Paul Reynolds

AMPHORAE IN ROMAN LEBANON 50 BC TO AD 250

120

Direct Roman rule in Lebanon was marked by the foundation of a Roman colony in Beirut under the reign of Augustus,

around the year 15 BC. Possible evidence for the houses associated by the settlement of veterans of the V Macedonica and VIII Augusta legions has emerged in the Anglo-Lebanese excavations in the Souks area, on what would have been the western limits of the Hellenistic settlement ².

This was preceded by an interim period of Roman influence from 64 BC, following Pompey's settlement of the East and the creation of the Roman province of Syria. It was probably in the early years of the province that an amphora type for Beirut was introduced. A deposit that should predate the colonial settlement produced a large number of examples of an amphora that is clearly the earliest in the long history of production of the Roman amphora of Beirut (Fig. 1), a period of seven centuries in which the amphora underwent constant typological change ³.

Examples of the Beirut amphora of the early Roman colonial period are more numerous (there was more building in the Souks area in the late 1st century BC and hence more pottery, used as building material). The amphora in this period already

had its characteristic hollow cone base, probably influenced by the conical bases of the Persian to Hellenistic amphorae of Sidon (Fig. 2). Unlike the latter, the handles are attached to the neck and shoulder in the Graeco-Roman, rather than Phoenician tradition (ring handles on the shoulder). The handle section, with its flat central band and two side concave mouldings, is distinctive and remained unchanged throughout the amphora's history.

In the early to mid 1st century AD a variant shape of the Beirut amphora type, smaller, with a hollow 'button' base, and with the 'band' rim that was a feature of all later Beirut amphorae, was unique in the Roman Levant in that it was stamped, bearing the name of the Roman colony, 'COL[onia]' 'BER[ytus]' (Figs 3a-c). This marked it out as something special to the Roman colony and one can only surmise at this point that it contained a product that belonged to the city, rather than to individuals, possibly wine produced on city land. Or perhaps it denoted some distinction in the products of the newly settled veterans, who would have received land allotments in the territory of Beirut.

The ceramics indicate that the Roman colonial foundation marked a major change in the sources

1 Dr Paul Reynolds is currently preparing for publication the Persian and classical pottery and medieval amphorae from the Anglo-Lebanese AUB/ACRE excavations in what was the Souks area of Beirut. He has also been engaged in the classification of classical and medieval pottery from sites in south-eastern Spain, Carthage, Leptis Magna, Butrint and other sites in Albania, and at Zeugma on the Euphrates.

Perring 1999 and in press, for the Souks area; Thorpe 2002, for the Imperial baths. The Anglo-Lebanese AUB/ACRE excavations in the Souks area of downtown Beirut uncovered a wide range of domestic and public buildings in what was the north-western quarter of the classical city, adjacent to the former Roman harbour and well to the west of the ancient tell, the original focal point of the settlement. The excavation of the lowest levels across the Souks site demonstrates that the town expanded westwards in several stages of development, in the Persian period (5th century BC) and under the Seleucids (c. 200-175/150 BC). In the late 1st century BC Augustan houses and shops, probably associated with the Roman colony, were carefully arranged to fill in empty land around pre-existing Hellenistic buildings.

Two insulae of the Roman-Byzantine city were excavated comprising shops and portico, taverns, fullery, bakeries, town houses, roads, drains, cisterns and water system. The Roman Imperial baths, to the south of the insulae, built in the 1st century AD, were considerably remodelled in the early 3rd century. The baths overlay a major Hellenistic foundation, perhaps a gymnasium, itself sealing a late Persian cemetery (hence outside the limits of the Persian town).

Reynolds 1999, Appendix; Reynolds 2000a.

121

and types of imported goods with respect to the pre-colonial period. We see now the first importation en masse of amphorae from southern Spain, carrying wine (Fig. 4) and fish sauce (Fig. 5). The latter, garum, was a major ingredient in Roman cooking. Imports of

Tunisian amphorae, possibly also fish sauce amphorae, occasionally imported in the 3rd to late 2nd century BC (after Rome had taken Carthage in 146 BC), appear to end abruptly with the Roman conquest. Perhaps Tunisian products were directed elsewhere, to Italy for example (they occur at Pompeii), and not to the East. The colonial period also marked the large scale importation of Italian ceramics for use at the table, the red gloss wares of Arezzo and Naples, as well as 'thin-walled' cups and beakers, also of Italian manufacture. These were also imitated by the local Beiruti potters.

These Italian imports were accompanied by baking dishes and lids from the Pompeii-Naples-Cumae region, 'Pompeian Red Ware'. Campanian wine amphorae, on the other hand, were rarely imported in the 1st century AD (e.g. Fig. 6, a close imitation of the contemporary Koan amphora shape (see below). Aegean wine amphorae, such as products from Rhodes, Kos, and many, so far unidentified sources of eastern origin, appear in Beirut in the 1st century. Roman Tyrian amphorae, (see fig. 33) still strongly Phoenician in character, were also imported but are relatively rare, together with

other close regional Levantine products, notably early Roman, final examples of the Phoenician 'basket handle' amphora type, perhaps produced in the region of Batroun. But the dominant class of amphora is undoubtedly that of Beirut herself, an amphora which is markedly Roman in character, in contrast to other contemporary Lebanese types.

