

Some Thoughts on a Table Amphora Type (AF1) in Arycanda

Arykanda'dan Bir Masa Amphora Tipi (AF1) Üzerine Düşünceler

Asil YAMAN*

Abstract: Recent archaeological excavations carried out between 2004-2013 in the eastern Lycian city of Arycanda in S.W. Turkey, have exposed a late antique quarter that includes several well-dated deposits in several buildings such as Bathhouse, a Peristyle House and related spaces. These ceramic deposits yielded significant fine red slipped and coarse wares from the late antique period. A table amphora form named AF1 from Arycanda has morphologically unique specifications according to its clay specifications. The ceramic data from the deposits at Arycanda have been shown that AF1 was in heavy use in the Vth century A.D. According to technical observations on the fired clays of the Arycanda examples indicated here, eastern Lycian workshops might have produced these vessels. Analogical comparisons of morphologies and clays suggest that this form spread out to other parts of Lycia and the surrounding regions in Late Antiquity. Similar examples from Paphos indicate that AF1 was also possibly exported to Western Cyprus. This paper aims to present and discuss some thoughts on morphological specifications, chronology, possible production sites, and distributions of AF1.

Keywords: Arycanda • Lycia • Late Antiquity • Ceramics • Table Amphora

Öz: Doğu Lykia'da Arykandos vadisi üzerinde yer alan Arykanda'da son yıllarda yapılan kazı ve araştırmalar sonucunda, kentin güneydoğu alt yamaçlarında Geç Antik Çağ'a tarihlendirilen ve içerisinde Hamam, Peristil Ev ve ilişkili mekânların yer aldığı geniş bir kompleksten müteşekkil bir mahalle ortaya çıkarılmıştır. Mahallede tespit edilen tarihlenebilir depozitlerde, Geç Antik Çağ'a ait diğer arkeolojik materyallerle beraber, farklı nitelik ve amaçlarla kullanılmış kaliteli ve kaba seramikler ele geçmiştir. Bu seramikler arasında Arykanda Form 1 (AF1) olarak adlandırılan bir masa amphorası formu morfolojik ve hamur özellikleri bakımından özgün bir nitelik taşımaktadır. Arykanda depozit verilerinden hareketle, formun MS V. yüzyıl boyunca yoğun olarak kullanıldığı anlaşılmıştır. Analogik araştırmalar ve gözlemler Doğu Lykia atölyelerinde üretilmiş olması muhtemel formun Lykia'da diğer kentlere de dağıtıldığını ortaya koymuştur. Kıbrıs'ta tespit edilen benzer örnekler AF1'lerin yerel bir ürünü Lykia dışına da taşıdığına işaret etmektedir. Bu çalışmada AF1'lerin yapısal özellikleri, tarihlendirmeleri, üretim ve dağılımlarına yönelik bazı düşünce ve değerlendirmeler yer almaktadır.

Anahtar Kelimeler: Arykanda • Lykia • Geç Antik Çağ • Seramik • Masa Amphorası

Introduction

Arycanda is an ancient Lycian *polis* which is located approximately 20 miles inland to the north of Finike, Antalya (Fig. 1). The settlement is situated on a strategic crossroads in the Arykandos valley that connects east Lycian shores to the Pisidian plateau by two main roads and was built on the side of a steep mountain called Şahinkaya Tepesi which is part of *Masikytos* Mountains¹ (Plin. *nat.* V. 32).

* Dr., The University of Penn Museum, Philadelphia.  0000-0003-1532-756X | ayaman@upenn.edu
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¹ Bayburtluoğlu 2003; Harrison 1964, 10; Harrison-Lawson 1979, 13-14; Harrison 1980, 114-115; Harrison 1981, 383-387; Harrison 2001, 38-39. Pliny the Elder (*nat.* 25) also mentioned Arycanda among Μιλυάç which consists of Khoma, Kandyba, Podalia and Nisa.

