

Two Forgotten Amphorae from the Hamburg Excavations at Carthage (Cyprus and the Iberian Peninsula) and their Contexts

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The manipulation of many thousands of finds, mainly pottery fragments, during any excavation inevitably will lead to a certain loss of data. This may happen already in the field, in the finds laboratory or in the long process of bringing finds and findings into publication. The excavations of the University of Hamburg below the crossroads of *Decumanus Maximus* and *Cardo X* between 1986 and 1995 form no exception to this rule. These excavations had been directed in the field by the late Hans Georg Niemeyer (cf. Docter 2009) and were published in a final two-volumed version of no less than 870 pages by a large international team of collaborators in 2007 (Niemeyer *et al.* 2007; see also Niemeyer, Docter, Schmidt 2009).

The two relatively large profiles of imported transport amphorae presented here (**Cat. 1-2**) stem from contexts excavated during the 1988 campaign. The first one had already been illustrated with a photograph in an exhibition catalogue (Niemeyer, Rindelaub, Schmidt 1996, 49, no. 6; **Cat. 1**) and was presented on several conferences thereafter. The second one (**Cat. 2**) was presented in a conference in Amsterdam in 1992, but never made it into the publication (cf. Briese, Docter, Mansel 1996). The chronological division used for the transport amphorae within the study and final publication of the Hamburg University excavations overlapped in the decades around 500 BCE. This caused some moving of individual pieces and sometimes whole classes from one author to the other (Docker 2007d and Bechtold 2007d). By accident, the two amphorae discussed here were overseen in the process and, hence, never came to be included in the final publication. Given their rarity in Carthage, however, the two amphorae deserve a full presentation of their own.

Cat. 1: KA88/122-7 + KA88/167-44: 8 joining fragments forming the upper part with handle of a Plain Ware amphora.¹ Hard fired very pale brown (10YR8/3) clay with few lime and shining micaceous (?) particles (0.1-0.2mm), few large iron oxide particles and chamotte (0.5-2.0mm); surface very pale brown (10YR8/4). Preserved H 18.0; diam. rim 11.0 (**Figs. 1-3, 5j**).

Published: Niemeyer, Rindelaub, Schmidt 1996, 49, no. 6; Docter *et al.* 2008, 393, cat. 21; Bechtold, Docter 2010, 102, tab. 4.²

¹ As is clear from **Fig. 1**, the amphora only broke into pieces after excavation during transport.

² In the latter publication it had tentatively been dated to the Early Punic II period, 675-530 BCE.

On the basis of the clay properties, the amphora had tentatively been attributed to Cyprus. In the meantime this attribution was confirmed by F.J. Núñez Calvo (Zaragoza), who saw a fragment of the amphora during a Phoenician pottery conference organized in Malta in January 2007 (cf. Docter *et al.* 2008, 393, cat. 21). Morphologically, many comparisons for **Cat. 1** may be found in published graves from Cyprus, mainly at Phoenician Kition (**Tab. 1**).³ The dates range from the 7th century to the first quarter of the 5th century BCE, if one excludes the one from Palaepaphos-Skales that clearly belongs to another chronological horizon (**Tab. 1A.13**). Cypriote transport amphorae may well be connected with the wine trade. Ceramic finds from Cyprus have been published from Carthaginian settlement excavations, but always in layers dating to the Early Punic period or in association with finds from that period.⁴ Although such a date is not to be excluded for **Cat. 1**, a later date – second half of the 6th and first quarter of the 5th century BCE – is equally possible and would be more in line with the stratigraphical date of the context (see below).

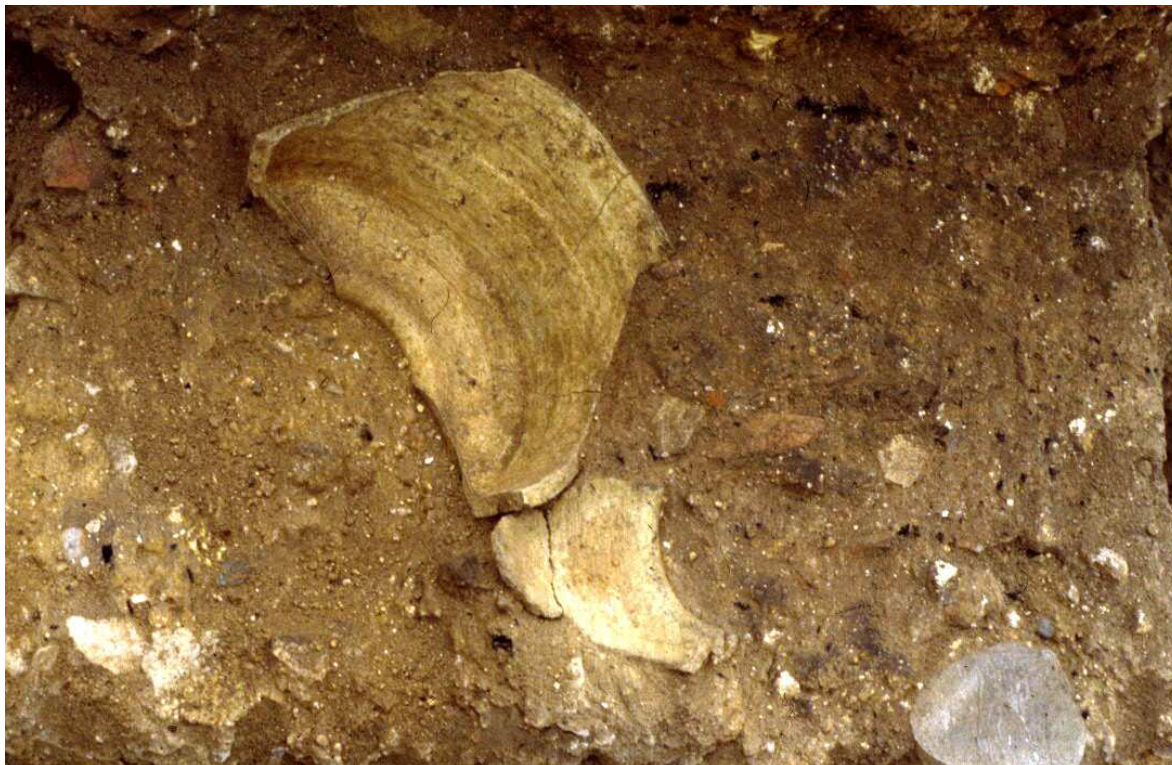


Fig. 1. Cypriote amphora **Cat. 1** *in situ* (20th November 1988; photo RFD).

³ **Tab. 1** is based upon Docter 1997, § V.6.1, table 12 ('Cypro-Phoenician' prototypes of the form CdE 1 in Plain Ware). To these one may perhaps also add an amphora salvaged off the coast of Caesarea (Israel), for which a date in the 7th or 6th century BCE has been tentatively proposed, see Zemer 1977, 21-24, pls. 6, VI, no. 17. It measures 48cm in height and held 16.09 liters (measured by RFD; Docter 1997, table 11.52, where it had been listed with the Levantine prototypes of the form CdE 1 in Plain Ware); Zemer lists its capacity as 18.7 liters.

⁴ R.F. Docter, B. Maraoui Telmini, in: Docter, Chelbi, Maraoui Telmini 2003, 54, 66, n. 35 with references; Docter *et al.* 2008, 393, cat. 21.

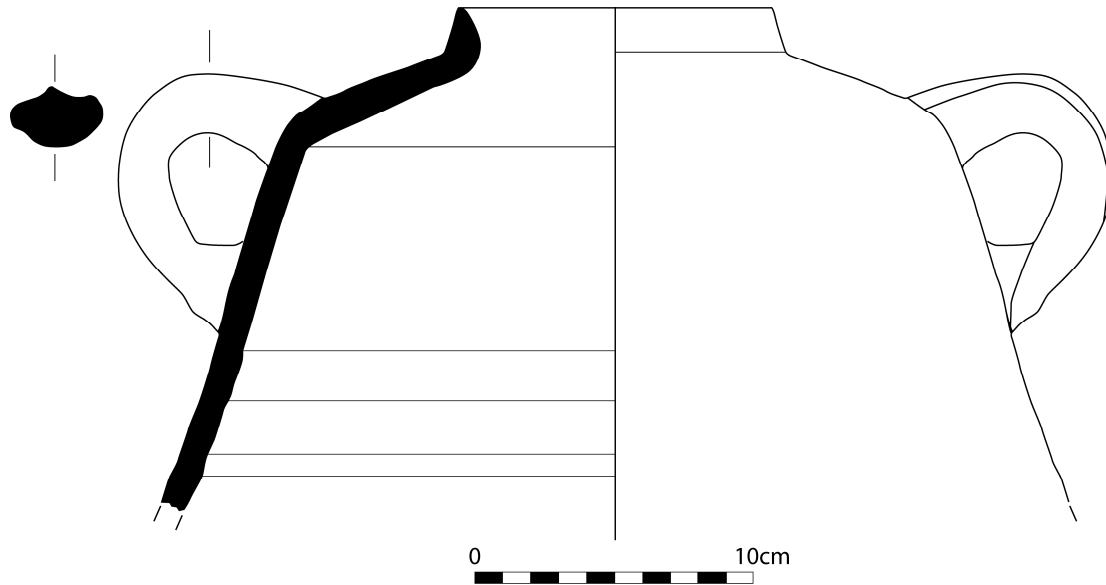


Fig. 2. Cyproite amphora **Cat. 1** (drawing RFD, digitised by Joris Angenon, Ghent).



Fig. 3. Cyproite amphora **Cat. 1** (photo Michiel Bootsman, Amsterdam).

The context of Cat. 1

Seven of the eight fragments of **Cat. 1** were found in context KA88/122, which together with context KA88/168 constituted the fill (“Füllschicht”) within room A-north of House 1-north.⁵ It contained a fair number of sometimes relatively large pottery fragments (311: cf. Docter 2007a, 54, no. 113; here **Fig. 1, Tab. 2**). It has been dated stratigraphically to Stratum Va1, so to c. 550-480 BCE, corresponding to the Transitional Early Punic / Middle Punic period within the scheme in use by teams working on the Bir Messaouda / Bir Massouda terrain since 2000.

⁵ Docter, Niemeyer, Schmidt 2007a, 119, 121, fig. 39, BN 8; here **Fig. 1**. Their stratigraphical positions are: x13.2 – 14.0; y8.9 – 10.4, H 5.20 – 5.45, and x13.2 – 14.0; y10.2 – 10.6, H 5.60 – 5.80, respectively.

No	Place	Height	Liter	Date (BCE)	Publication
12.A: Cypriote ('Cypro-Phoenician') amphorae with rounded base					
1	Salamis Grave above T.9	53.0	21.28	600-475	Karageorghis 1970, 13, pls. 49, 58, 205
2	Kition Tourabi T.11? ⁶	29.0		700-600	Myres 1897, 156, 160, fig. 13,2; Myres, Ohnefalsch-Richter 1899, 91, 178, cat. 2008; Birmingham 1963, 30-31; Bikai 1987, 44
3	Kition Tourabi T.17			700-500	Myres 1897, 160-161, fig. 13,2; Birmingham 1963, 30
4	Kition Tourabi T.25	33.0		700-600	Myres 1897, 156; Myres, Ohnefalsch-Richter 1899, 91, 178, cat. 2019; Birmingham 1963, 30-31
5	Kition Tourabi T.26			700-600	Myres 1897, 156
6	Kition Tourabi T.27	24.0			Myres 1897, 154, 162; Myres, Ohnefalsch-Richter 1899, 91, cat. 2010; Bikai 1987, 44
7	Kition Tourabi T.37 (disturbed)	41.0			Myres 1897, 154-156; Myres, Ohnefalsch-Richter 1899, 91, cat. 2007; Bikai 1987, 44
8	Kition Tourabi T.42			700-600	Myres 1897, 161
9	Kition Tourabi T.56 ⁷			700-600	Myres 1897, 158; Birmingham 1963, 30-31
10	Kition Tourabi T.34 (1966)	30.0			Karageorghis 1967, 292-293, fig. 42; Chapman 1972, 163; Bikai 1987, 44, cat. 581

⁶ The description of the tomb inventory only mentions an amphora of Myres' 'Type 3', Myres 1897, 156, cf. 160, fig. 13.

⁷ According to J.L. Myres, the assemblage of chamber tomb Tourabi-Tekke 56 consisted, besides the present Plain Ware amphora, of four Bichrome Ware amphorae (cf. Docter 1997, tab. 15.A.2-5; see Docter forthcoming 2) and four amphorae of Class Levantine 3 (= Sagona 1982, 102, Type 7, No. 103). They stood together in the left corner next to a table with "earthenware utensils which we may regard as part of the furniture of a Graeco-Phoenician dinner-table", Myres 1897, 158. The plan of the tomb, however, only shows five amphorae in the corner (Myres 1897, 157, fig. 10).

