The aim of this paper is to discuss some aspects of the ceramic evidence discovered during the Jerba Survey Project (1995-2000). The project, directed by Ali Drine of the «Institut National du Patrimoine», Elizabeth Fentress of the American Academy of Rome and Renata Holod of the University of Pennsylvania, was aimed not only at the understanding of the history of settlement on the island, but also at recuperating the archaeological evidence that has been disappearing steadily under the impact of increased tourism and urban development over the last twenty-five years. Through this project, Jerba’s archaeological past has thus been recorded, at least in part. The pottery described here derives both from the field survey and from limited test trenches conducted at Roman, late antique and early medieval period sites\(^1\) identified on the island\(^2\). In this paper we will review the data concerning the periods from the Vandal occupation of the island beginning in the middle of the sixth century through what we have called the early medieval period (also known as the early Islamic period), ending in the first half of the eleventh century. This is an important epoch for understanding the cultural and technical changes and transformations that took place on the island specifically, and in southern Tunisia generally, a process often neglected by archaeological studies of this territory. A recent comparative review of ARS production considers distribution of products from various production centres in North Africa and the settlement histories of their regions, in light of their imports and total number of sites for the entire Roman period. We are concerned here with the end of this complex network of relations, and with the beginning of another system arising on the same territories as a result of the Islamic conquest of North Africa\(^3\).

Some 17 percent of the island’s surface was explored during the survey project using a geometric sampling strategy divided into rectangular transects measuring 1 km wide each and spaced at 4 km intervals\(^4\).

\(^1\)During the duration of survey we utilized the appellation Late Antique 2 to characterize materials dating from 500-700, and Early Medieval to identify material from 700-1050. We did not use the term Early Islamic precisely because it was not clear to us how and when the change in material culture and settlement pattern, in fact, took place. For further discussion of this problematic see Drine, Fentress and Holod, vol. II, forthcoming.

\(^2\)Drine, 2000; Fentress, 2000; Cirelli, 2002; Id. 2003.


«Background noise» was recorded based on one hectare units, each of which occupies a single cell on the G.I.S. map of the island. Identification of the sites is based on qualitative and quantitative information collected in the field walking\(^5\). For town sites such as Meninx we used a 50 m grid supplemented by magnetometry, while other areas, particularly those where a late antique and medieval presence was noted, were additionally designated for review and micro-study. All feature sherds found on the surface were collected, with no chronological distinctions. Diagnostic sherds and any fabrics not represented among the diagnostic sherds were then saved\(^6\). In that way we could represent a comprehensive and diachronic picture of Jerban material culture. Further chronological evidence comes from the stratigraphic sequence revealed in various trenches in selected sites excavated throughout the island\(^7\). These trenches were fundamental for the creation of a chronotypological seriation. The results of this seriation have also been applied to the pottery found during the surface survey, a method that is not unusual for this type of survey project\(^8\).

The classified pottery was then put into a relational database linked to the G.I.S project, along with all the sites and features of the Jerban territory\(^9\). Pottery was used for chronological information and for the settlement dating. We also investigated the evolution and transformation of the island production techniques from the Punic through the end of Ottoman occupation in the context of the commercial dynamics that involved Jerba in different periods. In this way, it has been possible to refine our diachronic knowledge of settlement system of the island.

The island and its products: pottery, arboriculture and textiles

Although Jerba endured substantial political and cultural changes, a fact that is manifest in the many different settlement typologies identified on the island (fig. 1), its strategic geographic position as a preferred terminus for the trans-Saharan caravan routes and for Mediterranean trade gave rise to the development of a great number of artisan activities, first of all the production of pottery, attested since the Punic Period. Pottery production is also well known during the Roman and Islamic periods. The most recent evidence for this production comes from the village of Gallâla (wich means, in Arabic, «village of the potters») that has a long ceramic tradition dating perhaps to the beginning of the Ottoman period on the island\(^10\), i.e. the last years of the sixteenth century: its ethnography and techniques have been well studied in during the first part of the twentieth century\(^11\). Closely connected to this production is the specialization of the island in olive oil production and export, especially from the eleventh century onward, but probably earlier as well. We shall return to this aspect below.

Another production whose importance cannot be undervalued is that of textiles.

