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ERKAN DÜNDAR

The First Evaluation on the Distribution of Commercial Amphoras from Lycia in the Pre-Roman Period

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The First Evaluation on the Distribution of Commercial Amphoras from Lycia in the Pre-Roman Period

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Anahtar sözcükler: Amphora, Mühürlü amphora kulpları, Lykia, Roma Dönemi öncesi, Ticaret

Introduction

The coastline of Lycia provides an important shipping corridor between the Eastern Mediterranean and the Aegean region[1] from the 14th c. B.C. onward if not before, as is shown by the Ulu Burun[2] and Gelidonya[3] shipwrecks. The artefacts found in these shipwrecks revealed important information about both the ports and the routes of these ships. In addition to these early shipwrecks, the Kekova Island shipwreck dates from the Archaic period and indicates that Kekova was an important place for passing ships and sailors at this time[4]. Although there are hazards in sailing along this coastline within sight of land, the Lycian coast provides numerous coves and sheltered anchorages that facilitate coastal navigation[5]. These anchorages also provide access to fresh water and foodstuffs. In spite of this region's importance through history, however, its maritime commercial relations have remained largely unexamined, especially in the first millennium B.C.

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Sources of illustrations: *Fig. 1. 2. 7. 9. 10. 13–17. 19. 21–25* = E. Dündar. – *Fig. 3* = Metzger 1972, pl. 25, 111. – *Fig. 4* = Yener-Marksteiner 2007, fig. 2 (d). – *Fig. 5* = Lemaître 2007, fig. 3, 1. – *Fig. 6* = Lemaître 2006, fig. 5. – *Fig. 8* = Mader 1996, fig. 38, 135. – *Fig. 11* = Gebauer 2007, pl. 7, 79. – *Fig. 12* = Özoral 1977, fig. 19. – *Fig. 18* = Rückert 2008, pl. 20 F 1959. – *Fig. 20* = Demargne 1958, pl. 21, 1860.

1 For the location of the Lycian region on the maritime trade routes see Davis 2009, 79. 220; Arnaud 2005, 215–216. For the Mediterranean routes in antiquity see Gelsdorf 1994.

2 Bass *et al.* 1984.

3 Bass 1967.

4 Pulak 1998, 313; Greene *et al.* 2011, 60–65.

5 Concerning this subject see Keen 1993, 72; Zimmermann 1992b; Davis 2009, 78–81. On climate conditions and sea travel see Tammuz 2005, 151–155.



Fig. 1 The Lycian region with the ancient cites and shipwrecks mentioned in the text

Overview of the Amphoras from the Region

In addition to the limited quantity of data from the Lycian region, there is often also a lack of stratigraphical context for dating the finds, due to the fact that a large number of them have been found on the surface (*Fig. 1*).

So far, the earliest known amphora from Lycia was found in Patara. It consists of a rim fragment of a Chian amphora dated to 650–620 B.C., it differs from the early Chian series which has a white slip and a white painted band; the example from Patara is not slipped and not decorated with painted bands[6]. In addition to this amphora found at Patara, there is a bottom fragment of a Clazomenaian amphora dated to 630–600 B.C. which is among the earliest examples uncovered in this region (*Fig. 2*)[7]. Besides these earliest findings, amphoras were found in the Kekova Island Wreck, providing important data for early periods, even though they do not come from an excavated settlement in Lycia. Cypro-Levantine basket-handle amphoras, Milesian, Samian and Corinthian Type A amphoras are amongst this shipwreck's cargo dating to the 7th c. B.C. These finds are important sources of evidence concerning the early periods indicating that the sea route around Lycia was employed during the Iron Age as well as during the Late Bronze Age[8].

6 Dündar 2012a, 24. 434 pl. 13 KhiA1.
7 Dündar 2012a, 443 pl. 18 KlaA.1.
8 Pulak 1998, 313 fig. 8; Greene *et al.* 2011, 62–64 figs. 4–6.



Fig. 2 The base fragment of a Clazomenaian amphora from Patara

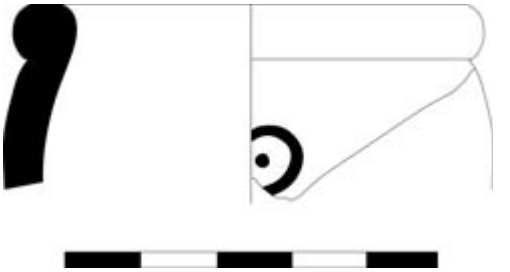

Fig. 4 Chian amphora from Xanthus



Fig. 3 Chian amphora from Xanthus

More information concerning the distribution of commercial amphoras is available in Lycia from the 6th c. B.C. onwards. Until today, the only complete amphora was found at Xanthus dating from the 7th c. to the middle of the 5th c. B.C. This example consists of a white slip Chian amphora dating from before 550 B.C. (*Fig. 3*)[9]. This example is dating to the period 575–550/525 B.C. in the classification of commercial amphoras in the study by Y. Sezgin on the production of Archaic Ionian amphoras, which were analysed within the group »Khi3«[10]. This earliest example is followed by a number of finds of rim sherds from amphoras from Xanthus. These Chian rim sherds are of the »bulging-neck« type and have been dated to the 5th c. B.C. (*Fig. 4*)[11].