No	Place	Height	Liter	Date (BCE)	Publication
11	Kition Tuzla T.13				Nicolaou 1976, 172; Bikai 1987, 44, cat. 569
12	Kition Tuzla T.40	34.5		600-475	Nicolaou 1976, 173, 256, pl. 30,6; Bikai 1987, 44, cat. 571
13	Palaepaphos -Skales T.58 ⁸	49.5	18.66	1050 - 1000	Karageorghis 1983, 113, 353, fig. 114,9, pl. 83,9; Bikai 1983, 396; Bikai 1987, 45, pl. 22,597
12.B: Cypriote ('Cypro-Phoenician') Plain White V Ware amphorae, flat base					
1	Kition Tuzla T.40	29.0		600-475	Nicolaou 1976, 173, 256, pl. 30,2; Bikai 1978, 54-55; Bikai 1987, 44, cat. 572
2	Kition Perivolia T.4	24.5		600-475	Nicolaou 1976, 173, 181, 211, 256, n. 91, pl. 30,4; Bikai 1978, 54-55; Bikai 1987, 44, cat. 573
3	Kition Tourabi T.12	28.0		700-600	Myres 1897, 156, 160, fig. 13,2; Myres, Ohnefalsch-Richter 1899, 91, cat. 2009; Birmingham 1963, 30-31; Bikai 1987, 44
4	Kition Tourabi T.30/39 (1963)	25.8			Bikai 1987, 44, cat. 580
5	Kition Tourabi T.38 (1967)			850-475	Karageorghis 1968, 283, fig. 47; Bikai 1987, 44, cat. 583

Tab. 1. Cypriote ('Cypro-Phoenician') prototypes for the form CdE 1 in Plain Ware.

Interestingly, not only **Cat. 1**, but also other vessel fragments in the fill joined with fragments stemming from the layer above (see **Fig. 5a, d, g**), suggesting that there may have occurred some contamination in the process of excavation.⁹ That layer, Stratum VIa1, consisting of contexts KA88/24, 25, 26, 27, 116, and 167, has tentatively been considered as the dump of votive material from the Tanit I sanctuary on the site, farther to the south-east (see below).¹⁰ The filling, composed of contexts KA88/122 and KA88/168, contained the following material (**Tab. 2**):¹¹

⁸ The amphora was found closed with an unfired clay stopper. Karageorghis (1983, 353) interpreted the amphora as a 'Canaanite' amphora.

⁹ This is never to be excluded when working with workmen of different experience.

¹⁰ Docter, Niemeyer, Schmidt 2007a, 128-129, fig. 42, BN [10-]11; Docter 2007a, 56-57, no. 138b.

¹¹ The reconstruction of all homogeneous Punic contexts of the Hamburg excavations is currently being prepared for publication. The analysis of the present fill is an example of the procedure and may show the potential of such re-contextualisations, cf. Docter *et al.* 2005, 559-560.

No.	Shape + feature	Ware	Remarks	Date	Publication
1. Transport and Storage¹²					
1	Rim fragment of pithos?	Plain	discarded		Unpublished
2	Rim fragments of amphora of subclass Carthage 1A4	Plain	joining fragment in Stratum VIa1	second half of the 6th and the 5th century BCE	Docter 1997, § VIII.1.2.5, tab. 59.6, fig. 364; Docter 2007d, 627-628, fig. 342, cat. 5340, with wrong indication of layer (Fig. 5g)
5	Rim fragments of local amphorae Carthage 1	Plain		8th – 5th century BCE	Unpublished
1	Rim fragment of local amphora Carthage 1	Plain	Water-rolled; discarded	8th – 5th century BCE	Unpublished
35	Wall fragments of local amphorae ¹³	Plain	discarded		Unpublished
8	Upper part of Cypriote amphora	Plain	joining fragment in Stratum VIa1	550-475 BCE	See here Cat. 1 (Figs. 1-3, 5j)
8	Wall, base and shoulder-handle fragments of a Corinthian A amphora	Plain	6 wall fragments discarded	7th - 6th century BCE	Docter 1997, § XI.1, figs. 457-458; Docter 2007d, 654-655, fig. 357, cat. 5467-5468 (Fig. 5h-i)
3	Rim fragments of one-handled ovoid jugs or urns type Tanit I-II, Class E; Briese jug 1	Bichrome	2 joining	725-480 BCE	Briese 2007, 312-316, fig. 138, cat. 1789-1790 (Fig. 5a-b)
1	Wall fragment of one-handled ovoid jug or urn type Tanit I-II, Class E; Briese jug 1	Plain		725-480 BCE	Briese 2007, 312-318, cat. 1830
1	Rim fragment of one-handled ovoid jugs or urns type Tanit I-II, Class E; Briese jug 1?	Bichrome / Painted		725-480 BCE	Unpublished; as Fig. 5a-b
1	Base fragment of Levantine (?) closed vessel	Plain			Unpublished
8	Wall fragments of Levantine (?) closed vessels	Plain	discarded		Unpublished
5	Wall fragments closed vessels	Bichrome / Painted	discarded		Unpublished
1	Wall fragment of closed vessel	Plain	calcareous residue on inside; discarded		Unpublished

¹² The functional labels more or less follow those of L. Campanella's catalogue (2008, 98-235).

¹³ The finds list of KA88/122 gave the round number of 40 wall fragments for amphorae and closed vessels. This number has tentatively been divided in the present list over two entries: amphorae (20) and closed vessels (20), on the basis of comparable divisions elsewhere in Carthage. Similarly, the finds list of KA88/168 mentioned 20 wall fragments amphorae / cooking pots and 10 wall fragments amphorae / closed vessels. These have also been divided and added to the totals in the present list. It seems that Karin Mansel, who was responsible for the finds laboratory in 1988, used estimated countings for the larger numbers of wall fragments to be discarded.

No.	Shape + feature	Ware	Remarks	Date	Publication
50	Wall fragments of closed vessels	Smoothed Plain	discarded	before 425 BCE	Unpublished
1	Carinated shoulder fragment of amphora	Smoothed Plain	discarded	before 425 BCE	Unpublished
1	Wall fragment of closed vessel (?)	Hand-made			Unpublished
2. Food preparation (before cooking)					
1	Rim fragment of basin with horizontal rim	Plain		5th – early 4th century BCE	Bechtold 2007a, 390
1	Rim fragment of basin with thickened rim of Vegas Form 48.1, Bechtold subtype A	Plain		7th - 5th century BCE	Bechtold 2007a, 387-388
3. Cooking					
2	Rim fragments of cooking pots with eggshaped rims Bechtold subtype F	Plain		6th – middle of the 4th century BCE	Bechtold 2007a, 406-408
3	Rim fragments of cooking pots with horizontally protruding rims, Bechtold subtype A	Plain		6th – 5th century BCE	Bechtold 2007a, 409-410
10	Wall and base fragments of cooking pots	Plain	Partly blackened; discarded	8th – 5th century BCE	Unpublished
70	Wall fragments of cooking pots	Plain	Partly blackened; discarded	8th – 5th century BCE	Unpublished
1	Rim fragment of cooking stand of Vegas Form 85.1	Plain		8th – 5th century BCE	Bechtold 2007b, 450
1	Wall fragment of tabouna	Hand-made	discarded	8th – 5th century BCE	Unpublished; cf. Bechtold 2007b, 448-450
4. Serving and consumption					
4A. Food serving and consumption					
1	Full profile of plate of Peserico type P2	Red Painted		late 6th – early 5th century BCE	Niemeyer, Rindelaub, Schmidt 1996, 54, no. 32; Peserico 1998, 29, 35, 37, figs. 2, 10-11 (P2); Botto 2001, 160, 168, figs. 1, 3 (P2); Peserico 2002, pl. 4 (b1); Peserico 2007, 275-276, fig. 109, cat. 1611, colour plate 36; Bechtold 2007, 355-357, fig. 172, cat. 2105; Bechtold 2010, 12-14, fig. 7,3 (Fig. 5e) ¹⁴

¹⁴ The latter publication has an updated comment on this class and its chrono-typological distribution within the stratigraphies of Carthage.

No.	Shape + feature	Ware	Remarks	Date	Publication
1	Lower body of mushroom jug	Plain (?)	joining with fragment in Stratum VIa1	7th – first half of 6th century BCE	Briese 2007, 307-308, fig. 134, cat. 1719 (Fig. 5c)
3	Rim fragments of plates	Red Slip			Unpublished
1	Rim fragment of plate	Smoothed Plain		before 425 BCE	Unpublished
1	Rim fragment of plate	Plain			Unpublished
4B. Drinking (serving and consumption)					
1	Rim fragment of large jug Bechtold subtype C ¹⁵	Plain	joining fragment in Stratum VIa1	late 7th - first quarter of the 6th century BCE	Bechtold 2007a, 364-365, fig. 179, cat. 2147 (Fig. 5d)
1	Rounded handle fragment of jug	Plain	discarded		Unpublished
1	Shoulder fragment of jug	Smoothed Plain	discarded	before 425 BCE	Unpublished
3	Shoulder fragments with handle roots of jugs	Smoothed Plain		before 425 BCE	Unpublished
1	Handle fragment of jug	Smoothed Plain	discarded	before 425 BCE	Unpublished
2	Shoulder fragments of jugs, one with handle root	Bichrome / Painted			Unpublished
1	Rim fragment of deep bowl of Peserico type CsC1	Red Slip		750-550 BCE	Peserico 2007, 278
1	Rim fragment of deep bowl of Peserico type CsC2	Bichrome		Middle of the 7th – 6th century BCE	Peserico 2007, 302
1	Handle fragment of Punic skyphos	Red Painted		7th and first half of the 6th centuries BCE ¹⁶	Briese, Docter 1995, 48; Briese, Docter 2002, 189, 210, cat. 112; Peserico 2007, 294-295
4C. Undistinguishable (eating / drinking)					
1	Wall fragment of Etruscan closed vessel	Bucchero		7th or 6th century BCE	Von Hase 1992, 332, n. 15; Docter 2007b, 480, cat. 4244
1	Base fragment of closed vessel	Plain			Unpublished
25	Wall fragments of closed vessels	Plain	discarded		Unpublished
34	Wall fragments of closed vessels	Smoothed Plain	discarded	before 425 BCE	Unpublished
7	Base fragments of closed vessels	Smoothed Plain	6 discarded	before 425 BCE	Unpublished

¹⁵ The best comparison can be found among the pottery dump from the industrial quarter below *Cardo IX*, dating to the late 7th - first quarter of the 6th century BCE (Vegas 1990, 44-45, fig. 3,46). The more recent versions of jugs with vertical rim seem to be represented by Vegas F.28, characterised by internal rim profiles of clearly convex shape, Vegas 1999, 163-164, fig. 62.

¹⁶ On the dating see Docter forthcoming 1.

No.	Shape + feature	Ware	Remarks	Date	Publication
1	Wall fragment of closed vessel	Red Slip	discarded		Unpublished
5. Lighting					
1	Rim fragment of a Punic lamp		from Motya	7th or 6th century BCE	Docter 2007c, 590-591, fig. 316, cat. 4709 (Fig. 5f)
1	Base fragment of lamp?	Smoothed Plain	discarded	before 425 BCE	Unpublished
6. Industrial and domestic artisanal activities					
1	Amorphous bronze lump				Mansel 2007, 812, cat. 6560
7. Architectural					
1	Wall fragment of gray plaster				Unpublished, but cf. Schmidt 2007a, 257, cat. 1103-1104
8. Organic					
3	Fragments of bones				Van Wijngaarden-Bakker, Van Neer 2007
?	Charcoal				Unpublished

Tab. 2. Contents of the fill in room A-north Stratum Va1 (KA88/122 and KA88/168).

There are several ways of quantifying the contents of archaeological contexts, some more useful than others.¹⁷ In the case of the Hamburg excavation, however, one has to deal with the information recorded at the time of excavation, excluding weights and ‘Estimated Vessel Equivalents’ as possibilities. Only sherd counts have been registered and can be used for evaluating and comparing the contexts. It has been tried to convert the fairly detailed information kept in the finds record and the publication to a minimum number of artefacts (MNA). The resulting estimates are not only based upon rims or rims plus handles, as is sometimes done, but rather upon a balanced evaluation of all features in combination with fabric and surface treatment, etc.

Functional category (artefacts only)	MNA	%
1. Transport and storage	18	37.4
2. Food preparation (before cooking)	2	4.2
3. Cooking	7	14.6
4. Serving and consumption: Total (A-C)	17	35.4
4A. Food serving and consumption	7	14.6
4B. Drinking (serving and consumption)	9	18.7
4C. Undistinguishable (eating / drinking)	1	2.1
5. Lighting	2	4.2
6. Industrial and domestic artisanal activities	1	2.1
7. Architectural	1	2.1

Tab. 3. Fill in room A-north Stratum Va1 (KA88/122 and KA88/168) divided by function.