This production has left evidence on the surface of the island in the form of huge mounds of shells, while excavations have revealed a processing plant close to the centre of the city, which flourished during the Vandal period\(^12\). Notably, although murex manufacture in the late empire on the island (known as Girba) was mentioned in the Notitia Dignitatum\(^13\), thus far there had been no evidence for its production throughout the fifth

\(^6\) Ibid.
\(^7\) Cirelli, 2006.
\(^8\) McManamon, 1984, p. 223-292.
\(^9\) For similar data-platforms in landscape archaeology Gillings, Mattingly and Van Dalen, 1999; Campana and Francovich, 2003.
\(^10\) Beschouche, 1986, p. 538-545. See also Drine, Fentress and Holod, vol. II, forthcoming. For the purposes of the survey we designated the period 1550-1700 as Early Modern I.
\(^12\) Fontana, 2000, p. 97.
\(^13\) Baldini Lippolis, 2006, p. 136
The Jerba Survey, Modern and Ancient Sites

- Developed Areas/Not Walked
- Probabilistic Sample (random hectares)
- Purposive Sample (non-random hectares)
- Hectares in probabilistic sample with positive data classes

Fig. 1 – Map of Jerba with the main centers and routes.
century. By end of the sixth century, however, the site of Meninx was largely deserted, and murex production effectively discontinued\textsuperscript{14}. Nonetheless, wool processing and textile production as such may not have been discontinued, or was again reprised in the following periods. There are indications that the island maintained close ties with its hinterland on the mainland, processing the wool produced there, even though the dyeing technology would no longer have been based on murex but on entirely different raw materials, among them indigo\textsuperscript{15}. The most abundant evidence comes in the Ottoman period, although there are earlier indications as well\textsuperscript{16}.

The excavation conducted in Meninx demonstrates that the purple production plant was active during the late 5\textsuperscript{th} and the first half of the 6\textsuperscript{th} century (fig. 2). It was abandoned in the second half of the 6\textsuperscript{th} century, some decades after the Byzantine reoccupation of the island\textsuperscript{17}. This is important recent evidence for the late use of prestige textiles during the period of the Vandal occupation, and can be linked with the new Germanic élite’s attempt at self-representation utilizing the established clothing patterns of Roman aristocracy, a continuity that is well-attested in recent scholarship\textsuperscript{18}. In the second half of the 6\textsuperscript{th} century, after the Justinian reconquest of the island, the purple installations at Meninx were abandoned and filled with debris to level the ground, creating a closed context with a chronological range between the 550 and the 600. This transformation has given us the possibility of a detailed analysis of Jerba’s material culture during the Justinianic period and has permitted us to describe production on the island and its economic system within the framework of the late antique and medieval Mediterranean landscape.

At Meninx, wide swaths of the city were abandoned in this period, and the settlement began to look like many other urban settlements of North Africa and elsewhere in the Mediterranean towns between the Late Antiquity and the Early Middle Ages\textsuperscript{19}. After the 6\textsuperscript{th} century the area once occupied by the city was characterized by scattered habitation, mostly on its outskirts, and a periodic usage of the site itself as a marketplace. This moment also saw the construction of two forts of identical plan guarding further access to the interior of the island\textsuperscript{20}. Excavation at one of them, a ruin today called Tala, some 2 km distance from the city, showed that occupation continued there for a short while, and that it was presumably still occupied during the Early Medieval Period. This site yielded a number of ceramics that show both a change in material culture and a connection with the Late Roman pottery.

The quantitative graph found below (fig. 3) shows the different percentages of the pottery classes formed from the overall ensemble\textsuperscript{21}. This gives an image of the overall context as related to articles of wide consumption and food supply on the island in the 6\textsuperscript{th} century. Here the incidence of different quantification systems for the pottery can be evaluated, in particular between the EVE system (Estimated Vessel Equivalent), found on the first column, and the values obtained from a raw count of the sherds. This gives remarkably different numbers for the relationship between the pottery categories found in the context\textsuperscript{22}.

\textsuperscript{14} These findings have been discussed in full by Fontana, 2000. Here we are referring to them in some detail to develop the argument for the continuity of ceramic production and usage traditions on the island.

\textsuperscript{15} On the introduction of new cultivars into the Mediterranean see Watson, 1983. Indigo, a south Asian cultivar would have been introduced within the early Islamic centuries, was still in use in the early twentieth century. Also see Combès and Louis, 1967 on textile production on the island.

\textsuperscript{16} See Drine, Fentress and Holod, 2008, vol. II.

\textsuperscript{17} Fontana, 2000, p. 95.