We are indeed fortunate that several amphora kilns of late 1st century AD date were discovered and excavated on the eastern limits of the Hellenistic-Roman city⁴. Chemical analyses of the clays of the amphorae found on the site⁵ confirm that the Beirut amphora of the early-mid 1st century (the stamped type Beirut 2, as Fig. 3) and its late 1st century AD successor (Beirut 3.1a, with the more 'carrot' shaped body characteristic of 2nd-5th century Beirut amphorae: see Fig. 22a) were products of these workshops.

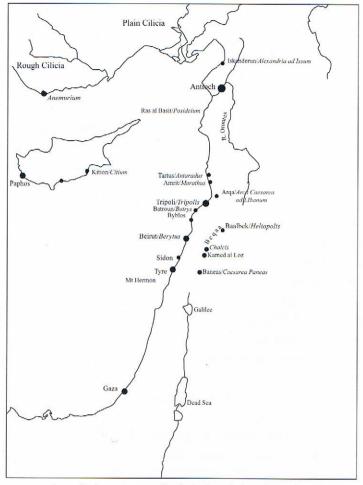
The analyses also indicate that two other major amphora types, not in the 'Beirut amphora' series, that were found in quantity at the kiln site were also produced there. One, a small carrot bodied container with ring handles on the shoulder, in the Phoenician-Palestinian tradition, is a well known type, possibly for carrying dates, that was widely exported to sites in France, Germany and Britain in the 1st to 2nd centuries (Figs. 7-8). The type, long suspected to be Levantine, is now confirmed to be a Beirut product (though the type may well also have been produced at other sites, such as Gaza). What is particularly interesting is that the 'carrot' amphora though a major export of Beirut (and its

Vipard 1995; Lemaître 2000; Peacock & Williams 1986, Class 12.

Amphorae (Figs. 10 a-c) were drawn and photographed with the kind permission of Dr. Sultan Muhesen, the former Director of the Monuments and Archaeology of Syria and Dr Rachid Issa, Director of the monuments and Archaeology of the region of Tartus. I am also most grateful to Ramez Houch for taking me to Amrit and for his hospitality during my stay in Tartus.

Excavations in 1995 by Ibrahim Kowatly and Hans Curvers. I am grateful to them both for their permission to study this material.

A programme of chemical analysis by PIXE method has been carried out in Beirut as part of a CEDRE project between the laboratories of Lyon (Yona Waksman) and Beirut (Mohamad Roumie and Bilal Nsouli), myself (Beirut finds and parallels), Severine Lemaître (Gallic parallels) and Hans Curvers (the excavation).



territory) is a rare find indeed in the city itself, indicating that the amphora was produced almost exclusively to contain locally grown (?) dates for export.

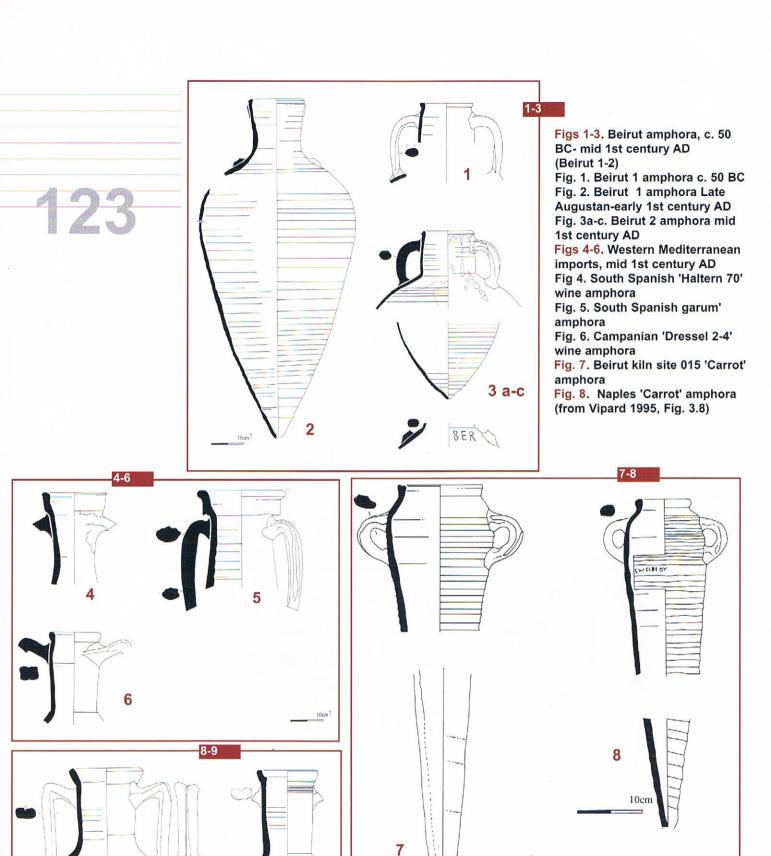
The second amphora is a wine amphora in the Roman style, loosely modelled on the Koan amphora type, as its long handles bear a groove along the outer face, based on the double-barrelled handles of the amphora of Kos (Figs 8 a-c, for two variants produced at the kiln site). True Koan amphorae were regularly imported into Beirut from the late 3rd century BC and occur in early Roman contexts (from c. 50 BC to AD 150). The Koan type was a pan-Roman form adopted all over the Roman Mediterranean, for example in southeastern Turkey/Cilicia (Fig. 16), Campania (Fig. 6) and Spain, as well as on the Black Sea. The Beirut Koan style amphora is common in Beirut contexts of c. AD 100-230, though always in more reduced quantities with respect to the 'Beirut amphora' type7. Another almost identical version of the Beirut Koan type is also a rare find in Beirut in the same period, in a heavy-dense, red brown fabric rich in limestone, also the fabric of a rare range of

