LRCW 4

Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean

Archaeology and archaeometry

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THE SUNSET OF GORTYN: AMPHORAE IN 7TH -8TH CENTURIES AD

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After the pioneering studies on the ceramic assemblage from the multi-stratified complex of the "Praetorium" of Gortyn (A. Di Vita [ed.] 2000-01), some new contexts, more delimited and reliable, allow us to define better circulation, developments, and local use of amphorae in the last periods of urban life of the Cretan city. Two contexts of the mid-late 7th and late 7th-8th centuries are briefly analysed, coming from different quarters of the town (the Old Agora and the Early Byzantine houses near the "Praetorium"), and resulting from different formative processes, which could represent the circulation trends just before, and in the re-occupation phase after the earthquake that dismembered the Late Roman urban layout at the end of the 7th/early 8th century. They display a variety of imports from transmarine regions (N-Africa, Egypt, Palestina/Lebanon, Greece and Asia Minor, N-Syria and Cyprus) still in mid-7th century, showing after a drastic restraint. Then some containers of the "family" labelled Byzantine Globular Amphorae/BGA prevail, both imported from diverse, small- scale production centres spread in the Aegean/Byzantine areas, and manufactured in Crete. In general, we detect in the latest Cretan production a tendency to imitate the "international" types LRA 1, LRA 2 and their derivatives, and the dismissal of the traditional "Late Roman" local types (TRC2-4) for the derivative types TRC7-10 and TRC12 (one of the local equivalents of the BGA), produced beside the older types TRC5-6. For the important questions, yet to be answered, about the different Cretan workshops, beside some archaeometric and archaeological studies on the Early Byzantine wares from Pseira and Eleutherna, we will have at our disposal the database of the Cretan clays created by N. Poulou and E. Nodarou within the "Pythagoras II" project.

KEYWORDS: GORTYN, TRANSFORMATION OF THE ANCIENT CITY INTO THE EARLY MEDIEVAL CITY, AMPHORA PRODUCTIONS AND TRADE, TYPOLOGY, CHRONOLOGY, FOOD SUPPLY, CRETAN WORKSHOPS AND TYPES, "IMITATIVE" AND DERIVATIVE TYPES, CONTEXTUAL ANALYSIS

In the lively debate concerning the decline of urban life at the end of the Antiquity, the loosening (and the reshaping with drastically different features and scale) of the web of connectivity that had characterized the Roman epoch plays a major role (Kingsley et al. 2001; Wickham 2005, 591-824; Loseby 2007; Laiou and Morrisson 2007, esp. 23-89; Mundell Mango et al. 2009). Within the wideranging (if slow) process of transformation towards the Medieval world system (for a ceramic-focused approach, cf. Vroom 2003), Gortyn has to be ranged among the "unsuccessful towns", closing its life cycle towards the end of the 8th- beginnings of the 9th century AD. On the other hand, decades of excavations and thorough studies of the finds make the Cretan town one of the few Early Byzantine sites deeply known through their material culture, and allow us to investigate the ceramic data, among other evidence, in order to improve our understanding of that paramount historical phenomenon.

The last phase of Gortyn was characterized by a more scattered, nearly rural, pattern of settlement as a consequence of the seismic catastrophe occurred most probably after the reign of Constans II, in the late 7th (or even later, in the early 8th century), following which large parts of the town were left in ruins and the reoccupation was limited and poor, encroaching upon former monuments and streets, and cannibalizing pieces from the public buildings collapsed (Di Vita 2010, 87-91,

101, 119, 190, 194-204, 237, 248-257, 268-269, 324, 326, 331, 360, 364-365, 368-371, and 334-342 for the fortified village on the acropolis). Huge strata of debris of the late 7th/early 8th century earthquake were in some spots replaced by small buildings, in close proximity to abandoned areas partly employed as dumps of the materials discharged after clearing rubble.

Within the evidence at our disposal for these late levels, corresponding to the transition from the Ancient to the Medieval settlement, I will do a brief survey of two contexts, useful like test-cases of different kinds of deposits deriving from processes, respectively, of usage/ abandonment in situ, and of clearing/dumping of refuses in a dismissed public area. Of the first one (the Byzantine *Quarter*), still under examination by the Italian team (see provisionally Di Vita 2010, 84-86, 240-258, 262-263; Fabrini 2003; Vitale 2008, 20-22, 193-200 and passim; Fabrini and Perna 2009; Perna 2010), I can offer just a preliminary sketch, pinpointing a few data and trends comparable with other 7th-8th century Gortynian evidence. The second deposit (the Agora Dump), already processed by means of traditional methods (Di Vita and Rizzo 2011), is now being checked by E. Nodarou through petrographic investigation, within the project "Pythagoras II- Trade vessels and maritime routes in the Aegean: 5th to 9th c. AD" directed by N. Poulou-Papadimitriou, that anticipates some important results in

this volume together with E. Nodarou (see present volume).

THE BYZANTINE QUARTER

The so-called *Byzantine Quarter* (Fig. 1), developed from the 5th century AD between the Praetorium and the Pythion, in the 7th century phase consisted of a dense network of houses and workshops, with roofed dwelling rooms lying on the back (often with an upper floor or a wooden gallery) and open-air courts in front, facing the West street (no. 43) and the Judiciary Basilica of the Praetorium (lavishly rebuilt for the last time during the reign of Heraclius), and lining NW an oblique Late Roman street (no. 24) directed to the guarter near the Metropolianos river, where the most important Christian buildings lay (Di Vita 2010, 309ff.). After the natural catastrophe of the late 7th/ early 8th century, while a monastery was built on the former Basilica, the houses nearby, intermingled with tombs and "void" spaces, were adapted for some industrial purposes: small installations were created mainly in the eastern rooms that were enlarged to the detriment of the main W road, and in most cases the proper living rooms of the previous phase were not reconstructed. In order to define patterns of circulation and domestic usage of amphorae in the 7th century, we have therefore to consider some of the rooms in the inner row, which were abandoned after the earthquake with their contents sealed by debris.