The Xanthian findings dating from the 6th c. B.C. onward are followed by those from Letoon. An amphora sherd has been dated to the end of the 6th c. B.C. by S. Lemaître (*Fig. 5*)[12]. This same sherd of the »Kla7« group has been dated to the second half of the 6th c. B.C. by Y. Sezgin[13]. While a rim/neck sherd belonging to a Chian amphora found at Letoon (*Fig. 6*)[14] can be dated between 550–520/500

9 Metzger 1972, 69–70 pl. 25 no. 111.
10 Sezgin 2012, 98–101. 130 Khi3.01.
11 Yener-Marksteiner 2007, 217–218. 222 fig. 2d.
12 Lemaître 2006, 396 fig. 3; Lemaître 2007, 134 fig. 14 no. 1.
13 Sezgin 2012, 48–55.
14 Lemaître 2006, 396 fig. 5.

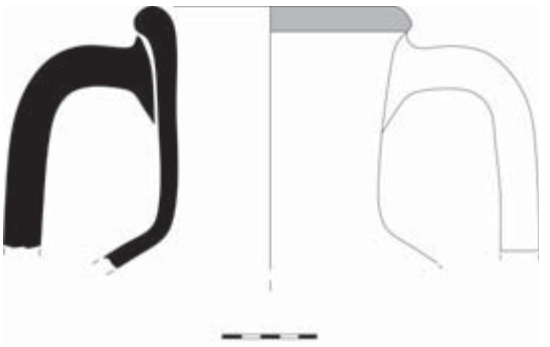

Fig. 5 Clazomenaian amphora from Letoon



Fig. 6 Chian amphora from Letoon



Fig. 7 Chian amphora from Patara



Fig. 8 Chian amphora from Kyaneai



Fig. 9 The base fragment of a Coan amphora from Patara

B.C., it is classified as »funnel-necked« by I. B. Zeest[15], »Type A1« by M. Lambrino[16], »Khia4-Khi5« by E. Doğer and Y. Sezgin[17] and sometimes as »spindle-shaped«[18].

Bulging-neck and rim sherds belonging to Chian amphoras form the largest group unearthed from this region and have been dated to the period from the end of the 6th c. to the third quarter of the 5th c. B.C. (*Fig. 7*). Published examples of these are known from Patara[19], Xanthus[20] and Letoon[21]. A find of a rim sherd from Kyaneai (*Fig. 8*) can be understood as forming part of a Chian amphora rim which can be dated to 480–440 B.C. of a form classified as C/2 by U. Knigge[22]. A lower body sherd from Xanthus may be of

15 Zeest 1960, 16. 139 pl. 3 no. 10b.
16 Lambrino 1938, 110–112 figs. 71–72.
17 Doğer 1988; Sezgin 2012, 101–107.
18 Oren 1984, 24.
19 Dündar 2012a, 18–33 pls. 13–17.
20 Yener-Marksteiner 2007, 87–88 fig. 6 nos. 1–4.
21 Lemaître 2006, 396 fig. 4; Lemaître 2007, 134 fig. 14 nos. 3–4.
22 Knigge 1976, 23.

