, such as construction and materials, are discussed. The second part of the article focuses on the stamps impressed on the amphora sealings, briefly describing their outer appearance and compares the information they provide (such as the names of businessmen) with papyrological evidence: several businessmen recorded on amphora stamps may be identified. These identifications give us insight into the individuals who were involved in local or international trade. We will try to find out who was responsible for filling the amphorae or their subsequent sale.

CLOSING DEVICES: TECHNICAL ASPECTS

A great deal of information coming from Egyptian amphora stoppers and sealings is transferred by stamps impressed on the sealed stoppers. Before any discussion of stamps or the information they can convey, their bearers, the amphora stoppers and sealings, must be studied. In this chapter, we ascertain the difference between stoppers and sealings, discuss how and from what material they are made of and examine the peculiarities they can present.

Stoppers and sealings

The terms ‘stopper’ and ‘sealing’ are often used as synonyms, indicating the entirety of a closing device for amphorae. There is, however, an essential difference between both (fig. 1). Stoppers are plugs of stuffing materials such as straw or vine leaves that are placed inside the neck of the amphorae to a depth of 7 to 8 cm. Their purpose is
to protect the contents of the vessel from being contaminated by wet clay or plaster from the sealing. We find different types of stoppers: reed stoppers consist of a series of roughly circular mats of varying diameter, which are woven, laid upon each other or simply bound together. Pottery stoppers consist of small saucers or shards laid at the top of the amphora neck. Clay stoppers are thick handmade discs of clay placed in the neck of the amphora, most probably while still wet.2 Very common are the stoppers consisting of a wad of leaves, usually vine leaves but occasionally papyri. These fresh leaves can be laid on top of each other, or propped together in a bung.3 Stoppers of other materials, such as cork,4 linen, grass, bits of straw or chopped chaff mixed with earth or clay, also occur.5

An amphora sealing is, strictly spoken, what is laid over the stopper to complete and fortify the stopper and hermetically close the amphora.6 Sealings consist of clay or plaster and can be laid above and around the neck of the amphora. Davoli, discussing clay sealings from the Hellenistic-Roman village of Bakchias, divides them in three subgroups: the Conical-trunk sealings, the Mushroom-shaped sealings and the Convex-with-cavity sealings (fig. 2). The Conical-trunk sealings are closing devices that go deep into the amphora’s neck and have a slightly conical shape in profile. The upper part has a round convex shape, while the part underneath is hollow and follows the round shape from above.7 The different sealing types are not linked to a particular type of amphora; they could be applied in all shapes to amphorae and jars of varying sizes.8

Despite the frequent appearance of mould-made sealings in Pharaonic times, Greco-Roman clay sealings are always handmade.9 The clay is placed on the mouth of the amphora, over the stopper, and subsequently modelled into shape, creating an uneven and often rough surface. A stamp can be impressed when the sealing has slightly dried.10

Although any type of clay could be used to seal any jar, the plasticity of the clay had to be controlled. If too high, excessive shrinkage could occur when it dried, causing the sealing to crack. In order to prevent this, chaff and/or sand could be added to the fresh clay.11 Whereas clay for amphorae or other vessels might sometimes have been imported from further afield, the clay for the sealings generally originated from the site of production.12

As the knowledge required to select the clays for either amphorae or sealings would have been the same, it has been assumed that the making of closing devices was supervised by potters or was a part of their own job.13 However, there is no evidence that amphorae were filled at the exact place where they were produced. Since clay sealings (or plaster ones for that matter),14 applied in wet condition, could not be pre-produced, it is unlikely that potters were involved in the sealing process.

When the sealing consists of plaster instead of clay, it bears a different shape. Liquid plaster is simply poured into the mouth of the amphora and on top of the stopper.15 The plaster sealing thus covers little of the exterior of the amphora neck and has a rather flat-looking upper part. In Egypt, plaster sealings entirely supplanted clay sealings from Roman times onwards.16 The material compared favourably to clay, since it was stronger and less likely to shrink and/or crack while drying.17 As a secure sealant, it was especially favoured for long-distance transport.18

When sealed stoppers, hermetically closing the amphorae, had been removed, lids for standardized amphorae could be used for temporary closing. Made of stone or fired clay, their purpose was to keep the contents of the recipients away from dust and vermin. It is, perhaps, this type of closing device that is mentioned in a papyrus from the Zenon archive:19 the potter Paesis holds a con-

Fig. 1. Sealed amphora stopper from Malkata, attached to the severed amphora neck (after Hope 1977, fig. 7a).

Fig. 2. Three types of clay sealings: Conical-trunk sealing, Mushroom-shaped sealing and Convex-with-cavity sealing (after Davoli 2005, fig. 1-3 ch. 3).
tract for 2000 ceramic lids, called πώµατα, supposedly for winejars. The context of the document seems to indicate that it was common for a potter to produce great quantities of mould-made standard-sized lids on demand.