In one unit (*Rooms 3-6*) (Fig. 2) excavated in the late 1980s, for example, within and under the roof collapse of the *Room 3* (Fig. 3) several fragments were found of the foreign types circulating in the first half of the 7th century (LRA 1, LRA 4) and even later, like the LRA 7 and the miniature «*spatheia*» type 3 (see below the *Agora Dump*, Fig. 16, nos. 1-5), and a lot of Cretan amphorae of the types TRC4, TRC5, TRC6, and above all TRC7 (cf. Figs. 8 and 15, no. 4) (Portale and Romeo 2001, 306-309, nos. 66-69; Yangaki 2005, 191-193, figs. 52,d,e and 51,d, pl. XXIII,2). This latter has an important role in the domestic vessel assemblage, being apt as a storage (and a table) pot, as the self-supporting concave base suggests (Portale and Romeo 2001, 309; cf. Yangaki 2005, 193-194, 196-197, 216).

In our Room 3, it is worth noticing its association with a globular container (Fig. 6) belonging to the Yassi Ada type 2 "family", a wide group of amphorae which was variously labeled and differentiated in bibliography (Pieri LRA 2C/ Yassi Ada 2/Saraçhane 29, 28 and related/ LRA 13/ types I, and II-III of the globular amphorae produced at Kardamaina: see van Doorninck 1989; Hayes 1992, 71; Portale and Romeo 2001, 354-357, no. 99, pls. LXXIIa-d, LXXXIc; Yangaki 2005, 217-219; Demesticha 2005; Diamanti 2010b, fig. 2a; 2010a, 146-148, fig. 3,1-3, and 3,4; Poulou-Papadimitriou and Didioumi 2010, 742-743, figs. 10-11), and more conveniently gathered as "Byzantine Globular Amphorae" (henceforth: BGA) by N. Poulou (Poulou-Papadimitriou 2001, 245-247; 2013, 116-120). In particular, the smaller size and rather generic fabric (pinkish clay, with calcareous inclusions and a buff-grey, brush smoothed surface) of our piece (Fig. 6) may suggest a Cretan source. In that case it could correspond the regional types depending on the Aegean "Yassi Ada 2" model, which A. Yangaki has named TRC12 and TRC15, confirming the Cretan origin of the fabrics known at Eleutherna through archaeometric tests (Yangaki 2005, 193-197 and 281-285; 2007, 768-770, fig. 2,c; 2,a; cf. Portale and Romeo 2001, 357, 304, pl. XLIVg). It seems remarkable that our amphora (Fig. 6) shares features of both the above quoted Cretan types: on one hand, the bellied body and rounded base, following more strictly the Aegean prototype; on the other hand, the slightly ridged handles, more consistent with the local type TRC7 (Yangaki 2007, 770), and a somewhat flaring collar rim; a more concave rim shape, according to the LRA 2 tradition, characterizes the TRC10 type (Portale and Romeo 2001, 311, no. 72; Yangaki 2007, fig. 2,b; Poulou-Papadimitriou and Nodarou 2007, 758, fig. 6,14, Amphore crétoise type I). A few Cretan(?) amphorae vaguely similar to the Yassi Ada 2 type have been recognized by J. Hayes at Knossos in a context «possibly rather later» than AD 620-640 (Hayes 2001, 442, A58, fig. 5), from which another probable «local» neck with collar-rim comes (Hayes 2001, 450, B60, fig. 10). In the NW part of the same Byzantine Quarter of Gortyn, E. Zanini has recently discovered another assemblage, maybe a cellar-storeroom, of this phase (collapsed at the end of the 7th/early 8th century) containing almost six amphorae of the same general class (yet not classified), which were found in situ with other contemporary wares (Zanini 2009, 56-57, 62, C9, fig. 11).

Also in the *Room 5* (Fig. 4), adjoining to the above mentioned *Room 3* and originally communicating with it (Fig. 2), there was a group of amphorae on the 7th (-early 8th) century floor and in the lower destruction layers, therefore left *in situ* under the collapsed roof tiles (on the contrary, in the next reoccupation phase this area seems to have functioned just as an open air annex for a glass(?) furnace installed in the *Room 8*). We have to notice a quite complete specimen of the TRC7 type (Fig. 8), which gives another variant – beside the Eleuthernian ones, the proper TRC 7 and the TRC14 types (Yangaki 2005, 193-194, 196, fig. 51,d and 51,b) – with larger, curved handles and a flaring rim, but showing a comparable neck and concave ground; as usual, it has a combed decoration on the upper body.

