



MERSİN ÜNİVERSİTESİ KILIKIA ARKEOLOJİSİNİ ARAŞTIRMA MERKEZİ
MERSIN UNIVERSITY PUBLICATIONS OF THE RESEARCH CENTER OF CILICIAN ARCHAEOLOGY

KAAM
YAYINLARI

OLBA
XXV

(Ayrıbasım / Offprint)



MERSİN
2017

KAAM YAYINLARI
OLBA
XXV

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ISSN 1301 7667

Yayıncı Sertifika No: 14641

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Baskı / Printed by

Matsis Matbaa Hizmetleri

Tevfikbey Mahallesi Dr. Ali Demir Caddesi No: 51 34290 Sefaköy / İstanbul

Tel: 0212 624 21 11 www.matbaasistemleri.com

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PUBLICATIONS OF THE RESEARCH CENTER OF
CILICIAN ARCHAEOLOGY
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2017

*Vefat Eden Meslektařlarımızı
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Dipnot (kitaplar için)

Richter 1977, 162, res. 217.

Dipnot (Makaleler için)

Oppenheim 1973, 9, lev.1.

Diğer Kısaltmalar

age.	adı geçen eser
ay.	aynı yazar
vd.	ve devamı
yak.	yaklaşık
v.d.	ve diğerleri
y.dn.	yukarı dipnot
dn.	dipnot
a.dn.	aşağı dipnot
bk.	Bakınız

4. Tüm resim, çizim ve haritalar için sadece “fig.” kısaltması kullanılmalı ve figürlerin numaralandırılmasında süreklilik olmalıdır. (Levha, Resim, Çizim, Şekil, Harita ya da bir başka ifade veya kısaltma kesinlikle kullanılmamalıdır).

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Scope

Olba is printed once a year in May. Deadline for sending papers is November of each year.

The Journal ‘Olba’, being published since 1998 by the ‘Research Center of Cilician Archeology’ of the Mersin University (Turkey), includes original studies done on antropology, prehistory, protohistory, classical archaeology, classical philology (and ancient languages and cultures), ancient history, numismatics and early christian archeology of Asia Minor, the Mediterranean region and the Near East.

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Footnotes (for books):

Richter 1977, 162, fig. 217.

Footnotes (for articles):

Oppenheim 1973, 9, pl.1.

Miscellaneous Abbreviations:

op. cit.	in the work already cited
idem	an auther that has just been mentioned
ff	following pages
et al.	and others
n.	footnote
see	see
infra	see below
supra	see above

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HELLENISTIC MOULDMADE BOWL MOULDS FROM KREMNA

Hüseyin METİN*

ÖZET

Kremna Hellenistik Dönem Kalıp Yapımı Kâse Kalıpları

Burdur İli, Bucak İlçesi, Çamlık Beldesi'nin kuzeydoğusunda yer alan Kremna, Pisidia Bölgesi'nin en önemli kentlerinden biridir. Üç tarafı uçurumlarla çevrili olan Kent, oldukça korunaklı bir konuma sahip olup, stratejik konumu nedeniyle Augustus tarafından Roma kolonisi haline getirilmiştir. Kısa süre sonra ise, Pisidia sınırları içerisinde yer alan diğer dört Roma kolonisine, *Via Sebaste* üzerinden bağlanmıştır. Erken dönemlerden itibaren bölgeyi ziyaret eden meraklı seyyahların en fazla ziyaret ettikleri kentlerden biri haline dönüşen Kremna'da yasal olarak yapılan tek arkeolojik kazı çalışması, 1970 yılında Prof. J. İnan tarafından, Q yapısı olarak adlandırılan bir yapı çevresinde gerçekleştirilmiştir. Oldukça kısa süren kazıların ardından, kentteki epigrafik ve arkeolojik araştırmalar, M. Özsait ve S. Mitchell tarafından sürdürülmüştür.

Çalışmamızda değerlendirilen kabartmalı kâse kalıplarının tamamı, Kremna'dan ele geçmiş olup, Burdur Müzesi'nde korunmaktadır. Söz konusu kalıplar Kremna'nın Hellenistik Dönem'de seramik üretim merkezi olduğunu belgelemektedir. Şimdiye kadar bir kentte ele geçen en büyük Hellenistik kabartmalı kâse kalıbı grubunu oluşturması bakımından oldukça önemlidir. Kalıplar form ve bezeme özelliklerine göre üç farklı tipe ayrılmıştır.