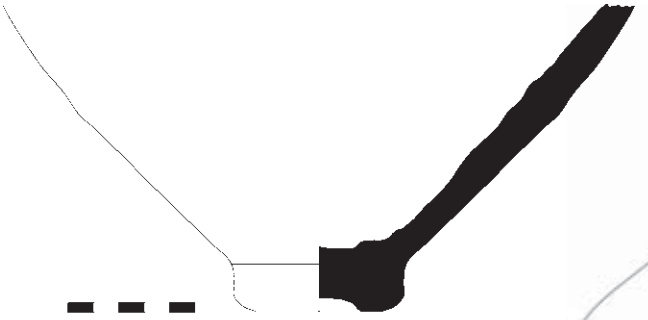

Fig. 10 The base fragment of a Thasian amphora from Patara

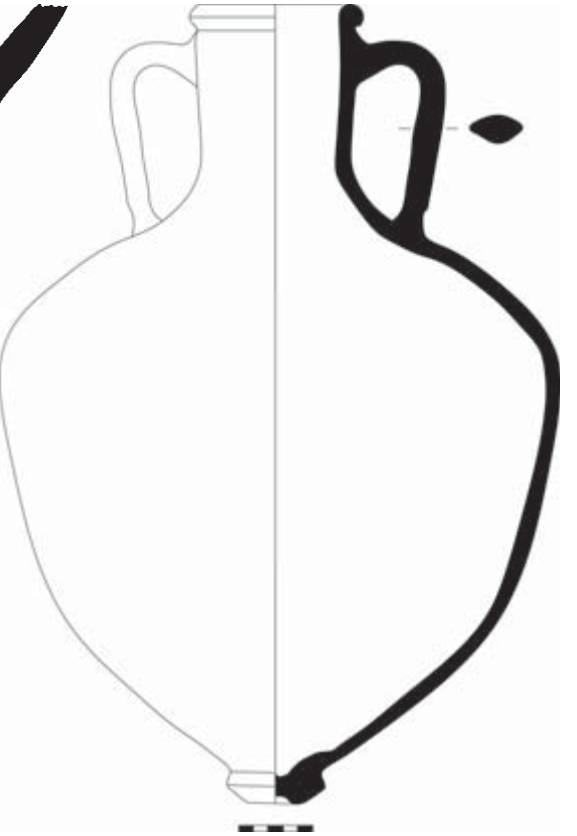

Fig. 11 5th c. B.C. amphora from Limyra

Western Anatolian origin due to its pattern, but should belong to the Chian straight-neck type amphora dated to ca. 425 B.C.[23].

A general reduction in the number of ceramics and other small artefacts can be observed throughout the region in the mid of the 5th c. B.C.[24]. Although it is speculative at the current state of evidence, this situation seems also applicable for the commercial amphoras[25]. Regarding this, with the exception of a small number of Chian amphoras mentioned above, at the moment most of the knowledge concerning this matter comes from Patara. In this period only a small number of Thasos, Corinth B and Coan amphoras are known from this city (*Figs. 9–10*)[26]. A complete amphora from Limyra has been dated to 450–400 B.C. by J. Gebauer, based on morphological features on the study of Limyran ceramics (*Fig. 11*). However, this amphora has not been conclusively associated with any place of production[27].

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23 Yener-Marksteiner 2007, 87–88 fig. 6 no. 5.

24 A similar drop in the quantity of amphoras is seen along the coast of Asia Minor further north from this region. There are few publications about the ceramics and amphoras especially from the 5th c. B.C. in Lycia. However, this numerical reduction in ceramics and particularly amphora sherds has been supported by the information obtained from excavations carried out in Patara, Tlos, Rhodiapolis, Myra, Andriake and Arycanda, in addition to the limited publications on the subject from Xanthus, Limyra and Letoon. This situation can be seen at the Tepecik Acropolis at Patara where excavations have been carried out for nearly eleven years. Considering the scarcity of the 5th and 4th c. B.C. ceramic sherds, particularly of the red figure ones, it is remarkable that they have been found in the excavations mentioned above. An article on the ceramic sherds which were found in the Tepecik Acropolis at Patara, dating from the 5th and 4th c. B.C. is being prepared for publication by the author.

25 Due firstly to the lack of a complete excavation of an entire city or major settlement in Lycia, hence if this was a genuine reduction, or due only to the present insufficiency of evidence. Secondly, because to some degree the dating of the end of Archaic period ceramics and the start of Classical ceramics may have introduced this lacunae.

26 Dündar 2012a, 46–56. 59–62.

27 Gebauer 2007, 57. 65. 72 pl. 7 no. 79 for comparative examples see in particular no. 84.



Fig. 12 An amphora was used for a cremation burial from Ağva.



Fig. 13 Lycian amphora from Patara (Inv. No. PTR'13-348)

In addition to this information, interesting data has been obtained from the necropolis near the Ağva village of the present-day Kemer in eastern Lycia[28]. In this necropolis, a large number of amphoras were used for cremation burials. The ashes and bone remains were placed into the amphoras by breaking off a part of the shoulder, and then covering these broken sections and the rims with a piece from another amphora (*Fig. 12*). It was assumed by the excavator that these commercial amphoras have been in use between the 6th and the 3rd c. B.C.[29]. But accurate conclusions on the origins of these amphoras cannot be obtained because of the lack of drawings and detailed photographs in the publication. However, both from the findings in the necropolis and the body forms of these amphoras it is possible to date this lot from the end of the 6th to the early 4th c. B.C.

A new type of amphora has been identified at recent studies, possibly produced in local workshops in the Lycian region, which has enabled new remarks concerning the commerce of the region about which we have no further information from the 4th c. B.C. (*Fig. 13*). The form of the base, rim and neck of this new amphora type resembles those of North Aegean origin. An everted triangular-shaped stepless rim is seen as a common rim form that was especially employed in Mendean amphoras dated to the 4th c. B.C., but in many respects there are differences to that group. However, the handle forms are similar to Cyprian amphoras dated to the 3rd c. B.C. This new type of amphora has both differences and similarities with amphora forms produced in different production centres in the North Aegean and Cyprus, such as the extended slanting rim, the cylindrical neck widening towards the shoulders, the oval profile handles extending from below the rim to the middle of the shoulder. The broad shoulder and the conical body narrows towards the foot, the foot in the form of a handle carries red paint on its lowest edge and protrudes from the middle of the base. Two important distinguishing features are the omphalos form of the recessed base with its raised central point and the surrounding strip of paint (2.5 YR 5/6 red to 7.5 YR 5/3 brown) (*Fig. 14*). There has been no stamped example of this type found to date. Some examples, especially in the upper parts, are decorated with a thick dark brown slip (*Fig. 15*). The fabric is usually hard-fired, of a fine texture with sand, lime and mica inclusions and small lime additions, and sometimes mica is visible on the surface[30]. This new type of amphora form called the »Lycian Amphora« has been found at Patara[31], Limyra[32], Rhodiapolis[33] and Avşar Tepesi (Zagaba)[34] in the Lycian region. However, this new type has also been found beyond this region at Kelenderis[35], Side[36], in the Karaçallı Necropolis near Perge[37], at Ephesus[38]

28 Özoral 1977, 91–121.