Moreover, an amphora of the Saraçhane 38 type (Fig. 7) in the same deposit (pinkish red rather fine, slightly micaceous fabric, with grey, brush smoothed surface) may imply that this and similar globular containers of the wider BGA group date from the last third of the 7th century onwards (Hayes 1992, 71; Portale and Romeo 2001, 357-358, no. 99, pl. LXXIIIa,b,d; another late 7th century find at Gortyn is quoted by Fabrini and Perna 2009, 123). Therefore they partly overlap with the less developed shapes of the BGA group, that are associated indeed in our context: the Yassi Ada 2 type (Hayes 1992, 71, type 29, and also type 28), above mentioned, and other ones deriving from the LRA 2 model, as the LRA 13 type (Fig. 10, no. 3) (Yangaki 2005, 218-219, fig. 51,c, pl. XXIII,1; Diamanti 2010a, 146-147, fig. 3,4;

2010b, fig, 1b; Demesticha 2005), to which the Cretan versions TRC12 and TRC10/ Pseira *Type 1* correspond (Portale and Romeo 2001, 311 and 304; Yangaki 2005, 194-196, resp. fig. 52,g-j,l, pl. XXIII,6,8, and fig. 52,f; 2007, 768-769, fig. 2,b-c; Poulou-Papadimitriou and Nodarou 2007, 758, fig. 6,14).

The other amphorae from this context, for the vast majority coming from regional sources, comprise not so much the ubiquitous containers of 6th-early 7th centuries (TRC 2 and especially TRC 4: cf. Portale and Romeo 2001, 303-307, nos. 66, 64), as the TRC7 and similar "table" amphorae, already quoted above (cf. Figs. 8 and 15, no. 4), and in lesser amounts TRC10, TRC5 (cf. Fig. 15, nos. 2,5) and TRC9 (Fig. 9).

For the TRC9 type (Fig. 9) (Portale and Romeo 2001, 310-311, no. 71), deriving from the common LRA 1 type (cf. Fig. 16, nos. 10-11), I had initially hypothesized an origin from the Chersonisos - NE Cretan workshops, producing also the TRC 5 container (cf. Fig. 15, nos. 2, 5). Some specimens seem indeed morphologically linked to the TRC5 type, and there are many "intermediary" stages, affecting also a third related shape (TRC 6) (cf. Fig. 15, no. 3). However, the range of fabrics which have been detected, particularly in the Old Agora context I'll show later (cf. Fig. 14) – beside the buff ware with calcite inclusions typical of the Messara region, there are a micaceous non-local clay, a dark red fabric, and a yellowish smoother one, both most probably Cretan -, can suggest a more spread pattern of production within the isle (cf. Yangaki 2005, 192-193, fig. 51,a, pl. XXII,8; Portale and Romeo 2001, 358, pl. LXXIIIc). Neither one can exclude the possibility of any imports from exterior regions, e.g. from Kos, where both the globular BGA and the imitative LRA 1 types were fabricated from(?) mid-7th century in the workshops at Kardamaina/ Halasarna, an olive oil (and wine?) producer site (Poulou-Papadimitriou and Didioumi 2010, 742-743, figs. 6c and 7-9; Diamanti 2010a, 145-146, fig. 2,1-4; 2010b, figs. 1a, 2a); or from Naxos, where similar amphorae in pale/buff clay have been found in a probably late 7th to mid 9th century context related to an olive-press complex (Vionis et al. 2009, 154, referring also to samples from surface surveys at Melos; for the latest versions of the LRA 1 class, Armstrong 2009, 163-164). At Knossos one LRA 1 «rather late» neck has been judged by J. Hayes similar «to normal 'local' plain wares» (Hayes 2001, 442, A57, fig. 5, end of the 6th-7th century), and a few pieces can be assigned to our TRC9 type (ibidem, 450, B61, fig. 10). This latter, and the TRC5 type (cf. Fig. 15, nos. 2, 5), have recently been signaled at Thera, where E. Dafi has recognized an impressing number of Cretan amphorae of Early-, Mid- and Late Roman types (Dafi 2010, esp. 154,

One needs to complete the study of the whole context for explaining correctly the more complicated sequence in the adjoining *Room* 6 (Fig. 5): after the abandonment of the rear *Room* 5, the court 6 (now accessible from N) was in fact raised and enlarged onto the West Street (Fig. 1), being allotted for industrial activities (pottery kiln?). Here, together with types corresponding those from the

late 7th-early 8th century layers, there were several belly amphorae of the wider BGA class, characterized by a thickened rim, a constricted, concave neck, and huge handles (Fig. 10, no. 1: fine reddish-brown ware, slightly lamellar, with rare small white particles, greyish surface), resembling more the containers referred by J. Hayes to the end of 8th-early 9th century, like the Saraçhane type 45 and the even later types 48 and 47 (Hayes 1992, 73). An 8th century amphora found at Pseira, very similar to our pieces from Gortyn, but with a highly micaceous fabric, was proven to be of Samian origin (Poulou-Papadimitriou and Nodarou 2007, 758, fig. 6,13; fig. 4,e). Yet, just the Gortynian fragment here Fig. 10, no. 1 was found within the earthquake collapse layer (late 7th-early 8th century), the same as the neck Fig. 10, no. 2, that by itself recalls Koan globular (BGA) amphorae of the type LRA 13/ type III produced at Kardamaina (Poulou-Papadimitriou and Didioumi 2010, 743, fig. 11,e-f; Diamanti 2010b, fig. 1b; also Yangaki 2005, fig. 51,c); three more specimens of the "later" type (Fig. 10, no. 1) come definitely from the 8th century strata of our sequence. I am inclined to think that the single fragment (Fig. 10, no. 1) within the earthquake destruction debris is intrusive; however, even the materials from the next (reoccupation) phase seem to reflect circulation patterns not later than the early 8th century.