Opening or pop-top devices

Since many sealed stoppers, made of either clay or plaster, have been found stuck in the necks of opened amphorae, we can assume that the opening of vessels was sometimes problematic. As sealings could be extremely tenacious, it was apparently easier to cut off the neck of a vessel below the level of the sealed stopper. Some people may have attempted to cut the sealing out of the mouth of the amphora, though this seems to have been a rather challenging method.

In many vessels, opening devices (commonly called ‘pop-top devices’) have been found. These pop-top devices usually consisted of strings which were used to pull the sealing out of its place. String impressions at the sides and underside of sealings are attested at Kellia, Quseir al-Qadim, Berenike, and Bakchias.

Different types of opening devices have been uncovered, four of which have been established by Bos (fig. 3). Very common is the use of two strings, which are crossed below the sealing and run up its sides in four places. Another method involves a string fixed through a hole in both stopper and sealing, as found in Berenike. Small pieces of pottery could also be used and placed on either side of the sealing, thereby facilitating the opening. Lastly, we notice the use of a piece of textile, which is put under the sealing and simultaneously serves as a stopper and pop-top device.

It is remarkable that hardly any pop-top devices have been found which allow for the removal of the stopper as well as for the sealing. Different explanations can be given: firstly, the removal of the stopper may be much easier than the removal of the sealing. This may well be the case for ‘soft’ stoppers, such as wads of leaves or textile. We cannot, however, assume that the removal of stoppers made of clay, wood, cork or stone was such an easy feat. It is not unlikely that special methods or devices for removing those did exist, though none have been recognised or found thus far. Another explanation may be that after the casting of the sealing, the stopper attaches itself firmly to the wet clay or plaster that is put over it. In this case, the stopper may be removed at the same time as the sealing, and no further opening device is required.

Pierced Sealings

From the New Kingdom period up to Roman times, holes in sealed stoppers have been attested throughout Egypt, quite often without any traces of string. It thus appears that these holes did not develop from pop-top devices, leading to various theories concerning the purpose of these holes.

The most popular theory connects the holes through sealed stoppers with holes in amphora necks serving as airholes, allowing fermentation gases to escape from wine amphorae. Wine in Egypt was not left to ferment in wooden barrels but stood for a period of three to thirteen days in open amphorae, after which said amphorae were closed and a secondary fermentation could take place within. It thus seems likely that a method needed to be found to allow the carbon dioxide from the secondary fermentation to escape, preventing the amphora from breaking under its pressure. Piercing a small hole through the (wet) sealed stopper would have served this purpose.

Winlock, Crum and White, describing the wine jars of the monastery of Ephiphanius at Thebes, were first to put forward the above-mentioned hypothesis. Their main attention, however, focuses on the holes in the amphora necks, which were apparently made with a metal nail after baking. After filling the jar, they state, the hole in either the amphora neck or the sealed stopper was to be stopped by a wisp of straw, allowing the gases to escape and preventing the air from entering. Davoli, studying clay sealings from Bakchias, equally supports the theory: holes were attested in all 39 sealings of the Convex-with-cavity type: 18 sealings had one hole, 6 had two and 1 had four. Only the sealings of this specific Convex-with-cavity type were pierced, prompting the suggestion that this type of sealing was specifically applied to wine vessels.

Other authors rejected the airhole-theory, claiming that it is unsure the pierced sealings actually belonged to winejars. Lerstrup, studying the New Kingdom sealings of Malkata, states that no pierced sealing at Malkata can with certainty be ascribed...
to wine jars, confirming Hope’s earlier conclusion. Both authors found no satisfactory explanation for the holes.31

The airhole-theory, though seemingly plausible, meets more obstacles: apart from the uncertainty that pierced sealings actually belonged to wine amphorae, it is also uncertain as to whether the holes were really necessary to counteract the fermentation effects. Since relatively few pierced sealings were found in Egypt, it seems that most wine amphorae could do without them and that fermentation was handled in a different way.32 Possibly the porosity of the clay of the amphorae was kept at such a level that fermentation gases could not amass. By allowing them to escape through the sides of the amphorae, breakage may have been prevented. A different scenario, suggested by Mayerson, is that the amphorae were only filled up to two-thirds, allowing extra room inside the recipient.33 The secondary fermentation, which takes place inside the sealed amphorae, is at any rate likely to be less violent than the primary fermentation, limiting possible damage.

The objections discussed above may be sufficient to justify rejecting the airhole-theory. Few alternative explanations have been suggested. Mayerson proposed that the holes were made once the sealing was dry for the purpose of drawing wine. He studied the wine amphorae from the monastery of Epiphanius at Thebes, on which Winlock, Crum and White had previously noticed holes in both sealings and necks.34 Citing Mena-hot 9.10 of the Talmudic Toseptha: ‘One should not draw (wine) either from its top because of mould, or from its bottom because of dregs. Rather, one punches a hole in it (the jar) and draws it (the wine) from the (top) third of it, or from its middle’,35 he suggests that such tapholes were made either in the neck or in the sealing, in order to bypass the often-difficult removal of the sealed stopper.36 Whereas the theory may well be applied to the holes in the necks,37 we do not believe that the idea is valid for the sealings: punching a hole through the sealed stopper may prove harder than removing the sealing device. Not only was the clay or plaster very hard to pierce, the piercing would in all probability dislodge the stopper, causing it to fall in the amphora and, possibly, contaminate its contents. Neither the airhole-theory nor the taphole-theory can successfully be applied to the pierced sealings. However, as they appear from the period of the New Kingdom (Malkata) up to Greco-Roman times, the holes must have had a specific function. Perhaps piercing of vessels, containing wine or other commodities, had a domestic use, though it is hard to see which one.