Extensive archaeological research in the city began in 1971 under the direction of Prof. C. Bayburtluoğlu from Ankara University². The excavations revealed that the unique geographical location of the city affected its fate. As a result of this 51-year-long tradition of archaeological field work, many public buildings were uncovered; these buildings were located on terraces and reflected the wealthy life of the settlement from the late Hellenistic through to the end of the late Roman Period³. In recent years, the excavations carried out on the lower terraces through the southern side of the state agora and unearthed a 'late antique quarter'⁴. The results of the excavations in this *locus* have greatly amplified our understanding about the period, as the well-dated layers of the quarter yielded valuable information about the material culture of late Roman Arycanda and eastern Lycia⁵. As expected, the largest amount of material recovered was pottery comprised of finewares, utilitarian wares, and cooking wares gathered from the datable layers⁶. The presence of a wide range of imported red slip ware and transport amphoras reflect Arycanda's close ties with the inter-regional trade system during the late antique period. Furthermore, the pottery assemblage consists of local and regionally produced wares such as a distinctive new table amphora form which is named 'Arycanda Form 1' (AF1) and studied in this paper. The main purpose of this paper is to provide new data and a hypothesis related to the morphology, period of usage, possible production center(s) and distributions of AF1.



Fig. 1. Location of Arycanda and Neighboring Cities (ArcGIS)

² I wish to thank Assoc. Prof. Dr. V. Macit Tekinalp, current director of the excavations at Arycanda, for support and research permissions. Also, I would like to thank Dr. Jane Hickman, the editor of the *Expedition* magazine, for her diligent proof reading and suggestions for this paper.

³ Bayburtluoğlu 2003, 1-23.

⁴ For excavation reports of the quarter see Bayburtluoğlu 2005, 5-10; 2006, 5-10; 2007, 1-5; 2008, 6-9; 2009, 12-14; 2010, 14-18; Bayburtluoğlu & Tekinalp 2012, 15-20; Tekinalp & Gerçek 2014, 20-25.

⁵ Sancaktar 2012, 226; 2016, 13-38; Bayburtluoğlu & Tekinalp 2012, 18; Bayburtluoğlu 2009, 13; 2008, 6; 2007, 2; Tekinalp 2006, 796; Bayburtluoğlu 2006, 9-11; Gürgezoglu 2006, 121; Özbek 2005, 28; Tekinalp & Gerçek 2014, 25; Yaman 2018a, 439-447; 2018b; Seviç 2022.

⁶ For the typo-chronology of the pottery which gathered from the quarter see Yaman 2018a, 439-447; 2018b, 38-340.

Definition of the 'Arycanda Form 1' (AF1) and Fabric

It seems that Arycanda Form 1 (AF1) was one of the most popular table amphora forms in Late Roman Arycanda. More than 45 examples in total were collected from the various layers of the late antique quarter⁷. All pieces have a rim with the deep groove at the inner edge which is a distinctive feature of this form. It has a tall and wide convex neck. The two handles with oval section are attached to the neck. The vessel has a large ovoid body and tall flaring ring foot. The rim diameter of the form measured between 7-10 cm and the ring foot measured between 10-12 cm. This form can easily be identified as a 'table amphora' rather than an "olpe" or "jar" because of its symmetrical heavy handles, large ovoid body, and tall flaring ring foot (Figs. 2-3).

The clay of these table amphora examples observed as non-porous, and it includes lime particles, dark-colored grits, and mica. It generally appears in two main colors: the first one is red and reddish yellow (2/5 YR, 6/6 to 5 YR 6/6) and the second one is brown (7.5 YR 6/4 to 10 YR 5/2). It is obvious that the variety of the clay colors may reflect the result of different firing conditions and that's why it should not be noted as a specific criterion. However, distinctively, most examples have mottled dish brown (5 YR 4/3) and red (2.5 YR 5/8-4/6) painted slip on the exterior of the rim, neck, and handles (Figs. 2-3).

