

Amphora Recycling in a Funerary Context at Kom Aziza Site

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Abstract: This paper deals with a widespread phenomenon in ancient Egyptian civilization, which is the phenomenon of reusing/recycling the pottery in general. It sheds light on one of the tombs that was discovered in one of the archaeological sites in the Beheira Governorate, which is the "Kom Aziza" site. The site was discovered in 1988 by the archaeologist Ahmed Abdel Fattah, and then the site was rediscovered again, by the archaeological mission of the Supreme Council of Antiquities, headed by archaeologist Ibrahim Sobhi. During this excavation, a large number of tombs were uncovered, extending from the early dynastic period until the end of the Roman era. A number of these tombs used Egyptian Amphorae that were produced in the Mariout region during the period from the first century AD until the third century AD, as they were very widespread all over Egypt. The article discusses the aspects of reuse of amphorae, emphasizing that their reuse in building tombs in this way is one of the exceptional aspects in the Egyptian history.

Keywords: Amphora – Pottery – recycling –excavation – Kom Aziza – Beheira – Delta survey

إعادة تدوير الأمفورات بموقع كوم عزيزه

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المخلص: تتناول هذه المقالة ظاهرة منتشرة في الحضارة المصرية القديمة، وهي ظاهرة إعادة استخدام الفخار تطبيقاً على إحدى المقابر التي تم اكتشافها في أحد المواقع الأثرية بمحافظة البحيرة، وهو موقع "كوم عزيزه" تم الكشف عن الموقع في عام ١٩٨٨ على يد الأثري أحمد عبد الفتاح، ثم أعيد اكتشاف الموقع مرة أخرى بواسطة البعثة الأثرية الخاصة بالمجلس الأعلى للآثار برئاسة الأثري إبراهيم صبحي، وتم خلالها الكشف عن عدد كبير من المقابر التي تمتد من فترة بداية الأسرات وحتى نهاية العصر الروماني. في عدد من هذه المقابر تم استخدام الأمورات المصرية التي كان يتم إنتاجها في منطقة مريوط خلال الفترة من القرن الأول الميلادي وحتى القرن الثالث الميلادي، وكانت واسعة الإنتشار بشكل كبير. وتتناول المقالة مظاهر إعادة الاستخدام الخاص بالأمفورات، مع التأكيد أن إعادة استخدامها في بناء المقابر بهذا الشكل يُعد من المظاهر الاستثنائية.

الكلمات الدالة: أمفورا – الفخار – إعادة إستخدام – التتقيب – كوم عزيزه – البحيرة – المسح الأثري للدلتا.

Introduction: The site of Kom Aziza is one of the most important archaeological mountains located in West Delta, because of its long-time distancing, from the early-dynastic period up to the Greco-Roman period. The site of Kom Aziza is also distinguished by the new style of burials that were not attested before in the Egyptian architecture. In this article we shed light on many social, economic aspects of the people who lived in this region, throughout the different historical times.

The Egyptian archaeological mission of the ministry of Antiquities working in the area of Tel Kom Aziza in Al-Beheira Governorate made many important discoveries. One of the most important remains is a large cemetery used from the early dynastic period up to the Roman period as well as a huge pottery workshop, dating back to the Greco-Roman era.

The first mention of the site dates back to 1988 when the Egyptian Archaeologist published his preliminary report about his excavation at the site of Kom Aziza. In his report, A. Abdelfaatah sketched a unique style of Roman tomb. This style was not used in other Roman cemeteries. The concept of the new style depended basically on the recycling of the Roman amphora to build the tombs.¹ (Figure 3)

The Amphora-tomb style of the site is particularly important, due to the recycling of amphorae to cover the body in nine different cases, the tombs in the necropolis were constructed by stacking eleven or thirteen amphorae in the shape of a pyramid.