STAMPS, TRADE AND IDENTIFICATION OF BUSINESSMEN

Type and Decoration of Stamps

A large amount of the sealed stoppers from Greco-Roman Egypt appear to have been stamped prior to drying. As these stamps, bearing inscriptions, illustrations or both, inform us about trade and merchants, it is useful to present here the main characteristics.38

There is an essential difference between private and commercial stamps. Private stamps are found on sealed objects meant for personal use or small-scale trade. They were impressed with a personal signet ring or gem, which is rather small (ca 1.5 x 1.2 cm)39 and usually oval-shaped.40 Private stamps bear an illustration (often a representation of a deity) rather than an inscription.41 A series of Greco-Egyptian or Egyptian deities are represented on them.42

The sealed stoppers closing off large, commercial amphorae are rarely stamped with private rings or gems. The mouth openings of such amphorae, having a diameter up to 13 cm, are sealed and stamped with commercial stamps. Such stamps for commercial use are larger than the private ones (diameter ca 3 up to 8.5 cm) and most often have a circular or rectangular shape.43 Instead of being cast with a signet ring or gem, they are impressed with a wooden, sandstone or terracotta die, some specimens of which have been recovered.44 Commercial stamps generally bear an inscription, though combinations of text and particular illustrations are frequent. For instance, Thermouthis-Renenutet, a Greco-Egyptian goddess of fertility, is popular on Roman commercial stamps for wine amphorae (fig. 4).
Most inscribed stamps from Greco-Roman Egypt are written in Greek, though Latin inscriptions do occur. The inscription can be arranged in various manners: on round stamps it is usually written in a circular line along its outer limits, often surrounding a central illustration or inscription; the stamp can also bear a central inscription. On rectangular stamps, the inscription usually covers the entirety of the stamp, written on one or more imaginary horizontal lines. The letters on the dies had to be carved in reverse, so that the imprint would be legible. This was, however, not always the case. Abbreviations and monograms occur frequently and are hard to decipher when no additional information (from ostraka, papyri or literature) is available.

Both inscribed and illustrated stamps could be enhanced by paint, a practice which goes back to at least the New Kingdom: red paint or wash was occasionally used on plasters, red or white paint or wash is found on clay. The paint highlighted the stamp, making it easier to read. It is unsure whether the paint had another, additional function.

Stamps and Tradesmen

In the Roman West, amphorae were generally closed with a cork bung sealed with plaster, which could subsequently be stamped. The producer is apparently never named on the stamps. When the stamps contain names, they are commonly assumed to refer to a trader (mercator or negotiator) or shipper (navicularius). Whereas contempt for petty trade (mercatura) was common, no grudges were held against large-scale trade (negatio), provided that one used his new-found wealth to purchase landed estates, and thus to become a respectable member of society. The distinction between mercatores and negotiatores was one of respectability: whereas a mercator was primarily a ‘trader’ in a slightly pejorative sense, negotiator was a ‘businessman’ involved in a multiplicity of economic activities, such as large-scale overseas trade, banking and land.

Many researchers have believed this particular situation to apply to Roman Egypt as well, basing themselves on only part of the evidence. The papyrological evidence makes it possible to identify some of the people found on Egyptian sealed stoppers. Here, we gather all the identifications for the first time and present some new ones.

It is necessary to distinguish between the sealed stoppers from clay popular in the local trade on the one hand and sealed stoppers from plaster, popular in the international Eastern Desert trade on the other hand, since they seem to provide a different type of information.

Local Trade in the Fayum area

The fertile Fayum oasis produced a large part of the sealed stoppers that have been discovered thus far. These are always made of clay and are often impressed with rectangular or circular stamps. The inscriptions are considerably abbreviated, even in case of personal names. In addition, some dies used to stamping wine amphorae have been uncovered in this area, showing the same characteristics. Only in one dossier identifications are possible, but they are instructive.

In 3rd-century Egypt large estates became common. One of the landlords was the high elite member Aurelius Appianus, Αὐρ(ηλίος) κτή(σεος) (= ca AD 250) / XMLElement(119) / Σω(κρᾶς).58 He had acquired citizenship in AD 212 and owned large properties in the Fayum and in other nomes, which were run by managers. In the middle of the 3rd century, he possessed about twenty vineyards in the Fayum village of Theadelphia, which were managed by Heroninos, whose large papyrus archive provides us with crucial information. Aurelius Appianus was married to Aurelia Demetria, who also owned vineyards in the Fayum located on land she inherited from her father. Nachtergaele published several rectangular wooden stamps recording vineyards of the rich couple, destined to impress sealed stoppers of wine amphorae.