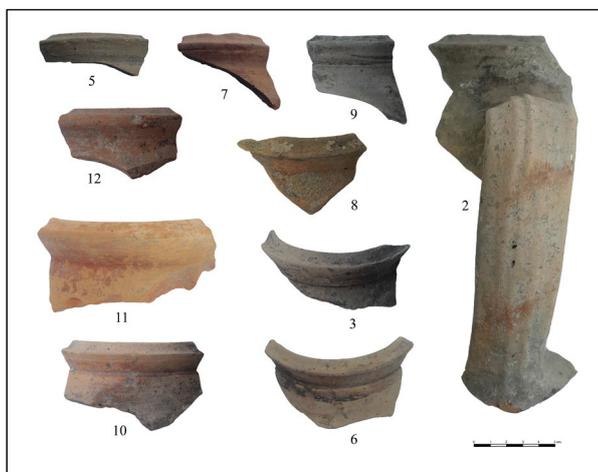


Fig. 2. Photos of the Selected Sherds (Courtesy of the Excavation Archive)

Although no kiln sites have yet come to light, the publications from the various centers in Lycia associated with these amphoras and our observations on clays suggests that the form was found in the similar Eastern Lycian fabrics at numerous sites⁸. In addition, find spots and the total amounts of the form recovered also suggest Eastern Lycian provenance hypothesis for AF1 (Fig. 4). Due to a lack of archaeometric analysis at Arycanda, I should be cautious regarding the precise production area of the form. However, there is no doubt that further investigations on clays in the future would reveal the production center or point out a specific region of this form.

Research History and Geographical Distribution

I. Mader was the first researcher who identified this form in 1998 at Kyaneai, the city located in central

⁷ We selected 17 well-preserved AF1 examples for this paper gathered from the deposits of the late antique quarter at Arycanda among the 45 examples in total. It includes 37 rims, 6 bases and 2 handles.

⁸ For similar examples and the clays from the nearby sites see Mader 1998, 121, Abb. 42, 108-111, 113; Marksteiner *et al.* 2007, 202, 215; Yılmaz 2008, Taf. LXXIX, Nr. 166-168, 174; Rocheron 2011, Type C30/C-CL 2028, 2040, 2234-36; Şen 2017, Pl. 97, Nr. 808- K71/08/03; Yener-Marksteiner 2021, 34, 360, Abb. 8, 1b-1c. Also see Özdemir 2009, Lev. 17, Nr. 167-169.

mountainous Lycia⁹. In his 2003 article, J. W. Hayes has also published this form in Paphos as a piece of a jar; he added a significant comment that the piece is “*probably not a Cypriot product*”. According to Hayes’ personal observations, there should be some morphological similarities between the Paphos piece with an Egyptian jar type¹⁰. Basically, the rim structure of the form is comparable with an Egyptian jar as Hayes’ suggested, but the rest of the body shape and position of the handles show considerable differences. Also, analogical comparisons between the Lycian and Paphos pieces revealed that both pieces have similar clay and morphological specifications unlike the above-mentioned Egyptian jars¹¹.

Similar sherds were also found in Limyra in Southeast region by S. Lemaître in 2007. Lemaître argued that these vessels would be of ‘local production’ according to their clay features. Lemaître also noted that there were no parallel examples in the Mediterranean¹². In 2011, C. Rocheron also observed similar vessels from Letoon and named this type as C30¹³. D. Şen subsequently published further pieces found at Patara¹⁴. Lastly, Banu Yener-Marksteiner and P. Bes noted some examples in Limyra and discussed the local eastern Lycian character of the AF1¹⁵. Although the research history of the form dates from 1998, the overall scene remained shadowy because of the fragmentary nature of the finds. Due to that, it had not been possible to identify this vessel type in the studies above correctly. Also, the scarcity of published finds makes it difficult to ascertain the distribution of AF1. Luckily, the relatively immense quantities of AF1 from Arycanda enlightened our understanding about the morphology, period of usage and possible origin of these vessels.