Tip 1, kalıp yapımı kâselerin en erken üretilen örneklerinden “kozalak biçimli” kâselerdir. Tip 2 kalıpları, İon kymationu ve makara-boncuk dizisi ile süslenen çerçeve bezemeleri Ephesos-İonia ve Delos atölyeleriyle benzer özellikler taşımakla birlikte, aynı kalıpların kalyks ve madalyon bezemeleri, bilinen atölyelerden farklılıklar göstermektedir. Bu tipteki kalıplarının büyük bölümünün dış yüzlerinde APTEMEOYΣ, X, X K, KPA, X KPA veya KPA X yazıları yer almaktadır. Bunlardan APTEMEOYΣ yazısının APTEMHΣ isminde ustaya işaret etmektedir. Kısaltma olarak kullanılan KPA ve türevlerinin, atölye / usta isimlerinin kısaltması olduğu konusu kesin değildir. Tip 3, Kremna kâse ustalarının en geç tarihli kabartmalı kâse formlarını oluşturmaktadır. Tip 3, Tip 2'ye göre derin gövdeli ve daha büyüktür. Kullanılan bezemeler Tip 2'den tamamen farklıdır. Bu bezemeler aşırı kullanım nedeniyle oldukça aşınmıştır. Kalıpların birçoğunda, pişmeden kaynaklı renk dalgalanmaları ve bezemelerde bozulmalar görülmektedir. Tip 3 kalıpları M.Ö. 2. yüzyılın sonçeyreği – M.Ö. 1. yüzyıl ortalarına tarihlendirilmiştir.

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Kremna kalıplarında Ephesos-İonia etkileşimli bazı bezemeler kullanıldığı görülmektedir. Ancak birçok kalıp, uygulamada büyük farklılıklar gösterdiğinden, yeni ve özgün bir atölyeye işaret etmektedir. M.Ö. 2. yüzyılın ilk yarısından – M.Ö. 1. yüzyılın ortalarına değin tarihlenen kalıpların benzer bezemeli örneklerinin Sagalassos, Boubon ve Kibyra gibi güneybatı Anadolu kentlerinde bulunmuş olması, bölgesel karakterli ürünler olduklarını ortaya koymaktadır.

Anahtar Kelimeler: Pisidia, Kremna, Hellenistik, Megara Kâsesi, Kalıp Yapımı Kâse, Kâse Kalıbı

ABSTRACT

Kremna located in the Province of Burdur, at the District Bucak, northeast of the county Çamlık is one of the most important cities of Pisidia. The city surrounded by cliffs from three sides, has a fairly sheltered location. Due to its strategic location, the city has been turned into a Roman colony by Augustus. Shortly after, it was connected to other four Roman colonies located within the borders of Pisidia through *Via Sebaste*. From the early periods onwards Kremna was one of the most visited cities by travelers and the single legal excavation was in 1970, lead by Prof. J. İnan around a structure named as the Q building. Following quire short excavations, epigraphic and archaeological researches were undertaken by M. Özsait and S. Mitchell.

All of the embossed bowl moulds, evaluated in this study are of Kremnean origin and are exhibited in the Burdur Museum. These patterns are evidences of the fact that Kremna was the center of ceramic production in the Hellenistic period. These form the largest group of Hellenistic embossed bowl moulds, found in a city. Moulds are classified into three different types according to their form and decoration.

Within group of type 1, pine cone-shaped bowls, produced widely in all cities as samples of the earliest bowl moulds are examined. Type 2 moulds have similar characteristics with the Ephesus-Ionia and Delos workshops in frames decorated with Ionic cymation and pearl-beads. However, the calyx and medallion decoration of the same mould are different in known workshops. Carved are ΑΡΤΕΜΕΟΥΣ, Χ, Χ Κ, ΚΡΑ, Χ ΚΡΑ or ΚΡΑ Χ on the outer faces of almost all of the moulds of this type. Among these words, ΑΡΤΕΜΕΟΥΣ clearly points out a master named ΑΡΤΕΜΗΣ. However it is not definite that ΚΡΑ and its derivatives, used as abbreviation, point out to an abbreviated name of a master or workshop. Type 3 constitutes the latest dated embossed bowls of Kremna. Type 3 has a deeper body and a bigger size compared to Type 2 moulds. Embellishments used are completely different then Type 2. These embellishments are quite worn because of overuse. Color fluctuations and embellishment distortions can be seen in many moulds due to firing. Type 3 moulds are dated to the period between the last quarter of the 2nd century B.C. and the middle of 1st century B.C.

In Kremna some moulds embellishments interacted with Ephesus-Ionia. However, because many moulds vary widely in practice a new and original workshop is being suggested. Similar embellished examples of moulds dating from the first half of 2nd century B.C. until the middle of 1st century B.C. were found in southwest Anatolian cities such as Sagalassos, Boubon and Kibyra imply that they are products with regional character.

Keywords: Pisidia, Kremna, Hellenistic, Megarian Bowl, Mouldmade Bowl, Bowl Mould.

Introduction

The territory of Kremna, which lies in the northeastern part of the Hacıbağ village near the town of Çamlık within the district of Bucak, Burdur Province, extends from the Çanaklı plain in the north, to the Kaystros valley in the southeast and the Bucak plain in the west (fig. 1). The city is located at an altitude of about 1100-1300 meters and is surrounded by steep rocky cliffs on three sides. The city lies in the course of the *Via Sebaste* which led from the Mediterranean to the inner regions of Pisidia. Kremna was one of the five colonial cities of Pisidia with strategic importance¹. The city's strategic importance and wealth increased after the Augustan period and magnificent public buildings in enormous dimensions were built in a short time span.

