

## Adriatico altomedievale (VI-XI secolo)

Scambi, porti, produzioni

a cura di Sauro Gelichi e Claudio Negrelli

# The Byzantine Web

## Pottery and Connectivity Between the Southern Adriatic and the Eastern Mediterranean

Joanita Vroom

(Universiteit Leiden, Nederland)

**Abstract** This paper aims to present a general overview of the distribution of Early Medieval pottery finds (with an emphasis on amphorae) in the southern Adriatic region. The focus will be on excavated ceramics from sites on the Albanian coast (among which, Butrint and Saranda) in relation to published pottery finds from sites across the Adriatic Sea in southern Italy (especially in Apulia). The ceramic finds from these opposite coastal regions will be compared with similar looking examples from excavated sites and shipwrecks in the eastern Mediterranean.

**Summary** 1 Introduction. – 2 Butrint. – 3 Western Defences. – 4 Amphora Type 1. – 5 Amphora Type 2. – 6 Networks. – 7 Amphorae From The Bozburun Shipwreck. – 8 Routes. – 9 Conclusion.

**Keywords** Southern Adriatic. Eastern Mediterranean. Butrint. Western Defences. Early Byzantine period. Amphorae. Shipwrecks. Routes.

### 1 Introduction

When I was slightly younger and much more reckless, I frequently travelled by boat from the southern tip of Italy to Corfù island, and back. I took the cheapest ferry from Otranto, which was a small second hand boat which had originally operated in Denmark, and about which there was some doubt amongst the passengers whether it was really suited for the open waters of the Adriatic. Anyway, we always made it to the other side, although I vividly remember the audible sighs of relief when the Greek or Italian coast came in sight. I think these sighs were more or less the same as the sighs of relief, which undoubtedly have sounded over the centuries on ships, which crossed the waters between Italy and Greece. They certainly will have sounded in the Early Middle Ages on boats fully loaded with amphorae and other breakable ceramics, which were traded in the Adriatic region and which are the subject of this paper.

Accordingly, I would like to give a first impression about «The Byzantine Web: Pottery and Connectivity Between the Southern Adriatic and the

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Eastern Mediterranean». In fact, the main question of my paper is how to think about the interactions between the southern Adriatic region and the Byzantine Empire during the Early Byzantine period from the perspective of ceramic finds. In other words: what can pottery tell us about the connections and relations between the southern Adriatic area and Byzantium from circa the 7th to 9th centuries? What does the archaeological record actually tell us?

In order to answer these questions it is my aim to discuss some initial results of my research on the distribution of ceramic trading goods found at Butrint in southern Albania in connection to sites in southern Italy, and then go further East, to sites in the Aegean and Black Sea regions. With respect to ceramic trading goods, I focus in this paper mainly on imported amphorae from the 7th to 9th centuries.

## **2 Butrint**

But to come immediately to the heart of the matter, I introduce to you the coastal city of Butrint in south-western Albania. Butrint is a multi-period site, located on a peninsula situated directly opposite the island of Corfù and opposite southern Italy (particularly Apulia), occupying thus a strategic position in a southern Adriatic-Ionian connection.

The site is situated 3 km inland from the Straights of Corfù, and surrounded by the so-called Vivari Channel, which links Lake Butrint to the Ionian Sea. Butrint was inhabited in various forms from Archaic times onwards with a peak in the Roman and Byzantine periods (see for Byzantine Butrint, Hodges 2008, 2015; Greenslade, Hodges 2013). Since 1994, large-scale excavations have been carried out on the peninsula and across it, on the Vrina Plain on the other side of the Vivari Channel, by a British-Albanian team under the direction of professor Richard Hodges and of the Albanian Institute of Archaeology in Tirana – and I would like to thank them for allowing me to study and publish the ceramic finds from their excavations (e.g., Hodges, Bowden, Lako 2004; Hansen, Hodges 2007; Bowden, Hodges 2011; Greenslade 2013).

During the years of excavation, thousands of Medieval and Post-Medieval ceramic finds were recorded from various parts of the site (fig. 1). These include finds from the peninsula, at the Well of Junia Rufina, the Baptistery, the Triconch Palace, the Acropolis, the Forum and the Western Defences, as well as from its suburb in the Vrina Plain on the other side of the Vivari Channel (Vroom 2004, 2006, 2008, 2012a, 2012b, 2013a; Hodges, Vroom 2007). As such, I aim to study the spatial distribution of the proportions of different wares and of different shapes on the site, based on the quantities found, in order to understand ceramic distribution and consumption within a settlement and between periods (Vroom 2013b, figs. 8-9).

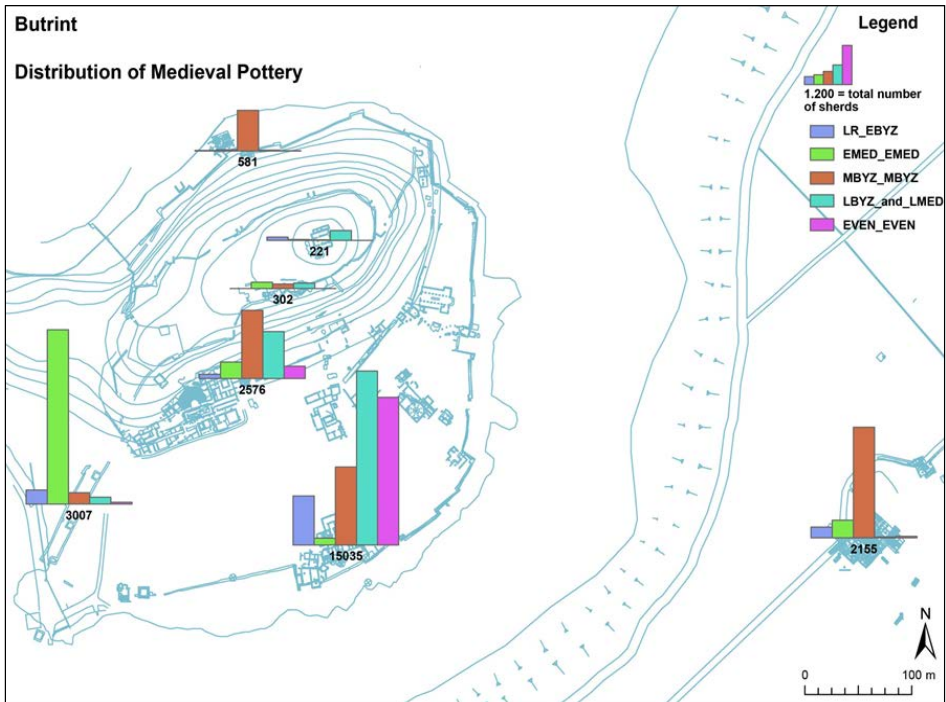


Figure 1. Map of Butrint with distribution of Medieval pottery finds

LR = Late Roman; EBYZ = Early Byzantine; EMED = Early Medieval; MBYZ = Middle Byzantine; LBYZ = Late Byzantine; LMED = Late Medieval; EVEN = Early Venetian (J. Vroom; Butrint Foundation)

In fig. 1 we see, for instance, a spatial distribution map of the pottery finds per period in Butrint, ranging from Late Roman to more recent times (ca. 5th-6th to 20th centuries). These distribution maps are not only useful for displaying the location of artefacts but can highlight where pottery was found with different characteristics in terms of shape, chronology, function and provenance.