29 Özoral 1977, 93.

30 Dündar 2012b, 47–50. Archaeometric analyses have been conducted on all samples of the form recovered at Patara in order to identify a likely production centre. Rock samples were obtained from eight different areas in Lycia in order to determine any likely matches with the petrological results of the analysis. The analysis of the amphora samples indicates that they were all manufactured from a homogeneous clay mix, suggesting that they were produced at a single centre. For detailed information concerning the archaeometric analyses see Dündar – Akyol forthcoming.

31 Dündar 2012a, 62–70 pls. 23–25.

32 J. Gebauer (pers. comm.).

33 İ. Kızgut (pers. comm.).

34 Rückert 2000, 115. 135 fig. 40 no. 66 A 3244.

35 Zoroğlu *et al.* 2009, 38. 47 fig. 4 no. 24.

36 Dündar 2012b, 47–50.

37 Çokay-Kepçe 2006, 145 TA 2.

38 Lawall 2006, 305 pl. 35 no. 228.



Fig. 14 Base fragments of the Lycian amphoras from Patara



Fig. 15 Dark brown slipped upper part of the Lycian amphora from Patara

and Tell el-Herr in the north of Egypt[39]. In addition to these examples, there is an amphora of this type from an unknown find spot, displayed today in the Mersin Museum (*Fig. 16*)[40].

[39] Defernez 2007, 595. 615 fig. 12 no. 32.

[40] This amphora was purchased by the Mersin Museum and was not a legally excavated find, therefore it lacks any stratigraphical context provided by scientific excavation; see Kerem 1999, 88 pl. 84. 146 cat. 47; Şenol – Kerem 2000,



Fig. 16 Distribution of the Lycian amphoras

In addition to the above-mentioned amphora types it is known that the diversity of amphora types had increased in Lycia from the 4th c. B.C. A part of a handle from a Corinth B amphora found at Kyaneai[41], a base fragment belonging to a southern Aegean mushroom rimmed amphora from Korba[42], a base fragment belonging to a Cnidian amphora from Avşar Tepesi[43] and Chian, Lesbian, Corinth Type B, Thasos, Mende, Coan, Cnidus, Rhodes, Cyprus and southern Aegean mushroom rimmed amphoras (*Fig. 17*), all of which were found in Patara[44], have been dated to the 4th and 3rd c. B.C.

102 pl. 19 no. 28. For more information about the Lycian amphoras see Dündar 2012b, 47–50. For the development of the form and archaeometric analysis of Lycian amphoras see Dündar forthcoming.

41 Mader 1996, 96 fig. 38 no. 135.

42 Rückert 2003, 114. 129 fig. 36.4 F 3944.

43 Rückert 2000, 117. 135 fig. 40 pl. 22 no. 3 F 2798.

44 Dündar 2012a, 18–33. 36–41. 46–78. A comprehensive study about the Pataran examples is being prepared for publication by the author.



Fig. 17 Rhodian mushroom rimmed amphora from Patara



Fig. 18 Stamped Rhodian handle from Trysa

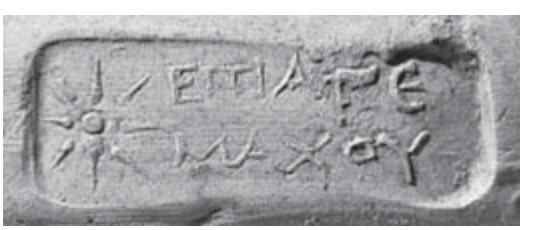

Fig. 19 The stamp of the eponym Agemachos from Patara

The Rhodian amphoras are found in great numbers in the region from the middle of the 3rd c. B.C. onwards[45]. A stamped Rhodian amphora handle found in Trysa carrying a two line inscription, the first line legible and reading Aἰνη[.....], was previously unidentified and had been dated to the Hellenistic period (*Fig. 18*)[46]. The name on this stamp is possibly to be completed as Aἰνη[σίδαμος] who served as an eponym ca. 245 B.C. (Period Ic)[47]. Together with this find, large numbers of unreadable stamps are known from finds from this region[48]. These examples can be dated to the 2nd c. B.C. from the profiles of the handles found at Kyaneai (Yavu)[49], Divle[50], Korba[51], Hoyran[52] and Kızılovacık[53] in the central highland Lycia and centres such as Xanthus[54], Tlos[55], Antiphellos[56], Dolichiste (Kekova Island)[57],

45 There are difficulties in listing names especially of Rhodian stamps due to the fact there are no detailed studies on the uncovered stamped amphora handles from Lycia. This information is based on the personal communications with the scholars active on the excavation sites.