1. (Ἐτὸς) λβ Καίος(αρος) / Χαμειο(υ)
Year 32 of Kaisar. (Of the vineyard) of Chaireas. (= AD 2 or 3)

2. δ (Ἐτὸς) κτή(ματος) / Χωσ(ευν)
Year 4. Of the vineyard of Chaireas. (= ca AD 250)

3. Αὐρ(ηλίος) κτή(ματος) / Κολοχ(υνθων) / (Ετος) β
Of the vineyard of Gourds belonging to Aurelius. Year 2. (= ca AD 250)

4. (Ἐτοως) δ Απιω(νου) / κτή(ματον) Πα(νισκον) / Σω(κράδ)
Year 4. Of the vineyards of Paniskos and Sokras belonging to Appianus. (= ca AD 250) (fig. 5).

5. (Ἐτοως) δ Αυρ(ηλίου) / Άπιω(νον) κτή(σεως) (l. κτή(σεως))
Year 4. Of the central holding of Aurelius Appianus. (= ca AD 250)

6. (Ἐτοως) δ Αυρ(ηλίας) Λη(μηριάς) / κτή(ματος) Σπεω(πινον)
Year 10. Of the vineyard of Spartianos belonging to Aurelia Demetria (= ca AD 250)
7. ια (ἔτ∆omikronυς) / Ἐλπ(ιδη∆phitwo∆omikronacuteρ∆omikronυ)  
Year 11. Of (the vineyard of) Elpidephoros (= ca AD 250) (fig. 6)  
8. Ἐλπ(ιδη∆phitwo∆omikronacuteρ∆omikronυ)  
Of (the vineyard of) Elpidephoros.

All stamps provide similar information in abbreviated form: generally, the name of the vineyard (κτῆµα) and the year of produce are mentioned, to which the name of the owner of the central holding (κτῆσις) may be added (Aurelius Appianus or Aurelia Demetria). The vineyards (κτήµατα) are often named after a person (Chaireas, Paniskos, Sokras, Elpidephoros), not necessarily a living person, but rather a previous owner. In accordance with the information provided by the Heroninus papyrus archive, these vineyards became part of Appianus’ or his wife’s estate. The vineyard of Chaireas is a clear example. Whereas stamp no 2 can be dated to about AD 250, stamp no 1 reads ‘the 32nd year of Kaisar’ (= Augustus), that is AD 2 or 3. Nachtergael concludes that one and the same vineyard is involved, which bore the name ‘of Chaireas’ during at least three centuries.

According to the Heroninus papyrus archive wine was the main crop on Appianus’ Fayum estate and was for a large part marketed through professional wine sellers of two main types: ‘small-scale village-based oinopolai who probably had contracts with the estate to market a set amount of wine for it annually, and larger-scale sellers based in [the Fayum capital] Arsinoe who probably had more open agreements with the estate’. The above examples, however, show that the stamps on Appianus’ amphorae stoppers refer to the origin of the wine (the vineyard and/or estate), not to the local merchants marketing the wine.

It is important to distinguish the information on sealed stoppers from the Fayum area from that on plaster sealings, most often intended for long distance trade through the Eastern Desert, which will be discussed in the next section.

Prominent people involved in the international Eastern trade: their accounts and their plaster jar sealings

The international trade in Red Sea ports and along the Eastern desert routes connecting the Nile to the Red Sea, is well documented. Archaeological remains, inscriptions, papyri and ostraka provide valuable information. Inscribed plaster jar sealings, on the other hand, are often neglected. Sidebotham included them in his study Roman Economic Policy in the Erythra Thalassa in 1986, but more stoppers have come to light and new identifications add to the picture. This part focuses on some rich business men involved in the Eastern trade who appear on plaster stoppers and/or hold an account (λόγος) according to papyrological and inscriptive evidence.

Several ostraka from the Julio-Claudian period testify to the transport of merchandise from Koptos to the Red Sea, and vice versa, by firms, such as that of Nikanor. These transport-firms work ‘for the account (εἰς τὸν λόγον) of an individual, pass the customs house gates and deliver the goods to the individual’s agents in a Red Sea port or at Koptos. Fuks described the account (λόγος)-holders as ‘big businessmen’, who ‘do not reside in the far-away ports of the Red Sea (...) but carry on their business entirely through agents’. Twenty-six such businessmen/account-holders (with a legible name) are thus far attested in the ostraka; further names found on plaster sealings may be added to the list, as at least two of them are to be identified with account-holders recorded in ostraka (Gaius Norbanus Ptolemaios and Gaius Iulius Epaphroditos, see below). This brings the total to thirty-six businessmen.