### 3 Western Defences

As a case-study I focus in this paper on the Early Byzantine ceramic finds (particularly amphorae) from one part of Butrint; that is to say, from two rectangular towers in the so-called Western Defences. The two towers are, in fact, located on the western side of the site as part of the defensive wall that protected the lower part of the town.

The Western Defences comprise of a fortification wall of 106 m long, and should be dated in the late 5th century based on the archaeological

finds and their architecture. Somewhere between the 7th-8th and early 9th centuries a fire (or some fires) seemed to have started on the ground floor of both towers, which caused the collapse of their upper floor and roof. All the material inside the towers was sealed by the collapse material, but the walls of the towers did not entirely collapse (Hodges 2008, 64-9; Kamani 2011, 2013).

In Tower 1 (also known as 'WD1') we can distinguish, smashed beneath the debris of the burnt rafters and the roof tiles, a large collection of glass (including 69 goblets, window glass and cullet), a metal mechanism for opening a trap door, and a range of very broken Early Byzantine ceramics (Jennings 2010; Jennings, Stark 2013; Vroom 2012b). The pottery finds from both towers have now been dated by me between the 7th and early 9th centuries (Vroom 2012b; Vroom, Kondyli 2015, fig. 7).

The ceramic finds in both towers consist of amphorae, coarse wares, heavy utility vessels (such as large storage jars), plain and painted light utility vessels and table wares. If we look at the graph in fig. 2, it is clear that amphorae and coarse wares are dominant in both towers and in all four trenches, whereas table wares play hardly any role and are only represented by a few examples (see also Vroom, Kondyli 2015, figs. 7-9).

If we indeed focus on the function of the ceramic finds in both towers, it is obvious that amphorae dominate, followed by coarse wares and by light utility wares (fig. 2). The amphorae are not local, as they are not manufactured in a Butrint fabric. The coarse vessels are almost all locally produced, because they are made of the typical gritty iron-rich fabrics of Butrint and fired in low temperatures. The wares of a light utility character include mainly plain and painted wares of calcareous porous fabrics, which were imports from southern Italy.

In an effort to better understand the possible function of Tower 1, an attempt has been made to reconstruct its interior just before the collapse (Vroom, Kondyli 2015, figs. 5, 19; Vroom forthcoming a, figs. 2-3). Focusing on the position of the amphorae in this tower it is clear that most amphorae were concentrated in the southeast corner of the tower ground floor. The number and variety of pottery found in the interior of the towers, as well as the predominance of household wares of an utilitarian nature suggest that the tower was used as a dwelling in which storing of goods, preparation of food and cooking were all taking place (Vroom, Kondyli 2015, fig. 19). For my case study, I have chosen two amphora types from the diverse group of various imported amphorae found in Tower 1 (WD1) of the Western Defences.

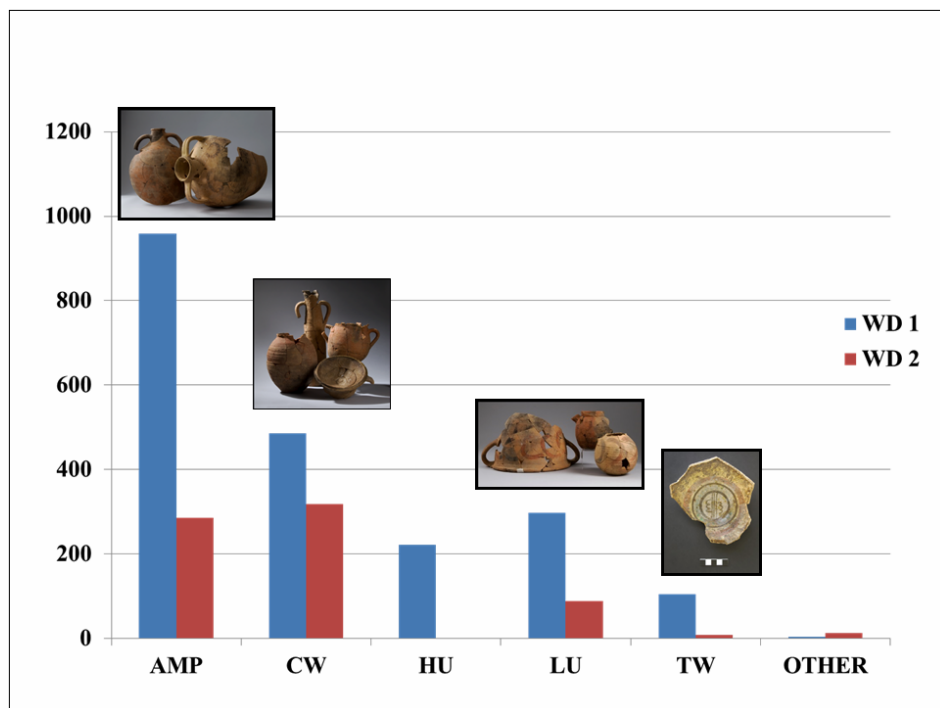


Figure 2. Graph with pottery types found in the two towers (WD1 and WD2) of the Western Defences at Butrint  
 AMP = Amphorae; CW = Coarse Ware; HU = Heavy Utility Ware; LU = Light Utility Ware; TW = Table Ware; OTHER = Other pottery types (J. Vroom; pictures: Butrint Foundation)

#### 4 Amphora Type 1

This tower (WD1) yielded for instance an amphora, named here at the moment as amphora type 1, with a painted decoration of curly dotted stripes and spirals in a reddish-brown colour on the exterior body and shoulder (fig. 3 left drawing and picture). The fabric of this vessel is fine and calcareous, which is very different from the Butrint products, and should therefore be considered as an import (Vroom 2012a, fig. 7 right; 2012b, 374 and fig. 18 in colour).