Amphorae are designed for their primary function, for storing and transporting commodities, but once it reaches its final destination, it can be reused in a variety of secondary functions. Several ways of ceramic vessel's secondary use, reuse and recycling were recorded in Ancient Egypt.²

The context: The site of *Kom Aziza* lies 37 km east of Alexandria and 3 km south of Kom al-Debba.³ It is located north about 9 km from the city of Abu Homs أبو حمص, and about 12 km south of West of *Edco* Center. *Kom Aziza* is surrounded by other archaeological sites such as *Kom Hashim*, which is located north-west of *Kom Aziza* site, is about 1,5km.⁴

The area at Kom Aziza is an interesting site, potentially with a long life linked to other important centers in the region including Kom el-Debaa to the north and Hashiem to the south. There seems, however, to be a tiny area left that would warrant further investigation. The ancient village of Kom Aziza must be buried under the modern village standing today. Few shreds were collected from the site. A significant portion of

¹ أحمد عبد الفتاح، "تقرير مبدئي عن أعمال التنقيب بكم عزيزه الأثري بأبو حمص- البحيره خلال الفتره من ١٩٨٨/٣/٧ وحتى ١٩٨٨/٣/٣١"، حوليات المجلس الأعلى للآثار، المجلد الأول (١٩٨٩): ١٧-٢٤.

² James Skibo, *Understanding Pottery Function, Manuals in Archaeological Method. Theory and Technique* (Arizona, springer series, 2012), 5.

³ Mohamed Kenawi, *Alexandria's hinterland: archaeology of the Western Nile Delta, Egypt*. Archaeopress Archaeology, Oxford, 2014), 86.

⁴ Penelope Wilson, Dimitris Grigoropoulos. *The West Nile Delta Regional Survey, Beheira and Kafr el-Sheikh provinces. Egypt Exploration Society*, (Excavation Memoir 86. London: Egypt Exploration Society, 2009), 121.

Late Roman 1 were found on the site. AE3 and AE4 amphorae type were also found on the site.¹

The recent archaeological work at Kom Aziza revealed several important features. The oldest historical periods date back to the early-dynastic period. Five mud-brick tombs in the shape of a mastaba were found at Kom Aziza dated to this period.

This Greco-Roman cemetery located on the northwestern outskirts of the ancient hill of Kom Aziza Al-Kabir, on a huge mass of clear yellow sand hill, the first signs of their discovery by excavations of the Supreme Council of Antiquities by A. Abdel Fatah in 1988 (figure No.1). The Work resumed in 2015 A.D. by the Ministry of Antiquities archaeological mission headed by Ibrahim Sobhy. The latest excavation discovered fifty-three burials at the cemetery containing 69 skeletons. Different types of structures have been used in this cemetery:

1. Simple burial pits.
2. Pot burials.
3. Anthropoid ceramic coffins
4. Pottery coffins
5. Double barrel Burial Coffin
6. Gable-topped shape tombs.

This article discuss the Gable-topped shape tombs, (tomb No.9)² this type is a unique type of tomb, which probably has no parallels in the Roman period. The most interesting feature of these tombs is reusing the amphora in its construction.

Every single tomb is composed of two rows of upside-down amphora against each other, each row composed of six amphorae. The coffin was placed between the two rows of amphora and in some cases just the skeleton without coffin (Figure No. 3).³

The amphorae were filled with sand in some cases, and in other cases they were left empty. All amphorae were stuck to each other by a mud mortar. Other amphorae were placed on top of the burial, probably acting as a tombstone. Worth mentioning, the idea of recycling or reusing was very obvious on these tombs. All amphora examples were broken or had some missing parts, i.e., the handles, the neck, the rim, etc.⁴

Types of Amphorae used in Kom Aziza

1. Egyptian Amphora type AE 3.1.4 (Figure No. 4a)

Typological studies of amphorae and their contents came into prominence after it was accepted that such studies could act as indicators of the ancient economy. "Egyptian

¹ إبراهيم صبحي، أحمد نعيم، أحمد عبد الهادي، "الجبانة الأثرية بتل كوم عزيزة"، حولية الاتحاد العام للآثاريين العرب، المجلد ٢٥، (٢٠٢٢): ٥٣-٧٩.

² صبحي، "كوم عزيزة"، ٥٨.

³ عبد الفتاح، "أعمال التنقيب بكموم عزيزة الأثري بأبوحمص"، ١٧-٢٤.

⁴ صبحي، "كوم عزيزة"، ٦٥.