46 Rückert 2008, 100 pl. 20 F 1959.

47 For the eponyms of Period I see Finkielsztejn 2001, 94 Table 2.

48 For these stamps see Rückert 2003, 114. 117 pl. 18 no. 2; pl. 19 nos. 4–5; Rückert 2008, 73–74 fig. 7 no. 105; Rückert 2008, pls. 19–21 F 6130, F 2902, F 3935, F 1958, F 4419, F 9093, F 5493, F 10919, F 10649.

49 Rückert 2008, 99 pl. 19 F 6130; Kolb 2008, 352–353 fig. 403.

50 Rückert 2008, 99 pl. 20 F 9093.

51 Rückert 2008, 100 pl. 19 F 2902.

52 Rückert 2003, 117. 130 pl. 19 no. 5 F 4419; fig. 37 F 4769; Rückert 2008, 101 pl. 47 F 4769.

53 Rückert 2008, 102 pl. 21 F 10919.

54 Rocheron 2008, 372.

55 K. Sezgin (pers. comm.).

56 Numerous Rhodian stamped handles dating from the 2nd c. B.C. which were found in the Hellenistic Temple at Antiphellos (Kaş) in the excavations conducted by the Antalya Museum Directorate in 2012 have been prepared for publication by the author.

57 Aslan 2011, 111 pl. 83 no. 2.



Fig. 20 Rhodian amphora from Xanthus



Fig. 21 Cnidian amphora from Patara

Arykanda[58], Andriake[59] and Rhodiapolis[60]. Furthermore a large number of stamped Rhodian handles are known from Patara (*Fig. 19*)[61]. In addition to these stamped Rhodian handles, there are also base fragments amongst the amphora finds dated to the 2nd c. B.C.[62]. The only whole example from Lycia published to date, was found at Xanthus (*Fig. 20*). This example can be dated to between 85 and 40 B.C. from the name of the eponym Lysistratos stamped on the handle[63].

Next to the majority of Rhodian amphora finds dating from the 2nd c. B.C. found in Lycia, there are also examples from other centres. These include fragments of Cnidian amphoras which form the second largest group after those from Rhodes (*Fig. 21*). These examples are particularly

58 Bayburtluoğlu 2003, 30.
59 B. Özdilek (pers. comm.).
60 İ. Kızgut and E. Akalın (pers. comm.).
61 Dündar 2012a, 99–316.
62 Rückert 2003, 115 pl. 18 no. 5 F 3384; Lemaître 2006, 396 fig. 6.
63 For Lysistratos dated to the Period VIIa see Finkielsztejn 2001, 162 tab. 15.

Cities / Places — Amphora Types	Chios	Clazomenai	Cnidos	Corinth A-B	Cos	Cyprus	Lycia	Miletos	Mende	Mushroom Mouthed	Nikandros Group	Rhodes	Samos-Zeest/ Samos	Thasos
Ağva Necropolis					?		?		?					?
Andriake			×									×		
Antiphellos												×		
Arycanda												×		
Avşar Tepesi			×				×							
Dolichiste (Kekova Island)												×		
Hoyran												×		
Kekova Island Shipwreck				×		×		×					×	
Korba										×		×		
Kyaneai			×	×								×		
Letoon	×	×	×											
Limyra							×							
Patara	×	×	×	×	×	×	×		×	×	×	×	×	×
Phaselis					×									
Rhodiapolis							×					×		
Tlos												×		
Trysa												×		
Xanthus	×		×		×							×		

Fig. 22 The table shows the distribution of amphora types according to the cities/places in Lycia.

found at Patara[64], Kyaneai[65], Xanthus[66] and Letoon[67] and have been dated to the 2nd and 1st c. B.C. Some few Coan amphora sherds are also known from the cities of Patara[68], Xanthus[69] and Phaselis[70] besides those from Rhodes and Cnidus.

The stamps of Chian, Thasian, Cypriot and the Nikandros group are known today only from Patara, as well as the Samos-Zeest/Samos (or Ionia. β), Mende and Nikandros amphoras found in different areas of Lycia[71]. The types of amphoras and stamps found in Patara, one of the main ports of the Lycian region, are associated with detailed studies on this subject[72]. Regarding the amphora types and stamps, it is highly probable that they will also be found at other sites in the region; their present absence from the record is in part due to the duration of excavations at Patara and work concerning the ceramic finds. Looking generally at the commercial amphoras and stamped handles from the Archaic, Classical and Hellenistic periods found in the Lycian region using the finds from Patara as a point of reference, it seems probable that the typology and chronology published to date – admittedly of a limited number of examples – would seem to parallel the finds from Patara in these periods (*Fig. 22*). The evidence provided by finds of commercial amphoras and stamps has confirmed the trade relations of Lycia associated with the

64 Dündar 2012a, 70–73.
65 Mader 1996, 96 fig. 38 no. 128.
66 Rocheron 2008, 372.
67 Lemaître 2006, 396 fig. 6.
68 Dündar 2012a, 59–62 pls. 22–23 KosA. 1–15.
69 Lemaître 2006, 396 fig. 6.
70 M. Arslan and N. Tüner-Önen (pers. comm.).
71 Concerning this subject see Dündar 2012a, 387–403.
72 For the stamped amphora found in Patara see Dündar 2012a, 94–408 for the list of eponyms and fabricants 481–484. 488–490; see also Dündar forthcoming.