In fact, the fabric and shape of the first amphora type from Tower 1 shows many similarities to painted amphorae or storage jars from southern Italy, particularly the local products from the Fondo Mitello kiln site at Otranto across the Adriatic Sea (Patterson, Whitehouse 1992, fig. 6.8; Arthur 1997, pl. VI, fig. 5, nos. 10-12; Imperiale 2004, fig. 3, no. 3, *Tipo Mitello 2* amphora, dated to the late 7th-8th centuries). More



Figure 3. Left: drawing and picture of the amphora type 1 found in WD1 at Butrint (Butrint Foundation). Right: map of Italy with similar looking finds of this amphora type 1 from Butrint (J. Vroom)

examples can be found on other sites in the Salento region, among them Supersano and Apigliano (Arthur 2004, fig. 7, nos. 19-20; Arthur, Imperiale 2015, fig. 22).

In addition, such painted amphorae were recovered in Basilicata, in Calabria (Paleopoli, Tirolo, Santa Maria del Mare), in Campania, in eastern Sicily (Taormina, Enna), at the excavations of the Crypta Balbi in Rome as well as the site of Xatt il-Qwabar, Marsa, on the island of Malta (fig. 3 right map; cf. Paroli 1991, 109, fig. 5, nos. 5-6; 1992, 367, pl. 4, nos. 16-17; Raimondo 2006, fig. 10, no. 8, fig. 12, nos. 5-6 and pl. 4a; Imperiale 2004, 333, n. 23 with further literature; Negrelli 2007, fig. 15, no. 7; Bruno, Cutajar 2002, pl. II, no. 2; 2013, fig. 11; Arcifa 2010, fig. 17a and 17d). Apart from finds of these vessels in southern Italy, sites on the Albanian coast also yielded amphorae with a painted decoration of broad stripes and loops in a red or brown slip (Lako 2000-01, fig. 1).

If we focus in more detail on the painted amphorae from an 8th-century context in the Crypta Balbi excavations, it is clear that the decoration style

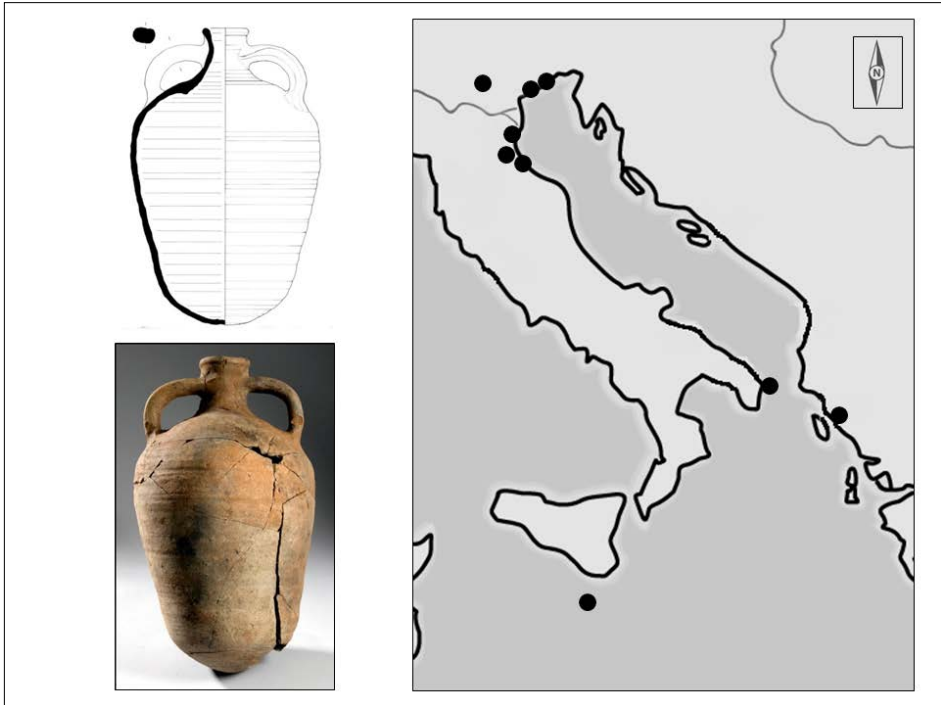


Figure 4. Left: drawing and picture of the amphora type 2 found in WD1 at Butrint (Butrint Foundation). Right: map of Italy with similar looking finds of this amphora type 2 from Butrint (J. Vroom)

of painted spirals on the exterior shoulder looks similar to the Butrint example (Sagui et al. 1997, fig. 7, no. 10; Romei 2001, 512-3, IV.5-43-45). So, we can assume that the amphora from Butrint is surely an import from southern Italy, but its exact provenance is not yet known.

On the other hand, this painted amphora type was also travelling to the East during the Early Byzantine period. I have detected, for instance, comparable examples at excavations in Chersonesos on the Crimean Peninsula (Romanchuk, Sazanov, Sedikova 1995, pl. 27, no. 121, class 31; Sedikova 1995, fig. 5, no. 3, type V, dated in the first half of the 9th century).

Furthermore, this amphora type was recognized by me in the depot of the Athenian Agora excavations (carried out by the American School of Classical Studies at Athens) on mainland Greece. This amphora came from a mixed fill below a cellar floor in the northern part of the Athenian Agora (section Ksi 291), so unfortunately we do not have a good closed context. But what we can say with certainty about this vessel from Athens is that

its shape and painted decoration looks very similar to painted amphorae from the Fondo Mitello kiln site in Otranto and from other sites in Apulia (e.g., Imperiale 2004, fig. 3, no. 3).

## 5 Amphora Type 2

Among the Tower 1 ceramic finds we can distinguish a second amphora type that I aim to discuss in this paper. It concerns a small transport jar with a short neck and a heavy everted rim, which is part of the so-known 'globular amphorae' group (fig. 4 left drawing and picture). At the excavations in Butrint, two examples (one complete and one half complete) were recovered in Tower 1 of the Western Defences (Vroom 2012a, fig. 8 left; 2012b, 371-2 and fig. 17). In addition, some rim-handle fragments of this amphora type came from excavations in the Vrina Plain, on the other side of the Vivari Channel (Vroom forthcoming b).