\textsuperscript{18} Carrie, 2004, p. 24.


\textsuperscript{20} The second fort was constructed at a location similarly in southwest coastal zone of the island, and appears as Qasr Gardaya in the ninth century mentions. See Drine, Fentress and Holod, 2008, vol. I for plans and volume II for discussion of medieval local sources.

\textsuperscript{21} Fontana, 2000, p. 96, fig. 1.

Fine Table Wares

Among Late Antique fine tablewares, African Red Slip Ware is the prevailing class, at Meninx and on the island as a whole. As discussed by Fontana, a fixed point for the chronology of the Meninx context is the large ARS dish, Hayes form 105, dated between 580 and 600 A.D. In the same context were found form 104B and 91D, a flanged bowl dated to

Fig. 2 – Excavations at Meninx: the cuve and the cistern (Ensemble I-II: DRINE 2000, fig. 3-4).

23 Hayes, 1972, p. 169.
achieved with a surface polishing technique, so called «burnished patterns», that could also be identified with a *Pheradi Maius* production from the region of Hammamet. We did not find any convincing comparison for some other ARS forms, such as personal dishes (diam. cm 22 – fig. 4-2).

On Jerba, therefore, north-Tunisian fine wares are present, although there is an absence of imports from the region of Byzacena, in particular those from the kilns at Sidi Marzoq Tounsi, which, according to the most recent studies, represent the last phase of production, contemporary with the Justinian reconquest. The identification of a high percentage of pottery referable to the E production series is important (fig. 5), in particular that of Hayes form 68, and also to south-Tunisian fabrics, which are characterized by a particular morphological and decorative repertoire, slip-painted with a dark red body. This pottery was traded within the region and was rarely exported further overseas. The wide diffusion of production E on Jerba might validate the hypothesis advanced by J. W. Hayes that the production centres for the series were located along the south-Tunisian coast, in the region between Sfax and Gabes.

African Red Slip Ware appears to have edged out the circulation other fineware categories. Productions such as Tripolitanian Red Slip Ware, are sporadic and rarely found. In five years of the project we identified only eight examples. This scarcity has implications concerning the area of circulation of this Lepcis Magna production, which was overwhelmed by productions from north and central Tunisia. Other finewares are also scarce. Phocean Red Slip Ware is attested by only three examples,

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25 Fulford and Peacock, 1984, p. 77, fig. 22.
26 Hayes, 1972, p. 160; Tortorella, 1998, p. 44.
29 Fontana, 2000, fig. 2.
33 Peacock, Bejaoui and Ben Lazreg, 1990, p. 59-84.
notwithstanding the evidence for trading relationships with the eastern Mediterranean during this period, from where the island imported wine and luxury goods. The trend observed in the "cistern" context at Meninx is equally evident throughout island territory as a whole.

No evidence has been found on Jerba for African Red Slip Ware production in the Early or Middle Roman period, although some pottery with evident production faults, in many cases belonging C5 and E fabrics, has been found. Those sherds are characterized by a grey-green or a black surface colour caused by imperfect firing. However, it is not possible to ascertain that they are Jerban ARS
production markers, rather than simply low-quality production, still functional and hardly kiln wasters. Such vessels might have been sold in a restricted area close to production centres.

In the second half of the 6th century, however, there is some evidence for the production of ARS D within the settlement at a location called Gmı̄r today. At this Late Antique village, characterized by a long continuity of pottery production, there is evidence for the production of large dishes, roughly Hayes forms 104 and 105, with a poor quality red slip.

Domestic pottery in the 6th-7th century

The wide diffusion of the African Red Slip Ware in Jerba testifies to the intense commercial relationship between the island and other Tunisian territories, from which the island probably imported primary resources as cereals. In each period, however, the island itself was responsible for the production of domestic and common wares for daily use. In the second half of the 6th century Table Ware repertoires were completed by Coarse wares produced in the neighbourhood of Meninx and inside other settlements on the territory, generally large villas, where pottery kilns have been identified.