Amphora TYPE 3"AE3 is one of the most common types of amphora during the Roman period. AE3. This type is characterized by the triangular canonic rim, ear formed handles, grooved neck, and elongated body tapering with a conic solid spike. There is a few cracks on the body. And the neck have a fermentation hole. (Figure No. 2. A)

The AE 3 amphorae have new characteristics like the long cylindrical neck, two short handles attached to the upper part of the neck, and a wide range of different shapes of rims.¹

There were many variants of AE 3². One of the variants of AE 3-1 is the type, which has been recycled in Kom Aziza in the construction of the tombs. AE 3-1.4 is of Mareotis region productions³. This amphora is characterized by the thickened rim, long cylindrical ribbed neck, slender body, rounded shoulder, and cylindrical toe. The production of this type started in the 1st century AD, and continued for a long time. Baily gives it, as his Egyptian Amphora Type A, a late date in the 5th century AD.⁴ These forms were also found at Alexandria⁵, Mons Claudianus⁶, and Beni Salama, Bouto⁷, Abu Rawash⁸, dates to 1st – 2nd /3rd century AD.⁹ There is also a parallel to the form from Soknopaiou Nesos (an ancient settlement in Faiyum).¹⁰

AE 3 type was intensively used for the commerce of local wine. The dealers developed a regional model of distribution from rural production areas to the nearest towns to economize the cost of transport. This model of regional marketing also helps in identifying regional production areas. Six production regions were located depending on meroites Region.¹¹

2. Egyptian Amphora type AE 4.1 (Figure No. 4. B).

¹ Delphine Dixneuf, *Amphores égyptiennes: production, typologie, contenu et diffusion (IIIe siècle avant J.-C. - IXe siècle après J.-C.)*. (Alexandria: Études alexandrines 22, 2011), 97.

² Dixneuf, *Amphores*, 99.

³ Sandrine Marquié, "Les amphores trouvées dans le Wadi Natrun (Beni Salama et Bir Hooker)", *Cahiers de la Céramique Égyptienne*, (2007): 106, fig. 31.

⁴ Donald Bailey, *Pottery, lamps and glass of the late Roman and early Arab periods. Excavations at el-Ashmunein 5*. (London: British Museum Expedition to Middle Egypt, 1998), 125.

⁵ Dixneuf *Amphores*, pl. 87.

⁶ Roberta Tomber, "The pottery", In Maxfield, and Peacock (eds), *Mons Claudianus: survey and excavation, 1987-1993. Volume III, Ceramic vessels & related objects*, (2006): 145- 146, figs. 1.56.

⁷ Dixneuf, *Amphores*, pl. 88.

⁸ Sylvie Marchand, "Le survey de Dendara (1996-1997)", in *Cahiers de la Céramique Égyptienne* 6, (2000): 23, fig.3.

⁹ Marquié, "Les amphores trouvées dans le wadi Natroun (Beni Salama et Bir Hooker)" *Cahiers de la Céramique Égyptienne* 8, (2007): 77-114, 106, fig. 31.0.

¹⁰ Delphine Dixneuf, "Introduction à la céramique de Soknopaiou Nesos. In Capasso", in Mario and Paola Davoli (eds), *Soknopaiou Nesos Project I (2003-2009)*, (2012): 327, 342, fig. 32.

¹¹ Pichot, Şenol, "The Site of Akademia: the Amphora Workshop of Apol(l)ônios", *Bulletin de Liaison de la céramique égyptienne*, vol. 24, (2014): 225.

It is known that the AE 4 amphorae were produced in the region where numerous workshops were discovered on the southern shores of Lake Mariout.¹ These types of amphorae are usually made of calcareous clay, quite sandy, of moderately fine texture, and containing several white and gray particles, probably calcite particles and fragments of shells. Amphorae AE 4.1 are attested between the first and the third century A.D. The shape of these amphorae has several variations in the shape of the lip. The external surface was covered with a thick, carefully smooth white slip.²

Amphora reuse/recycle in Ancient Egypt:

Amphorae were used on a very large scale in ancient Egypt, mainly in the Greco-Roman period. They were used in antiquity for transportation of foodstuffs such as wine and olive oil. However, once the amphorae arrived at their final destination in the intended country or region, the function of the amphorae changed from a transport vessel to a storage vessel. Any type of product could be stored inside this type of container due to its high ability to endure and preserve the products.³

Reuse is usually defined as a change in the user or use or form of an artifact following its initial use or use of an object in a secondary context when it can no longer serve its original function. Since reused vessels are never used for their primary function, the activities in which they take part are also completely different.