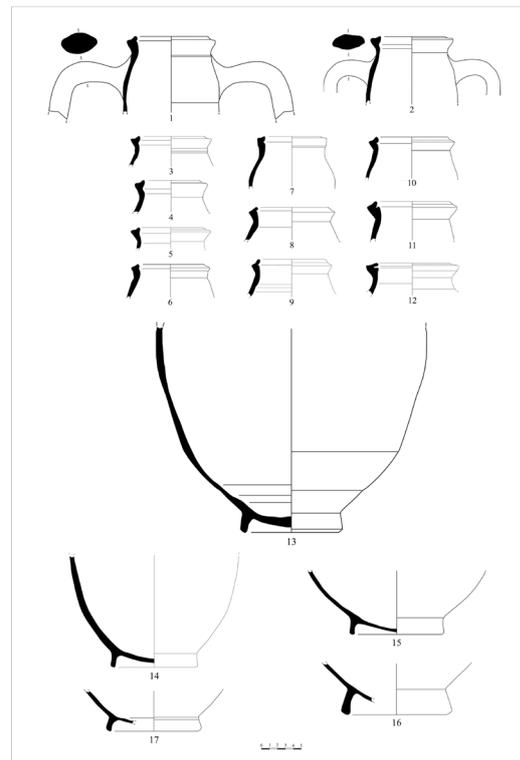


Fig. 3. Examples of Arycanda Form 1 (AF1)

Comprehensive pottery studies and archaeometric analysis already revealed that Eastern Lycian

⁹ Mader 1998, 121, Abb. 42, 108-111, 113. Z. Yılmaz also catalogued some examples. See Yılmaz 2008, Taf. LXXIX, Nr. 166-168, 174.

¹⁰ Hayes 2003, 477-478, Fig. 17, Nr. 169.

¹¹ Egyptian jars have a spherical body, and the handles are attached to the rim. For Qesir Al-Qadim examples see Whitcomb & Johnson 1982, 57, 86-87, Pl. 16A. For Caesarea Maritima see Johnson 2008, 110, 198, Nr. 1313; Oleson *et al.* 1994, 23, Fig. 6, A39. For Dakhleh Oasis see Hope 2000, 189-200, Fig. 6g. For Kharga see Marchand 2007, 489-503, Fig. 12-13. For Hadramawt see Rouquelle & Marchand 2011, 437-460, Fig. 9, Nr. 2, 5.

¹² Marksteiner *et al.* 2007, 202, 215.

¹³ Rocheron 2011, Type C30/C-CL 2028, 2040, 2234-36.

¹⁴ Şen 2017, Pl. 97, Nr. 808- K71/08/03. Also see Özdemir 2009, Lev. 17, Nr. 167-169.

¹⁵ Yener-Marksteiner 2021, 348, 360, Abb. 8, 1b-1c. For east Lycian fabrics also See Bes 2020, 384-385, Şek. 11-12.

workshops produced coarse ware during the Roman imperial and Late Roman periods which are made with kaolinitic clay. These vessels were mainly manufactured for local and regional consumption. But recent studies showed that these local vessels were also exported to other Eastern Mediterranean settlements¹⁶. According to the find spots of AF1, I may suggest that some local/regional produced utilitarian vessels were also distributed along the same trade route(s). This new AF1 evidence shows the continuity of connectivity between adjacent regions during the late Roman period (Fig. 4). Studies on AF1 amphoras indicate they spread to all of Lycia and were also exported to Western Cyprus (Fig. 5). I believe that future studies might expand the borders of the geographical distribution for AF1.



Fig. 4. Geographical distribution of 'Arycanda Form 1' (ArcGIS)

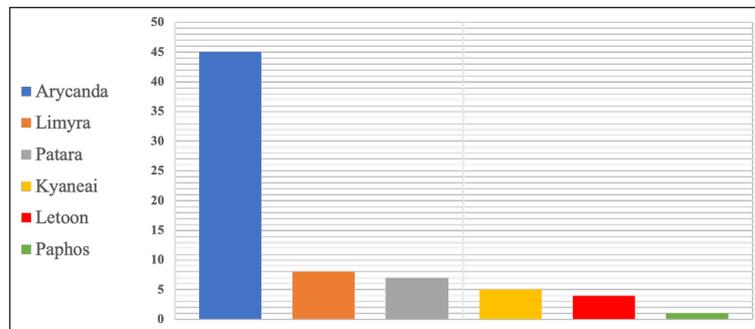


Fig. 5. Comparison of the total amount vessels of published AF1 in Lycia and Cyprus