Some handmade ceramics were also found, comparable with deposits at Carthage and elsewhere in Tunisia (fig. 6). In Late Antiquity handmade pottery was widely diffused, in some cases imported from Pantelleria and from other Mediterranean sites, but it is not impossible that these vessels were also produced on Jerba. These handmade cooking wares replace the wheel made Coarse Wares, testifying to an important

34 Fontana, 2000, p. 100.
36 At Carthage the Circus and Avenue Bourguiba contexts : Fulford, 1984; see also Sidi Madidi : Hayes, 1978; Tomber, 1988; Fontana, 2000, p. 104.
cultural transformation, with economic and utilitarian rather than commercial implications. Their use seems to have been determined by their fire resistance and superior heat conservation when compared to African Cooking Wares, thus allowing considerable saving of fuel.\footnote{Pentiricci et al., 1998; Fontana, 2000, p. 102.}

**Amphorae**

African amphorae predominate in Late Antique Jerba, such as the remarkable number of local variants of Keay XXVb types\footnote{Fontana, 2000, p. 107.}. In the suburbs of Meninx we found kiln wasters of this typology. This is a type that is rarely attested in contexts later than the mid-5th century\footnote{Bonifay, 2005, p. 452.}. However, its presence within the Meninx cistern context suggests that its production continued on the island after the Vandal Period, probably with a restricted diffusion\footnote{Fontana, 2000, p. 108, fig. 6.}.\footnote{Bonifay, 2005, p. 452.}

Other Late Roman amphorae produced on Jerba have been found at Meninx, such as the one represented in fig. 7-1. This is a rare type, with no significant comparison in North Africa. Its dating must be assumed to be between the second half of the 6th and the 7th century. Another type, shown on fig. 7-2, finds some analogies with amphorae identified in a 6th century context of Sidi Jdidi\footnote{Fontana, 2000, fig. 8; Ghalia, Bonifay and Capeielli, 2005, p. 495-507.}. Northern African amphorae found in the cistern context represent the 62% of the whole ensemble: at other sites values fluctuate between the 60% and the 75% (fig. 8)\footnote{Fontana, 2000, fig. 8; Ghalia, Bonifay and Capeielli, 2005, p. 495-507.}.

Amphorae

Among the imported amphorae found in the cistern context we should note the presence of LRA 7, attesting a relationship with the Egypt in Late Antiquity. These are generally found in Egypt itself, close to the production sites, or in Carthage, while they are rare in other Mediterranean ports. This demonstrates the close dependence of Late Antique Jerba on territories that could supply it with grain.

There are also some South Italian amphorae (Keay LII), which carried wine from Brutium or Sicily. These are well known from the main Mediterranean markets and especially in the ports of the Italian peninsula during the 5th century\footnote{Bonifay, 1986, p. 273.}. Its presence in contexts of the second half of the 6th century is unusual\footnote{Pacetti, 1998, p. 199-203.}.\footnote{Bonifay, 1986, p. 273.}.
At Meninx, however, the bulk of the imports were wine amphorae from the eastern Mediterranean\textsuperscript{46}: LRA 1 (fig. 7-3), from Cilicia\textsuperscript{47}, Aegean amphorae, such as LRA 2\textsuperscript{48}, and some that might be assimilated to amphorae produced in the island of Samos (fig. 7-4), heirs of the Agora type M 273\textsuperscript{49}. The large number of eastern products, particularly wine amphorae, in Jerba’s 6\textsuperscript{th} and 7\textsuperscript{th} century contexts, align with other North African contexts, such as Carthage\textsuperscript{50}. It is, moreover, a trend in many coastal settlements of the western Mediterranean, and seems to demonstrate that the Justinianic reconquest had an immediate effect on the market\textsuperscript{51}.

Jerba was, therefore, fully involved in the main commercial trans-Mediterranean routes of the 6\textsuperscript{th} and 7\textsuperscript{th} century. The island produced

\textsuperscript{46} FONTANA, 2000, p. 111.
\textsuperscript{47} REYNOLDS, 2005, p. 586, map 2.
\textsuperscript{48} KARAGORGOU, 2001, p. 139.
\textsuperscript{50} BONIFAY and REYNAUD, 2004, p. 315-316.
\textsuperscript{51} AUGENTI et al., 2007.
ISLAMIC POTTERY FROM JERBA

and traded purple textiles as late as the Byzantine reoccupation, when this activity came to an end. We do not know the reason for this decline: perhaps it was the result of an official decision to encourage more easterly centres of production such as Tyre. However, we cannot avoid the consideration that the Justinianic plague of 541 spread particularly through the Mediterranean ports53, and may explain the abandonment of Meninx as a city. After this period, the settlement patterns began to thin out and change. The few sites, which continued to be inhabited, moved away from the eastern coast towards the interior. Villages such as Gmîr seem actually to have increased in size during the 7th century. Eastern wine and goods continued to be imported to the island.