In fact, we find in these latest levels BGA, in particular some globular amphorae of the Saraçhane 35/38 types (cf. Fig. 7), and other belly containers of "Aegean" and (mainly) Cretan origin, African miniature *«spatheia»* type 3 (cf. Fig. 16, nos. 1-5), "local" TRC7, TRC4 (cf. Fig. 15, nos. 1, 6), and TRC10 amphorae, one LR *Unguentarium* in a micaceous fabric (cf. Portale and Romeo 2001, 346-349, no. 92), besides several, residual, fragments of the international types common in 6th-7th century (LRA 1, LRA 4, LRA 5, LRA 7) (Fig. 16, no. 17).

Surely the huge amount of rubbish derived from the earthquake damages, the relatively sparse reoccupation and the character of the context, apart from phenomena of recycling, can justify the presence of somewhat older materials in the uppermost strata. The problem of the scarce visibility of a "genuine" 8th-early 9th century ceramic facies is indeed a complex one, as recent studies are underlining (Vroom 2003, esp. 25-27, 49-58, 135-144, 360-363; Armstrong 2009; Vionis et al. 2009; for the Gortynian common wares see Albertocchi 2004; in this volume; for a neighboring site, cf. La Rosa and Portale 2004, 467-472, 480-481), suggesting even the need to reconsider some reference points like the latest shapes of the Cypriot sigillata CRS (down-dated into 8th century by Armstrong 2009), cooking and plain wares ('Dhiorios' cooking pots, handmade vases), besides amphorae. This does not mean that we can underestimate the steady decline of proper transport vessels, and the gradual exhaustion of bulk exchanges (Loseby 2007, esp. 11-12). As a matter of fact, among the ceramic finds from Gortynian post- earthquake contexts, except for a few "Aegean" globular amphorae (types Saraçhane 35-38) of the group BGA and their regional counterparts (e.g. Yangaki 2005, 196, fig. 52,k, pl. XXIII,7, TRC13 type; Portale and Romeo 2001, 358, no. 99, pl. LXXVIIIa), just

the TRC7 container (cf. Fig. 8) seems to be a more durable component of the local assemblage, due to its morphology more apt to polyvalent usages, as a transport, storage and table vessel, and somewhat similar to the local plain and even the *bizantina sovradipinta* wares of the last period (Albertocchi in this volume; Vitale 2008, esp. 99, 103, 123).

THE OLD AGORA

The same types – apart from the more developed ones of the BGA group, the Saraçhane types 35-38 (cf. Fig. 7) – occur also in the upper strata lying above the *Old Agora*. Here in a stratigraphic trial carried out in late 1990s near to the SW margin of the N stoa (Figs. 11-12) (Di Vita 2010, 105-106; Di Vita and Rizzo 2011, 32-42), a thick fill of materials was excavated, that probably had been discharged soon after the troubles of late 7th-early 8th century, and was left as on open-air garbage dump until the late Medieval epoch (the wall no. 9, on the upper level of the fill, and a group of glazed wares of the 12th-13th and later centuries could testify a Medieval reoccupation on this spot).

Such Agora Dump (layer CI) can give us as a whole a reliable testimony of the circulation patterns of the middle/second half of the 7th century (Fig. 13), judging from the remarkable scarceness of residuals and from the very homogeneous ceramic and numismatic panorama that encompasses the central decades- until the second half of the 7th century (Di Vita, Rizzo et al. 2011; for amphorae see Portale 2011): coins dated until AD 644, LRC (Hayes 10A-C) and ARS Ware D rims (shape Hayes 105), CRS Ware (shapes Hayes 9B, 9C and 10), Byzantine painted local vases, Cretan lamps, plain and cooking pots (see Albertocchi in this volume). However a few later pieces - particularly one Constantinopolitan glazed salsarion - suggest the possibility of a lasting utilization of the immondezzaio during the 8th century. Hence, based on recent proposals to lower the chronology of some reputed 7th century shapes (see above), I cannot exclude a slightly later dating also for some fluctuating materials, like the CRS shape 9B (cf. Armstrong 2009), Gortynian "bizantina dipinta" vases, plain wares and lamps (cf. Di Vita 2010, 248-253), and amphorae as well.

In the *Old Agora* site the assemblage is more various, compared with the Byzantine Houses, perhaps due to a greater affluence of the customers, capable of gaining wine and other commodities from external sources, and possibly connected in some way to the neighboring basilica of Haghios Titos (see lately Di Vita 2010, 329-333), even if we don't know the organization of the interposed area (not yet excavated), nor the houses or church-owned buildings to which the refuse dumped has to be referred.

The deposit (Fig. 13) contains a lot of imports from transmarine regions and a rich repertory of Cretan amphorae (at least 62%, possibly 70+ % including several "Aegean" containers), mainly of the types TRC9 (Fig. 14) and also TRC5/6 related (Fig. 15, nos. 2, 5, 3),

above mentioned as regards the less numerous specimens from the *Byzantine Quarter*; on the contrary, the "hybrid" TRC7 (Fig. 15, no. 4), the TRC10, and the small TRC4 (Fig. 15, nos. 1,6) containers seem less important in the Agora context (also in some well-dated N Black Sea contexts, our TRC4 type seems to be replaced during the 7th century by the TRC5, TRC6 and TRC9 amphorae: Sazanov 2007, 807-808, fig. 7, resp. nos. 15; 18-19, 21; 16-17, 20; in this volume).

A question still opened concerns a few miniature *«spatheia»* type 3 with non-standard fabric; the sparseness of such imitations(?), previously named by us TRC11 in order to attach them to the Cretan series (Portale and Romeo 2001, 311-312, no. 73, and 319-320, no. 77 for the African type; cf. Bonifay 2004, 124ff.), makes indeed not likely a local origin, though a regional source was hypothesized for a fragment from Knossos (Hayes 2001, 449, B57, fig. 9).