¹⁷ Orton, Tyres, Vince 1993, 168-173. They advocate the use of ‘EVES’, Estimated Vessel Equivalents, that is to say an estimation of a preservation percentage of a vessel, as a way of quantification. For a discussion of quantifications in a Mediterranean context comparable to Carthage, see Warner Slane 2003.

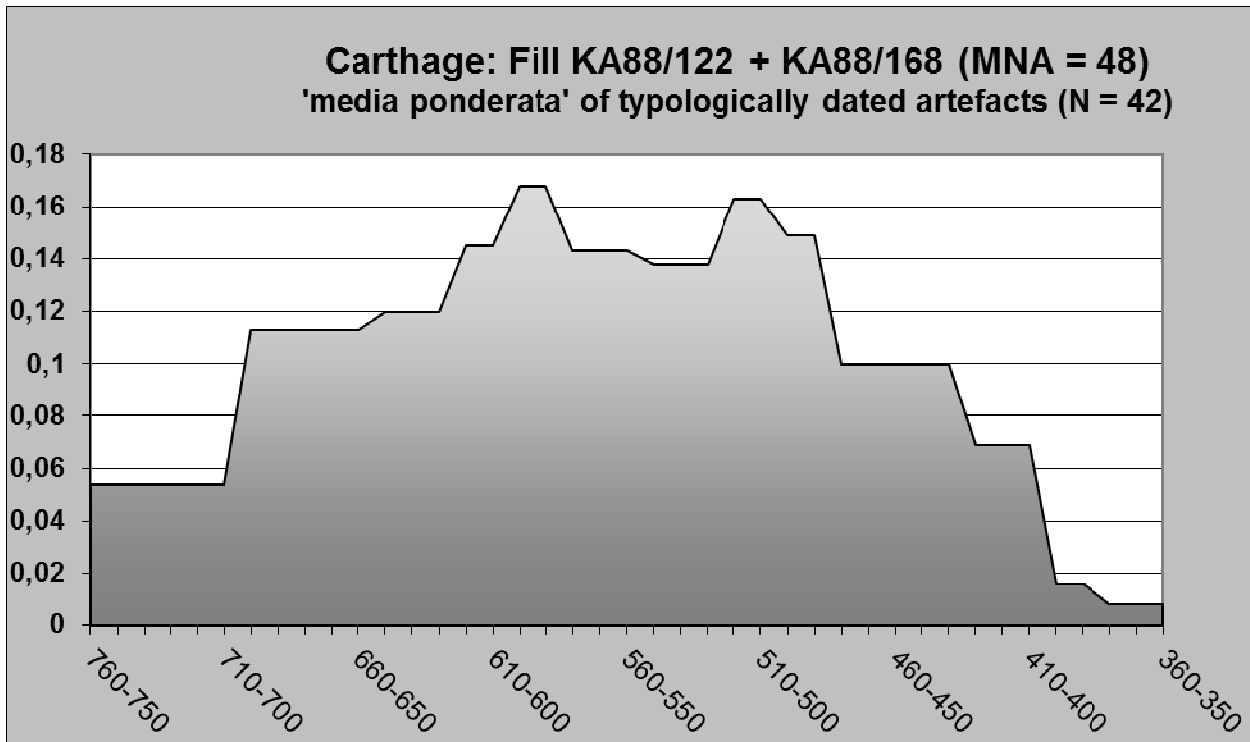


Fig. 4. 'Media ponderata' of fill KA88/122 + KA 88/168 belonging to Stratum Va1 (widest possible typological date ranges have been taken into account).

Stratum Va1 has been dated to the period 550-480 BCE (Docter, Niemeyer, Schmidt 2007a, 56, fig. 8). All but three diagnostic fragments in the fill are typologically within this date range (**Tab. 2**). Only three fragments fall (just) before the time span 550-480 BCE and, thus, seem to be residual in the fill: a handle fragment of a Punic Red Painted skyphos, dating to c. 700-550 BCE, a rim fragment of a Red Slip deep bowl of Peserico type CsC1, dating to c. 750-550 BCE, and a wall fragment of a Plain (?) mushroom jug, dating to c. 700-550 BCE.¹⁸ The 'media ponderata' representation of the fill (**Fig. 4**) clearly highlights the formation date of the context (c. 550-480 BCE) as well as a preferential date of the residual material (c. 630-550 BCE).¹⁹

The different functions in the fill, expressed in their respective MNA proportions (**Tab. 3**), are not unlike those encountered in two other, albeit earlier household deposits from the Hamburg excavations.²⁰ It is safe to assume that in this case we are also dealing with the makeup of a typical Carthaginian household, with functions such as storage, drinking, food preparation and consumption predominating. Half of the transport and storage vessels belonged to large commercial transport amphorae. Their numbers within the deposit are not high

¹⁸ It is also possible that the water-rolled, i.e. heavily abraded rim fragment of a local amphora (**Tab. 2,1**) is residual.

¹⁹ The graphic representation ('media ponderata') is based upon the work of N. Terrenato and G. Ricci: Terrenato, Ricci 1998; see also Van de Weghe *et al.* 2007.

²⁰ Level IVa, 675-645 BCE: Docter, Niemeyer, Schmidt 2007b, 189, 192, fig. 74. There, the proportions were based upon sherd count only.

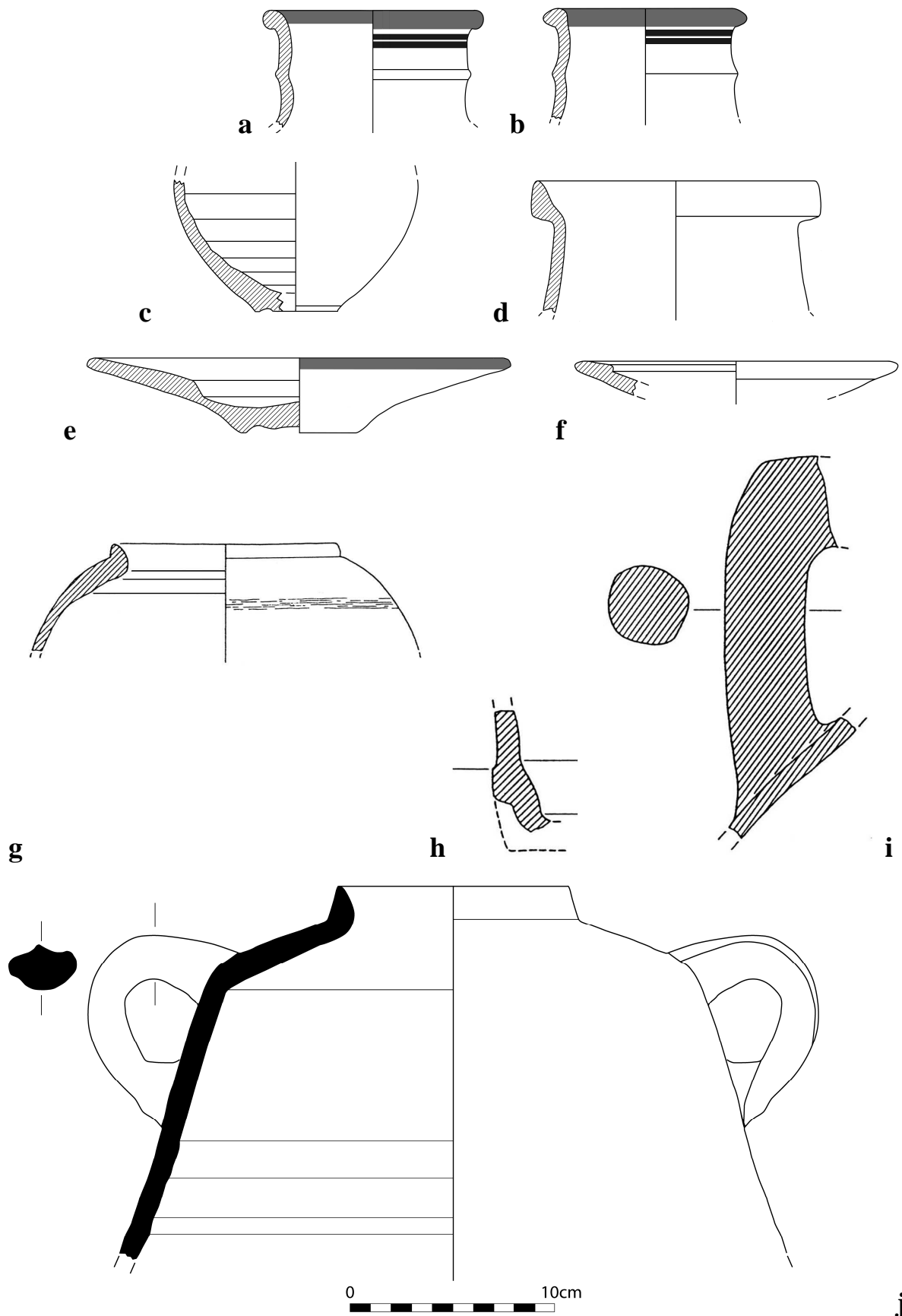


Fig. 5. Selection of finds from filling Stratum Va1 in Room A-north of House 1-north: **a-i** from Niemeyer *et al.* 2007: **a.** KA88/122-9 + KA88/167-37; **b.** KA 88/122-38; **c.** KA88/168-7; **d.** KA88/25-7 + KA88/122-1, 11; **e.** KA88/122-5; **f.** KA88/122-15; **g.** KA88/122-3 + KA88/116-2 + KA88/167-34; **h.** KA88/122-2; **i.** KA88/122-6; **j.** KA88/122-7 + KA88/167-44 (**Cat. 1**).

(MNA = 9), but still constitute with 18.7% of the assemblage relatively high proportions for the period (cf. Bechtold 2010, 6-7, table 1). Of these transport amphorae 7 are of local fabric (88%) and 2 imported (22%). This division, although based upon the statistically low number of 9 items (MNA), tallies remarkably well with the general pattern established for contexts of the transitional Early Punic/Middle Punic and the Middle Punic I period (c. 530-430 BCE; Bechtold 2008a, 40).

Encountering such a deposit within the city is quite remarkable in the light of the scarcity of such household assemblages for the period between 550 and 480 BCE. Only 2.1% of the Punic contexts excavated by Hamburg University could be assigned to Phase V (c. 550-480 BCE; Docter 2005, 270). In the German Archaeological Institute excavations, no archaeological contexts dating to the second half of the 6th century BCE were found (or rather, have been published), but a context of the first half of the 5th century BCE from the Magon quarter contains some residual pottery of the 6th century BCE (Docker 2005, 272, n. 10; Docker 2007a, 54, context 120). A recent inventory of all published settlement contexts in Carthage gives no trace of contexts indisputably from the second half of the 6th century BCE, and only eight out of 315 Punic contexts (2.5%) date to the first half of the 5th century BCE (Docker 2007a, 40-42, figs. 3-4). In the 2000-2001 Universiteit van Amsterdam excavations at Carthage, only four contexts out of 140 Punic ones (2.9%) could be assigned a general date in the second half of the 6th century BCE (Docker 2005, 275). If one considers the quantitative composition of these contexts in comparison with the Early Punic ones, one gets the impression that during the Early Punic period, household refuse was used as filling and levelling material in the preparation of new floors and to elevate the street levels with every generation (Docker 2005, 274). From the middle of the 6th century BCE onwards, the deposits in the streets and the levelling layers within the houses consistently become thinner, containing less artefacts (cf. Bechtold 2010, 6-7, table 1), which implies that from that moment the city of Carthage established some sort of garbage collection system for its household waste.²¹ At the same time, human and animal faeces may have been collected to be used as manure in the horticulture of Carthage's immediate hinterland in a manner similar to the *koprologoi* of the Greek world (Docker 2005; Docker *et al.* 2006, 67).