kitchen ware products found in contemporary deposits, that indicates that it was produced elsewhere (?) (northern Lebanon: Fig. 9).

The first half of the 2nd century also marks the first occurrence of another major regional class of amphora, also an imitation of the Koan type, in this case closer to the original. (Figs 10a-c). Note that it shares the grooved handles of the Beirut Koan type and its carrot-shaped body, but in this case the base ends with a solid knob-like toe. The amphora is almost certainly a product of the city of Amrit/Marathus, and/or Tartus/Antaradus, on the southern coast of Syria. The clay is distinctive, with its inclusions of rounded grey fossil shell. Amphorae of this class, which also 'evolved' over the centuries, are the most common close regional imports in Beirut from the 2nd to 4th centuries.

Another major amphora type of the late 1st to 2nd centuries is possibly a north Lebanese product, perhaps from the uplands to the east of Byblos ⁸. It has a particularly lime-rich, coarse fabric (Fabric 43C). It had a relatively wide neck, and, quite distinct to the other amphorae we have discussed, wide, flat handles. Its body was probably carrot shaped, with a sharply carinated shoulder (Figs. 11a-b). Two other common shapes, Figs 12 and 13, the latter a small table amphora with a ring foot, are in the same regional, North Lebanese, fabric.

Overall, one can interpret these new amphora types as evidence for a major expansion in agricultural production in the territory of Beirut and what was northern Phoenicia, from the late 1st century AD. Some opted for the production of wine (Koan style amphorae), while the wide necked amphora Fig. 11 have contained oil pressed from olives grown in the highlands of north Lebanon, just as is still done today (see the working oil press at Batroun). Beirut's involvement in the production of dates for export can also be inferred from the production of the small 'carrot' amphora. It should be noted that though the Beirut Koan type was produced on the kiln site in the late 1st century AD, the amphora (and not all the variants present at the kiln site) is rare in contexts of that date in BEY 006 and is only relatively common from c. AD 100 onwards. This and the rarity of the 'carrot' amphora in Beirut contexts could be



Figs 8 a-c. Koan-style amphorae produced at the Beirut kiln site BEY 015. Late 1st century AD Fig. 9. Koan-style amphora (Fabric 43A, with limestone) North

Lebanon? c. AD 100-150

See Reynolds 1999, for two deposits of AD 125-150 with examples of the 'Koan imitation': under the form AM 72. The