The African counterparts (Fig. 16, nos. 1-5) (Bonifay 2005, 453, fig. 5, «*spatheion*» type 3) reach a certain amount (*c*. 25 individuals) in our ensemble, not matched by any other African product (I've found the variants B and C, produced at Nabeul, and a rim like Saguì 2002, fig. 8,5-6, 8.4; Murialdo 2001, 275, type 21, pl. 12,149).

Just one rim testifies the type Keay LXI B, another 7th century container, fabricated together with miniature *«spatheia»* type 3 in the Moknine workhop (Bonifay 2005, 455-456), and produced at Enchir ech Chekaf (Nacef 2007; Capelli 2007; cf. esp. Murialdo 2001, 261-263, A1, type 1h, tav. 8,23; Gandolfi *et al.* 2010, 37, fig. 8,2).

Another fragment, from the level underlying the dump (Fig. 16, no. 6), could belong to the globular type *Castrum Perti* (Murialdo 2001, 290-293, type 47a, pl. 18,217; Bonifay 2005, 457, fig. 18,3), now tentatively attributed to the Enchir ech Chekaf workshop (Gandolfi *et al.* 2010, 39-40). This piece (albeit isolated) seems particularly interesting because the (mainly) North African container "*a fondo ombelicato*" is one of the shapes suitable as a morphological model for the local TRC7 type (cf. Fig. 8), besides the similar type *Carthage* F11-12 (Bonifay 2005, 457, fig. 18,2). It is worth mentioning, however, that a specimen in a different, highly micaceous (Aegean?) clay was found at Eleutherna (Yangaki 2005, 219, pl. XXIII,4)

A new entry into the Gortynian record is a carrot shaped container, probably of the type *Crypta Balbi* 1 (Fig. 16, no. 14) (rather than the similar type Beirut 8.2/ Beyrouth type 2C, cf. Pieri 2007b, 305-306, fig. 13), a 7th century derivate from earlier models of Lebanese- coastal Syro/Palestinian origin (type Agora M334 from Akko/Acre/*Ptolemais*: see Reynolds 2005, 570ff., esp. 572, figs. 117-118, 120-121 for the small sized 6th-7th century variant in N-Palestinian sandy ware, followed in late 7th century by the type *Crypta Balbi* 1, fig. 122; also Reynolds 2010, 98, 100; Pieri 2007a, 613).

Otherwise, the types present in the deposit do appear in other Gortynian contexts; nevertheless, the *Old Agora*

more reliable assemblage allows us to define safer patterns of circulation.

The standard type LRA 1 (Fig. 16, nos. 10-11), for example, shows clearly a contraction, compared with the early 7th century contexts (Portale and Romeo 2001, 327ff., no. 84, 393ff.), corresponding better the exploit of the Cretan imitations (Fig. 14), that here reach one fifth of the whole. Elsewhere several imitations of the LRA 1 type are known from the Black Sea area, Egypt, and Tunisia (Pieri 2007a, 615; Nacef 2007, 583, figs. 3,21.25 and 7,d-f; Capelli 2007, type Ech Chekaf IV), these latter occurring episodically at Gortyn (Portale and Romeo 2001, 321, no. 79, pl. LIXf). In the first decades of the 7th century the main production of LRA 1 had shifted to Cyprus, possibly as a result of the socio-economic crisis that affected the Cilician/Antiochian region and of the reorganization of the food supplies for the Byzantine military forces (Pieri 2007b, 299-302; 2007a, 612-614, figs. 4-5 for the workshops, and Reynolds 2005, 565-567 for the 6th-7th century LRA 1 production at Amathous, Paphos, Zygi, soon to be implemented by the LRA 13 amphorae of the BGA group, cf. Demesticha 2005).

The decrease of the LRA 4 amphora (for the production sites cf. Reynolds 2005, 574-575; Pieri 2007a, 613, figs. 8-11) appears more drastic (cf. Portale and Romeo 2001, 332ff., no. 86), while the bag shaped containers, LRA 5 and related (Portale and Romeo 2001, 334ff., nos. 87-88), seem to circulate, in small quantities, for the entire timespan covered by the *Old Agora* deposit (Fig. 16, nos. 12-13). Some of them, with non-standard fabrics and surfaces, could be referred to the small-scale productions spread between Palestine and Egypt in the early Umayyad epoch (Pieri 2007b, 302-304, fig. 7, types 4-5, and type 3 for the standard LRA 5; for the post-Byzantine pots, Konstantinidou 2010, 951-952, figs. 5, 8, nos. 16, 28-30; Taxel and Fantalkin 2011, 79-90).

That the links with the Southern regions conquered by Arabs were yet lively can be confirmed by the Mid-Egyptian carrot shaped amphorae of the group LRA 7 (*c*. 15 individuals) (Fig. 16, nos. 15-16) that, judging from their strongly ridged surfaces, belong to the late variants, having parallels in the deposit 30 of Saraçhane, and even later in Egypt and Sinai (see e.g. Konstantinidou 2010, 952, figs. 6-7, nos. 22-27). Some specimens from the *Byzantine Quarter* (Fig. 16, no. 17), moreover, testify the Kellia 173 type (cf. Portale and Romeo 2001, 339ff., no. 89, fig. 162).