The close relationship between the businessmen from the ostraka and those on the jar sealings may be revealed by an example. The transporter Herakles presents at a customs house in the Eastern desert region four jars of the type κοιλότωμα with Italian wine, the sealings of which contain...
the name of the businessman Gaius Iulius Epaphroditos; such a plaster sealing has been found at Koptos, recording:

‘Of Gaius Iulius Epaphroditos, year 5.’ (? AD 18/19) (fig. 8)

To prove that the customs-dues have been paid, the transporter presents the ostrakon O.Beren. I 84 (1st century AD), describing what the toll collector sees before him:

‘Herakles son of Hermias [transports] 4 koilopomata of Italian wine for the account of Gaius Iulius Epaphroditos, for outfitting [that is the wine has to be shipped and to be exported to the East].’

The ostrakon has been found at the Red Sea port of Berenike, where it was left behind after the wine was shipped.

Who were these businessmen/account-holders? Apart from one or two exceptions, Fuks (in 1951) and Raschke (in 1978) considered them non-entities,71 but more recent and new identifications prove otherwise; for eleven of the thirty-six businessmen an identification may be proposed.

On the basis of their nomenclature, these businessmen are usually divided into ‘Romans, Greeks and hellenized (some of them Roman citizens, some freedmen) Egyptians’.72 We prefer another classification:

* the first group consists of businessmen, belonging to the upper classes, who have contacts with Alexandria and even Italy or the imperial family. They own landed property and may be appointed to high posts;
* the second group represents the local, Egyptian aristocracy;
* the third group consists of (probably small) businessmen originating from Eastern regions such as South Arabia. They operate at the Eastern frontier of Egypt and call themselves merchants (ἐµπ∆οµικρονος).

The top layer of society and trade in wine and pharmakon

The first group, representing the top layer of society in Roman Egypt, is the largest one. The very highest echelon of participants in trade is represented by highly placed equestrians and other nobles appointed to high posts. Some rich and highly respected imperial freedmen may also be counted to the top layer of Egyptian society.

The identification by Fuks of the (a) account-holder Marcus Iulius Alexander (AD 37-43/44) has been generally accepted.73 Marcus was born in one of the richest and most respected families of Alexandrian Jews and was a nephew of the philosopher Philo. His brother Tiberius Iulius Alexander was epistrategos of the Thebaid (that is Upper Egypt) in the period when Marcus had commercial interests at the Eastern frontier and later became Egyptian prefect. His father Alexander Iulius Alexander was arabarch, in charge of the customs-dues in the Eastern desert (see below)
and, as stressed by Rathbone, he had close links with the imperial family and had banking facilities in Italy (Puteoli).74 Marcus married the daughter of King Herod Agrippa I and died in AD 44.

The list of prominent people engaged in the Eastern trade, is to be extended with two examples of arabarchs who combine their important function with commerce in the same region. Arabarchs, who were in charge of customs-dues on the Eastern frontier, were as a rule extremely rich.75

(b) Two plaster stoppers76 record the name of Claudius Aniketos (fig. 9): the centre part has the name in Latin, written in the form of a cross: Cl[audiu] Anice[i], the outer circle mentions the name in Greek characters: Κλαυδ(ίου) Ἀνικήτου, followed by ἀραβατοί, undoubtedly an abbreviation for ἀραβατοίς, and not for a personal name as suggested by the editor. An Aniketos son of Kommonos, slave of the emperor Tiberius, is well-attested in the ostraka of the Eastern Desert region (AD 33-34) personally carrying on commercial activities there (that is without agents);77 he may be the same Aniketos who was tutor to Nero and was freed by him.78 An identification with the arabarch Claudius Aniketos is tempting but cannot be proved at this point.

(c) The traces of a damaged plaster stopper from Koptos79 fit the name of Απίου Λιόνιου, followed by ἀραβατοίς, which could refer to the arabarch Apollonios, son of the arabarch Ptolemaios, attested in AD 2 and 41. Apollonios was also strategos of the Ombite nome and of the region of Elephantine and Philae.80

P. Annii Plokamos81 held, according to Pliny, the post of arabarch during the early reign of Claudius (NH 6.84: qui maris Rubri vectigal fisco redemerat). He is not yet identified as account-holder in the ostraka or as businessman on plaster stoppers, and therefore, has not yet been added to our list, but other evidence suggests that Annius was involved in the Eastern trade on the one hand and that he had Puteolan roots on the other; he may have been (descended from) a freedman of the Italian Anni.82

Not only arabarchs were involved in Eastern trade. (d) Gaius Norbanus Ptolemaios is account-holder according to ostraka (AD 36-41) and is found on three plaster stoppers from Koptos (1st century AD).83 Independently, Rathbone (with reservations) and Cuvigny (convincingly)84 identified him as the Gaius Norbanus Ptolemaios who was iuridicus and idioslogos in AD 63 and who owned properties in, at least, the Hermopolite nome (AD 60-65). Rathbone adds that ‘the Iuridicus and the Idios Logos were both Equestrian posts, very rarely held simultaneously by the same man, and neither normally held by an inhabitant of the province; the implication is that this Gaius Norbanus Ptolemaeus was well-known and trusted at Nero’s Court’.85