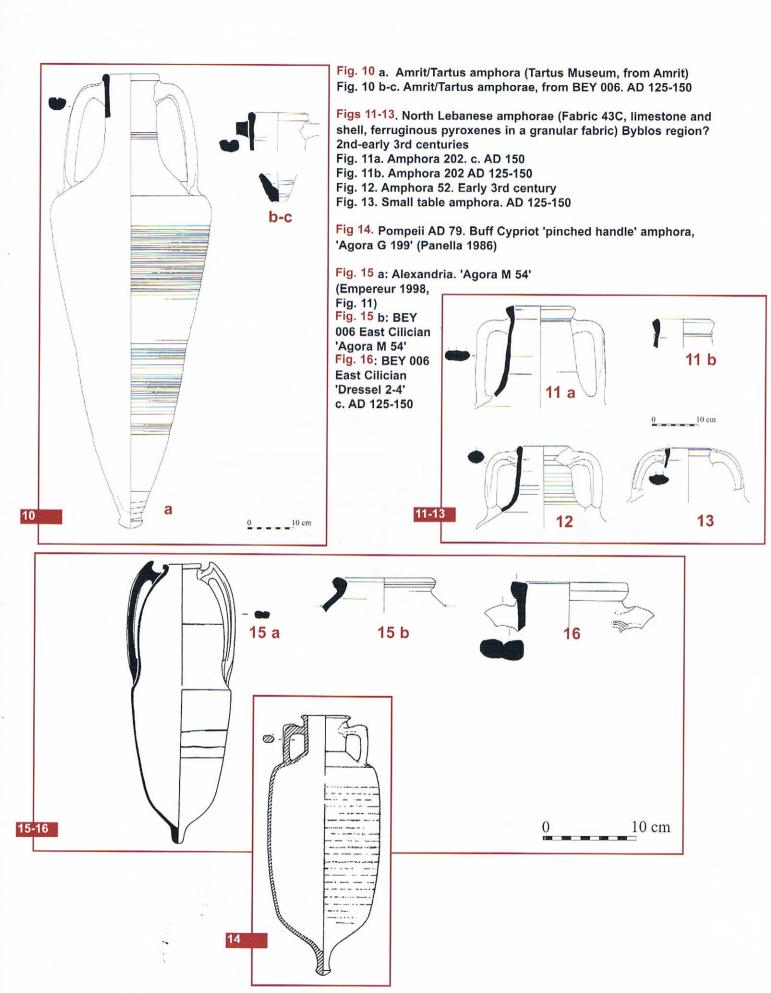
8 a-c

9

deposits also illustrate the wide range of amphora imports and other ceramics, such as cooking wares and table wares, in second century Beirut.

8 This is based on my observations of the presence of amphora bases in this fabric in the survey material collected at

This is based on my observations of the presence of amphora bases in this fabric in the survey material collected at Yanouh (Qartaba) by the Institut Courby of the Maison de l'Orient, Lyon. I am grateful to Pierre Gatier and Dominique Pieri for showing me and allowing me to comment on this unpublished material.



interpreted as evidence that, though these amphorae were produced in Beirut, they were commissioned and essentially marketed outside Beirut.

It is useful here to bear in mind the political geography of the region in the early Roman pe-

riod. During the 1st century AD Syria and Palestine remained still very much fragmented, a patchwork of separate kingdoms and city-states. The Roman colony of Beirut stands out as an exceptional focus of Roman influence in Phoenicia, a cause of its rivalry with Tyre ⁹. The coastal cities of Lebanon lay within the Roman province of Syria and were independent, with their own territories. That of Beirut stretched north-east to include Baalbek.

Two Ituraean Arab principalities in eastern Lebanon still remained outside Syria, those of Arca (Tell Arqa, east of Tripoli) and Chalcis, thought to be located at Anjar (though Kamed el Loz, where Hellenistic and early Roman pottery is plentiful, may also be its location). Both centres formed part of the lands of the Herodian dynasty, given to them by Rome, until AD 92, when Arca began to mint its own coinage, as an independent city, and AD 93, when Chalcis may have become an imperial estate, the Saltus Gonaiticus, on the death of Aristobulos, son of Herod. The other territories of Chalcis within Lebanon had long been carved up and allocated to Tyre, Sidon and Damascus, under Augustus, the same period that Baalbek was allotted to Beirut. Other territories of the Ituraeans south of Mount Hermon, and down to Galilee and in the Hauran were in the hands of the Herodian dynasty from 40 BC and remained so also until the late 1st century ¹⁰.

The Flavian dynasty, Emperor Vespasian and his sons, were responsible for the reorganisation of Judea, (formerly under Herodian rule, it became a Roman province), and eastern Lebanon. It is perhaps the integration of areas of Lebanon into Syria that brought about a new phase of agricultural investment in northern Lebanon. We are unfortunately quite ignorant of the role of the major city of Tripoli in the economic equation. It is quite inconceivable that the city did not have its own amphora type, as it was an independent city and a major coastal port.

Finds of amphorae imported into Beirut in the first half of the 2nd century also provide similar evidence for the emergence of new amphora types in the early Roman period in the Roman provinces of Cilicia (the south-eastern coast of Turkey, from roughly Anamur to Iskenderun) and Cyprus. One type with 'pinched' handles, related to the Koan wine amphora class (Robinson Athenian 'Agora G 199'), was produced in western, 'Rough' Cilicia (see Figs 28a-b for 3rd century examples) and in western Cyprus (Fig. 14). Beirut imported only the Cilician products. An eastern Cilician type may have carried fruit or wine (Fig. 15a-b: Robinson 'Agora M 54'). This region also exported wine in a version of the Koan amphora (Fig. 16) and a small 'table' amphora, the 'Pompeii 5' type (Figs 17a-d) ". The latter, as its names suggests, was

⁹ For an excellent and readable account of the history and organisation of Hellenistic and Roman Syria and the Levant in general see shortly Butcher (forthcoming, Chapters 1-4). See also Sartre 2001 (especially the maps on pages 1004-1008 and 1013, for the Herodian and Ituraean kingdoms), Jones 1937 (Chapter 10) and Millar 1995.