Jerba’s material culture during the Islamic conquest

No immediate changes in the material culture of the island can be observed after the Islamic Conquest, between the end of the 7th and the beginning of the 8th century53. Or, more likely, our material knowledge of these changes is very partial. It comes particularly from the excavations at Tâla, which have increased our knowledge of the domestic pottery used and produced in these decades. These changes seem to suggest a gradual transformation, hardly the radical one as has often been asserted.

During the 8th century, pottery that was produced in central and southern Tunisia continued to circulate on the island, just as they had in the Late Antique period, and after the Byzantine reconquest54. During this period, Red Slip Ware had some prolongation of production and development also at northern ateliers, as has been shown by recent studies conducted on later occupation levels at Jdidi, Pupput and Neapolis55, but its territorial diffusion and distribution is not well-defined yet. Nor has the glazed pottery production of the 8th century, well known from the territory of Kairouan, been identified on the island56. The earliest glazed pottery found on the island is a type probably produced in central Tunisia at the end of the 10th century, a period of great prosperity for all the northern African territory (fig. 9).

The scarcity of the Early Islamic glazed and painted pottery in south Tunisia contrasts with its frequency in the eastern Mediterranean. The absence of this category of fine ware in Jerba might be explained by the foreign origins of this technology, absent in northern African pottery ateliers before the Islamic conquest. It seems that during the 9th century, skilled artisans from east (Iraqi and Egyptian ateliers) brought the new techniques of the production of this pottery to North Africa, first off for a privileged market only, and for the Aghlabid court sphere specifically. The Aghlabid court taste for these wares was, no doubt, inspired by their Abbasid (Iraqi) source. By the 10th century, this glazed production started to have a wider production and diffusion. The innovation in technology was thus the result of the movement of artisans specialized in glazed and polychrome pottery production who brought these techniques from Iraqi or Egyptian ateliers. Tunisian ateliers took time to change their technology of decoration and begin to use glazes57.

There is also an evolution in the formal repertory of pottery at eighth-ninth century Tunisian ateliers. Still, these later North African productions show many analogies and

53 For a discussion of the impact of Islamic conquest on Jerba now see Drine, Fentress and Holod, 2008, vol. II. Here, it is sufficient to mention that the first raid, sometime prior to 676 CE appears to have been violent, with taking or slaves and booty. Little else is available from the sources for these early decades.
54 Fontana, 2000, p. 100.
57 A similar dynamic may be observed in Italy, where new glazed pottery production only emerged in the 12th century: Berti, 2003, p. 25. For a detailed study of the introduction of opacification of glazes see the catalogue Le Vert et le Brun (Demians d’Archimbaud and Vallauri, 1998).
a significant continuity with African Red Slip Ware forms, although with less differentiation and simpler typologies. The same phenomenon has also been noticed in Egypt between the end of the 7th and the beginning of the 8th century. Technical methods and processes coming from eastern countries, thus, would have overlapped with the local traditions of Jerban ceramists in two different ways, through the arrival of foreign artisans, or the movement of production techniques with other media.

The pottery found during the survey and in the excavations at Gmıır, Huş Jamı’ Za’id and Tāla has given us new chronological markers that have constituted an important instrument for dating the settlements. Some common ware forms show analogies with Late Antique potteries. These links between the Byzantine (or Late Antique 2) Jerban pottery production and the formal repertory of the Early Islamic (or Early Medieval) Ware are significant on many levels. Among the characteristics recalling the earlier ceramics is the low temperature firing which gives the fabrics a pale colour, with greenish-white exterior surfaces. The same effect has been observed in northern Tunisia and in Libya, where there is evidence of a renewed productive capability in rural settlements and in urban zones, during

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59 Berti and Gelichi, 1999; Gelichi, 2003, p. 68.
the 9th century. Fabric characteristics are uniform and give us a significant local productive overview. The petrographic analysis permits us to identify different local production centres, located at new settled sites in the interior of the island settled as a result of in-migration.