Dating

It is obvious that the dating of AF1 was more complex because of the lack of the well-dated late Roman contexts in Eastern Lycia¹⁷. However, unlike other settlements in the region, the homogeneity

¹⁶ For the geographical distribution of local Lycian coarse wares see Hayes 2003, 452; Pellegrino 2007, 251; Yaman 2018a, 321-324; Waksman & Lemaitre 2010, 782-783; Arqué *et al.* 2012, 142-153; Lemaitre *et al.* 2013, 195-196; Peloschek *et al.* 2017, 247; Vroom 1998, 144; 2004, 297, 300; 2017, 188-190.

¹⁷ Some AF1 pieces gathered from Limyra and Letoon were studied by S. Lemaitre and C. Rocheron. These scholars suggested the Early Roman Imperial period, see Marksteiner *et al.* 2007, 231-232; Rocheron 2011, Type C30/C-CL 2028, 2040, 2234-36. On the other hand, Ingrid Mader suggested IIIrd and IVth century A.D. for these vessels, see Mader 1998, 121.

of the deposits in Arycanda made it possible to narrow down usage dates for these amphoras¹⁸. As mentioned above, more than 45 AF1 sherds were collected from the burnt layers in the late antique quarter. Those layers evidently point to a great fire in the city. The ceramic and numismatic material associated with these burnt layers, such as coins jointly minted by the emperors Theodosius II and Valentinian III, and also the presence of ARS Form 67, LRD Form 1, LRC Form 1, and LRC Form 2 allows us to determine the date range of these burnt layers as 425-450 A.D. (Phase 1B)¹⁹. In the light of the datable material from these deposits, it can be said that AF1 amphoras were roughly in use between the last quarter of the IVth century and the first half of the Vth century A.D. Based on the absence of AF1 in later contexts, the production and distribution of the form might have rapidly declined after the mid Vth century A.D.²⁰. Briefly, the quantities of AF1 clarify that this form was not a 'residual' in late Roman/early Byzantine period deposits. However, it should be noted that the earliest examples of the AF1 might be dated to the Roman Imperial period and may show that form had a prolonged usage of it than assumed²¹.

Concluding Remarks

At this stage of the research the following conclusions can be drawn. Significant numbers of AF1 were gathered from the Late Antique layers at Arycanda with the other datable archaeological material. These well-preserved examples clarified that AF1 pieces belonged to a distinctive 'table amphora' form, contrary to previous studies. However, the variety in the rim structure of these amphoras makes it difficult to follow typo-chronological evolution.

It is evident that integrated archaeometric analysis is needed to determine the exact production center(s) of AF1. However, it must be remarked that the analogical comparisons with the clays of other AF1 examples from various centers showed similarities that might give some hints for locating production center(s) in theregion. Our personal observations on the clays of AF1 sherds revealed significant resemblance with the rest of utilitarian ware produced in East Lycia. This clay evidence might refer to 'regionality' in the production of AF1.

The current geographical distribution of AF1 showed that these amphorae were distributed and used in a narrow area in Lycian cities such as Patara, Kyaneai and Limyra. Nevertheless, the Paphos piece indicates that vessels carried a local product such as olive oil or wine to adjacent regions such as western Cyprus²². Hence, the circulation of locally produced pottery like AF1 during late antiquity

¹⁸ Excavations in the southern lower slopes of the settlement carried out between 2004 and 2013. Pottery studies revealed that the quarter had two main phases (Phase 1 and Phase 2), and four sub-phases (Phase 1A-B, Phase 2A-B). This sequence covers a time span of 175 years spanning the second quarter of the Vth century to the early VIIth century A.D. See Yaman 2018a; Yaman 2018b.