Herod the Great (40 BC-4 BC) and his family, ruling as clients of Rome, Judea and territories in northern Palestine and eastern Lebanon, were generous builders outside their domains, in the coastal cities of Phoenicia. Halls, porticoes, temples and *agora* were erected in Beirut and Tyre by Herod the Great, who also provided amenities in other cities in Phoenicia (Akko/*Ptolemais*, Sidon, and Byblos) and Syria (Damascus and Latakia/*Laodicea*). Agrippa I (10 BC-AD 44) provided Beirut with baths, porticoes, a theater and amphitheatre and the patronage of Beirut continued under Marcus Julius Agrippa II (AD 53-93). (For the sources, see Hall 1996, 93-96).

¹¹ For amphorae in Cilicia, see Empereur & Picon 1989, Rauh & Slane 2000, and Reynolds in press. For Kition, see, eventually, Marquié in press. For Egypt and Cilicia, see Tomber 1998.

AMPHORAE IN ROMAN LEBANON 50 BC TO AD 250

found in Pompeii (AD 79), and hence exports West, to Campania (and presumably Rome) pre-date exports to Beirut. Kition, a port in eastern Cyprus shares Beirut's 2nd century supply of imports of these types, as it does also that of another small table amphora

that was almost certainly produced at Ras al Basit, on the coast of Syria in the same period (Figs 18a-b). It is emerging that the Pompeii 5 type was also a major export to sites in northern Egypt, such as Berenike on the Red Sea (Roberta Tomber, pers. comm.), and it is also therefore significant that the red table ware thought to have been produced near the Bay of Iskenderun in the same period is also common at Berenike ('Eastern Sigillata A').

We therefore can suggest from these finds of Cilician, Syrian and Cypriot amphorae that these regions underwent a similar pattern of economic investment in agriculture from the mid to late 1st century AD (the date of the introduction of the Pompeii 5 type is not yet defined) and that specific targets, both relatively close and long distance, were 'marketed', and at different periods.

In Beirut archaeological deposits of the first half of the 2nd century also document a relative increase in the quantities and sources of south Spanish amphorae (Figs 19-20), now including those from Cadiz, as well as the first imports of amphorae from the Sado estuary of Lisbon, Portugal (Fig. 21). All of these products probably contained fish sauce/garum and it can be said that the population of early Roman Beirut had a tendency to import fish sauce and not Spanish oil. The latter, carried in the Dressel 20 globular amphora, is a rare find indeed in Beirut, but a major export to the frontier provinces of the West ¹².

Excavations in the Imperial Baths of Beirut have produced a wealth of information about the nature of late 2nd to early 3rd century AD local and imported pottery. Historically, the deposits date to the reign of the Severi, and it is tempting to ascribe the substantial remodelling of what were the principal public baths of the city to the Severi themselves, given their links with this region (Septimius Severus's wife, Julia Domna, was of Syrian origin) and the fact that Severus was active in the reshaping of the territories of cities in the region ¹³.

By this date the Beirut amphora had progressively increased its size (Figs 22 a-i: compare the early 2nd century handles of Beirut 3 with those of the Severan period Beirut 4, more than twice as long), and as ever, dominates the ceramic assemblages. The range of imported amphorae, nevertheless, is impressive. Most striking is the first occurrence in quantity of amphorae from Sinope on the Black Sea, that, I would suggest, contained the fish sauce that Sinope was famous for since Hellenistic times (Fig. 23) ¹⁴. Sinope continued to comprise a major share of the import market throughout the 4th to mid 6th centuries.

The Severan period also brought about the recommencing of Tunisian imports, in cylindrical

12 For Spanish and Portuguese amphora imports in Beirut, see Reynolds 2000b.

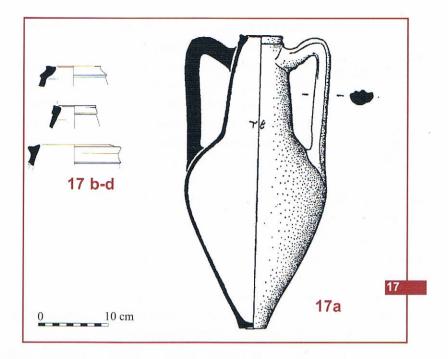
Sidon and Arca (to the north-east of Tripoli), were both promoted to colonial rank, possibly under Elagabalus in 221/222, Sidon possibly receiving a settlement of veterans at this time (Sartre, 2001, 706-707: according to the coin evidence; Butcher, forthcoming, for a perhaps less speculative reading of the evidence).