Domestic pottery during the Early Islamic Period (8th-10th century)

Among the formal characteristics of the Early Medieval domestic pottery, are the large numbers and types of mugs (fig. 10). All these forms are produced with the whitish fabric described above, which is characteristic of almost all of the Early Islamic production. The production of this type seems to be restricted to the first centuries after the Islamic Conquest. The forms shown here have parallels at Tahert, where they occur in the earliest phases of the town, built in the 761 by 'Abd al-Rahmān ibn Rustam. At Tahert, the latest variant of this type, less common than the earlier forms, is dated between the 8th and the 9th century. Such a parallel is all the more suggestive because of the influx of the Ibāḍī settlers, members of the Khariji branch of Islam, to Jerba, which has been attested by local sources throughout the ninth century. Could this immigration have included potters also, or at least brought a taste for the same forms? Certainly, completely new settlement patterns have been recorded on the island connected with this influx of the ninth and tenth centuries.

More common is a new type of pitcher with an applied spout, in a similar fabric to the other domestic wares. Production wasters of this pitcher have been identified on one of the sites in the southwest of the island near Talwat (K116). This is a form with a wide diffusion in other Mediterranean regions, inherited from a Late Antique production tradition. Pitchers of the same type have been identified in Italy, in contexts dating to the end of the 7th and the beginning of the 8th century in Lombard and Byzantine territories. A pottery kiln with a charge of pitchers with the same shape, dating to the Aghlabid period, has been excavated in the Flavian Temple of Leptis Magna, while a great number of similar vessels have been identified in the southern territory of the town and in Medina Sultan.

The tableware form that deserves the most attention is a carinated bowl, a form with a long history in Roman ceramics (fig. 11). The form has many similarities with glazed vessels produced in Qayrawān during the 9th century. Plain and unglazed carinated bowls were found in the excavations of Sūs (Sousse) dated to the same period, which might be compared to the Jerban examples. The same type has also been identified in such other Ifriqiyan contexts at Mahdia, Šabra al-Manṣūriyya,Dougga and Carthage. This bowl also has a wide distribution in Sicily, occurring in most of the few excavated contexts dating between the 9th and the 10th century.

In the same period, a plain form substitutes those previously produced in African Red Slip. This is a large dish, characterized by a strip rim and a ring foot, but completely without slips over the surface (fig. 12). This form inherits the typological Late Antique tradition directly continuing into the Early Islamic period. Change occurs only in the 10th century when the plain dishes began to be glazed and painted in the new «oriental» fashion as discussed above.

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60 Cirelli, 2001, p. 431.
61 Mokrani, 1997, p. 283, figs. 4 and 9.
62 This influx mainly consisted of the Zwağa Berbers.
64 Profumo, 1985, p. 584, fig. 3; Ricci, 1998, p. 376.
69 Louhichi 1997, p. 304; Id. 1998, p. 123, for all sites but Carthage; for it, see Vitelli, 1981, p. 58.
Important changes also occurred in the Cooking Ware production. First of all, we can observe a decrease in handmade production, and the creation of a new repertory of good technological quality, for which evidence has been found in different sites (fig. 13). A new form of casserole began in the Early Medieval phase and quickly achieved a wide diffusion, being produced in the following periods as well. This form is characterized by a concave bottom, small handles in the upper part of the rim and a sharp carination dividing the body from the foot.

The cooking set was completed by tall pots, and globular cooking pots with two handles, whose production is testified in Jerba in small rural sites, where there is evidence for domestic pottery production, through the discovery of wasters on them.

Evidence for long-distance imports for the eighth – ninth – beginning tenth centuries is scarce.\[71\]

**Amphorae**

Along with the fine wares a conspicuous number of amphorae have been identified in the excavations and from surface finds. These are generally large cylindrical amphorae that might have held the olive oil produced on the island. Jerba’s oil was well-known and appreciated during the Middle Ages. Generally used for lamps, cosmetics and food, it was widely traded from second half of the 10th century. A special Jerban measure for oil was called *matar*.\[72\]

The early forms of small globular amphorae, were produced in local kilns also.

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71 The only «foreign» sherds identified in the survey are fragments of a glazed ware pitcher, probably of Italian production.

72 The name for this measure is attested in Italian documents, see Pegolotti, 1936. Also Abü Zakariyyâ mentions a special measure of cereals, called *al-qfiz al-jirbi*.
(fig. 14). They have few parallels with other Mediterranean finds, except for a globular amphora identified on many sites that resembles some 8th and 9th century vessels produced in South Italy and in many other Mediterranean productive areas, such as the Gulf of Naples, southern Apulia and the North African coast\(^73\). Its characteristic neckband rim and umbonate foot allows us to compare this amphora with other important early medieval finds of the last decade\(^74\). There is no certain evidence for the contents of this amphora, although it has been generally associated with the transport of wine. Its circulation on Jerba during this period should not surprise us. Despite the Quranic prohibition against wine, this production continued in many settlements probably because the much of the population may not have been Muslim in any case. While the processes of Islamization may have been faster in North Africa than in other regions, they are being re-evaluated at this moment\(^75\). Wine amphorae identified on Jerba could have been used by the local Christian, and especially Jewish population\(^76\). Other samples

\(^{73}\) De Rossi, 2005, p. 541-542.