political and economic history of the region. These materials need to be related to the historical events that affected the whole region, although the historical information from written sources is insufficient for earlier periods. In this respect the Persian invasion from 546–544 B.C.[73], the Peace of Callias in 449/8 B.C.[74], the Satrap revolt of ca. 370 B.C. in which Pericle, dynast of Limyra, participated as well[75], Alexander the Great passing through the region in the winter of 334/3 B.C.[76], the revolt of all Lycia against Rhodes in 188–186 B.C.[77] and Lycia's independence with the decision taken by the Senate of Rome which brought the Rhodian dominance of the region to an end in 167 B.C.[78] are important.

Interpretation of the Amphora Data in Historical Context and Agricultural Conditions

Only a small number of commercial amphoras were found in the region dating from the Archaic period, especially from the end of the 7th c. B.C. In the context of a basic account of the number of fragments and amphora stamps found at the Lycian sites, the relative increase in imported amphoras from the second half of the 6th c. B.C. onward is remarkable. This situation could indicate significant political activity in the region at this time. In this respect, it seems reasonable to suggest that the Persian invasion in 546–544 B.C. and their control which lasted more than two centuries made a positive contribution to the commercial life of the region[79]. During the Persian rule in western Anatolia following the collapse of the Lydian power many things changed. Despite the Ionians building large-scale sculptures and temples in western Anatolia and establishing trade colonies on the shores of the Black Sea from the 7th c. B.C. onward, it is known that the subsequent economical weakening of the western Anatolian cities which were torn between the Persians and the Delian League during the 6th and 5th c. B.C.[80] resulted in the cessation of monumental building projects[81]. In the light of the evidence provided by the tombs constructed in this period, such as the Harpy and Nereid monuments at Xanthus, the Heroon of Pericle in Limyra and the unique monumental rock-cut tombs of Lycia which were constructed under Persian domination[82], this situation is not applicable to Lycia. In this respect, it

73 Hdt. 1, 176.

74 Plut. Cim. 13, 5. For the discussions about the reality of the Peace of Callias see Mattingly 1965; Eddy 1970; Murison 1971; Badian 1987; Bosworth 1990.

75 Diod. 16, 74. For comprehensive accounts and interpretations of the revolt of the Satraps see Childs 1981, 73–76; Bryce 1986, 113–114; Keen 1998, 171–174.

76 Arr. an. 1, 24, 4.

77 Pol. 25, 5. For detailed information concerning the revolt against the domination of Rhodes and Rhodian domination within Lycia see Bresson 1999, 106–109.

78 Strab. 14, 3, 3. On the Lycian League see also Magie 1950, 524; Behrwald 2000, 105–115.

79 See Zahle 1991, 152–153; Foss 1993, 8. For the gradual evolution of a recognizable administrative organization in Lycia along with the beginning of Persian rule see Bryce 1983, 33. Isokr. or. 4,161, in the 4th c. B.C., went so far as to say that Lycia had never been subdued by the Persians.

80 Balcer 1991, 57; Gezgin 1997, 143.

81 Murray 1993, 234, for the commercial decline of Ionians see especially 258; Özkan-Kılıç 2011, 57. 64 no. 18. About the enforcements that would press Ionian cities economically after submission to the Persian rule see Hdt. 7, 21, 2. However, some short-term economic relaxation had been noted in Western Anatolia despite the Persian rule, see Balcer 1995, 161–163.

82 Zahle 1983; Bruns-Özgan 1987; Zahle 1991, 150–152; Borchhardt 1980, 7.

seems possible to assume that unlike in western Anatolia the Persian rule had a positive impact on trade in economic terms. The increase in black figured pottery, Ionian pottery (Fikellura, Wild Goat Style etc.) and bulging-necked Chian amphoras dating from the last quarter of the 6th c. to the beginning of the 5th c. B.C. supports this supposition along with the numerous finds from the cities of the Xanthian Valley[83]. The degree of collaboration between members of the Lycian ruling elites and the Persians[84], profitable Lycian mercenary activity and profitable Lycian piracy, together with timber felling and its export seem possible reasons for the different attitude towards the Persians, although further research is need to be done to clarify this matter.

Looking at the general picture, commercial amphoras are known today only from Patara, Xanthus and Letoon, all of which are dating from the Archaic period (*Fig. 23*). But it can be expected that future studies will widen the distribution area of Archaic amphoras in the region. However, amphoras, being clear evidence for trade and known today only from these three cities in the Xanthian Valley, surely also indicate that the arrival of the Persians invigorated the commercial relations in central and western Lycia.

The finds of commercial amphoras from Lycia decrease numerically for the Classical period on. The presence of a new amphora type, probably of local production, raises new questions and suggestions concerning the commercial activity of the region during this period. It seems possible that this may have been a case of import substitution of amphoras.