In view of the fact that some large profiles were encountered in the fill (**Figs. 2, 3, 5e, j**) as well as many non-joining fragments from one vessel (**Fig. 5h-i**), it is not improbable that the two contexts excavated in room A-north are partly the remains of a primary destruction level, reworked and replaced probably only once. The extremely low number of hand collected animal bone fragments (2) is also

²¹ Docker 2005; Docker *et al.* 2006, 66-67. More archaeological research is needed to establish the areas where the Carthaginians dumped their city's garbage from the second half of the 6th century BCE onwards.

telling. Other waste deposits, used as fillings in the habitation areas of Carthage, mostly of Early Punic date, always contained high levels of animal bones.²²

Is there a way to tell where this (reworked destruction) deposit came from? At first sight, the gray wall plaster fragment registered in the fill would seem to offer a clue (**Tab. 2,7**). Examples of this very early, gray hydraulic wall plaster viz. floor mortar have been found *in situ* in the Tanit Sanctuary in room E, both in building phases Va2 (c. 480 BCE) and VIa2 (c. 425 BCE).²³ The occurrence as demolition fragments in the Hamburg excavations is limited to the fill between the two floors of the Tanit sanctuary and to a fill in room A-north, just on top of the fill discussed here. In both rooms they have been found in Stratum VIa1 (c. 480-425 BCE) and, hence, may testify to the destruction of the walls of the first Tanit sanctuary (Schmidt 2007a, 257, cat. 1103-1105, colour pl. 30,1105). In fact, this had been one of the arguments to suggest that the renovation of house 1-north in building phase VI (c. 425 BCE) included debris from the first Tanit sanctuary in house 1-south; this is strengthened by votive material of the sanctuary's first use period (c. 480-425 BCE) found in Stratum VIa1 in room A-north. The fact, however, that this gray wall plaster fragment would constitute the sole and first attestation of the technique before 480 BCE, should call for caution. In view of joins between vessel fragments from the Va1-fill and the layer above (Stratum VIa1, see above and **Cat. 1, Fig. 5a, d, g**), which suggest some contamination in the process of excavation, one would rather be inclined to see also this plaster fragment as intrusive from Stratum VIa1. The answer to the above question is therefore negative.

Fish amphorae from the Iberian Peninsula and their hypothetical Sicilian successors in the light of recent archaeological data

Cat. 2: KA88/63-19: 7 fragments of Plain Ware amphora of Ramon T-11.2.1.3 forming the upper part and a large part of lower body (**Figs. 6, 10b**). Hard fired light red (2.5YR6/6) clay with gray core; some medium-sized quartz, chamotte and schist (0.2-0.5mm), few very fine shining particles (mica? 0.1mm); surface reddish yellow (7.5YR7/6). Reconstructed H 87.1; diam. rim 12.4. Unpublished.

The large fragments may be reconstructed to an amphora of Ramon T-11.2.1.3, destined to carry salted fish (mainly tuna).²⁴ They were produced in the area of the Straits of Gibraltar between the late 6th and the end of the 5th century BCE.²⁵

²² Van Wijngaarden-Bakker, Van Neer 2007; Slopsma, van Wijngaarden-Bakker, Maliepaard 2009. The charcoal registered in the finds lists may perhaps also hint at a destruction level.

²³ Docter, Niemeier, Schmidt 2007a, 116-119, fig. 36a-b, BF 15, 18; 123-127, figs. 40, 41, BF 1, pls. 17-18, 20, 30,1105, colour pl. 32d-g, Beilage 8.

²⁴ Ramon 1995, 235-236, 563-565, figs. 200-202 (but never with a base as rounded as **Cat. 2**). For an in-depth discussion of the literary and archaeological evidence of fish processing activities in the area of the Straits of Gibraltar, see Campanella, Niveau de Villedary y Mariñas 2005, esp. 55.

These amphorae are not unknown in Carthage, although their numbers are incomparably lower than those of the preceding class CdE 1 ('Círculo / Circuito del Estrecho').²⁶ To date, only six rim fragments have been published. In 1987, M. Vegas published a rim fragment from the stratigraphical excavations in the Punic 'Seetor-Straße'. It was found in Layer 22, which may be dated in the relative chronological sequence to the middle of the 5th century BCE, containing some residuals as well.²⁷ The topographical deep sounding II in the Rue Septime Sévère yielded another rim fragment of this type, which was published without illustration (Vegas 1989, 258). The level in which it was found is dated to c. 400 BCE. The Magon Quarter yielded two rim fragments from 5th century BCE levels.²⁸ A similar date may be given to a rim fragment from the Rue Ibn Chabâat excavations (Vegas 1999, 205-206, fig. 115,4; Bechtold 2008a, 11, 125, fig. 5,51, tab. 6). A last fragment came as a residual piece from a modern context in the excavations of the Universiteit van Amsterdam on the Bir Messaouda site (Bechtold 2008a, 83-85, cat. 16, fig. 19,16).

The distribution map that Ramon published in 1995 (651, fig. 285, map 116) already evidenced the extremely wide-spread distribution of the class. It has not only been documented in the area of its main production, Andalusia, and along the coasts of the Iberian peninsula, but also in western North Africa (Les Andalouses), Sardinia (Sulcis), Sicily (Camarina, Monte Saraceno, Motya, Aeolian islands), in the Tyrrhenian area (Ischia, Pyrgi), in the Ionian-Adriatic region (Kaulonia) and on the Greek mainland (Olympia and Corinth). Recent discoveries of Ramon T-11.2.1.3 amphorae may be added to this distribution map, without changing the general picture: Iol (settlement),²⁹ Pantelleria (survey),³⁰ Entella (settlement),³¹ Solunto (settlement),³² Himera (necropolis),³³ Motya (settlement),³⁴ Velia (settlement),³⁵ as well as Athens (settlement).³⁶

²⁵ See recently Campanella, Niveau de Villedary y Mariñas 2005, 51-52.

²⁶ Docter 1997, § VI.1; Docter 1999; Docter 2007d, 617-619, 646-651, figs. 335-338, 352-355.

²⁷ Vegas 1987, 377, 399, fig. 9,171; Vegas 1999, 205-206, fig. 115,1. In the latter publication, the chronology of the context changed – without further comments – to the second half of the 5th century BCE.

²⁸ Vegas 1999, 110, 111, 205-206, figs. 11a,8, 115,2-3; Bechtold 2008a, 11, 125-126, fig. 5,50, 53, tab. 6 (mis-typed as "T-12.2.1.6" instead of T-11.2.1.6).

²⁹ Bechtold forthcoming 3, tab. 1.

³⁰ Bechtold 2013, 426, tab. 7; 465, cat. 35.

³¹ Corretti, Capelli 2003, 305, n. 95-96, pl. LIX,66.

³² Alaimo, Montana, Iliopoulos 2003, 5.

³³ Vasallo 1999, 372, in addition to at least five more unedited items, which will be studied within the framework of the FWF project mentioned below in the acknowledgements.

³⁴ Nigro 2011, 205-206, pl. XXVI, MF.06.1257/11 (residual within a second half of the 4th century BCE context), here classified as a local product; 334-335, pl. CII, MF.06.1301/3, surface find.

³⁵ Gassner 2003, 131, fig. 60,a, from a phase IIa level, dated to the second quarter of the 5th century BCE (p. 170). For two more items from Velia, see now Facem – <http://facem.at/cde-a-1> and <http://facem.at/cde-a-2>.

³⁶ Zimmermann Munn 2003, 213, n. 164.

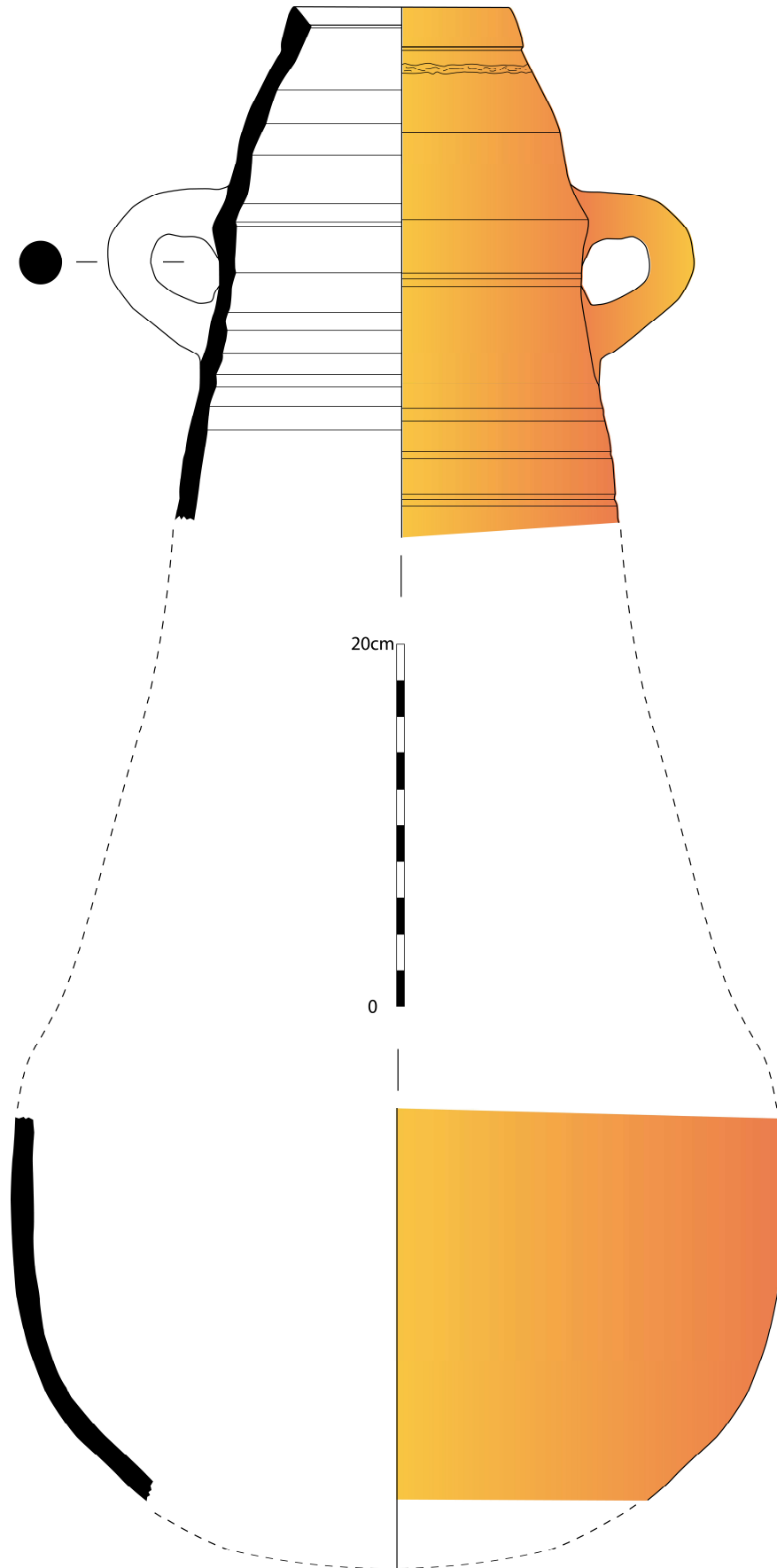


Fig. 6. Amphora of type Ramon T-11.2.1.3, **Cat. 2** (drawing RFD, digitized by Joris Angenon, Ghent).

The archaeological data from the so-called ‘Punic amphora building’, a commercial establishment at Corinth, have given evidence for the presence of at least one amphora of Ramon T-11.2.1.3 during the first phase of the building, dated to 475-460 BCE (Ramon 1995, 146, 565, fig. 202,446). During the second phase (c. 460-430 BCE), amphorae of Ramon T-11.2.1.3 constitute the majority of the 40% non-Greek amphorae. This clearly illustrates the importance attributed by the Corinthians to the salted fish products from the area of the Straits of Gibraltar.³⁷ In fact, most of these amphorae in contexts outside the production area, mentioned above, apparently occur in deposits that date to the second half of the 5th century BCE (Ramon 1995, 283-284). This distribution of amphorae T-11.2.1.3 suddenly comes to a halt towards the end of the 5th century BCE. As a result, the following period has recently been described in the Gaditanian region as: “Il IV sec. a.C. è il periodo che, al momento, si configura come il più “oscuro” (...) le anfore gaditane (...) non sono più documentate né in Grecia né oltre la stretta zona di influenza dello Stretto.”³⁸

Even if such a negative distribution pattern may probably not be fully correct,³⁹ it appears sufficiently clear that the intense long-distance travel between the Far West and the central and eastern Mediterranean became disrupted towards the late 5th century BCE. According to Ramon this phenomenon has to be linked to the changed political and military situation, especially in Sicily, culminating in the destruction of the Greek cities of Himera, Selinunte, Agrigento and Gela between 409-405 BCE. The increasing influence of Carthage in the Central Mediterranean may have contributed heavily to the decline of the industrial activities in the Gaditanian area, to the benefit of an unspecified “... nacimiento de un comercio organizado en recipientes púnicos de esta clase desde el Mediterráneo Central ...” (Ramon 1995, 285).

A rediscussion of this economic-historical and geopolitical question and a refinement of Ramon’s statement of almost twenty years ago seems now possible in the light of recent research undertaken especially on the provenance and fabric studies of Sicilian-Punic amphorae.