Secondary use and recycling are considered to be varieties of reuse; the first one is defined as the new use of objects without needing extensive modification, and the latter as the return of the artifact to a manufacturing process.⁴

In archaeology, there are many aspects of reusing because cooking pots have such a relatively short use-life they would often spend the vast majority of their life history serving a secondary function before eventually breaking and entering archaeological context. These secondary functions are also important, and it is only through an analysis of use-alteration traces that they can be inferred.⁵ Ancient Egyptians practiced various forms of recycling. The reuse of building materials is very clear in Egyptian history and was motivated not only by ideological reasons but also by economic considerations.

During the Roman era, it was a common custom to reuse amphorae to fill water to supply quarry workers due to the inability to obtain water in these remote areas.⁶

Herodotus, who visited Egypt during the 4th century BC, mentioned that Greece and Phoenicia used to send amphorae to Egypt throughout the year. He added that the Egyptians did not dispose of the amphorae after using them, but rather they sent them to Memphis, where they were filled with water to be sent to the border areas that lacked water. Perhaps this is what explains the finding of a large number of Greek amphorae in

¹ Dixnuf, *Amphores*, 129.

² Dixnuf, *Amphores*, 130.

³ Theodore Peña, "The Reuse of Amphorae for Purposes Other than as Packaging Containers", *Roman Pottery in the Archaeological Record*, (2007): 131.

⁴ Jasna Vuković, "Secondary use, reuse, and recycling of ceramic vessels: evidence from late Neolithic vinča", *ARCHAICA* 3, (2015): 114.

⁵ Skibo, *Pottery Function*, 5.

⁶ Peacock, Williams, *Amphorae*, 21.

remote border areas such as Tel Qaddouh and in the eastern Delta. Tomber mentions that an Ostraca was found at Mons Cladianus, indicating that a water amphora was sent to the area of Mons Cladianus.¹

Another example that may indicate the reuse of amphorae and filling them with water is the Keay 52 amphora model found in the city of Agora in Athens. A hole was made below the neck area, which Peña assumes was designed to facilitate pouring water from the amphorae.

Among other examples of reusing amphorae, Peña mentions that many Egyptian papyri mentioned reusing amphorae and filling them with many old foodstuffs, such as cheese, which also required long storage periods. The names of two types of imported amphorae were mentioned: the LR4 amphorae and the Zemer⁵³ amphorae, which are used. They were imported from Palestine to bring the wine that was made there and were reused to store cheese.

Rathbone also mentions that the imported amphorae were reused in bottling local wine again, as Rathbone concluded from the names given to the vessels in Papyrus P. Lond 99, which documents the manufacture of amphorae in the Bahnasa region dated to the third century AD, that some of the imported amphorae were used in bottling local wine.

Among the examples found at Mons Cladianus were some imported amphorae dating from the middle of the first century AD to the 2nd century AD. Tomber believes that these amphorae were reused to preserve dried fish.

Peña also mentions that amphorae were also used in non-food items, and one of the mosaic scenes in the Roman city of Constanza indicates the use of amphorae in building materials.²

Amphorae in the Funerary context:

Amphorae were an important form of trade packaging in the ancient world. They were used for transporting liquid commodities such as wine, olive oil, and fish sauces but were, on occasions, employed for a large variety of other substances. They were, above all, the containers used in seaborne commerce, and these vessels thus furnish us with direct evidence of an important facet of the early economy. It has been argued that pottery can be used to help us evaluate the force and direction of commercial currents in the Roman world. This is not to claim that pottery was intrinsically important, but since it survives in the archaeological record, it may be all that remains to indicate interaction concerned mainly with more valuable perishable commodities. Amphorae are different: they provide us not with an index of the transportation of goods but with direct witness of the movement of certain foodstuffs, which were of considerable economic importance and which were an essential part of Roman culture. It is hard to conceive of any archaeological material better suited to further our understanding of Roman trade.³

¹ Tomber, *Mons Cladianus*, 245.