Apart from one Samos cistern type amphora (Fig. 16, no. 7) (cf. Portale and Romeo 2001, 350, no. 95) and from a bit (Fig. 16, nos. 8-9) of "descendants" from the LRA 3 micaceous flask- small containers related to the *Ephesian Early Byzantine amphoriskos* (Lochner *et al.* 2005, 650, fig. 3; cf. Portale and Romeo 2001, 348, no. 92), the more important stock of imports, and of respective regional imitations, consists however of the BGA "Aegean"-insular containers of globular shape (Fig. 16, nos. 18-23). Some of them can be classified among the late variants of the type LRA 2 (Saraçhane 9B and 10/Pieri LRA 2B and *sub-type 2*), probably employed in the transport of wine and other commodities, besides the olive oil

(Karagiorgou 2001), with a pattern of distribution rather fragmented, that now for the first time really involves Gortyn (Portale and Romeo 2001, 352-354, no. 98; cf. on Crete Hayes 2001, 450-451, B64, fig. 10; Yangaki 2005, 201-203; Poulou-Papadimitriou and Nodarou 2007, 757, fig. 3c, possibly from Kos). One rim with a fabric similar to the "local" clay may even give a Cretan version of the standard LRA 2 type, a bit earlier than the derivative 7th-8th century TRC10 type (see above): as a matter of fact, some 6th century (and later?) LRA 2-related containers, possibly of Cretan origin, have been recognized at Butrint (Reynolds 2010, 97, fig. 5d).

But mainly the "Late Aegean" containers belong to the Byzantine "family" of globular amphorae, the BGA group, above considered as regards the specimens from the Byzantine Quarter. In the Agora Dump the more developed globular types of later 7th-8th centuries/ Saraçhane 35 to 38 seem to lack, except maybe for some fragment (Fig. 16, no. 23) of uncertain typology (cf. Portale and Romeo 2001, 357, no. 99, pl. LXXId), while they appear both in the domestic contexts of the Byzantine Quarter (cf. Fig. 7) and in the post-earthquake fill over the W Street nearby. This circumstance can indeed suggest that such shapes span the very years of the seismic catastrophe and of the later survivals, being largely extraneous to the Old Agora site assemblage. As for the types occurring within the dump, we can notice again the plethora of variants, according to morphological details, surface treatment, and fabrics: some of them originate from regional-Cretan sources, as it is certain in the case of the TRC12 and other derivative types (TRC15 and TRC10) recognized also at Eleutherna and Pseira, above treated with regard to the finds from the *Byzantine* Quarter (cf. Yangaki 2005, 197, fig. 56,f, pl. XXIII,3, and 194, fig. 52,f; 2007, 768-770, fig. 2,a-c; Poulou-Papadimitriou and Nodarou 2007, 758, fig. 6,14).

The output of the kiln sites recently discovered at Kos, comprising globular amphorae and derivative versions of the LRA 1 type (both recurring among the Cretan products, as we have seen), confirms the association of such containers, best known by the Yassi Ada A cargo. This fits the model reconstructed by P. Van Alfen for the type LRA 1 of Yassi Ada (Van Alfen 1996), i.e. a pattern of small productions, apt to collect resources primarily for military and bureaucratic sustainment (cf. Diamanti 2010b; 2010a, 148-149; more cautious Demesticha 2005), and even for regional or limited extra-regional consumption. The quantitatively circumscribed, but varied and yet lively range of products that supplied the Cretan province capital with food commodities can attest indeed a "cooperation", by factories and workshops rather scattered, operating on a small-scale, with shared models, in order to replace some earlier major flows of imports.

However, differently from the more uniform panorama given by the *Byzantine Houses*, the context from the *Old Agora* site may suggest a less restricted horizon. It, indeed, spans from the Black Sea/Pontic, Micrasian and Aegean regions involved in the circulation and production of derivatives of the types LRA 2 and LRA 1,

till the African area producing the miniature «spatheia». These latter seem to reach Gortyn (even in moderate quantities, and perhaps partly conditioned by "directional trade" dynamics) especially in a late period, when the borderlands Crete and Carthago Proconsularis are strongly connected within the defensive strategies of the Byzantine empire. Some recent archaeometric researches, however, enhance the possibility that, apart from Nabeul, the Sahel area rather than Carthage played a major role in the production of the more typical late African containers (Gandolfi et al. 2010, esp. 42), suggesting that we have to nuance a too mechanical equation between political and economic ties.

Out of the possible "Constantinople- focused" links, even the relation between the Cretan city and the Syro-Palestinian and Egyptian regions, being at this point under the Arab dominion, can give an interesting clue to clarify some coeval cultural phenomena: for example a certain South-Eastern legacy of the ceramica sovradipinta bizantina (Vitale 2008, 184-185), or of the lamps con orlo rialzato made in Gortyn in the same phases, and maybe of some cooking and plain pots; or, on the other hand, the circulation of clergymen and pilgrims directed to the Holy Lands and the Palestinian and Egyptian churches and monasteries controlled by the local Patriarchy (cf. McCormick 2001, 123-210 and passim; also Reynolds 2010, 100, referring to a 7th century wave of Palestinian and Egyptian exports to Rome, Marseille and Tarragona). The import from that area of luxury objects like ivories, bronze liturgical equipments, glasses, painted thymiateria (like the one found in the Room 5 of the Byzantine quarter: Di Vita 2010, fig. 374b), and probably papyri and textiles, apart from ceramics, wine or other foodstuffs, likely in exchange for spices and medicinal herbs, honey, cheese, oil, and timber, can be inserted within this frame (Portale 2011). The voyage of the known archbishop Paul of Gortyn, to Alexandria and from there to Cyprus and Constantinople, in mid-7th century, can epitomize such a network, and its agencies.