To this end, we have to return to the evidence provided by the second phase of the ‘Punic amphora building’ at Corinth, where numerous amphorae of Ramon T-11.2.1.3, originating either in Atlantic Morocco or in the South of Spain were found in association with a second Punic amphora shape, Ramon T-1.4.5.1.⁴⁰ This

³⁷ See Ramon 1995, 145-146; Zimmermann Munn 2003, 198-201.

³⁸ Campanella, Niveau de Villedary y Mariñas 2005, 52.

³⁹ On the basis of the documentation of the successive shape Ramon T-11.2.1.4 (Ramon 1995, 236, 566-567, figs. 203-204, distribution map at p. 652), to which may now be added Motya (Bechtold 2008a, 65, tab. 5, from a destruction level of 397/96 BCE in zone D; Famà, Toti 2000, 469, no. 30, pl. XCI,9) and Neapolis in Sardinia (Garau 2007, 36-37, fig. 13,4).

⁴⁰ Ramon 1995, 176-177, 285, 514, fig. 151, for a distribution map see p. 605. See also Zimmermann Munn 2003, 201-202: “These jars were probably also used to import preserved fish to Corinth, coming most likely on the same ships as the Mañá-Pascual A4s, from a Punic center in the western Mediterranean.”

type can now effectively be assigned to the production area of Palermo and Solunto (Bechtold 2012, 6, 10), and appears to be regularly found on western Sicilian sites in deposits of the second half or late 5th century BCE.⁴¹ Ramon already alluded to the possibility that these Sicilian containers might indicate the way of arrival of the South Spanish amphorae (Ramon 1995, 285). The steadily increasing evidence of the distribution of the South Spanish vessels in western Sicily, not only on the coastal sites, but also in hinterland settlements like Entella, seems to corroborate this hypothesis.⁴²

It is highly significant for the present discussion that the shape of the amphorae Ramon T-1.4.5.1 represents the archetype of a North-West Sicilian amphora family produced in the area of Palermo - Solunto. From the beginning of the 4th century BCE it evolves to amphorae of Ramon T-4.2.2.6, and later, within the last third of the 4th century BCE, to amphorae of Ramon-Greco T-4.2.2.7, and finally, towards the very late 4th / early 3rd century, to amphorae of Ramon T-7.1.2.1.⁴³

The distribution pattern of the amphorae that were produced in the territory between Palermo and Solunto is progressively and numerically extra-insular in character. While Ramon T-1.4.5.1 has only been identified at Corinth,⁴⁴ the successive shape T-4.2.2.6 not only appears at Corinth (Ramon 1995, 146), but also at Ampurias and on Ischia (Ramon 1995, 621, map 255). With the creation of Ramon-Greco T-4.2.2.7 towards the last third of the 4th century BCE, a further increase becomes clear. This type is frequently attested along the Tyrrhenian coasts of southern Italy (mostly in Lucania),⁴⁵ but also at Pantelleria.⁴⁶ Finally, probably at the very beginning of the 3rd century BCE till the middle of this century, the extra-regional distribution of this amphora family reaches its peak with amphorae of Ramon T-7.1.2.1 having been identified on several sites along the southern Tyrrhenian sea, in presentday Calabria and Campania,⁴⁷ on Ischia,⁴⁸ at Euesperides in Cyrenaica,⁴⁹ and at Carthage.⁵⁰

In conclusion, it can be ascertained that the disruption of the long-distance trade between the Straits of Gibraltar and the Central and Eastern Mediterranean coincides almost exactly with the beginning of the mercantile advance of the Palermo - Solunto area, culminating in the decades before the first Punic War.

⁴¹ Bechtold 2008b, 541-542, 547, fig. 5, for the occurrence of the type at Selinunte, Motya, Segesta, Monte Iato, Colle Madore, Palermo, Solunto, Himera, and Filicudi.

⁴² M.L. Zimmermann Munn (2003, 209-210), however, favours an "island-hopping route" via the Balears and Sardinia "in a direct voyage of long-distance trade".

⁴³ See Bechtold 2008b, 544,-547, 550-554, 556-559.

⁴⁴ In addition to one sporadic item of unknown, but most likely Tunisian provenance in the Bardo Museum, Tunis, see Ramon 1995, 119-120.

⁴⁵ Bechtold forthcoming 1, chapter 2.1.1.

⁴⁶ Bechtold 2013, 474-475, tab. 23, cat. 58.

⁴⁷ Bechtold forthcoming 1, chapter 2.1.1.

⁴⁸ Bechtold 2008b, 547, fig. 5, 558. Ultimately, Bechtold forthcoming 1, chapter 2.5.

⁴⁹ Göransson 2007, 182, 185, n. 389, from a context dated 325-250 BCE.

⁵⁰ Vegas 1987, 391-392, fig. 6,100 from 'Schicht' 16 dated to the first half / middle of the 3rd century BCE; Vegas 1999, 129-130, fig. 21,42, 'Fundkomplex' 14 dated to the second half / late 3rd century BCE.

At this point we have to mention the recent study of E. Botte (2009) on the installations linked to Sicilian fish factories. The archaeological record in the coastal area between Capo Gallo and Termini Imerese, in the Palermo - Solunto area, and around the shores of Trapani, show particular high densities of structures that may be related to a fish processing industry. These are all located at strategical points with a view to the capture of the migratory species (Botte 2009, 72, fig. 3-02). On the basis of the surface finds, the structures have been re-dated to the 4th century BCE, in accordance with the historical sources that refer to a Sicilian trade of salted fish at the end of the 5th and particularly during the 4th century BCE (Botte 2009, 103).

The appearance of numerous fish processing factories in the territory of Palermo and Solunto in the course of the 4th century BCE coincides with the increase of the above-mentioned amphora class that has been produced in the same area. The contents of these containers, however, had up to now remained subject to speculation. Although firm archaeological evidence on the commodities carried in these Palermitanian-Soluntinian Middle Punic amphorae is still missing (Botte 2009, 115), the obvious chronological and topographical links between fish processing industry, amphora production, and historical sources⁵¹ cannot but lead to the hypothesis that the coastal strip between Solunto and Palermo evolved from the late 5th century BCE onwards into one of the most important fish processing regions in the central Mediterranean.

Since the processing of fish and seafood in the Gaditanian area started earlier than on Sicily (Botte 2009, 50-51), as witnessed by the import of South Spanish amphorae to western Sicily during the 5th century BCE, it is tempting to interpret the genesis of the North-West Sicilian amphora class described above as the result of a successful attempt to break into the market for these South Spanish commodities.

Historically, the beginning of this North-West Sicilian fish processing industry followed in the decades after the Carthaginian destruction of four important Greek colonies, including Himera, just 30 km east of Solunto. New amphora data testify to a massive regional,⁵² but partly also extra-regional distribution of the North-West Sicilian amphora class during the 4th and the first half of the 3rd century BCE. They clearly show that at least the Punic *emporion* of Palermo and Solunto benefited from the new hegemony of Carthage that characterised, according to modern historians, the period following the treaties with Syracuse of 405 and 374 BCE.⁵³

⁵¹ The evidence of the fabric analyses of a good number of Punic amphorae attributed to the area of Palermo and Solunto show, in fact, the existence of several similar fabrics, which might hint at different, possibly even rural production sites situated in the same wider area. The results of these studies will be published within the framework of the project mentioned below in the acknowledgements.

⁵² On this aspect, see Bechtold 2008b, 547-548, fig. 5.

⁵³ Gallo 1992, 324-325; Anello 1986, 168-170.

The context of Cat. 2

Cat. 2 was found in context KA88/63, which is the lowest level of an east-west running robber trench on top of the remainder of the x9.0 ashlar wall, situated mainly within the area of rooms F-west and F-east of House 1.⁵⁴ Stratigraphically it has been described as a fill dating to Roman Imperial times (“Römig: frühestens römisch-kaiserzeitlich gestörte Fundkomplexe”).⁵⁵ It may contain backfill (and hence artifacts) that comes from both sides of the x9.0 ashlar wall, so from the area of rooms C, E-west, and E-east to the south and rooms F-west, F-east and G-south to the north.

In view of its chronologically mixed nature it did not receive much detailed attention in the finds laboratory and, hence, in the final publication. Only finds that were deemed to hold particular interest were studied and entered the published record.⁵⁶ It is in this respect not without significance that the context contained the majority of the fragments of another fairly well preserved vessel (**Figs. 7, 10c**). The stratigraphical links of the sherds that join with this particular vessel may perhaps help in bringing us nearer to its original (horizontal and vertical) stratigraphical position and, hence, by extension to that of the transport amphora **Cat. 2** discussed here. The joining fragments were found in contexts KA88/64, KA88/74, and KA88/86.

KA88/64 belongs to the thick leveling layer stratigraphically assigned to Stratum VIIb1. More particularly, it had been found in the western part of room C.⁵⁷

KA88/74 is the material collected during cleaning after the demolition of a Late Punic (Layer VIIb) mudbrick / *spolia* wall, especially at its eastern end, where it had been robbed out in Late Antiquity or more recent times.⁵⁸ The context is situated in the area of rooms F-west, F-east and G-south, so overlapping with the area covered by contexts KA88/64 and KA88/86. It is mixed in composition and may be assigned a “Röm V” date (Roman V: 365 - c. 700 CE; see below) on the basis of the latest material it contained.

⁵⁴ Cf. Docter, Niemeyer, Schmidt 2007a, 139, 156-157, figs. 48, 54 BN 12, and 55 BN 22, Beilage 8. Its stratigraphical position is x9.0-10.5 and y14.5-17.0; H. 5.05-5.40m.

⁵⁵ For the stratigraphical attributions the concordance list ‘KORADAT version 8’ has been used, as had been the case in the final publication of the Hamburg excavations (Niemeyer *et al.* 2007, 57).

⁵⁶ The context also contained typical destruction material of the 146 BCE city, of which the knob of a Black Glaze pyxis lid of Morel Series 9131 of the ‘Byrsa 661’ class was mentioned in the final publication: Bechtold 2007c, 572; cf. Bechtold 2007e. The inventory of the context mentions 107 more fragments of apparently Middle Punic to Roman Imperial date, apart from uncounted numerous (“zahlreiche”) wall, rim, shoulder, and handle fragments of amphorae and other Plain Ware vessels, as well as 1 bone fragment.

⁵⁷ Cf. Docter, Niemeyer, Schmidt 2007a, 138, fig. 47 BN 5, Beilage 8. Its stratigraphical position is x7.0-7.5 and y10.5-11.0; H. 5.50-5.65m. The theoretical possibility of a mix-up of the fragment in the finds laboratory, e.g. during washing, has to be considered. Both context KA88/63 and KA88/64 were excavated on November 12th 1988 and may have been processed in the same order.

⁵⁸ Cf. Docter, Niemeyer, Schmidt 2007a, 156, 159, fig. 54 BN 8, fig. 56, Beilage 11, pl. 22a-c. Its stratigraphical position is x9.5-11.5 and y14.5-17.0; H. 5.10-5.25m.

KA88/86 is the material collected while lowering the general level in the area of rooms F-west and F-east, after the demolition of the Late Punic (Layer VIIb) mudbrick / *spolia* wall mentioned before.⁵⁹ The fill of a robber trench on the y13.5 *Opus Africanum* wall and of the building trench of the new y15.0 rubble wall between rooms C and E-west have been included in the context. Both are of level VIIa date. The context overlaps with the area covered by contexts KA88/64 and KA88/74, and has been assigned a “Mod” (modern) date during the excavation on the basis of the latest material it contained (a.o. modern iron nail).

The contents of context KA88/63

Besides the South Spanish amphora Ramon T-11.2.1.3 (**Cat. 2, Figs. 6, 10b**), context KA88/63 contained an almost complete profile of a Punic Painted Ware ‘table amphora’ (“Haushaltsamphore mit verdicktem Rand” Bechtold subtype A) of Carthaginian manufacture (**Fig. 7**).⁶⁰ Joining fragments were found in contexts KA88/64, KA88/74, and KA88/86, the contents of which will be briefly discussed below as well.⁶¹ The fact that the only undisturbed context that yielded a fragment of this ‘table amphora’ (KA88/64) is situated in room C, may perhaps provide interesting stratigraphical clues, but a mix-up during the excavation is not to be excluded either (see n. 57, above). If the sherd did indeed belong to KA88/64, then (part of) the material used to raise the level in room C may well have been brought in from the the area of Room F, or rather from E-west as will be argued below.⁶²

From a technical point of view, the domestic amphora from context KA88/63 does not bear smoothed surfaces, a technique that disappears in the Carthaginian workshops before the last quarter of the 5th century BCE (Bechtold 2010, 30). Typologically it is close to Cintas Forms 337-339 found in cemeteries on Cap Bon that apparently date to the 3rd century BCE (Cintas 1950, 155, pl. 28). It finds more comparisons among the vessels of Layer II (700/650 - 350/300 BCE) of the Tophet of Carthage (Harden 1937, 63, 68, 71, 74-75, figs. 2, 4n-q, class D). The best parallels, however, are represented by a series of very similar domestic amphorae yielded by five chamber tombs excavated in 1966 in the necropolis of Areg-El-Rhazouani at Kerkouane, dating apparently to within the advanced 5th - 4th century BCE.⁶³

⁵⁹ Cf. Docter, Niemeyer, Schmidt 2007a, 156, 159, fig. 54, BN 5, fig. 56 BN 6, Beilage 11. Its stratigraphical position is c. x10.5-11.5 and y13.5-16.2; H. 5.35-5.60m.