The second amphora type from Butrint seems to have equivalents in Italy with similar looking transport jars found in Comacchio, Venice (at the ex-cinema San Marco), Torcello, Classe, Ravenna, Verona and at an Early Byzantine shipwreck near Otranto (fig. 4 right map; cf. Auriemma, Quiri 2007, 43, fig. 4, nos. 3-4; Bruno 2007, fig. 18, no. 1; Toniolo 2007, pl. 5, no. 5d; 2014, 318 middle amphora; Negrelli 2007, fig. 22, nos. 1-2; 2012; Gelichi, Negrelli 2008, fig. 12, nos. 1-2; Cirelli 2009, fig. 4, nos. 3, 4). It was also found at the site of Tas-Silg on the island of Malta (Bruno 2009, fig. 40, nos. 8-10; Bruno, Cutajar 2002, fig. 4; 2014, fig. 22). Furthermore, the type seems to have been imitated by amphorae manufactured at the Mitello kiln site at Otranto, the so-called *Tipo Mitello* 1 amphora (Imperiale 2004, fig. 3, no. 1).

More to the East, the amphora shows parallels with excavated examples from a 9th-century well (P 10506, well H10.6) in the Athenian Agora (J. Vroom, personal observation), from late 8th-early 9th-century contexts in Sparta, Isthmia, Istanbul and from sites on Crete, among which Prinitikos Pyrgos and Pseira Island (Hayes 1992, 73, fig. 58, 36.16, type 45; Sanders 1993, fig. 6, nos. 2, 4, 6, 10; Poulou-Papadimtriou 2001, figs. 21, 22a-b; Poulou-Papadimtriou, Nodarou 2007, fig. 6, no. 13; 2014, fig. 10a-b; Klontza-Jaklova 2014, fig. 11, dated to the 8th-early 9th centuries). On Cyprus, I have also detected a similar looking example in the Archaeological Museum of Paphos (J. Vroom, personal observation).

Furthermore, the second amphora type looks analogous to amphorae excavated in 9th-century contexts in the Black Sea region. Until now, similar looking examples were recovered in Chersonesos, Tepsen and Tyritake in the Crimea, as well as in Sarkel (on the left bank of the River Don) and in Sinop on the southern coast of the Black Sea in northern Turkey (e.g., Yakobson 1979, fig. 13, nos. 1-3; Maiko 2004, fig. 101; Zin'ko, Ponomaryov



2009, fig. 148; Kassab Tezgör, Lemaitre, Pieri 2003, 180, no. 23, pls. IV and XI, but wrongly dated in the 4th-6th century).<sup>1</sup> In Chersonesos, the amphorae are known as 'class 36' which was dated to the first half of the 9th century (Romanchuk, Sazanov, Sedikova 1995, pl. 23, nos. 128-129). One example is even on show in the Archaeological Museum of Chersonesos (see also Yashaeva et al. 2011, 201, no. 377). The amphorae found in Tepsen came from a mid 9th-century context in House 5, while the ones from Tyritake might be dated to the second half of the 9th century (I would like to thank Andrei Sazanov discussing these Crimean examples with me).

This amphora type has also been recovered at shipwrecks in the eastern Mediterranean, specifically at shipwrecks which can be dated in the 9th century, such as the one at the Yenikapı excavations in Istanbul and another one in Bozburun (in western Turkey) (e.g., Asal 2007, 180-9; Pulak 2007, 202-15). During the underwater excavations at the Bozburun shipwreck the type was coined as 'Bozburun class 1' (Hocker 1995, fig. 4; 1998a, fig. 3).

In fig. 5 we can distinguish an overview of Early to Middle Byzantine shipwrecks found in the Aegean. Shipwreck no. 4 in fig. 5 is, for instance, the 9th-century Bozburun shipwreck, which sunk off the southwest coast of Turkey, near Marmaris, containing a cargo of circa 1,500-2,000 amphorae of various small-sized globular types (Parker 1992, no. 111; Hocker 1995; Hocker, Scafuri 1996, 5). The Bozburun containers were mainly carrying wine, although a few also contained olives and grapes (Hocker 1998a, 13-4; 1998b, 6 and fig. 5).

The Bozburun amphora has, as you may notice, many features in common with an amphora type found on one of the shipwrecks at the Yenikapı excavations in Istanbul (shipwreck no. 1 in fig. 5), where at least 37 buried shipwrecks from the late 6th-early 7th to 10th-11th centuries were discovered and fully excavated in Constantinople's harbour area (Kocabaş, Özsait-Kocabaş 2013, fig. 3). This amphora type was found in the so-called 9th-century 'Yenikapı 12' shipwreck in Istanbul (Denker et al. 2013, 204, no. 237). As we have seen before, the amphora type 2 found in Butrint, which is the equivalent of the Yenikapı 12-Bozburun 1 amphora, was also distributed to various sites in the Adriatic (such as the ones in the northern Adriatic arc, including Venice and Comacchio).

The exact provenance of this type of transport jar from Butrint, as well as from the Bozburun/Yenikapı shipwrecks is not yet known, although new evidence shows towards potential workshops of this amphora type (as a deriva-

<sup>1</sup> Furthermore, I have also recognized this amphora type in a presentation given by Galina Grozdanova at the XIth Congress of AIECM3 on *Medieval and Modern Period Mediterranean Ceramics* in Antalya (19-24 October 2015) with Early Medieval pottery finds (ranging from ca. the mid 7th to the early 9th century) found at the village of Kapitan Andreevo in south-eastern Bulgaria, around 20 km, north-west from Edirne (Turkey).