² Peña, *Reuse of Amphorae*; 25.

³ Peacock, Williams. *Amphorae and the Roman Economy* (London: Longman, 1986), 3.

Amphorae were used for transporting liquid commodities such as wine, olive oil, and fish sauces, but once they reached their final destination, they were employed for a large variety of other substances. They were, above all, the containers used in seaborne commerce, and these vessels thus furnish us with direct evidence of an important facet of the early economy. It has been argued that pottery can be used to help us evaluate the force and direction of commercial currents in the Roman world. This is not to claim that pottery was intrinsically important, but since it survives in the archaeological record, it may be all that remains to indicate interaction concerned mainly with more valuable perishable commodities. It seems likely that amphorae, because of their ability to hold heavy loads, their resistance to holing by hard, sharp objects, and their impermeability, were regularly reused for the storage and also perhaps local transport of a variety of nonfood substances. This assumption is supported by a wide array of archaeological evidence.

In some parts of the Roman world, including peninsular Italy, Sardinia, Tunisia/Algeria, and northeastern Spain, amphorae and their parts were regularly reused as sarcophagi, that is, containers that held the remains of a deceased individual for inhumation burial.

The evidence indicates that modified amphora and amphora parts were widely employed as sarcophagi for infant and adult burials in these four regions during the middle and, in particular, the late imperial period. It appears to have been a particularly common practice to employ a small, medium- or large-sized container of Tunisian origin, either with the top removed, with the bottom removed, or with the top and bottom removed and then split into halves, as a sarcophagus for an infant or a child.¹

Less common, though still widespread, was the practice of removing the top and/or bottom from two large or very large-sized containers of Tunisian origin, splitting these into halves, and then laying these end to end to serve as the sarcophagus for an adult. One can assume that the widespread availability of empty containers of Tunisian origin, which would have lent themselves to reuse as sarcophagi on account of their large size and cylindrical shape, combined with the relative ease with which these vessels could be broken, chipped, or sawed into pieces, lay behind the popularity of these practices.

Conclusion:

Excavation work at the Kom Aziza site revealed a new style of tomb structure. This new style is based on the recycling of amphorae (mainly Egyptian Amphora type AE 3.1.4 and Egyptian Amphora type AE 3.1.4). Both types were produced in the Mareotide region during the first to the third century A.D.) in mass production.

The new style of the tombs is called “Gable-topped shape tombs”. This shape has no parallels in the Roman period. The most interesting feature of these tombs is reusing the amphora in constructing the tombs. Every single tomb is composed of two rows of upside-down amphora against each other, each row composed of six amphorae. The coffin was placed between the two rows of amphora, and in some cases, just the skeleton without the coffin.

This recent discovery sheds light on many social and economic aspects of the people who lived in this region, and what was the motivation to choose this new style of construction, reusing the amphorae to build their tombs.

¹ Peña, *Reuse of Amphorae*; 165.

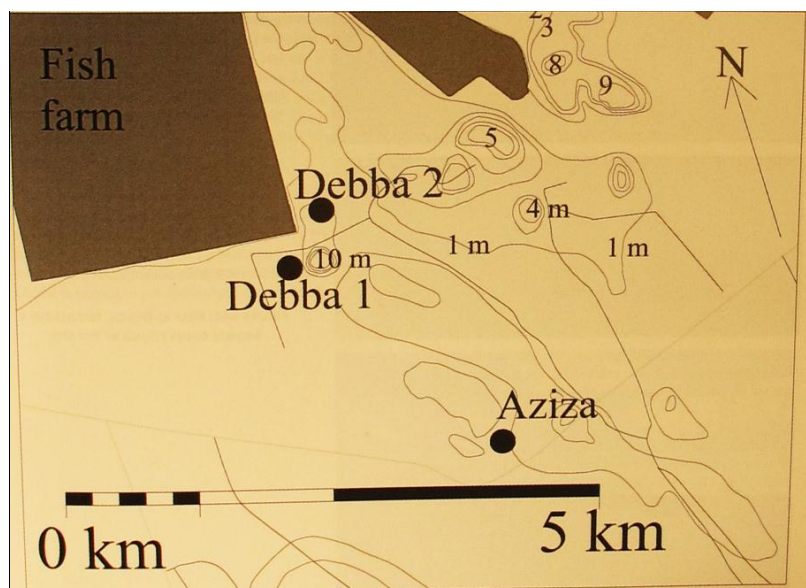


Figure (1) Location of Kom Aziz

After: Kenawi, M., Alexandria's hinterland: archaeology of the Western Nile Delta, Egypt. Archaeopress Archaeology. Oxford: Archaeopress, 2014, 89.