¹⁹ Özbek 2005, 28; Gürgezoglu 2006, 121; Tekinalp 2006, 796; Bayburtluoglu 2006, 9; 2010, 16-18; 2007, 2; 2008, 6; 2009, 13; Bayburtluoglu & Tekinalp 2012, 18-19; Sancaktar 2012, 226; 2016, 13-38; Tekinalp & Gerçek 2014, 25. For date ranges of the red slipped forms that are mentioned above, also See Yaman 2018, 45, 57, 59, 71.

²⁰ Post-fire layers (Phase 2A) start with the coins of emperor Marcian and the presence of LRD Form 2 and LRC Form 3 suggest that era might have started around 450 A.D., see Yaman 2018b.

²¹ Some unpublished materials from the recent acropolis excavations at Arycanda may include the earliest datable examples of AF1. I believe that the ceramic studies in the near future at Arycanda will help to establish a typo-chronology for the AF1 and will expand our knowledge of these vessels.

²² Unfortunately, the current data makes it hard to clearly answer the question about what AF1 amphorae contained.

suggests that Lycia might be a self-sufficient region and may have supplied its neighbors. Also, it indicates that the local market was active during late antiquity not only on the coast but also in the rural areas, the countryside.

It is hard to say how long AF1 amphorae stayed in circulation. Because of the re-using of the unbroken vessels, it might have been possible for all of them to remain in use. On the other hand, the AF1 assemblage from the Late Roman contexts in Arycanda allows us to assert that amphorae were popular through the first half of the Vth century A.D. in Lycia contrary to previous opinion. I believe that future studies on AF1 will shed more light upon production center(s) and might expand upon the known geographical distribution.