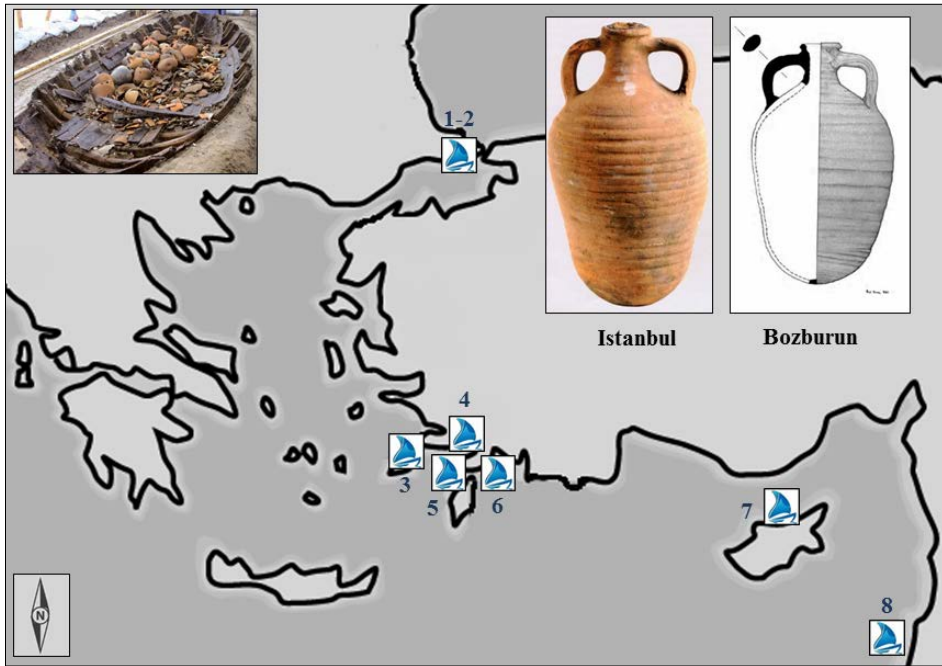


Figure 5. Map of early and middle Byzantine shipwrecks in the eastern Mediterranean  
 1. ‘YK 12’, Istanbul; 2. ‘YK 1’, Istanbul; 3. Yassi Ada, south-west coast Turkey; 4. Bozburun, south-west coast Turkey; 5. Serçe Limanı, south-west coast Turkey; 6. Datça B, south-west coast Turkey; 7. Cape Andreas B, north-eastern coast Cyprus; 8. Dor, Israel (J. Vroom; pictures from the YK12 and Bozburun shipwrecks: after HOCKER 1995, fig. 4; KOCABAŞ, ÖZSAIT-KOCABAŞ 2007, fig. 5; DENKER et al. 2013, 204, no. 237).

tive of a LRA 1) in the eastern Aegean and in particular on the island of Lipsi (fig. 6). At this last place four rectangular kilns and four storage areas for amphora production were excavated close to the sea and containing twenty intact amphorae of an uniform type. The amphorae are not well made nor symmetrical, and have a capacity of 9.5 l (Papavassiliou et al. 2014, figs. 9a-b).

Apart from Lipsi island, we know now that there was also production of globular amphorae during the 7th century on the islands of Kos (Halasarna, Kardamaina) and of Paros (Zoodhochos Pighi), although these workshops were manufacturing different amphora types (including the so-called LRA 2/13 of ovoid shape) which were sometimes stamped with the Byzantine Emperor’s depiction for export of local commodities (Diamanti 2010, pls. 87-139; Diamanti et al. 2014, 183-4, figs. 16-31; Poulou-Papadimitriou, Didioumi 2010, figs. 6-11). As such, these islands must have served as important commercial nodal points along the eastern Aegean maritime traffic routes.

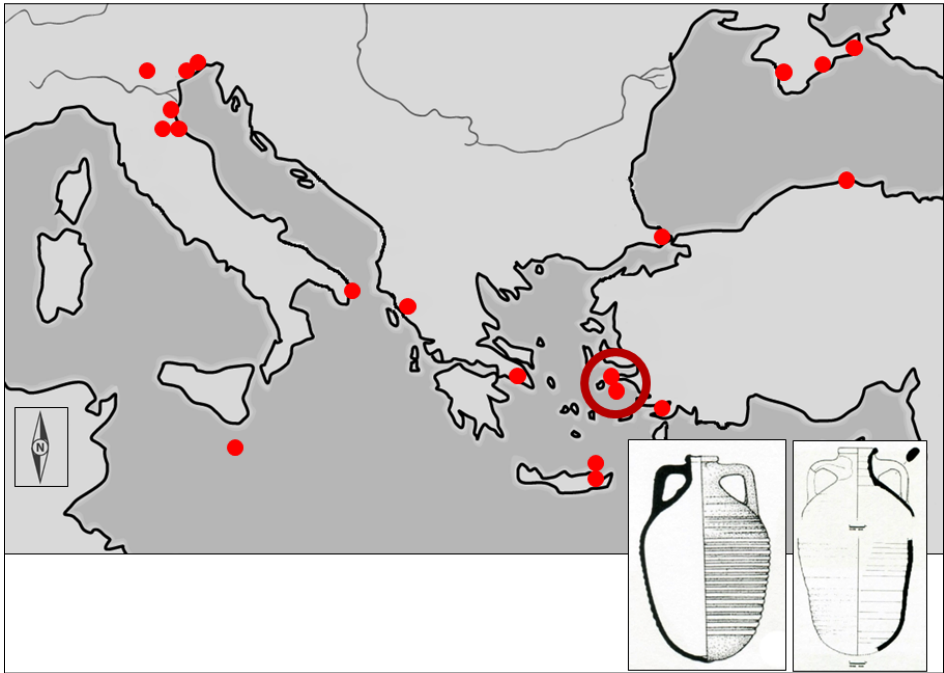


Figure 6. Map of the eastern Mediterranean with similar looking finds of the amphora type 2 from Butrint, but probably of eastern Aegean origin (Islands of Lipsi and Samos; see encircled area) (J. Vroom)

Recently, fabric analyses of amphorae found on Pseira island (near Crete) indicated that the globular amphora type (discussed above as probably manufactured on Lipsi) could also have been produced on the island of Samos (because of its *pate fine a mica*) (Poulou-Papadimtriou, Nodarou 2007, 758). This makes sense because the islands of Lipsi and Samos are known for their good semi-sweet wines, so one can expect the manufacture of Early Byzantine globular amphorae here to transport these wonderful wines along shipping lanes linking these islands with other parts of the Mediterranean (Papavassiliou et al. 2014, 161-2).

## 6 Networks

Determining the relative centrality of this production area in the eastern Aegean, we can distinguish here the distribution of one amphora type and a '1 mode' network of sites in the Mediterranean, where this amphora has been recognized until now (fig. 7). As you can see, we are dealing