⁶⁰ B. Bechtold, in: Niemeyer, Docter *et al.* 1993, 225, no. 18, fig. 9f, pl. 56.3; Niemeyer, Rindelaub, Schmidt 1996, 61, no. 72; Bechtold 2007a, 369-370, fig. 183, pl. 37, cat. 2166. On the other contents of the context, see n. 56, above.

⁶¹ These contexts will not be reconstructed in the same manner as the fill of KA88/122 and KA88/168 (cf. **Tab. 2-3, Fig. 4**) since this would stretch the format of the present article. The more or less homogeneous Punic contexts will be presented elsewhere, see above, n. 11. Of the ones that are disturbed in Roman times, at the earliest, only the finds of the Punic period will be discussed.

⁶² Given the completeness of the table amphora found in the area of room F, here **Figs. 7, 10c**, it is less likely that the amphora and the material found with it, originate from room C.

⁶³ Gallet de Santerre, Slim 1983, 22-46, pls. XV, figs. 3.5; XVI, fig. 9; XX, figs. 4, 7; XXI, fig. 3; XXII, figs. 1-2; XXVI, fig. 1. Painted domestic amphorae with collar necks seem to be present already among

Interestingly, domestic amphorae of Cintas Forms 337-339 are not included in Vegas' pottery typology for Punic Carthage (Vegas 1999), which suggests that the shape has not been found in any of the numerous settlement excavations undertaken by the German Archaeological Institute of Rome since 1974. The data outlined above suggest that painted domestic amphorae with collar necks are particularly characteristic of North African Punic ritual contexts of the later 5th - 4th century BCE, a date range that perfectly suits for the item presented in **Figs. 7, 10c**.

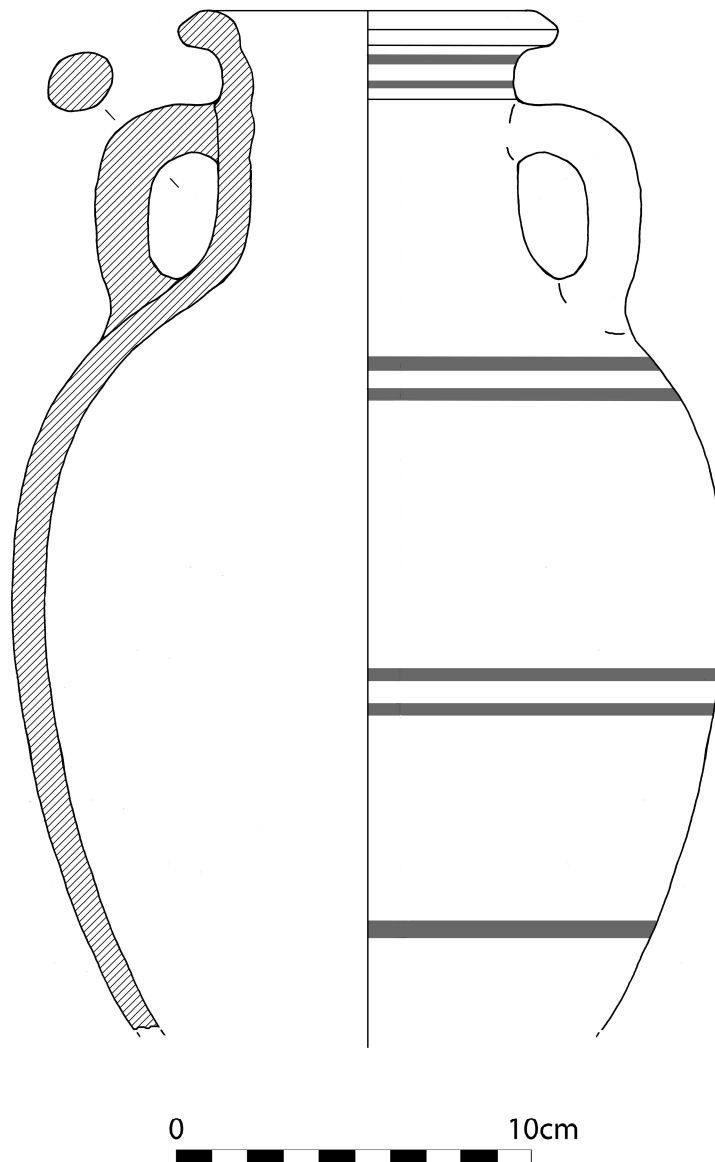


Fig. 7. Carthaginian ‘table amphora’ (“Haushaltsamphore mit verdicktem Rand”, Bechtold subtype A) KA88/63-20 + KA88/64-SN + KA88/74/SN + KA88/86-SN (from Bechtold 2007a, 369, fig. 183,2166).

the inventories of the earliest graves, e.g. tomb 1/66, but continue to be constantly documented probably during the whole 4th century BCE. The type appears not to be attested within the poorer fossa graves of the same necropolis nor in the nearby cemetery ‘De la plage’ reserved for young individuals, which is more or less contemporaneous or slightly more recent than the Areg-El-Rhazouani area.

The contents of context KA88/64

KA88/64 contained one wall fragment joining with the Painted Ware amphora **Fig. 7** (but see n. 57, above). It belongs to the thick leveling layer in room C, stratigraphically assigned to Stratum VIIb1 that contained material dating to the time frame 360-330 BCE. The fill has been excavated in no less than 19 different contexts between the years 1986 and 1991.⁶⁴

The contents of context KA88/74

KA88/74 had been assigned a “Röm IV” stratigraphical position (Roman IV: 3rd century – 365 CE), but it also contained material that Karin Schmidt dates up to c. 500 CE.⁶⁵ This would imply that a “Röm V” closing date for the context as a whole is more appropriate.⁶⁶ A significant portion of 6th and 5th century BCE material was found in the context (**Fig. 8, Tab. 4**).

No.	Shape + feature	Ware	Remarks	Date	Publication
1	Base fragment of a Corinthian closed vessel	Painted Fine		7th – first half of 6th century BCE	Docter 2007b, 469, cat. 4189
1	Wall fragment of Haimonian (cup?)skyphos	Attic Black Figure	Lancut Group	second quarter of the 5th century BCE	Bechtold 2007c, 524-525, fig. 282, pl. 43, cat. 4400 (Fig. 8a)
1	Wall fragment of skyphos (?)	Attic Red Figure		5th century BCE	Bechtold 2007c, 525-526, fig. 282, cat. 4403 (Fig. 8b)
1	Rim fragment of bowl	Black Glaze		5th – 4th century BCE?	Unpublished
2	Wall fragments of ‘table amphora’ Bechtold subtype A	Painted	Joining in KA88/63, 64, 86	Late 5th – 4th century BCE	See references in n. 61 and Fig. 7
1	Blue bead ⁶⁷	Glass			Schmidt 2007c, 781, fig. 433, cat. 6317

Table 4. Selected finds of the Punic period found in context KA88/74.⁶⁸

⁶⁴ Docter 2007a, 61-62, No. 196. The full reconstruction of this fill, including the hitherto unpublished material, is currently being prepared for publication, see above, n. 11.

⁶⁵ Large dish Hayes ARS 32/58 or 58B/ El Mahrine 1 (Schmidt 2007b, 732, fig. 405, cat. 5929), 2 deep dishes Hayes ARS 67(?) with stamped decoration (Schmidt 2007b, 734-735, fig. 407, cat. 5936-5937), shallow bowl Hayes ARS 80A/ Lamboglia 58/ El Mahrine 12 (Schmidt 2007b, 735-736, fig. 408, cat. 5942), flanged bowl Hayes ARS 91/ Lamboglia 24/25, 38/ El Mahrine 52-54 (Schmidt 2007b, 736-737, fig. 408, cat. 5944).

⁶⁶ “Röm V”: “Third (Roman) building phase: phase of the Late Antique repairs of the buildings after the earthquake of 365 CE till the end of Carthage. This is a Late Antique or even ‘Post-Antique’ phase, in which the public space of the streets could also have been built over, as testified by an *opus caementitium* foundation in the southern *Cardo X*.”

⁶⁷ It had tentatively been attributed to the Late Antique period, but may rather be of Punic date (see the contribution of T. Redissi, elsewhere in this volume).

⁶⁸ See n. 61, above. Apart from the (Late) Roman fragments mentioned in n. 65, the context contained 3 wall fragments of painted wall plaster (probably Late Punic in date), 42 rim, handle, shoulder and wall fragments of unknown date, and 1 bone fragment.

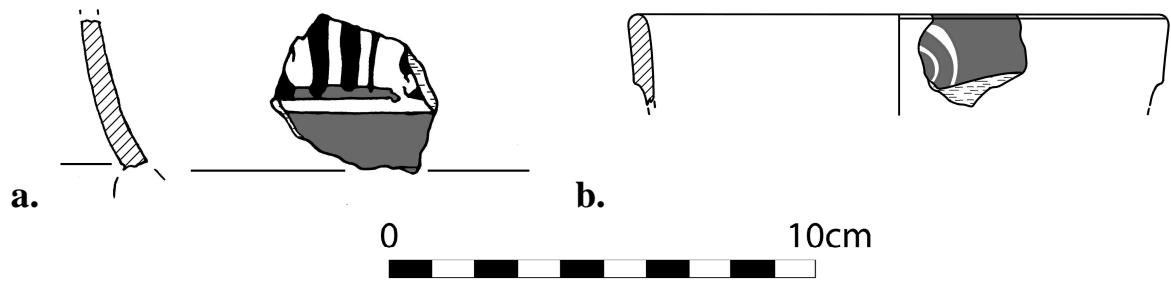


Fig. 8. Selected finds of 5th century BCE date found in context KA88/74.

The contents of context KA88/86

KA88/86 had been assigned a “Mod” (modern) stratigraphical position during the excavation. It contained mainly material of the first half of the 2nd century BCE, the typical debris of the Punic city of 146 BCE, but also material that is consistent with a Stratum VIIa1 or VIIb1 dating (**Fig. 9**), apart from few residuals (**Tab. 5**).