BIBLIOGRAPHY

- Arqué M. C., S. Lemaître & S. Y. Waksman 2012, 'Les céramiques de cuisson en Lycie romaine: essai de définition des faciès morphologiques et d'approvisionnement en Méditerranéorientale'. Ed. C. B. Vallet, *Les céramiques communes dans leur contexte regional: faciès de consommation et modèd'approvisionnement*. Lyon (TMO 6) 0, 141-153.
- Bayburtluoğlu C. 2003, *Arykanda. Yüksek Kayalığın Yanındaki Yer*. İstanbul.
- Bayburtluoğlu C. 2005, "Arykanda Kazısı Raporu 2004". *ANMED* 3, 5-10.
- Bayburtluoğlu C. 2006, "Arykanda Kazıları 2005". *ANMED* 4, 5-10.
- Bayburtluoğlu C. 2007, "Arykanda Kazıları 2006". *ANMED* 5, 1-5.
- Bayburtluoğlu C. 2008, "2007 Arykanda Kazısı". *ANMED* 6, 6-9.
- Bayburtluoğlu C. 2009, "2008 Arykanda Kazısı". *ANMED* 7, 12-14.
- Bayburtluoğlu C. 2010, "Arykanda Kazısı 2009". *ANMED* 8, 14-18.
- Bayburtluoğlu C. & Tekinalp V. M. 2011, "Arykanda Kazısı 2010". *ANMED* 9, 14-18.
- Bayburtluoğlu C. & Tekinalp, V. M. 2012, "2011 Yılı Arykanda Kazısı". *ANMED* 10, 15-20.
- Bean G. E. 1978: *Lycian Turkey: An Archaeological Guide*. New York.
- Bes P. 2020, "Early Byzantine Pottery from Limyra's West and East Gate Excavations". *Adalya* 23, 377-407.
- Gürgezoğlu A. (2006). *Arykanda Konut Mimarlığı*. Unpublished Ph.D. Dissertation. Ankara University, Ankara.
- Harrison M. 1964, "Lycia 1963". *Anatolian Studies* 14, 10-11.
- Harrison M. 1980, "Upland Settlements in Early Medieval Lycia". Ed. H. Metzger, *Actes du Colloque sur la LycieAntique* (Paris), 109-118.
- Harrison M., 1981, "Town and Country in Late Roman Lycia". *IX. Türk Tarih Kongresi*, 383-387.
- Harrison M. 2001, *Mountain and Plain. From the Lycian Coast to the Phrygian Plateau in the Late Roman and Early Byzantine Period*. Ann Arbor.
- Harrison M. & Lawson, G. J. 1979, "An Early Byzantine Town at Arif in Lycia". *Yayla* 2, 13-17.
- Hayes J. W. 2003, "Hellenistic and Roman Pottery Deposits from the 'Saranda Kolones' Castle Site at Paphos". *The Annual of the British School at Athens* 98, 447-516.
- Hope C. A. 2000, "Kegs and Flasks from the Dakhleh Oasis". Ed. S. Marchand, *cahiers de la céramique Egyptienne* 6. 189-210.
- Johnson, B. L. 2008, 'The Pottery'. Ed. J. Patrich, *Archaeological Excavations at Caesarea Maritima Areas CC, KK, NN. Final report. Vol. I: The Objects*. Jerusalem, 13-206.
- Lemaître S., Waksman S. Y., Arqué M. C., Pellegrino E., Rocheron C. & Yener-Marksteiner B. 2013, "Identité régionale et spécificités locales en Lycie antique: l'apport des céramiques culinaires". Eds. P. Brun, L. Cavalier, K. Koray, & F. Prost, *Euploia. La Lycie et la Carie antiques: dynamique des territoires, Echanges et identités*, 189-212.
- Mader I. 1998, "Keramik der Feldforschungen auf dem Gebiet von Kyaneai. Teil II: Die Funde aus den Jahren 1993/94". *Asia Minor Studien* 29, 91-124.
- Marchand S. 2007, "Les conteneurs de transport et de stockage de l'oasis de Kharga. De la Basse Époque (XXVIIe-XXXe dynasties) à l'époque ptolémaïque". Ed. S. Marchand, *Cahiers de la Céramique Egyptienne* 8, 489-503.
- Marksteiner T., Lemaître S. & Yener-Marksteiner, B. 2007, "Die Grabungen am Südtor von Limyra: Die Grabungen der Jahre 1982-1986 am Südtor von Limyra". *Jahreshefte des Österreichischen Archäologischen Instituts in Wien* 76, 171-237.
- Oleson J. P., Fitzgerald M. A., Sherwood A. N. & Sidebotham S. 1994, *The Harbours of Caesarea Maritima Results of the Caesarea Ancient Harbour Excavation Project 1980-85. Volume II: The Finds and the Ships*. Oxford.