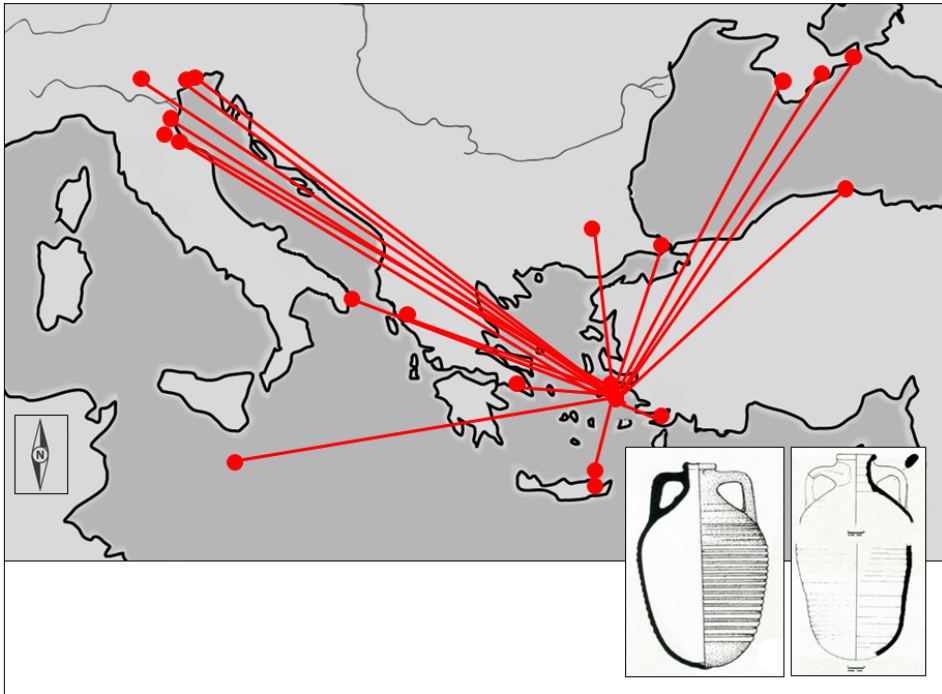


Figure 7. Map of the eastern Mediterranean with network of finds of the amphora type 2 from Butrint, connected to their place of manufacture (Islands of Lipsi and Samos) (J. Vroom)

here mostly with a web of coastal sites, with a clear axis from the eastern Aegean to the Northwest and Northeast (the Adriatic and the Black Sea regions).

Current studies seem to extend the time span of certain amphora types of Late Roman times, which were previously dated to the 7th century into the 8th and 9th centuries (e.g., Reynolds 2003; Bonifay 2005; Vroom 2007, 287-9; 2011b; Negrelli 2007, 454-62). In particular the so-called 'globular amphorae', which were produced in various parts of the Mediterranean, appear to represent the tail end of the large Late Roman industries (Vroom 2005, 60-1). In Italy the break of imports of Oriental and African amphorae did not happen in the 7th century, as is often supposed, but they continued to be imported until the end of the 8th century - as is shown by the presence of globular amphorae of Tyrrhenian and Eastern production at Rome, Naples, in southern Italy, in Sicily and in northern Italy (including various sites in the northern Adriatic arc and the Po Valley as well as in Luni and San Antonino di Pertini in Liguria) (e.g., Arthur 1993; Murialdo 2001, 287-96, fig. 25.6, pls. 17-19; Auriemma, Quiri 2007, fig. 7, pl. 4; Arcifa 2010, figs. 6 and 10c; Ardizzone 2010, figs. 7-9).

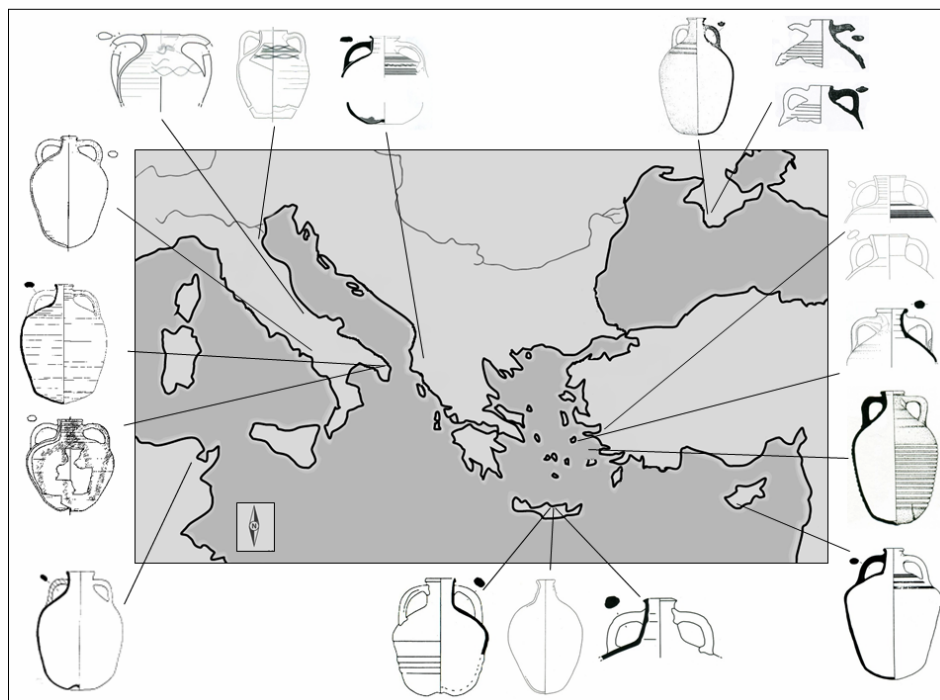


Figure 8. Map of production zones of various types of globular amphorae (including the amphora type 2) in the Mediterranean (J. Vroom)

In addition, excavations in the Adriatic at Comacchio, Venice, San Francesco del Deserto, Classe, Otranto and Butrint yielded imports of 7th- to 9th-century globular amphorae from the eastern Aegean (Bortoletto, Spagnol, Toniolo 2000, 31, nos. 10-11, 35, no. 25; 2007, 98-102, pls. 4a-f, 5a-d with more amphora finds mentioned on various sites in the lagoon of Venice; 2014, 318 middle amphora; Auriemma, Quiri 2007, fig. 4; Negrelli 2007, figs. 21-22; Gelichi, Negrelli 2008, figs. 11-12; Cirelli 2009, fig. 4; Augenti, Cirelli 2010, fig. 17; Gelichi 2010, 153, 156; Vroom 2012a, 370-4; 2012b, figs. 7-8, 12; Negrelli 2012, figs. 5-10 ).

In fig. 8 we see an overview of some main types of these 7th- to 8th-century amphorae in the eastern Mediterranean and their production zones. As such, we are dealing here with a very diverse group of amphorae with very different shapes and fabrics, which were all grouped until now in the category 'globular amphorae'. So, it would be good if we can start dividing the different groups from now on.

But what these different globular amphora types all share is that they were perfect small-sized liquid containers for long-distance transport, as they were probably used for the distribution and consumption of wine or of

oil. Recent organic residue analyzes confirm the presence of wine, or tartaric acid, and of oil (perhaps from olives) on some analysed fragments (Pecci 2009, 40). Some of these transport vessels also contain traces of resins.

Judging from the archaeological material, an intra-regional, cabotage movement of small globular amphorae certainly existed along coastal traffic in the eastern Mediterranean from the 7th to 9th centuries (Vroom 2003, 250-1; 2012a, 370-4). These smaller *amphorae* had less carrying capacity, but facilitated easy handling during short-, medium- and long-distance transport on various means of transfer, and during loading and unloading in minor and less sophisticated coastal harbours (such as Butrint or Comacchio), perhaps by smaller-sized merchant ships of ca. 10-15 m as the ones from the Yenikapı excavations (tab. 1; cf. Pulak 2007, fig. 7; Özsait-Kocabaş 2013, figs. 1, 10, 11; Pulak et al. 2013, table 1, figs. 7 and 17).