Figure (2) Map of the archaeological site of Kom Aziza and the Greco-Roma cemetery

After: Ibrahim Sobhy, et al., Archaeological cemetery of Kom Aziza, 2022, 72.

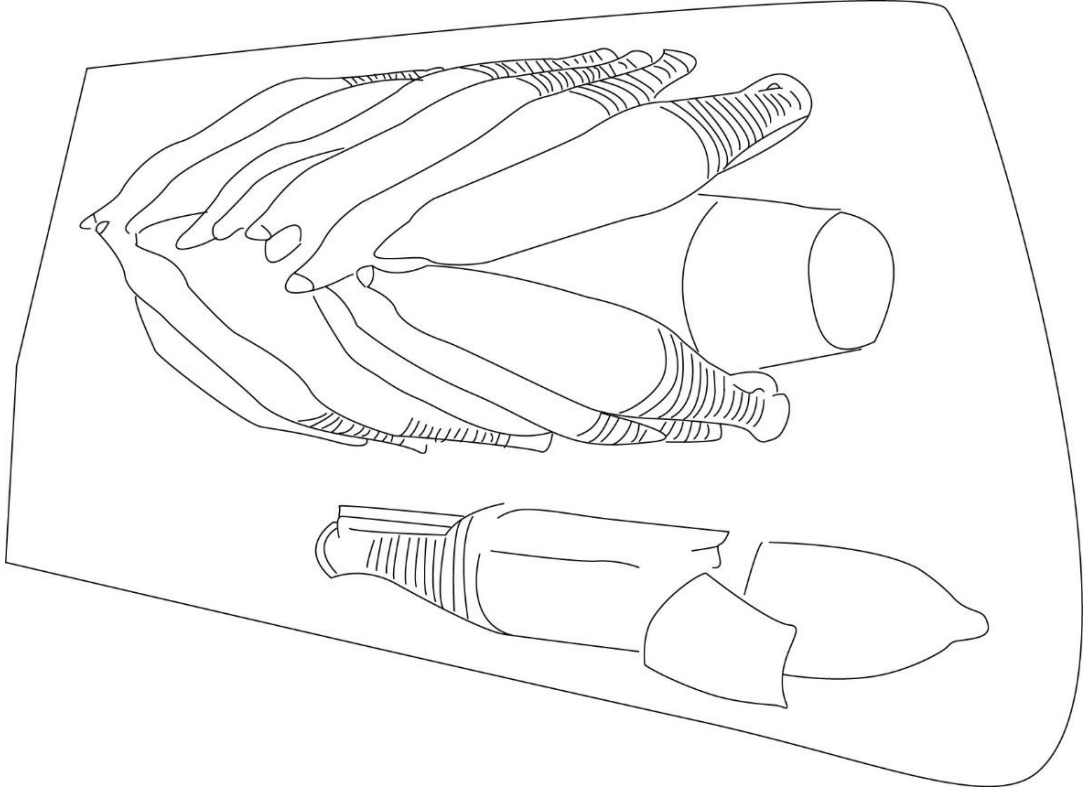


Figure (3): Sketch of tomb number “9” drawn by Ahmed A. Fattah, reproduced by the authors.

After:

أحمد عبد الفتاح تقرير مبدئي عن أعمال التنقيب بكموم عزيزه الأثري بأبو حمص - البحيره خلال الفتره من ١٩٨٨/٣/٧ وحتى ١٩٨٨/٣/٣١, حوليات المجلس الأعلى للآثار - المجلد الأول. ٢٢.