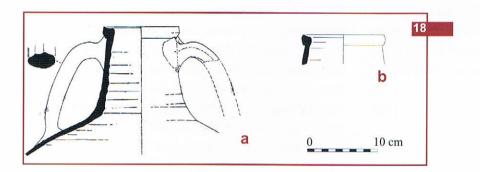
Though, it has to be said, Beirut was punished for its support of Pescennius Niger in the civil war that gave rise to the Severan dynasty, by giving Baalbek, formerly within the territory of Beirut, the status of colony, with its own territory and *lus Italicum*. The latter brought the substantial benefit of the non-payment of the land tax, a right conferred to Beirut since with its colonial foundation under Augustus and apparently not rescinded by Severus.

Tyre was sacked by forces sent by Niger. For her support of Severus Tyre became a colony and received the rights of *lus Italicum*. It was also Tyre, and not her rival Beirut, that was elevated to the rank of metropolitan capital and administrative centre for the new province of Syria Phoenike, created by Severus in order to break up the former province of Syria (Sartre 2001, 614-616, 649, 706; the colonial history and sources are also fully discussed by Hall, Chapter 4).

¹⁴ Curtis 1991, Chapter 5, for production in the eastern Mediterranean. Sinope was also famous for its export of 'Sinopic earth', a red earth/*miltos* used to paint and seal the wooden surfaces of ships (I am most grateful to Mark Lawall for clarifying this: the product is mentioned by Pliny, in his Natural History).

127





19 21 20 0 10 cm

Figs 17 a-d. East Cilician 'Pompeii 5' type Fig. 17 a. Alexandria (Empereur & Picon 1989) Figs. 17 b-d. Beirut, AD 125-150)

Fig. 18 a-b. Ras al Basit amphorae, AD 100-150 Fig. 18 a. Paphos, Cyprus (Hayes 1991, Fig. 69) Fig. 18 b: Beirut

Figs 19-21. Beirut imports of south Spanish and Portuguese garum amphorae, AD 100-150 Fig. 19. Cadiz *garum* amphora Fig. 20 South Spanish *garum* amphora (from Malaga?)

Fig. 21. Portuguese, Sado estuary, 'Dressel 14' garum amphora

AMPHORAE IN ROMAN LEBANON 50 BC TO AD 250

128

amphorae, the majority being from the central Tunisian coast, again, possibly also containing fish sauce, rather than oil (Fig. 24). These were accompanied, perhaps in the same shipments, by amphorae carrying *garum* and other fish products (e.g. salted fish) from southern

Spain (e.g. Figs 25a-b, Keay Type 16A) and Portugal. The north Italian amphorae of Forlimpopuli, with their characteristic domed bases in a buff, micaceous fabric were also imported (Fig. 26 a-b) and, from an unknown eastern Mediterranean source, presumably in the Aegean, came the first imports of the so called 'Kapitan 2' amphora (Figs 27a-b), which, with its domed base, is also likely to have contained wine. amphorae from western 'Rough' Cilicia (as Figs 28a-b, with 'pinched' handles), Knidos (Fig. 29), south-western Asia Minor (Fig. 30 a-b) and Gaza are regular imports in the early-mid 3rd century and there is continuity in the supply of Cilician products in what appear to be late variants of the Pompeii 5 type, with rather bulbous necks (e.g. Fig. 31).

Amphorae from Amrit-Tartus (cf Fig. 10) and Ras al Basit, the latter in a new globular amphora type (Figs 32a-d), continued to be imported on a relatively large scale during the 3rd-4th century. The amphorae of Tyre, with their characteristic twisted ring handles, still Phoenician in character (Figs 33 a-c), unlike the amphorae of Amrit-Tartus and Beirut, may have ended abruptly by the mid 3rd century, after over a thousand years of production, as there are no definite Byzantine amphorae in their characteristic buff coloured fabric. However excavations are needed at Tyre to verify this observation, which if correct, certainly requires some explanation, given that the city was made the capital of the new Severan province of Phoenicia (see note 14).

Indeed, this and many other questions regarding the Roman economy in Lebanon still need to be resolved, notably the role of Baalbek and the Beqaa and other cities on the coast, such as Sidon, Byblos, Batroun and Tripoli, for which we also have practically no data due to the lack of excavations or interest in their Roman or Byzantine archaeology. As I hope the reader can appreciate, some progress has been made in recent years and the direction the research has to take is clear.

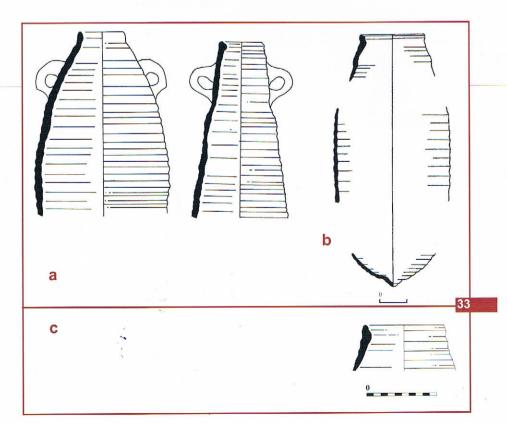
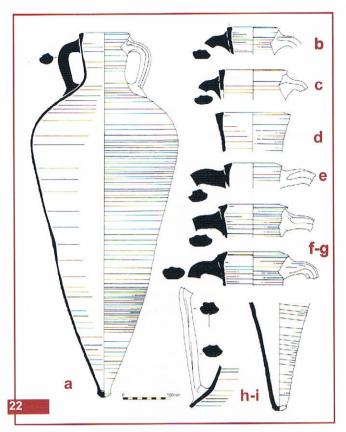