Soon after, the late 7th-early 8th century earthquake – surely neither the first nor the more disastrous seismic event to which the town had been subjected - contributed to accelerate the collapse of the system which had sustained the economy of the city. Gortyn until the Heraclius's and even the Constans II's reign had been well integrated within the Empire, at the head of a productive region, and at the same time at the intersection of several axes of interchange, though the signals of recession visible in the exhaustion of that important productive strand which had been represented, since the early Empire, by the Amphore Crétoise 1 and its descendants. For some decades yet, perhaps till the early or even mid 8th century, the strong links with the nearest territory and the insular economy will persist, maintaining Constantinople as a point of reference. However, a more autarchic trend slowly prevails, the exchanges clearly decrease, and transport amphorae get unnecessary. Finally, the transfer of the Cretan capital to Heraklion by the Arabs will be the ultimate consequence

of a transformation already in progress since the 7th century. A new era was beginning.

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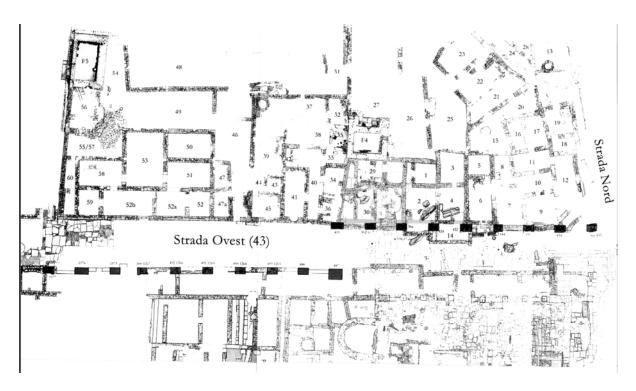


Fig. 1- Gortyn, Byzantine Quarter near the Praetorium (GBQ) (from Di Vita 2010).

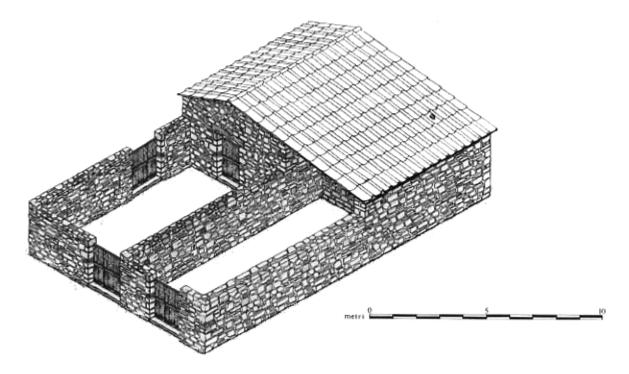


Fig. 2- GBQ, *Rooms 3* and 5 (roofed) with the open air *Rooms 4* and 6, 7th century phase. In the 8th century AD only *Rooms 4* and 6 were rebuilt, encroaching the West Street (from Di Vita 2010).



Fig. 3- GBQ, *Rooms 3* and 4 (foreground). Observe the collapse of the roof within *Room 3* and the door closed after its abandonment (end of the 7th/early 8th century AD) (from Di Vita 2010)



Fig. 4- GBQ, *Room 5*. Visible the destruction layer (end of the 7th/early 8th century AD) under the rough cobblestone paving of the last phase (8th century AD), when 5 became an open working area (from Di Vita 2010).



Fig. 5- GBQ, Room 6, from E (from Di Vita 2010).

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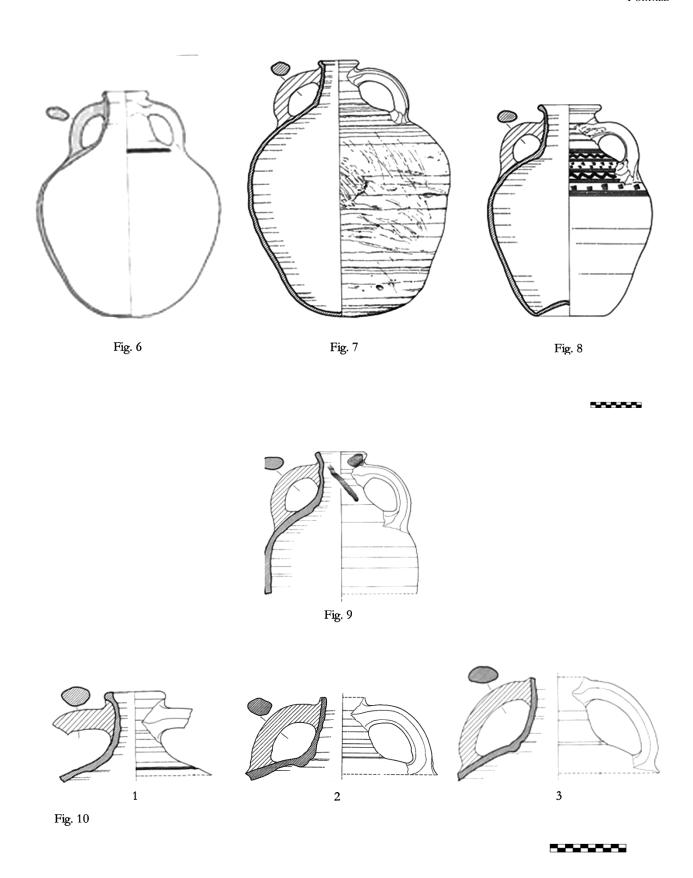
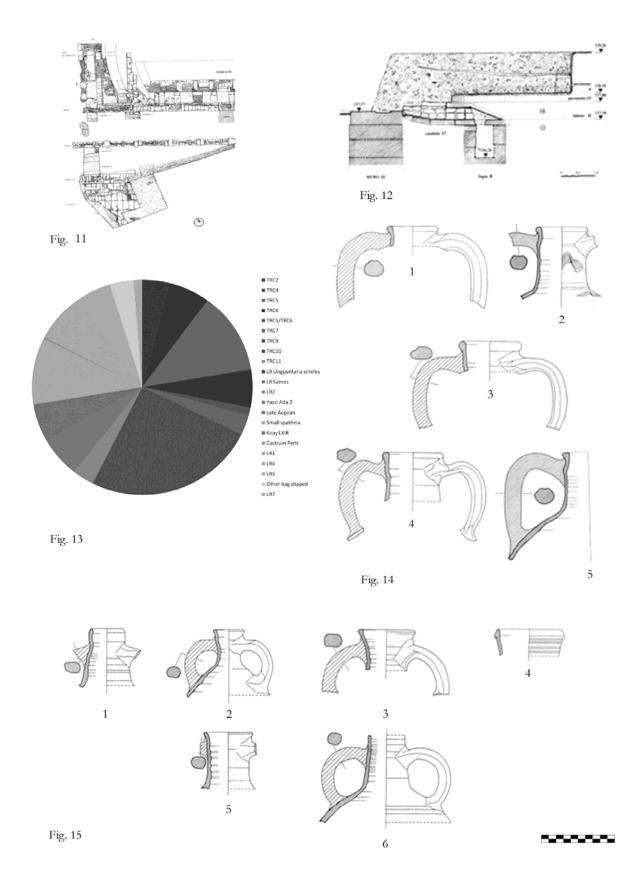