From the amphoras dating to the Archaic period found in Lycia it can be understood that wine was largely imported from abroad. This is also valid for the Classical period. The near absence of southern Aegean and Cypriot amphoras in the region might indicate that the olive oil requirement of the population was supplied from the region during the Classical as well as the Archaic period. This region of Anatolia (Pamphylia and especially Lycia) with its export-oriented production is known from earlier periods, especially through the olive oil presses on Bonda Hill, Yavu and Istlata in Lycia. The workshops at the tower farmhouses of Sura, Gürses and Köşkerler, dating from the early Hellenistic period, support this opinion[85]. During the surveys conducted by F. Kolb ancient olive terraces were recorded that covered large areas of this mountainous region which especially in Yavu-Hoyran and its environs were not suitable for grain farming. The study concerning these terraces of olive trees indicates that olive oil was a very important income source for the people of this region and that quality and intensive olive oil production took place in addition to the local consumption reported by F. Kolb[86].

Olive oil production in the Lycian region is therefore known through its numerous ancient terraces opened up for olive trees and workshops. The production of olive oil exceeded the local consumption of the population and increased in the Late Classical period[87] and this surplus production doubtless was exported out of the region. Today, there is a lack of archaeological data relating to the export traffic from Lycia except for the workshops and presses mentioned above. In this regard, it can be understood that this new type of amphora, contemporary with

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83 Metzger 1972, 40–58; Lemaître 2007, 133–134 fig. 14; Yener-Marksteiner 2007, 87–88 fig. 6; Işın 2010, 100. 103 fig. 15; Acar 2011; Dündar 2012a, 18–33; Dündar 2013, 205–231.

84 Bryce 1986, 101.

85 For Bonda Hill and its workshops see Konecny 1998, 123–194. For the workshops and tower farmhouses see Konecny 1997, 15–17. 26–32; Kolb 2008, 306–313. For other late workshops in southwest Anatolia see Diler 1994, 505–511.

86 Kolb 2008, 310–312.

87 Konecny 1998, 146–147; Kolb 2008, 310–312.



Fig. 23 Distribution of amphoras from the Archaic period in Lycia

these workshops seems likely to have been employed as a container for the export of this surplus olive oil, as well as of other locally available commodities like honey, dried meat, bitumen, salted fish, fish sauces, and dye etc.[88].

The numerous Lycian amphoras found in the Lycian cities can also be attributed to commercial relations within this region itself. The existence of this new type of amphora in Side, Kelenderis, the Karaçallı necropolis near Perge, Ephesus, Cilicia and north-eastern Africa (Egypt) as well as in the Lycian cities suggests that it was employed most likely to transport exports of Lycian olive oil.

Looking at the distribution density and typological diversity of amphoras in Lycia, the relative increase in the Classical period is a distinguishing feature compared to the situation in the

[88] It is known that the major export at Lycia in the Roman Period consisted in dye. However, the presence of dye production (murex industry) is known on the basis of tax lists during the rule of Ptolemy V in the region, see Zimmermann 1992a, 244 no. 6; Hellenkemper – Hild 2004 I, 173 with fn. 253; on the dye production in Lycia see Forstenpointner *et al.* 2007; on coastal shipping at Aperlai related to dye see Hohlfelder – Vann 2000, 132–134. As it is also known from somewhat later epigraphical sources bitumen was exported in amphoras, see Takmer 2006, 141. On the contents of amphoras see Lawall 2011, 24. On honey production in the ancient period in Lycia, see especially Bulut forthcoming.



Fig. 24 Distribution of amphoras from the Classical period in Lycia

Archaic period (*Fig. 24*). The Lycian relations with the Persians as well as the Delian League seem to have had an impact upon Lycian commercial relations in the Classical period[89]. More data is required on this subject though.

The significant increase in the diversity and number of amphoras from Lycia can easily be observed in the Hellenistic period (*Fig. 25*). The amphoras which have not been observed in previous times, such as Cypriot, Cnidian, the Nikandros Group etc., start to be found, showing the diversity of imports to Lycian cities in this period[90].

The amphoras and stamps found in the region indicate that in Hellenistic times, relations with Cyprus as well as trade with south-western Anatolia increased. At the same time wine exports may have begun to play an important role in the economy of Cyprus, which might be shown to be one of the reasons for the growing commercial relations between Cyprus and Lycia[91].

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89 Athenian interest in Lycia may have been mainly commercial – probably for the demand of wood for ship-building – but Lycia's geographic position was also extremely important in relations with the east (Plin. nat. 13, 11; 16, 59) see also Childs 1981, 61–62.

90 There is very few data about the existence of stamped amphora handles in the region dated to the Hellenistic or earlier periods. Therefore, a chronological study of stamped handles cannot be made because of the lack of publications, and information about the stamps is based on my own personal communications.

91 About the wine of Cyprus exported to many centres in Egypt as reported in the Zenon Archives see Şenol 2009, 104 fn. 367.