Fig. 33 a-c. Tyre amphorae, late 1st century BC-early 3rd century AD Fig. 33 a. Bikai, Fulco & Marchand 1990 Fig. 33 b. Fig. 90: Eilat Mazar Burial 1005, 2nd/3rd century AD (from Haziv 1994, Fig. 5) Fig. 33 c. Fig. 91: 045.1695.41 Early 3rd century AD



Figs 22 a-i. The Beirut amphora, late 1st century AD to early 3rd century AD (Beirut amphora 3 and 4)

Fig. 22 a: Beirut 3.1a late 1st century AD

Fig. 22 b: Beirut 3.1b AD 100-125

Fig. 22 c: Beirut 3.2 AD 125-150

Fig. 22 d: Beirut 3.3 AD 150

Fig. 22 e: Beirut 4a late 2nd century

Figs 22 f-i: Beirut 4b and c early 3rd century

Figs 23-27. Various long distance imports. Early 3rd century AD

Fig. 23. Black Sea, Sinopean garum (?) amphora

Fig. 24. East central Tunisian amphora (from Sullect-

Fig. 25 a-b. Rim and stamped handle of Keay 16 type, (from south-western Spain).

Fig. 26 a-b. North Italian, Forlimpopuli wine amphora

Figs 27-31. Eastern Mediterranean long distance imports, early-mid 3rd century AD

Fig. 27 a-b. 'Kapitan 2' amphora c. AD 250

Fig. 28 a. 'Pinched handle' amphora Anamur, (?) c. AD 250

Fig. 28 b. 'Pinched handle' amphora, West Cilician (soapy micaceous red brown fabric), c. AD 250

Fig. 29. Knidian amphora, c. AD 250

Fig. 30 a-b. Asia Minor wine amphora, related to

the Ephesus series. Early 3rd century

Fig. 31. Late 'Pompeii 5'. East Cilician. Early 3rd century

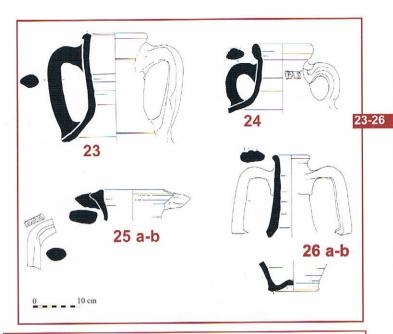
Figs 32 a-d. Ras al Basit globular amphora, 'classic' red brown fabric. 3rd-4th centuries

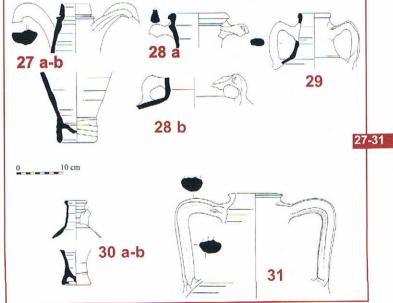
Fig. 32 a. Early 3rd century

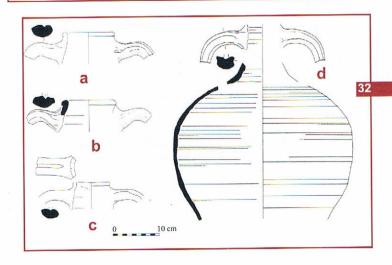
Fig. 32 b. Early 3rd century

Fig. 32 c. AD 250

Fig. 32 d. Late 4th century







BIBLIOGRAPHY

Bikai, P., Fulco, W. J., & Marchand, J., 1996: Tyre. The Sanctuary of Apollo. Amman.

Butcher, **K.E.T.**, forthcoming: *Roman Syria*. (British Museum Press).

Curtis, **R.I.**, 1991: Garum and salsamenta production and commerce in materia medica. *Studies in Ancient Medicine*, 3. Leiden and New York.

Empereur, J. Y., 1998: 'Les amphores complètes du musée d'Alexandrie: importations et productions locales', in *Bulletin de Correspondance Hellénique*, Supplément 33, commerce et artisanat dans l'Alexandrie hellénistique et romaine. Actes du colloque d'Athènes, 11-12 décembre 1988: 393-399.

Empereur, J. Y., & Picon, M., 1989: 'Les régions de production d' amphores impériales en Méditerranée orientale', In: Amphores romaines et histoire économique: dix ans de recherches. Actes du colloque de Sienne (22-24 mai 1986). Collection de l'École Française de Rome, 114: 223-248. Rome.