Three businessmen recorded in the ostraka may have been imperial freedmen, as already pointed out by Fuks in 1951;86 the plaster sealings confirm the trend with six further examples:87 one plaster sealing explicitly mentions Σεβ(ίου) ἄπελευθεροκός, meaning ‘imperial freedman’, alongside the personal name88 and the predominance of the nomen Claudius may be significant. In Egypt, especially in the Fayum, imperial freedmen were often in charge of imperial estates. These freedmen sometimes invested in land; their property was passed to their master upon their death and became part of the imperial patrimonium. The ostraka and plaster sealings show they also invested in commerce, especially in wine,89 in our view for their own benefit.90

Besides the Claudius Aniketos (mentioned above), who became arabarch, some further identifications of freedmen are possible. (e) Gaius Iulius Epaphroditos, attested as account-holder in eight ostraka from Berenike concerning wine trade (Julio-Claudian period)91 is undoubtedly identical with Gaius Iulius Epaphroditos on a plaster stopper from Koptos. If he were a freedman himself, he was freed by Augustus and the year 5 recorded on his plaster stopper would then refer to AD 18/19. The stopper may have closed a wine amphora. According to the Berenike ostraka, he dealt in foreign wine (from Italy and from Syrian Laodikea)92 and used for the Italian wine, among others, a type of jar called κοιλότωμα (hollow-lidded), which puzzled the editors.93 In our view, a western type of jar used in the 1st-2nd centuries AD and exported to the East, may be involved, having a small mouth and closed with a hollow lid having the shape of a small jar itself; this lid, fixed in the jar’s mouth with plaster, contained a sample of the wine, which made it possible to taste the wine without opening the jar; the hollow lid had
to be closed with a stopper as well. The χολοπτόματα, found for the first time in the Berenike ostraka, may also be mentioned in a damaged line of O. Petrie 276 from Koptos.

(5) Tiberius Claudius Serapion, account-holder according to an ostrakon from Koptos (between AD 41-68), may be identified as the freedman Tiberius Claudius Serapion who owned an estate in the Fayum which became part of the imperial patrimonium in AD 55 at the latest. A plaster stopper from Koptos contains the name Cresti, ‘of Crestus’, according to Reinach, but the stopper has disappeared. If Reinach’s reading is correct, the stopper may refer to the freedman Χορίς omikronς (Crestus in Latin), whose Mendesian estate was incorporated in the imperial patrimonium.

The above list of businessmen of the Roman and Greek upper class and of successful imperial freedmen shows that Raschke was right in dismissing the view that the merchants of Antiquity were men of no social consequence, who ‘left the commercial origins of their wealth behind when they purchased landed estates, the only socially acceptable form of wealth, and moved into the municipal or imperial governing class’. There is indeed a close relationship between (landed) wealth and commercial capital. But the businessmen were not non-entities, as suggested by Raschke for most of them. They (or close family members of them) were appointed to high posts, linking them with Alexandria, or, as Rathbone already suggested for three of them, with Italy (especially Puteoli) and even the imperial family. In this respect it is revealing to track the commodities they trade in: Fuks and Ruffing emphasized the predominance of wheat in the ostraka from Koptos, but when the first group of important businessmen alone is taken into account, it is clear that wine and pharmakon is their main export product; the predominance of plaster amphora sealings for this group adds to the picture. Of major interest is the trade of foreign wine, among others Italian wine. For some individuals a link with Italy may be shown, suggesting export from Italy to the East through Egypt’s Red Sea ports.

The trade in especially wine, but also in pharmakon and other products contrasts with the wheat which appears to be the only commodity dealt in by the next group.

Local Egyptian aristocracy and wheat trade

The second group of businessmen is represented by the local aristocratic families. Apart from (partly hellenized) Egyptian individuals, at least one aristocratic priestly family was engaged in private trading. (h) Paminis son of Parthenios and his sons Paniskos and Psenpnouthis are account-holders according to several ostraka (AD 25-41). Paminis and a third son Parthenios also appear on inscriptions from Koptos (AD 21/22-32). Sidebotham refers to the Greek inscriptions and underestimates the Egyptian, priestly origin of the family. The Greek inscriptions, however, are inscribed on hieroglyphic stelai with offering scenes in Egyptian style and the dossier of stelai has been extended by Farid with several hieroglyphic and/or Demotic pieces, the total amounting to more than twenty monuments. Paminis’ son Parthenios appears to be p3 red n Is.t (‘representative of Isis’) or προστάτης of Isis, the great goddess, at Koptos; as prostates he headed the Koptos temple as an economic unit, was responsible for or participated in several building activities through the reigns of Tiberius, Caligula, Claudius and Nero and probably collected local taxes for the temple.

For this local aristocratic family no direct link with Alexandria or Italy is apparent or expected. It is conspicuous that Paminis’ family enterprise deals in wheat only, which is destined for consumption at the Red Sea ports rather than for export, as, of course, no wheat was cultivated there. Also the other account-holders bearing an Egyptian name, only deal in wheat. As a consequence, we do not expect to find jar sealings of these account-holders.