Fig. 6- GBQ, *Room 3*: Cretan(?) BGA amphora of the "Yassi Ada type 2 family" from the destruction layer of late 7th/early 8th century AD. Fig. 7- GBQ, *Room 5*: Amphora of the Saraçhane type 38, from the destruction layer of late 7th/early 8th century AD. Fig. 8- GBQ, Amphora of the TRC7 type, from the same context as Fig.7. Fig. 9- GBQ, Amphora of the TRC9 type, from the same context as Fig. 7. Fig. 10- GBQ, *Room 6* (nos. 1-2) and *Room 5* (no. 3). Globular amphorae/BGA from the destruction layer of late 7th/early 8th century AD.



Figs. 11-12- Gortyn, *Old Agora site* (GOA): the trial C, immediately S/SW of the W edge of the N stoa adjacent to the *Odeion*, discovered a huge stratum (C1) dumped after late 7th/early 8th century AD on the Roman ruins. Fig. 13- GOA amphorae, rim quantification: all the types on the right are of local-Cretan origin (TRC: *c.* 61+%), like probably several of the "Late Aegean"/BGA amphorae (*c.* 10%). Fig. 14- GOA, Cretan amphorae of the TRC9 type. Fig. 15- GOA, Cretan amphorae: types TRC4 (nos. 1, 6), TRC5 (nos. 2, 5). TRC5/6 (no. 3), TRC7 (no. 4).

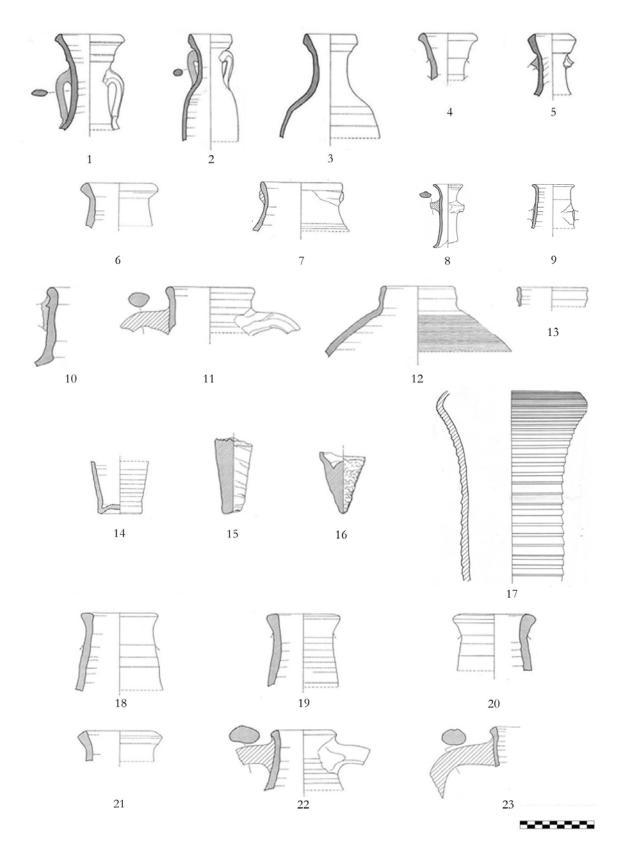


Fig. 16- GOA, imported amphorae: miniature *«spatheia»* type 3 (nos. 1-5); *Castrum Perti*(?) type (no. 6); Samos Cistern type (no. 7); "descendants" from the LRA 3 micaceous flask/ related to the Ephesian Early Byzantine *amphoriskos* (nos. 8-9); LRA 1 (nos. 10-11); LRA 5 (no. 12); bag shaped amphora (13); *Crypta Balbi* 1(?) type (no. 14); LRA 7 (nos. 15-16, and no. 17 from GQB); 7th century "Late Aegean" globular amphorae/BGA, related to the Yassi Ada 2 type (nos. 18-22); later globular(?)/BGA type (no. 23).