Hall, L.J., 1996: Berytus, "Mother of Laws". Studies in the social history of Beirut from the third to sixth centuries A.D.. Unpublished Ph.D. Dissertation, Ohio State University.

Hayes, J.W., 1991: Paphos (House of Dionysos), Volume III. The Hellenistic and Roman pottery. Department of Antiquities, Cyprus (Nicosia).

Jones, A.H.M., 1937: The cities of the Eastern Roman provinces. Oxford.

Keay, S.J., 1984: Late Roman amphorae in the Western Mediterranean. A typology and economic study: the Catalan evidence. *British Archaeological Reports, International Series*, 196. Oxford.

Lemaître S., 2000: 'Les importations d'amphores de Méditerranée orientale à Lyon au IIIe siècle ap. J.-C.', *Rei Cretariae Fautorum Acta*, 36 (Ephesus 1998): 467-476.

Marquié, S., in press: (2001): 'Appendix VIII. Un lot de céramiques de la première moitié du IIIe siècle de notre ère dans le Secteur l', in Karageorghis, V., *Excavations at Kition. VI. The Phoenician and later levels*. Part II. (Nicosia).

Millar, F., 1995: The Roman Near East (31 B.C.- AD 337). London.

Peacock, D. P. S., & Williams, D.F., 1986: Amphorae and the Roman economy. An introductory guide. Avon.

Panella, C.,1986: 'Oriente ed Occidente: considerazioni su alcune anfore"egee" di età imperiale a Ostia', in Empereur & Garlan, Recherches sur les amphores grecques. Actes du Colloque international organisé par le Centre National de la Recherche Scientifique, L'Université de Rennes II et l'Ecole Française d'Athènes (Athènes, 10-12 September 1984). Bulletin de Correspondance Hellénique, Supplement 13: 609-636.

Perring, D., 1999: Excavations in the Souks of Beirut: An introduction to the work of the Anglo-Lebanese team and

summary report', *Berytus*, 43 (1997-1998): 9-34.
- in press: 'The insula of the House of the Fountains in Beirut: an outline history', *Society of Antiquaries Journal*, 2003.

Rauh, N.k., & Slane, K.W., 2000: 'Possible amphora kiln sites in W Rough Cilicia', *Journal of Roman Archaeology* 13: 319-330.

Reynolds, P. 1995: Trade in the Western Mediterranean, AD 400-700. The ceramic evidence. *British Archaeological Reports, International Series*, 604. Oxford.

- 1999: 'Pottery production and economic exchange in 2nd century Berytus: some preliminary observations of ceramic trends from quantified ceramic deposits from the Anglo-Lebanese excavations in Beirut', *Berytus* 43 (1997-1998): 35-110.

- 2000a: 'The Beirut amphora type, 1st century BC-7th century AD: an outline of its formal development and some preliminary observations of regional economic trends', *Rei Cretariae Romanae Fautorum Acta (Ephesus, 1998)*: 387-395.

- 2000b: 'Baetican, Lusitanian and Tarraconensian amphorae in classical Beirut: some preliminary observations of trends in amphora imports from the western Mediterranean in the Anglo-Lebanese excavations in Beirut (BEY 006, 007 and 045)', in Congreso Internacional 'Ex Baetica Amphorae'. Universidad de Sevilla, 17-20th December 1998. Écija: 1035-1065

- in press: 'Levantine amphorae from Cilicia to Gaza: a typology and analysis of regional production trends from the 2nd to 6th centuries', 1st International conference on late Roman coarse wares, cooking wares and amphorae in the Mediterranean: Archaeology and Archaeometry (Barcelona, 14-16th March 2002).

Robinson, H.S., 1959: The Athenian Agora, V. Pottery of the Roman period. Princeton.

Sartre, M., 2001: D'Alexandre à Zénobie. Histoire du Levant antique, IVe siècle av. J.-C. – IIIe siècle ap. J.-C. Paris-Beirut.

Shourkin, O., 1999: 'Tombs of the Persian and Roman periods near Tell er-Ras (Lohamé Hageta'ot, Area C): 141-163 (p. 175-177 for English summary).

Thorpe, R., 2002: 'BEY 045. Preliminary report on the excavations', *BAAL*, 3.

Tomber, R., 1998: "Laodicean" wine containers in Roman Egypt'. In Kaper, O.E. (ed.), 'Life on the Fringe. Living in the southern Egyptian deserts during the Roman and early-Byzantine periods'. Proceedings of a Colloquium held on the occasion of the 25th Anniversary of the Netherlands Institute for Archaeology and Arabic Studies in Cairo, 9-12th December 1996. Research School CNWS, School of Asian, African and Amerindian Studies, Leiden: 213-220.

Vipard, P., 1995: 'Les amphores "carottes" (Forme Schöne-Mau XV). État de la question. S.F.E.C.A.G. *Actes du Congrès de Rouen, 1995.* Marseille: 51-77.