Businessmen with Eastern roots and wine trade

The third group of businessmen, those who have Eastern roots, is badly represented, as only one identification has been made. The account-holder (i) Hermeros son of Athenion attested at Koptos (AD 57), describes himself in an inscription from the same town (9 Aug. AD 70) as a merchant (ἐμπορός), originating from Adana (Arabia, modern Aden). The ostrakon testifies to the export to the East of wine in πολεμαῖα, a type of Egyptian wine jars. A second ἐμπορός from Adana may be found in another Greek inscription, but
his name is lost. The Palmyrene merchants active in the region and forming some type of trading associations\textsuperscript{12} may belong to this third group of businessmen.

**CONCLUSION**

The identification of individuals recorded on stamps of Roman Egypt shows that a distinction should be made between local and international trade. Local trade: the Fayum oasis produced several amphora sealings made of clay and stamped with considerably abbreviated inscriptions. According to some wooden dies used to impress such amphora sealings, the abbreviations refer to names of vineyards or estates, that is to the origin of wine which is meant for local trade. This practice undoubtedly goes back to the Pharaonic period, where clay amphora sealings recorded the product and the producing institution.\textsuperscript{13} International trade: another picture emerges from the amphora sealings from the Eastern Desert region, where the majority of the stamps is made of plaster and contains names of individuals which are usually not abbreviated (except for the praenomen). The identifications of these individuals with the help of papyrological and inscriptive evidence show that the stamps do not refer to the origin of the product, but to businessmen involved in international trade. These businessmen (or their close family members) had affinities with the Eastern Desert. The group of small businessmen with Eastern roots resided at least part of the time at Koptos, where they erected stelai; they may be compared to the mercatores of the Roman West. The businessmen of Egypt’s upper classes (or close family members), combining (landed) wealth and commercial capital, did not reside at the Eastern Desert frontier, but were arabarchs in charge of customs-dues there or held an official post such as epistrategos of the Thebaid or strategos of nomes in Upper Egypt, near the Eastern Desert. It is striking that arabarchs and (epi)strategoi or their family members were allowed to have commercial interests in the region under their supervision. Apparently, a public career was no impediment to private gain. In addition, some of these big businessmen were linked not only with Alexandria, but also with Italy and even the imperial family. They may be compared to the negotiatores of the Roman West.

**NOTES**

2. Hope 1977, 14. The descriptions of Hope concern the amphora stoppers found in and around the New Kingdom temple complex at Malkata. They may prove to be of use for the Greco-Roman typology.
4. Cork stoppers are commonly found in the West of the Mediterranean, but are rather rare in Egypt, see Cashman 1999, 285-286. Bos 2000, 275 mentions a large amount of cork stoppers found during the 1998 excavation season at the Red Sea port of Berenike.
5. The most common stopper material in the West seems to have been cork and wet clay. Fired clay, pieces cut from amphorae and tiles and metal could apparently also be used as stoppers. Parker 1992, 50, 70, 74, 91, 98, 101, 104-105, 114, 183, 238-239, 254, 264, 288-289, 300-301, 313, 331, 348, 413, 439.
7. Davoli 2005, 101. Colin Hope, when writing about the New Kingdom sealings of Malkata, made a distinction between Cap Shaped sealings, Domed sealings and Cylindrical sealings. According to him, Cap Shaped sealings are the smallest sealings, covering the mouth and part of the neck of the amphora. Their top can be flat or rounded and the width of the sealing is greatest at the top. Domed sealings are larger; they can be subdivided into Round Domed, Tapering Domed, and Flattened Domed, according to the shape of the top. The width of these sealings is usually greatest at the bottom. Cylindrical sealings are even larger, entirely covering the neck of the amphora and resting on its shoulders. The top of Cylindrical sealings can be flat or convex, and the sides inclined, straight or bulging. Although the classification of Hope is to be applied first and foremost on New Kingdom sealings, it may prove valuable for sealings of later date, see Hope 1977, 26-27.
9. Mould-made sealings, very popular in the Old, Middle and New Kingdom, went out of use before the Hellenistic period. They are created by using an open-ended mould, with a flat top and cylindrical sides, or with a round, tapering or conical top and slightly battered sides. The wet clay is pressed into the mould, which is subsequently put onto the neck of the amphora and forced down to encase it. A stopper is already present in the neck of the amphora. The excess clay is forced out of the mould and trimmed off. The bottom of the sealing is cut off after removal of the mould. The mould-made sealings are more regular than the hand-made ones, with smooth sides and top. As is the case for hand-made sealings, the stopper is most often displaced deeper into the amphora neck, where it still prevents contamination from the wet mud. Stamps are impressed while the clay is still moist. Both in the case of hand-made and mould-made sealings, reinforcing bands of papyrus, reed or rope can be applied to the rim or neck of the amphora before sealing, see Hope 1977, 6-7.
10. Clay sealings obviously remained unfired, since they were applied in wet condition to a full jar or amphora.
11. Hope 1977, 10, 31. Double sealings, as found on the New Kingdom site at Malkata, are the result of excessive shrinkage: when a sealing did shrink during drying, a new (often quite distinct) one was applied over it.
12. By determining the origin of the clay, the approximate production site may also be established, see Hope 1977, 10-11.
Most of them are found in a non-commercial context, such as the cellars of private houses in Karanis (Milne 1906). In this Fayum village, a great variety of private stamps were found, of small dimension and dating to the middle of the 2nd century AD. E.g., ‘Bust of Sarapis to right, crowned with modius: behind, bust of Isis to right, crowned with horns and plumes: before, bust of hawk-headed Horus to left, crowned with modius’ (Milne 1906, Cat.no. 11).