\(^{74}\) Cirelli, 2002, p. 436.

\(^{75}\) See Handley, 2004 on the existence of Christian communities in North Africa up to the Almohads.

\(^{76}\) Wine production is well known in Umayyad Palestine and Jordan. Now see Walmsley, 2007. On use of wine
of similar amphorae (8th-10th century), produced in southern Tunisia, have been also identified on sites where there is no evidence of Roman occupation (fig. 14-5,7). It is important to underline the absence on Jerba of other types of amphorae transported along trans-Mediterranean routes. This absence reveals a reduction of trading relationships with the external world in the 8th-9th centuries, and suggests that the island remained isolated from the main commercial routes by the political transformations of the region.

under the Aghlabids, see Julien (1975, p. 277-279). The Jewish community, probably established in the island since the Second (maybe even the First) Diaspora, would have followed the precepts of the Kiddush and the Havdalah and used wine regularly (Cirelli, 2002, p. 437). No archaeological trace of the local Christian community could be found in the ninth-tenth century, although their survival in the early years of Muslim dominion is not unlikely. See Savage, 1992 on Christian traces in the Berber areas.
The chrono-typological seriation applied to the pottery found during the project in the excavations and in the surface collections has made it possible to identify a significant number of ceramic productions of the Early Medieval/Early Islamic period. Overall, it comprises plain ware, produced for domestic usage, and for transport of foodstuffs from neighbouring centres. Jerba in this period is far from the cultural model of the main urban settlements of northern Tunisian coast, where glazed and painted pottery of good quality was already being produced in the 9th century. Even as late as the 10th century very little glazed polychrome ware being produced in north and central Tunisia was found in the Jerba survey; its importation begins in the following centuries. The island, nonetheless, continued to produce pottery, as it had done since the Punic Period in various locations, and as it did in the 20th century in the pottery-village of Gallâla. Plain and coarse wares were produced in local kilns, attached to small settlements, or farms. On these sites, we have evidence for pottery production from wasters mostly (fig. 13). Interestingly, there is continuity of local production in the southwestern areas of the island from the earlier periods into the 10th and 11th century, after which time the production centres moved and changed in size and type. This former production probably did not exceed the needs of the local community, and was unlikely to have been traded much beyond the island.

Between the 8th and the 10th century (our early medieval period), commerce passing through Jerba seems almost irrelevant when compared with that of the Late Antique periods. The island appears to have become much more peripheral, although importations were not completely broken off. When the commercial dynamism of the Mediterranean basin began to revive in the 9th century, Jerba still remained outside its orbit, as most of the commercial relationships were directed towards such regional horizons as the prosperous towns of central Tunisia and Tunis itself. By the end of the 10th century, however, the island was already drawn into this larger commercial orbit. It participated in the cabotage trade between Mahdia and Alexandria. The island may have played a role also in the circulation of sub-Saharan products in the Mediterranean. The lucrative trade in slaves controlled by Jerba’s Ibadi co-religionists would have left no archaeological trace on the soil of the island, although al-Bakrî does mention that the island is «full of gold». Its groves of olives and other fruit trees give it a special character as a «paradisiac» landscape, while its inhabitants gained infamy as a sectarian or piratical space in many mainstream sources. Ceramic production sites on the island, first and foremost, produced household wares, but as importantly containers for Jerba’s main export, olive oil, known to Italian trade as giare gerbine. The later history of production and exchange is a discussion taken up in another venue. For now, we have illustrated that the nature of transition on Jerba from the Late Antique to Medieval cultures and economies is marked in ceramic production by continuity in forms and loci of production. At the same time, it was also impacted, although at a slower pace.

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77 Al-Bakrî (1965, p. 668 and p. 760), was writing in the eleventh century but basing him on Ibn Raqîq, an earlier source.

than the mainland, by the arrival of new techniques and taste for polychromy from the east, as well as by a possible immigration of new artisans, together with the new settlers.

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