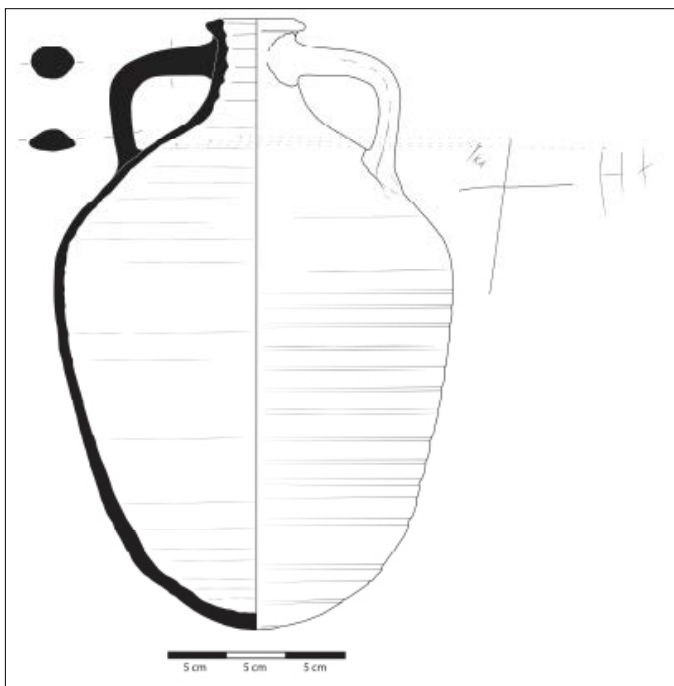
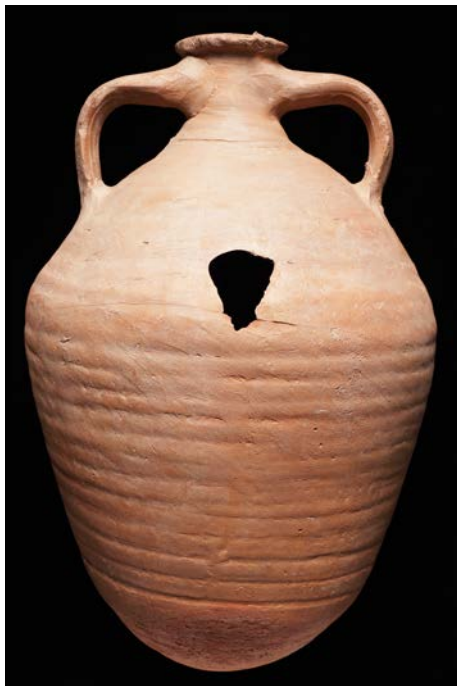
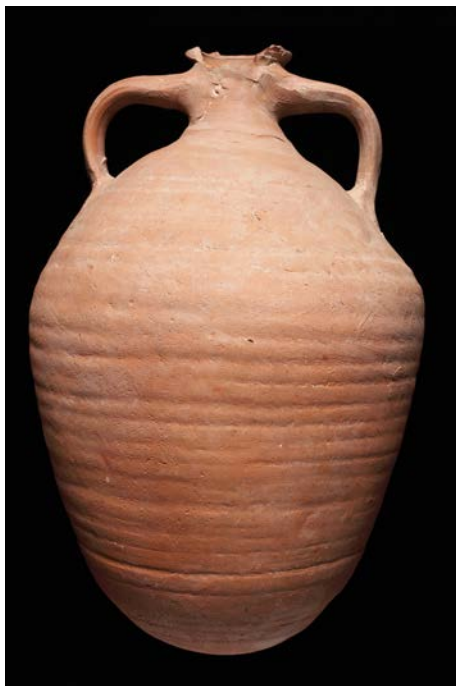
It makes clear that from Late Antiquity onwards, medium- and long-distance cabotage or tramping voyages on smaller, low-status ships carrying amphorae and other commodities (like the ones found at the Yenikapı excavations) were quite prevalent in the eastern Mediterranean (in particular along the eastern Aegean coast) as well as along the Ionian and Dalmatian coasts in the Adriatic Sea region (e.g., Auriemma, Quiri 2007, 42 and fig. 4; Brusić 1980; 2010; Curta 2010, 268 and fig. 1).

## 7 Amphorae From the Bozburun Shipwreck

But let us go back to the amphorae from the Bozburun shipwreck again. The amphorae were allocated by the excavators in four major classes (Hocker 1998b, fig. 3). Unfortunately, these four classes were published in a very schematic drawing until now (with hardly any details of the rims etc.). I was therefore glad to find better pictures and drawings for classes 1 and 2. Nevertheless, the profiles (in particular the rim profiles) of classes 3 and 4 still remain vague. That is a pity, because we can already start to recognize classes 3 and 4 in other analogous looking 9th-century amphorae, such as an example from the site of Emporio on Chios island coming from the reoccupation of the fortress in the 9th century (Boardman 1989, 114-5, fig. 43, no. 281).

Furthermore, I have distinguished a similar looking 9th-century amphora of the Bozburun 'class 4' in the storage rooms in Ephesus, western Turkey (figs. 9 a-c; cf. Hocker 1998b, fig. 3 right amphora). Apparently, this last vessel came from the excavations in *Hanghaus 2* (or 'terrace house 2') in the ancient city centre of Ephesus (on the label was written 'HH 81/202, FN 29/81, upper Stratum, Einheit 7').

The amphora found in Ephesus is made in a hard, fine, orange fabric (exterior: 2.5 YR 6/6; core: 2.5 YR 5/6), with some fine white quartz, some fine limestone and many tiny black-brown mineral inclusions. The vessel



Figures 9a-c.  
Drawing and picture  
of a globular amphora  
found in ancient  
Ephesus  
(J. Vroom, N. Gail and  
P. Doeve)

is smoothed on the exterior surface, but has no slip or ridging. Its shoulder is on one side incised with Greek *graffiti* (fig. 9c detail). These last ones can be marks of potters, of workshops, of merchants, of contents or indications of customs control.

The shape of this amphora has a broad body, an everted rim and a vertical narrow neck, which is ribbed on the inside. It shows some similarities with an amphora found in Chersonesos in the Crimea, although the handles seem to be different. The Crimean one was dated in the first half of the 9th century (Sazanov 1997, fig. 2, no. 24.2; see also Romanchuk, Sazanov, Sedikova 1995, 130-1, nos. 91, 92, 94, characterized as their 'class 24').