Vandorpe 2005, 104.

Nachtgerga 2000, 155.

Nachtgerga 2000, 153. Latin inscriptions are frequent in the Byzantine period.

Stamps on jars destined for local trade can be less neatly arranged than those on jars for long-distance transport. For this last category, it was obviously deemed important to have stamps of a good and legitimate quality, see Vandorpe 2005, 168.

See Nachtgerga 2000, 155, for examples from the Fayum village of Theadelpheia.

Monograms are increasingly popular in the Coptic-Byzantine period, see Vandorpe 2005, 168.


Aubert 1994, 269.

Aubert 1994, 273.

Paterson 1982, 156; Tchernia 1986, 119.

In contrast, small-scale trade of surplus produce was never considered inappropriate in Rome, see D’Arms 1981, 5.


Rathbone 1991, 15-23. The Theadelphia vineyards only made up a small part of Appianus’ estate in the Arsinote nome.


Nachtgerga 2000, 156-161, nos 1-6. For the convenience of seeing likenesses between the various dies, their inscriptions are here listed together.

In stamp no 5 the name of the vineyard is lacking.

The above-mentioned dies are all rectangular and made of wood (tamaris wood). They measure 7.5 to 10 cm long, 4.5 to 5 cm wide and 3.2 to 5 cm high. The plates they are made of can be 1 to 1.65 cm thick. They generally bear a handle and are neatly carved, though not all of them are carved in reverse. Dies nos 1 and 2 date from the same year and seem to be made by the same hand, see Nachtgerga 2000, 155, 158.


Plaster jar sealings have been discovered at Berenike, Quseir al-Qadim, Maximianon, Krokodilo and Koptos, see Vandorpe 2005, 163, n. 1.

O.Petrie 220-304 (found at Koptos) and O.Beren. I and II (found at Berenike).

Fuk 1951, 207-216.

Fuk 1951, 209; thus, three levels may be discerned: the absentee businessmen (holding an account), their resident-agents (collecting the commodities from the transporters) and the transporters.

See Fuk 1951, 210-211 and n. 25: ‘Only λόγος-holders represented by agents and connected with the firm of Nicanor are taken into account.’ To the list of Fuchs of 25 businessmen, one more logos-holder, not connected to the transport firm of Nicanor, is to be added: Gaius Iulius Epaphroditos, attested in O.Beren. I 80-85 and O.Beren. II 147-148; it is not clear whether Tiberius Claudius Dorion is a logos-holder as well (O.Beren. I 50-
According to some researchers, they work, on the contrary, for the benefit of their patron. In this case they may have closed wine jars. 

Aulus Gabinius Eudaimon (O. Petrie 225; 267; 271; 282): different kind of products and wheat.

Marcus Iulius Alexander (O. Petrie 252, 266, 267, 271, 282): different kind of products and wheat.

Lucius Iulius Ph... (O. Petrie 261): wine.

Marcus Lælius Hymenaios (O. Petrie 240; 257 + Cuvigny 1998) (instead of BL 5), see above, identification (d): pharmakon, other products in ostraka and plaster jar sealings.


For the identification, see Bingen 1984, 360-361.

For the identification, see Depauw 2001, 1996, 110-111 (9m), with photograph; this type of jar may have closed wine jars.


For the identification, see Depauw 2001, 1996, 110-111 (9m), with photograph; this type of jar may have closed wine jars.


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See also:
<http://scriptorium.lib.duke.edu/papyrus/texts/elist_parpyri.html>.


Boochs, W. 1982, Siegel und Siegeln im Alten Ägypten, Sankt Augustin.


Bruyère, B. 1966, Foulles de Clysm-Qolzoum (Suez) 1930-1932 (FIFAO 27), Cairo.


Charlesworth, M.P. 1961, Trade-Routes and Commerce of the Roman Empire, Hildesheim.


Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.


Charlesworth, M.P. 1961, Trade-Routes and Commerce of the Roman Empire, Hildesheim.


De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.


Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

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Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.


Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.


Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.


Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.


Davoli, P. 2005, Oggetti in argilla dall’area templare di Bakchias (El-Fayyum, Egitto) (Biblioteca degli ‘Studi di Egittologia e di papirologia’ 3), Pisa.

De Oudheid Verpakt (exhibition catalogue), 1997, Voorhout.

Wagner, G. 1976, Une dédicace à Isis et à Héra de la part d’un négociant d’Aden, BIFAO 76, 277-281.
Williams, A.L. 1921, Tractate Berakoth, Benedictions, Mishna and Tosephtha, London.

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