Fig. 25 Distribution of amphoras from the Hellenistic period in Lycia

So far it can be stated on the basis of the amphora finds that wine was intensively imported to Lycia during the Hellenistic period. The diversity of the typology of amphoras and therefore the increase in imports show that the Lycian ports (such as Patara and Andriake) became the special focus of Ptolemy's attention due to their geopolitical importance. This attention increased with the dominance established over the region by Ptolemy II (Philadelphos) in 278/7 B. C.[92].

From these evaluations it is possible to say that commercial activity reached its peak during Hellenistic times, which form the basis of this study; in this period the number of cities in the region where amphoras were found grows, which in turn shows the increase in foreign trade relations with the above-mentioned cities. This situation appears directly linked to the maritime routes and particularly to the Ptolemid interest in the Lycian region[93].

Systematic excavations and surveys have been carried out in Lycia for more than half a century and it is known the region was an important stopover point for maritime traders and for trade with ports in the Black Sea, the Aegean, the Eastern Mediterranean and North East Africa. Yet Lycia still remains a largely blank space concerning the ancient maritime trade and its connections, which is due to the fact that comprehensive studies have not been undertaken on this subject

92 For a king's letter found in Telmessos indicating that the rule of Ptolemy II began no later than B. C. 279 see SEG XXVII 1224.

93 On maritime routes and the specific location of Patara and Lycia see Arnaud 2005, 217–227; Davis 2009, 70. 78–81.

until recently. Without the complete excavation of a Lycian harbour city the evidence forming the basis of this article can only represent a partial picture, whose completion shall depend on the nature of future finds. The scientific data regarding the Pre-Roman period, amphoras and maritime trade via Lycia is expected to augment through future research and studies, enabling continuing work on this subject.

Abstract: There is only scarce information from the Lycian region concerning the distribution of commercial amphoras and stamped amphora handles from the Pre-Roman period, yet it provides us with important evidence for trade in ancient times. The main aim of this study consists in the general evaluation of the Pre-Roman commercial amphoras and stamped handles found in Lycia. They have been presented in different studies before but are brought together here for the first time; thus the attempt is made to determine the direction of commercial relations. The presence of a new type of amphora dated to the middle of the 4th c. B.C. is very important for the understanding of the commercial structures in this region. Results of archaeological and archaeometrical research suggest that this new type of amphora recently identified through the studies in Patara is probably a local production. In this respect, the study builds upon both the published material and the data obtained from interviews on the subject with scholars from ongoing excavations in this region.

Eine erste Auswertung der Verbreitung von Handelsamphoren aus Lykien in vorrömischer Zeit

Zusammenfassung: Aus Lykien sind nur wenige Informationen hinsichtlich der Verbreitung von Handelsamphoren und gestempelten Amphorenhenkeln aus vorrömischer Zeit erhalten; diese liefern uns jedoch wichtige Daten zum antiken Handelswesen. Das primäre Ziel dieser Studie liegt darin, eine allgemeine Auswertung der lykischen Handelsamphoren und gestempelten Henkel aus vorrömischer Zeit vorzunehmen. Auf der Grundlage der bereits zu diesen Funden vorliegenden Untersuchungen, die hier erstmals zusammengetragen wurden, sollen die Laufrichtungen der Handelsbeziehungen genauer bestimmt werden. Die Existenz eines neuen, in die Mitte des 4. Jhs. datierten Amphora-Typus spielt eine wichtige Rolle für das Verständnis der Handelsstrukturen in dieser Region. Archäologische und archäometrische Forschungsergebnisse legen nahe, dass dieser neue Amphora-Typus, der jüngst durch die Untersuchungen in Patara identifiziert werden konnte, lokaler Produktion entstammt. So greift diese Studie sowohl auf veröffentlichtes Material als auch auf Informationen aus fachspezifischen Interviews mit Forschern aus den laufenden Ausgrabungen in dieser Region zurück.

Lykia Bölgesi'ndeki Roma Dönemi Öncesi Ticari Amphoraların Dağılımları Üzerine İlk Değerlendirme

Özet: Lykia Bölgesi'nde günümüze kadar yapılan çalışmalarda Roma İmparatorluk Dönemi öncesine tarihlenen, antik dönem ticareti için önemli kanıtlar sunan amphora ve özellikle mühürlü kulpların yayılımları hakkında sınırlı bilgiler bulunmaktadır. Çalışmanın ana amacı, Lykia Bölgesi'nde bulunan ve günümüze kadar farklı çalışmalarda tanıtılan Roma İmparatorluk

Dönemi öncesi ticari amphora ve mühürlü kulplarının genel bir değerlendirmesinin yapılması ve bu bağlamda ticari ilişkilerin yönünün saptanmasıdır. Bununla birlikte, Patara'da son yıllarda yapılan çalışmalarla tespit edilen, arkeolojik ve arkeometrik değerlendirmeler sonucunda da büyük olasılıkla Lykia Bölgesi'nin yerel üretimi olan yeni bir amphora formunun M. Ö. 4. yüzyılın ortasındaki varlığı bölge ticareti açısından çok önemlidir. Çalışma, yayını yapılan malzemeler ve kazısı halen devam eden kentlerde konu hakkında yapılan görüşmeler sonucu elde edilen veriler üzerine kurgulanmıştır.

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