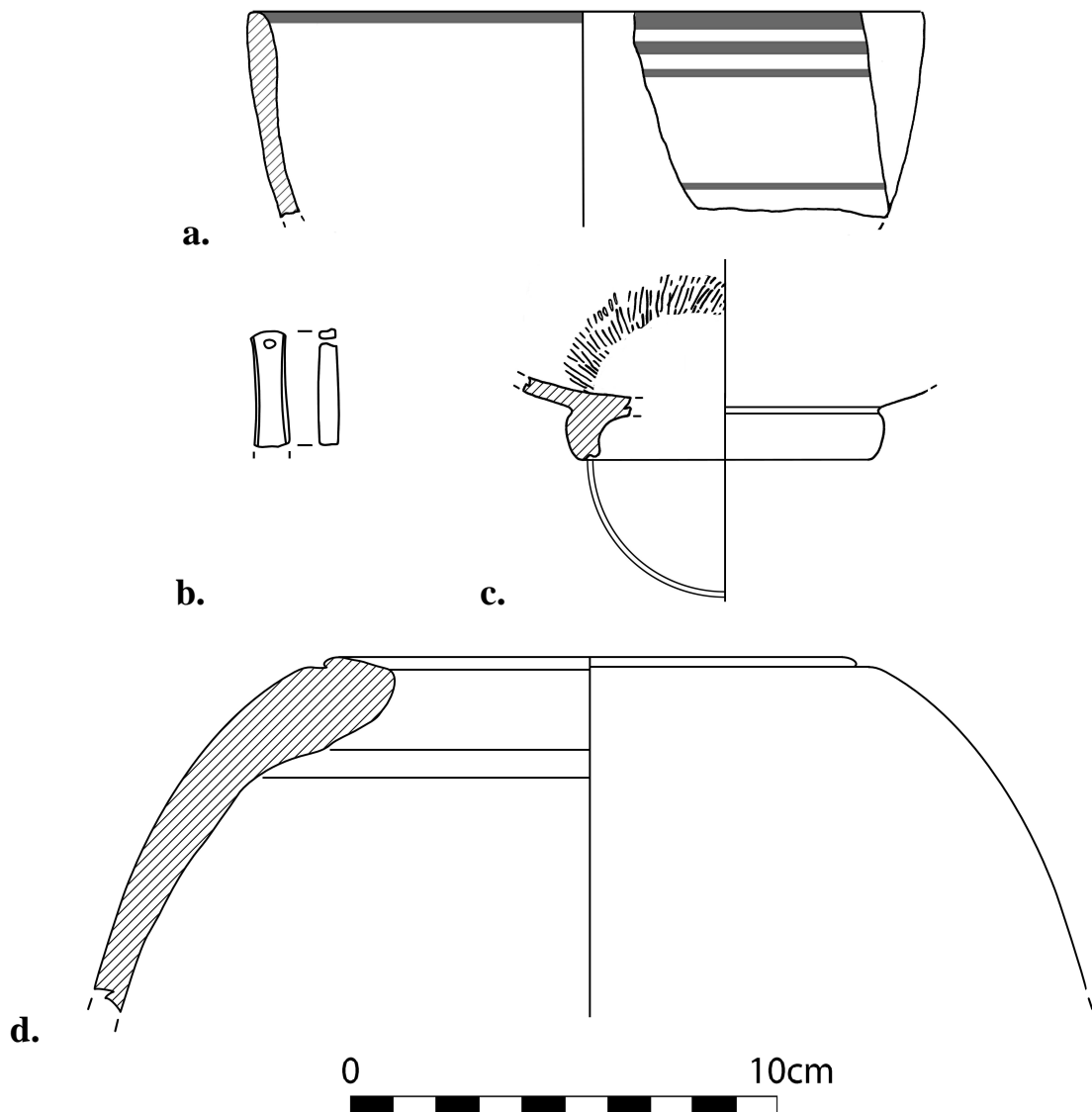


Fig. 9. Selected finds of 4th century BCE date found in context KA88/86.

No.	Shape + feature	Ware	Remarks	Date	Publication
1	Rim fragment of (cooking) pot with biconical body and double-rounded rim of Vegas form 61, Bechtold Subtype C	Plain		7th or early 6th century BCE	Bechtold 2007a, 402-403
1	Rim fragment of large jug Bechtold subtype C	Plain		7th – 5th century BCE	Unpublished (cf. Fig. 5d); on date see Bechtold 2007a, 364-365, n. 28
1	Rim fragment of Attic ‘bosal’ ⁶⁹	Black Glaze		late 5th century BCE	Bechtold 2007c, 510-511.
2	Wall-handle fragments of ‘table amphora’ Bechtold subtype A	Painted	Joining in KA88/63, 64, 74	Late 5th – 4th century BCE	See references in n. 61 and Fig. 7
1	Rim fragment of deep bowl Bechtold subtype C	Painted		4th century BCE	Bechtold 2007a, 350, fig. 168, cat. 2082. See now, Bechtold 2010, 30, fig. 17,1 (Fig. 9a)
1	Rim fragment of deep bowl	Painted		4th century BCE	Unpublished (probably as Fig. 9a)
1	Rim fragment of large jug with thickened vertical rim, cylindrical neck and ovoid body, Bechtold Subtype B ⁷⁰	Plain		4th century BCE	Bechtold 2007a, 364
1	Base fragment of Attic bowl with incurving rim	Black Glaze		4th century BCE	Bechtold 2007c, 515-516, fig. 275, cat. 4349 (Fig. 9c)
1	Rim fragment of amphora of Ramon T-4.2.1.6 ⁷¹	Plain		second half of the 4th century BCE	Bechtold 2007d, 669, fig. 368, cat. 5509; Bechtold 2008a, 14-15, fig. 7,67 (Fig. 9d) ⁷²

⁶⁹ Comparable to Bechtold 2007c, cat. 4325, fig. 272, with still vertical lip, which is characteristic for the earlier items.

⁷⁰ For the type see Vegas 1999, 163, fig. 62, esp. nos. 6-7. In fact, items with clearly thinned rims characterised by a concave, external profile like the present fragment from context KA88/86 seem to represent the latest stage of this long-lived type with further comparisons in ‘Fundkomplexen’ 10 and 11 published by M. Vegas (1999, 117, fig. 13,25; 120, fig. 15,23) and among the finds from the excavations on Bir Messaouda, site 2, see Bechtold forthcoming 2, context BM04/2420 (340-325 BCE): BM04/42999, BM04/42637.

⁷¹ For the type see Ramon 1995, 189-190, 524, fig. 161, here tentatively attributed to a Sicilian series of the late 5th - 4th century BCE. For more comparisons from Carthage itself, see FACEM (<http://facem.at/m-94-6>), of local fabric car-reg-a-2, from a sealed deposit dated 340-325 BCE (context BM04/2420, see Bechtold forthcoming 2: BM04/42632). Vegas 1999, 121-122, fig. 16,34, from a context dated to the second half of the 4th - early 3rd century BCE. Highly interesting is the documentation of two amphorae of Ramon T-4.2.1.6 of Carthaginian fabric within the closed deposits related to the construction of temple B on the acropolis of Selinunte, dated to around 300 BCE or to the very beginning of the 3rd century BCE, see Bechtold forthcoming 1, chapters 2.1.3 and 9, cat. 50.117 with further references on the occurrence of this shape at Pantelleria and Sabratha.

⁷² Initially it had been attributed to Ramon T-4.2.1.1.

1	Rim fragment of amphora of Ramon T-7.2.1.1	Plain		late 3rd – first half of 2nd century BCE	Bechtold 2007d, 673-674, fig. 371, cat. 5527
1	Base – profile fragment of plate ‘Broad Rim’ of class Byrsa 661	Black Glaze		second quarter of 2nd century BCE	Bechtold 2007c, 566-567; cf. Bechtold 2007e
1	Rim fragment of amphora of Ramon T-7.4.3.1	Plain		first half of 2nd century BCE	Bechtold 2007d, 675-677
3	Fragments of needle ⁷³	Bronze			Mansel 2007, 802-803, fig. 442, cat. 6420 (Fig. 9b)

Table 5. Selected finds of the Punic period found in context KA88/86.⁷⁴

Attempt at a recontextualisation

The occurrence of two more or less complete large vessels (**Figs. 6-7, 10b-c**) in the disturbed context KA88/63 is remarkable and would suggest a close relation between them in their original stratigraphical position. But can this impression be substantiated in the archaeological record?

Let us first compare their respective typo-chronological date ranges. The South Spanish transport amphora **Cat. 2 (Figs. 6, 10b)** dates from the late 6th to the late 5th century BCE. The painted table amphora (**Figs. 7, 10c**) dates to the late 5th and the 4th century BCE. Hence, there is some overlap between these date ranges in the late 5th century BCE, which would not exclude the possibility that they once had been deposited in one single act.

There is another way to proceed. The contexts in which fragments were found that joined the painted table amphora offer chronological links to Stratum VIIa1 (425-350 BCE) or VIIb1 (350-250 BCE; see above). Moreover, if the fragment in context KA88/64 of room C (Stratum VIIb1: 350-250 BCE) is indeed in its original secondary position and not accidentally misplaced in this context during excavation, then at least the table amphora (**Figs. 7, 10c**) would have originated in a VIIa1 Stratum (425-350 BCE) at the latest, after which it was dispersed.

⁷³ The inventory of the context mentions two more fragments of a bronze needle, which originally may have formed part of the same needle.

⁷⁴ See n. 61, above. The context further contained 4 fragments of handmade vessels, probably of Early – Middle Punic date, 118 rim, wall, base and handle fragments of various wares and dates, 2 wall plaster fragments of probably Late Punic date, 1 piece of worked bone (needle?), and a fragment of a white marble plinth, probably of Roman or Late Antique date. A modern iron nail closes the context chronologically. A profile fragment of a lion’s head guttus of Campana A ‘ancienne’ Serie Morel 8151 of the late 3rd and beginning of the 2nd century BCE has been published erroneously as coming from context KA88/86 (Bechtold 2007c, 550-551, fig. 298, cat. 4487). The finds inventory of KA88/86 does not mention this piece. It is probably to be identified as the one inventoried in context KA88/1, which is equally of modern stratigraphical date.

The position of the table amphora (and the amphora **Cat. 2, Figs. 6, 10b**) itself is perhaps even more telling. It was found in the robber trench fill on the x9.0 axis that separated rooms F-west, F-east and G-south of House 1-north and rooms E-west and E-east of House 1-south. More or less complete vessels have been found particularly in this area before and, moreover, *in situ*. With the transition to construction Phase VII, around 350 BCE, the Tanit II sanctuary in House 1-south lost its religious function and was transformed into a domestic area (again). The lower part of the sanctuary (room E-west), where three religious symbols in white marble, red coral and silver had been decorating the floor, was now filled up and brought to the same level as room E-east.⁷⁵ The act of piously covering the religious symbols was probably accompanied by some sort of ceremony in which two North Aegean (Mendeian) wine amphorae were also deposited (**Fig. 10a**).⁷⁶ They were found immediately on top of the pavement, remarkably moreover exactly on top of the three religious symbols, and they must have belonged to the original VIIa1 fill.⁷⁷ This leveling Stratum VIIa1 contains material dated to between 425 and 350 BCE. Since the deposition would have occurred at the moment that the Tanit II sanctuary was given up and transformed into a domestic space, at around 350 BCE, one should strictly speaking assign the two amphorae to the building phase itself, i.e. to Stratum VIIa2 (see Docter, Niemeyer, Schmidt 2007a, 54-56, fig. 8). Consequently, the ritual deposition made use of older vessels, as is more often the case in Carthage.⁷⁸ The vessels were, hence, not performing their original function; viz. they did not contain their original contents (wine) anymore.

Immediately south of the context with the Mendeian amphorae, the stratigraphy had been disturbed in Layer VIIb, around 250 BCE, when the inlet for a cistern was renewed and brought to a higher level.⁷⁹ It is tempting, but admittedly hypothetical, to postulate that the offering deposit of the two Mendeian amphorae

⁷⁵ On the Tanit sanctuary and the religious symbols (representing Tanit, Baal and Astarte), excavated in 1991 and 1993, see Niemeyer 2000; ultimately Docter, Niemeyer 2007, Hvidberg-Hansen 2007 and Müller 2007, with further references.

⁷⁶ R.F. Docter in: Niemeyer, Docter, Rindelaub 1995, 449-502, fig. 12, pl. 128,1 (as from Stratum VIIa1); Niemeyer, Rindelaub, Schmidt 1996, 50, no. 7 (as from Stratum VIIa1); Niemeyer, Docter *et al.* 2002, 86-88, 105, fig. 21, pl. 8,1 (as from Stratum VIIa1); Bechtold 2007c, 684-686, fig. 377, cat. 5559, 5559a, pl. 46 (as from Stratum VIIb1); Bechtold 2008a, 9, 18, 31, fig. 4,39, tab. 2.C.2 (as from Stratum VIIb1); Bechtold 2010, 32, 35, fig. 21b,4 (as from Stratum VIIb1).

⁷⁷ Between x6.5 and x7.8 and between y15.4 and y17.5. This context (KA91/448) had been excavated while lowering the level within the fill, from 4.61m to 5.22m, without encountering a clear floor level. It turned out only afterwards, while enlarging the trench and interpreting the sections, that an additional (VIIb1) level had been present (see Docter, Niemeyer, Schmidt 2007a, 124, 137, figs. 40, 46,3-8, Beilage 8-9). Stratigraphically, the finds in the context were assigned to the latest layer, although technically speaking the two amphorae did belong to the original VIIa1 fill (particularly Docter, Niemeyer, Schmidt 2007a, 137, fig. 46,3; see also previous footnote).

⁷⁸ Mansel 2003, 134, 137. One wonders whether it is mere coincidence that the typological date of the vessels corresponds with the beginning of the phase VI Tanit II sanctuary, around 425 BCE? Had they been kept all the time in the sanctuary?