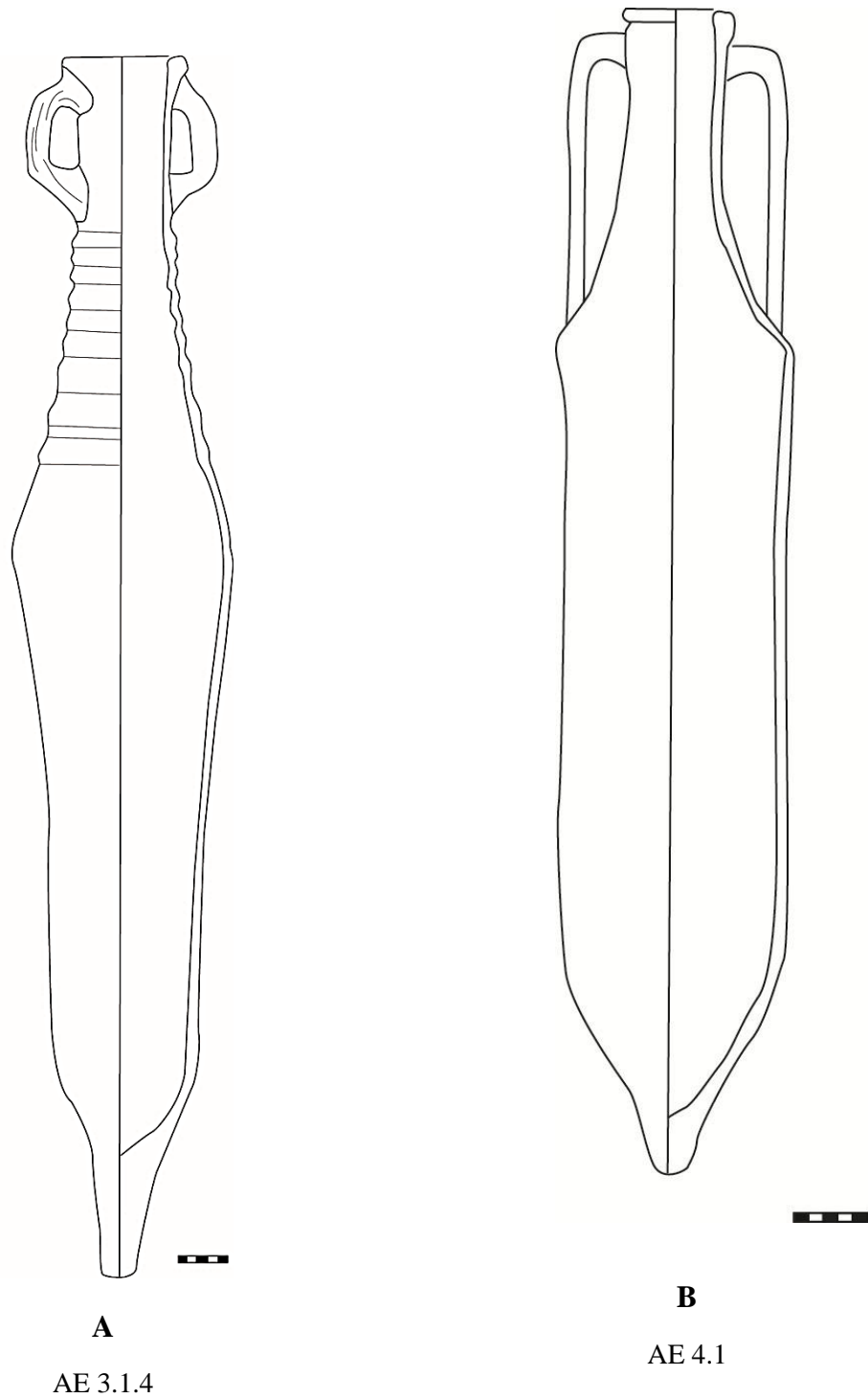


Figure (4): example of the Amphorae used in the construction of the tombs



Figure (5): one of the Amphora-tombs in Kom Aziza (Photo by: Ibrahim Sobhy)

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أحمد هبد الفتاح. "تقرير مبدئي عن أعمال التنقيب بكم عزيزة الآثري بأبو حمص- البحيره خلال الفتره من ١٩٨٨/٣/٧ وحتى ١٩٨٨/٣/٣١", حوليات المجلس الأعلى للآثار المجلد الأول، (القاهرة) ١٩٨٩: ١٧-٢٤.

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