- Özbek, Ç. 2005, *Arykanda Nekropolü'ndeki Tonozlu Anıt Mezar Yapıları*. Unpublished Ph.D. Dissertation, Ankara University, Ankara.
- Özdemir, B. Ş. 2009: *Patara Roma Dönemi Günlük Kullanım Seramikleri*. Unpublished M.A. Dissertation, Akdeniz University, Antalya.
- Peloschek, L., Seyer, M., Yener-Marksteiner, B. & Bes, P. 2017, 'Limestone, Diorite and Radiolarite: First Petrographic Data of Fired Clay Objects from Limyra (Southwest Turkey)'. *Adalya* 20, 241-266.
- Pellegrino E. 2007, "Présentation des céramiques à pâte rouge orangé sableuse de Xanthos. Une production de céramique culinaire locale sur le long terme". Ed. S. Lemaître, *Céramiques antiques en Lycie (viii s. a.C.-viii s. p.C.), Les produits et les marchés, Actes de la table ronde de Poitiers (21-22 mars 2003)*. *Ausonius Études* 16, 225-259.
- Rocheron C. 2011, *La céramique commune à pâte calcaire de Xanthos et du Létôon de l'époque classique à la période protobyzantine*. (Unpublished Dissertation, Université Bordeaux Montaigne).
- Rougeulle A. & Marchand, S. 2011, 'Dessiga sur la côte du Hadramawt (Yémen), témoins d'une attaque navale?'. Ed. S. Marchand, *Cahiers de la Céramique Egyptienne* 9, 437-460.
- Sancaktar H. 2012, "2011 Yılı Arykanda Kazısı TK3 Definesi: bir Ön Değerlendirme". *MJH* II/2, 219-228.
- Sancaktar H. 2016, "Arykanda VI. Hamam Tahliye Kanalında Ele Geçen Sikkeler". Ed. Z. Çizmeli, *Kaunos/Kbid Toplantıları 3: Anadolu Numismatik Araştırmaları Çalıştayı*, 13-38.
- Sancaktar H. 2018, Analysis of the Coins Found at the Excavations of the 6th Bath Complex in Arycanda. Ed. O. Tekin, *Second International Congress on the History of Money and Numismatics in the Mediterranean World Proceedings*, 361-370.
- Seviç F. 2022, *Arykanda Antik Kenti'ndeki Geç Antik Dönem Hamamları*. Unpublished Ph.D. Dissertation, Hacettepe University, Ankara.
- Şen D. 2017: *La céramique protobyzantine de Lycie: étude du mobilier des "bainsportuaires" (Hurmaliç Hammam) de Patara* Unpublished Dissertation, Université Paris 1- Pantheon Sorbonne.
- Tekinalp V. M. & Gerçek A. 2014, '2013 Yılı Arykanda Çalışmaları'. *ANMED* 12, 20-25.
- Vroom J. 1998, 'The Late Roman- Early Byzantine Finds from the Excavations at the Eastern City of Limyra'. *KST* XX, 143-145.
- Vroom, J. 2004, 'Late antique pottery, settlement and trade in the east Mediterranean: a preliminary comparison of ceramics from Limyra (Lycia) and Boeotia'. In Bowden, W., Lavan, L. and Machado, C. (eds.), *Recent Research on the Late Antique Countryside*, 281-334.
- Vroom J. 2017, "Ceramics". Ed. P. Niewöhner, *The Archaeology of Byzantine Anatolia: From the End of Late Antiquity until the Coming of the Turks*. 176-193.
- Waksman, S. Y. & Lemaître, S. 2010, "Céramiques culinaires de Lycie (Turquie) aux Époques romaine et proto-byzantine: Approches archéologiques et archaéométriques". Eds. S. Menchelli, S. Santoro, M. Pasquinucci & G. Guiducci, *Late Roman coarse wares, cooking wares and amphorae in the Mediterranean: Archaeology and Archaeometry* (BAR 2185). Pise, 781-790.
- Whitcomb D. S. 1982, "Roman Ceramics". Eds. D. S. Whitcomb & J. H. Johnson, *Quseir Al-Qadim 1980: Preliminary Report*, 51-115.
- Yaman A. 2018a, "Late Roman Pottery from Bathhouse VI of Arycanda (Lycia)". Ed. F. Yenişehirlioğlu, *XIth Congress AIECM3 on Medieval and Modern Period Mediterranean Ceramics Proceedings*. Ankara, 439-447.
- Yaman, A. 2018b, *Arykanda Geç Antik Dönem Mahallesi Seramikleri*. Unpublished Ph.D. Dissertation. Muğla Sıtkı Koçman University, Muğla.
- Yener-Marksteiner B. 2021, "Die ostlykische Ware. Definition, Lokalisierung, Leitformen: Bestandsaufnahme eines laufenden Forschungsprozesses". Eds. R. Ployer & D. Svoboda-Baas. *Magnis Itineribus. Festschrift für Verena Gassner zum 65. Geburtstag*. Wien, 341-366.
- Yılmaz, Z. 2008, "Die Keramik der späthellenistischen, kaiserzeitlichen, spätantiken und frühbyzantinischen Epochen (Ende 2. Jh. v. - 7. Jh. n. Chr.)". Ed. F. Kolb, *Lykische Studien 8: Keramik, Münzen, Kirchen und Wirtschaftskomplexe des Zentrallykischen Yavu-Berglandes (Gebiet von Kyaneai)*. Bonn.