⁷⁹ Docter, Niemeyer, Schmidt 2007a, 137, 139, figs. 46, 48, between x5.5 and x6.5.

had originally been composed of at least two more vessels, viz. the south Spanish amphora **Cat. 2** (**Figs. 6, 10b**) and the painted table amphora (**Figs. 7, 10c**). At the time of construction Layer VIIb, the material including at least the two vessels just mentioned, was dug up and dispersed in the leveling material used for the large-scale reconstruction works in House 1-south. This leveling Stratum VIIb1 contains material dated to between 350 and 250 BCE. It has been encountered in almost all rooms of House 1-south, preparing a general elevation of the floor levels. It is in this way that a fragment joining to one of the Mendean amphorae ended up in a VIIb1 context in room E-east (KA93/164-89); it is equally possible that the fragment joining to the painted table amphora and found in the VIIb1 fill in room C (KA88/64) was dispersed in the same way (but see also n. 57, above). Since the two amphorae (**Figs. 6-7, 10b-c**) had been found within the backfill of a robber trench on the wall dividing House 1-north and House 1-south (x9.0 *Opus Africanum* wall), containing material from the stratigraphies to either side of that wall, it is possible that the vessels had been secondarily deposited in the VIIb1 fill of the corridor bordering the dividing wall to the south.⁸⁰ Their final position in the fill of the robber trench would, then, constitute their second redeposition. The fact that the two Mendean transport amphorae, the South Spanish transport amphora and the painted table amphora are more or less contemporary (late 5th century BCE), would strengthen the hypothesis of an original ensemble, viz. they belonged to the same ritual deposit. A further argument in favour of such a reconstruction is the fact that Painted Ware table amphorae with collar necks occur particularly in North African Punic ritual contexts (see above).

One wonders, then, whether also the two other more or less complete vessels found in the fill of Stratum VIIb1 in room E-east (**Fig. 10d-e**) may originally have belonged to the same deposit: a table amphora of Bechtold subtype C⁸¹ and a closed vessel of unknown of typology, of which the neck is missing.⁸² During the excavation and thereafter they have always been interpreted as foundation or building offerings, due to their remarkable state of preservation within the bulk of heavily fragmented finds from this layer.⁸³ In addition, the fact that one of the vessels (here **Fig. 10e**) was found near to a new wall, which is rather typical for such offerings, strengthened this interpretation.⁸⁴ If, however, they would have once belonged to the above-mentioned VIIa1/2 deposit in the lower part of the Tanit II sanctuary (room E-west), and were only dispersed thereafter during the VIIb1/2 construction and leveling operations in House 1-south, then their

⁸⁰ Corridor E-north: Docter, Niemeyer, Schmidt 2007a, 139, 149, fig. 48, Beilage 13, below BN 72. It is clear from the plans that exactly this area had been disturbed by the east-west robber trench.

⁸¹ Niemeyer, Rindelaub, Schmidt 1996, 57, no. 51 (dated to the 4th century BCE); Mansel 2003, 131, 133-134, 140, 142, figs. 2,7, 4,6; Bechtold 2007a, 370-371, fig. 185, cat. 2172a.

⁸² Niemeyer, Rindelaub, Schmidt 1996, 57, no. 52 (dated to the 4th century BCE); Mansel 2003, 131, 133-134, 140, 142, figs. 2,7, 4,7; Bechtold 2007a, 373-374, fig. 189, cat. 2187 (unclear chronology).

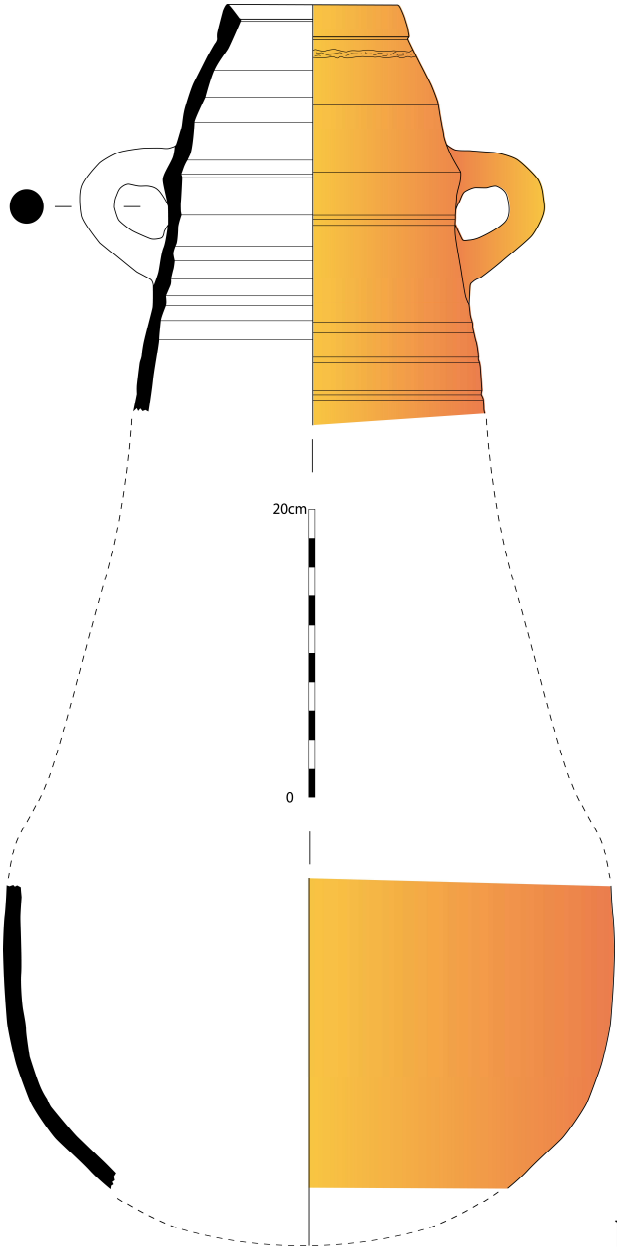
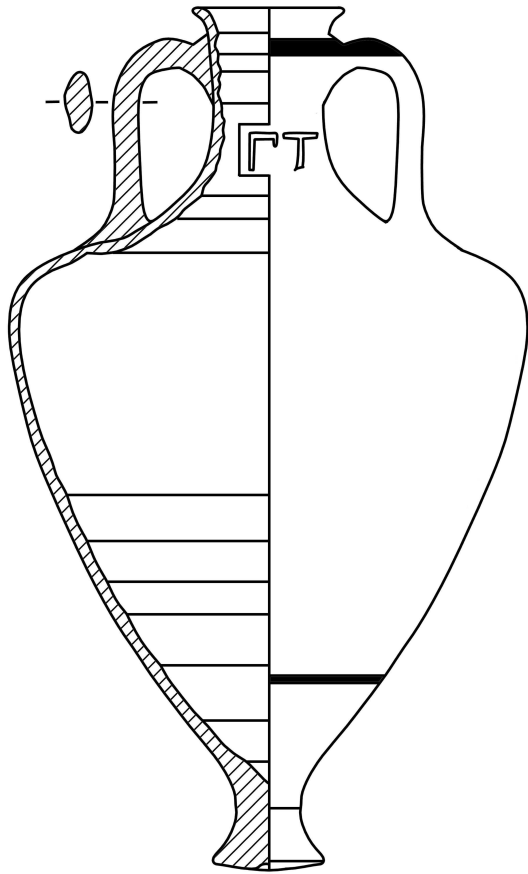
⁸³ See previous two footnotes.

⁸⁴ Mansel 2003, 133, 140, fig. 2,7. Contrary to the information provided by Mansel, however, the other vessel (here **Fig. 10d**) was found in the center of room E-west, so within the fill, as may be clear from its stratigraphical position: x7.0 and y19.0, between H 4.29 and 4.46m.

interpretation should be otherwise. How does their chronology relate to this suggestion? Bechtold dates the near-complete table amphora (**Fig. 10d**) typologically to the 4th century BCE (Bechtold 2007a, 370-371). The other vessel (**Fig. 10e**) is discussed in connection with a group of undefined closed vessels with (pseudo-)ring feet of mainly Late Punic date (Bechtold 2007a, 374). The present vessel, however, falls stratigraphically before this chronological time frame and would not contradict a date in the 4th century BCE either.

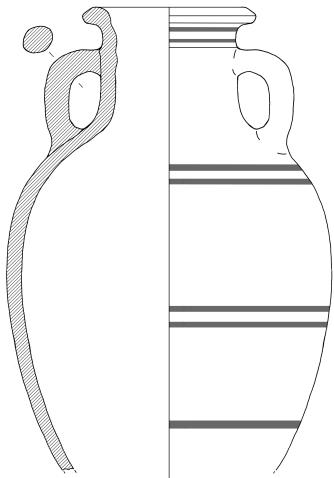
Consequently, the thus postulated ritual deposit on top of the emblems in the lower part of the Tanit II sanctuary would have consisted of six containers (**Fig. 10**): four old ones or 'heirlooms' and two more recent ones that would have been more or less contemporary with the moment of deposition (c. 350 BCE). Karin Mansel, who has discussed in detail the phenomenon of foundation / building / construction deposits in the Phoenician-Punic world some ten years ago, clearly states that in all Carthaginian cases, the offerings had *accompanied* the constructions, rather than *preparing* for them (Mansel 2003, 133). In the present case, however, it seems clear that at least the two Mendean amphorae (**Fig. 10a**), but also – if our hypothetical reconstruction of the archaeological record is correct – the other containers (**Fig. 10b-e**) had been deposited at the moment of de-sanctifying the building. At least the three imported transport amphorae would have been broken in the process, in view of their size and state of fragmentation, which is unlike the handling of other construction offerings. Also the fact that they have been found on top of the religious symbols in the middle of the lower part of the sanctuary suggests another procedure than the regular construction offerings. The relatively high number of six vessels also falls outside Carthaginian picture of construction offerings, where one or two vessels are the rule (Mansel 2003, 133), which would suggest that we are dealing with something different. For a de-sanctifying of this order one would expect at least a substantial offering deposit. In this respect the deposit would perhaps be more comparable with the remains of a ritual deposit consisting of many miniature vessels and votives as well the remains of a ritual meal, found in the temple area of Phoenician Kition, dating to the late 9th century BCE (Mansel 2003, 134-135, 143-144, figs. 5-7, with references).

Fig. 10. Hypothetical reconstruction of a ritual deposit on the floor of the Tanit II sanctuary, Stratum VIIb2 (c. 350 BCE), containing older vessels (**a-c**) and more or less contemporary ones (**d-e**). A second Mendean amphora (as **a**) has not been illustrated.

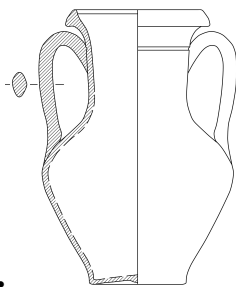


a.

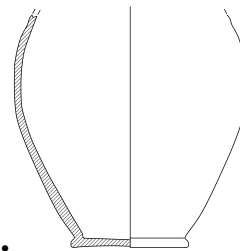
b.



c.



d.



e.



Conclusions

The publication of two transport amphorae that had been omitted in the final publication of the Hamburg University excavations leads to some interesting observations and hypotheses on both amphora-borne trade patterns and the archaeological contexts of the two amphorae.

To the best of our knowledge, it is the first time that a Cypriote transport amphora has been identified at Carthage. Its typological date (550-475 BCE) coincides well with the general date of phase V (550-480 BCE). The reconstruction of the context, moreover, offers a rare example of a household assemblage of this period, probably once forming part of a destruction layer that had been reworked only once or perhaps few times, but still included some residual material. Within the wider area, only the site of Euhesperides in the Cyrenaica has produced two Cypriote basket- or loop-handled amphorae (Göransson 2007, 170-174, fig. 39, nos. 370-371). These have been dated on the basis of stylistic comparisons to the 5th – 4th centuries BCE and, therefore, belong to another chronological horizon than the one presented here.

The equally rare occurrence in Carthage of a transport amphora of Ramon T-11.2.1.3, dating from the late 6th to late 5th century BCE, points to the trade in salted fish products from the Straits of Gibraltar to the central Mediterranean. This previously considerable distribution comes to a halt towards the end of the 5th century BCE. At the same time a new amphora family (Ramon T-1.4.5.1, followed by Ramon T-4.2.2.6, Ramon-Greco T-4.2.2.7, and Ramon T-7.1.2.1) starts to be produced in the area of Palermo – Solunto in North-West Sicily. Recently published evidence on contemporary fish processing installations in this area, along with information provided by historical sources, is combined to support the suggestion that these are all related phenomena. It is, moreover, proposed that this new North-West Sicilian industry owes much to the new hegemony of Carthage in the region.

The South Spanish transport amphora T-11.2.1.3 was found in the fill of a robber trench postdating the Punic period. It has been reconstructed from a few large fragments, preserving a reasonable portion of the vessel. This fact is rather unusual within the archaeological record of the domestic area excavated by the University of Hamburg. A careful discussion of the context and its relation to other contexts in the eastern part of Houses 1-south and 1-north leads to a hypothetical reconstruction of its original position within the archaeological record. It is suggested that the amphora once formed part of a ritual deposition on the floor of the Tanit II sanctuary at the moment it was de-sanctified and given over to domestic functions. This deposit is not similar to regular construction or building deposits such as those discussed some ten years ago by Karin Mansel (2003), but would rather be comparable to the ritual deposition in Phoenician Kition.

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