Furthermore, its upper part and angular upright handles seem to be especially corresponding to an amphora type (known as 'type 41') found in deposit 35 in the excavations at Saraçhane in Istanbul, which can be dated in the late 8th to early 9th centuries (Hayes 1992, 177, fig. 57, no. 27).

## 8 Routes

In our search for Mediterranean networks, we can distinguish between interactions of roads on land and routes by ship (fig. 10). Because of the cost, length and attractiveness of connections (due to the natural environment), there are several options of optimal paths over land and on sea. Let us start with the maritime network on the Black Sea first (shown in fig. 10 in purple). Although the Black Sea was known as a hazardous water to navigate, the exchange of goods in the region was based on seafaring throughout the centuries (securely attested from the Iron Age to Ottoman times and beyond). It is therefore important to note that the area around Amasra and Sinop is situated near the point where the western, anti-clockwise Black Sea current trends northwards, and facilitates a swift crossing of the Black Sea to the Crimea, and from there to Romania, Bulgaria and back to the Bosphorus (Vroom 2015, 374).

The maritime networks between Constantinople to Durrës (modern Durrës) – and then to Butrint – by sea have three possibilities: the fastest track (shown in fig. 10 in blue) was along the eastern Aegean coast, crossing the Aegean to Isthmia, through the Corinthian Gulf and along the Ionian islands up to Butrint and Durrës. It took in summer (July) 14.1 days, covering 1,838 km (see ORBIS). The cheapest journey (shown in fig. 10 in green) was again along the eastern Aegean, crossing the Aegean, but then went along the Peloponnesus, and then up to the Ionian islands to Butrint and Durrës. This alternative journey was cheaper but longer: it took 16.4 days and covered 2,173 km (see ORBIS). The shortest journey (shown in fig. 10 in red), took the Via Egnatia over land, while passing Thessaloniki in order to go Durrës and then to the south to Butrint. It took only 984 km to go to Durrës, but was with 32.2 days much longer than the two maritime ones (see ORBIS).



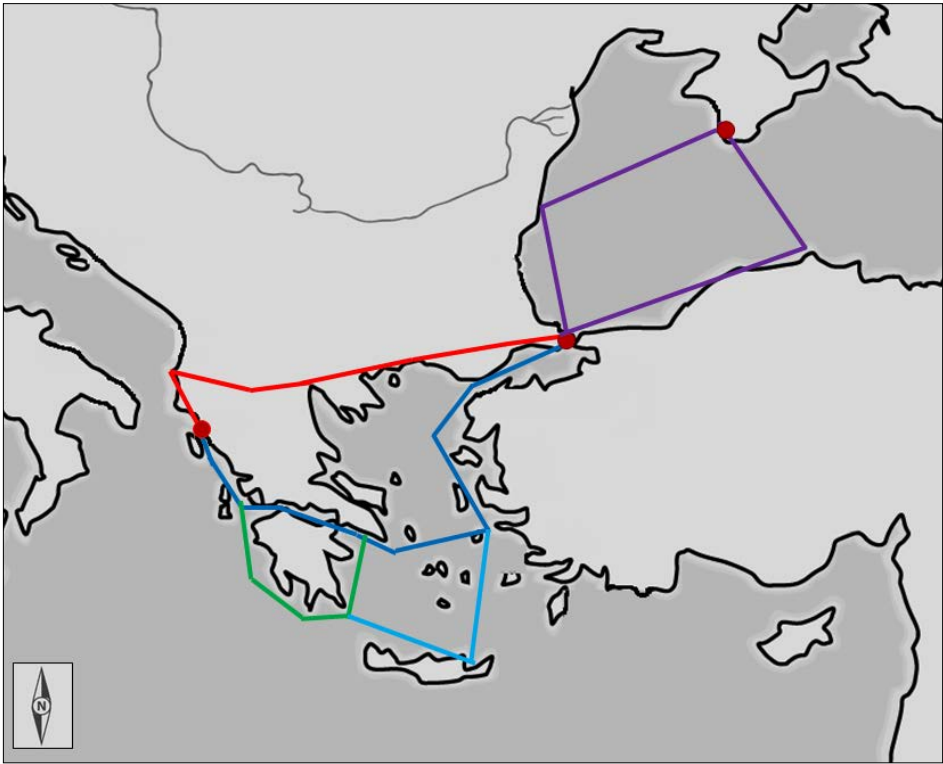


Figure 10. Map of the eastern Mediterranean with four marked routes: purple = Black Sea maritime route; blue = fastest sea track between Constantinople and Durrës; green = cheapest sea route between Constantinople and Durrës; light blue = deviation to Crete; red = shortest route over land between Constantinople and Durrës (J. Vroom)

So, after the collapse of some maritime commercial activities in the 7th century goods could have been moved via state-directed transportation by land. However, because of the poor condition of many roads in the Byzantine Empire transportation by carts was difficult and large ceramic storage jars such as amphorae must have been less easily manageable on mules and donkeys (Vroom 2003, 249; 2011, 148). It is, therefore, possible that the disappearance of certain amphora types from certain parts of the Mediterranean reflected not only changes in patterns of exchange and export/import of goods, but also changes in the mode of their transportation (and the costs involved).

## 9 Conclusion

Summarizing, I would like to conclude that during the 7th to 9th centuries the southern Adriatic was clearly linked politically, commercially and culturally with the Byzantine world. The pottery finds on both shores (that is to say, of Butrint and Otranto) have many similarities with ceramics from Calabria, Basilicata and Campania in the West, as well as with ceramics from Mainland Greece, Constantinople/Istanbul, the Eastern Aegean and the Black Sea in the East.

In the case of Butrint, for instance, most imports were supplied by both the western and eastern halves of the Byzantine Empire. Apparently, there were during the 8th and 9th centuries more inter-regional (long-distance) cabotage or tramping voyages on small low-status ships (as the ones found at the recent Yenikapı excavations in Istanbul) in the eastern Mediterranean and in the Adriatic than were previously known. Nevertheless, there is as yet no ceramic evidence in the southern Adriatic for long-distance movements of large quantities of wares, nor for goods from further away the Adriatic Sea area and the Aegean (let us say, from sites in the Near East).

The important role played by the Byzantine State in an fiscally-driven economy not only affected the production and distribution of goods in the Aegean, but also their transport and consumption. Apparently, the Byzantine State (that is to say, the army and administration) and private households (the political and ecclesiastical elite) in Constantinople/Istanbul – as well as in remaining urban centres in the provinces – asked for goods (specifically good semi-sweet wines from the eastern Aegean) from sometimes considerable distances, which could vary between ca. 1,000 and 2,200 km depending on a shorter or cheaper journey to the southern Adriatic region.

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