The subject of this study is several Hellenistic bowl moulds which have been acquired by the Burdur Museum in the early 1980s². Thirty moulds, which are almost all in good condition, are classified in three different categories according to their forms and decorations. They prove that Kremna was a center of ceramic production in the Hellenistic period³. In fact, Kremna is the first center where the production of bowls by moulding has been verified. In comparison to the material from other known workshops the embossed Hellenistic bowl moulds from Kremna show some differences, indicating that the ceramic manufacturers in Pisidia developed a distinctive manner in the Hellenistic period.

Type 1 (Fig. 2, M1)

There is only one sample in this type of mould which is shaped like a pine cone (M1). A deep body and a decoration in form of a pine cone are the characteristics of this type. The base section does not rest balanced on the ground because of a missing medallion. Furthermore, the exterior dimension (H. 6.3 cm. Diam. of Rim. 8.2. cm) is smaller compared to the other types; the sidewalls are thicker, and also the rim diameter is not symmetrical. M1 Mould consist of reddish-yellow clay.

In the early production of Type 1 moulds, these samples were obtained directly from actual pine cones. The later moulds of this type are handmade and

¹ Strabon, XII.6.C569.5; Levick 1967, 35-36; İnan 1970, 52; Özsait 1985, 134; Mitchell 1995, 3; Sevin 2001, 160.

² The capture of the moulds in Kremna has been verified but the exact location they were found could not be determined with a face to face interview with Musa TOPALAK who has brought the samples to the Museum and been registered in the Çamlık population.

³ Another proof that indicates that Kremna was the ceramic production center in the Hellenistic period is oil lamps. See: Metin 2013, 255-264.

decorated with pyramidal projections and equilateral square shapes⁴. Generally, it is accepted that the first prototypes of moulded bowls were inspired from metal containers⁵. But metal prototype of Type 1 has not been found yet.

A bowl piece found in the theater at Miletus is quite similar to our sample in terms of form and decoration⁶. It was suggested that the three pieces of pine cone shaped bowls found at Labraunda were inspired from the bowls made in Attica in the 3rd century B.C.⁷. Some bowl samples of similar form but with rim decorations were found on Delos⁸. In addition, there are bowl samples which were manufactured with Type 1 moulds in several cities in Western Anatolia such as Sardis⁹, Ephesus¹⁰ and Metropolis¹¹. Besides Anatolia, a piece of a bowl was found at Corinth that was produced with a similar mould and dated to ca. 200 B.C.¹². Similar bowl pieces were also found in the Athenian Agora and dated to 225-200 B.C.¹³.

Although Künzl has determined that an identical mould in the Mainz Museum is originated from Anatolia, he did not name a precise location¹⁴. A very similar sample of Type 1 in terms of its moulding was found at Kibyra and is dated to the 2nd century B.C.¹⁵; a further similar bowl is on display at the Burdur Museum. The bowl with unknown provenance is dated to the first half of 2nd century B.C.¹⁶. M1 which is classified as Type 1 should belong to the early production period since it was manufactured with a mould taken from a pine cone. Therefore, this mould should date to the beginning of the 2nd century B.C. This dating is supported by the appearance of bowls with long petal-decorations in the middle of the 2nd century B.C. which lead to a decrease in the production of Type 1 bowls¹⁷.

⁴ Courby 1922, 334-336.

⁵ Courby 1922, 169; Pagenstecher 1913, 65; Thompson 1934, 455; Rotroff 1982, 6; Anlağan 2000, 13; Çorbacı 2007, 170; Civelek – Taş 2012, 124.

⁶ Kossatz 1990, 73, Taf. 47, M652.

⁷ Hellström 1965, 22, Pl. 11, Fig. 138-140.

⁸ Laumonier 1977, Pl. 111, Fig. 4231-4289.

⁹ Rotroff – Oliver 2003, Pl. 104, Fig. 599.

¹⁰ Tuluk 2001, Taf. 41, Abb. 23.

¹¹ Gürler 1994, 41-42, Çiz. 16.

¹² Edwards 1975, 157-158, Pl. 65, Fig. 783; Edwards 1981, 197, Pl. 45

¹³ Rotroff 1982, 46, Pl. 2, Fig. 10-12.

¹⁴ Künzl 2002, 46, Taf. 215-216, Kat. Nr. 99.

¹⁵ Saygılı 2012, 399, Lev. 1, Çiz. 1.

¹⁶ Metin 2015a, 478, K1.

¹⁷ Rotroff 1982, 16.

Type 2 (Fig. 3-6, M2-M23)

This type is easy to distinguish from the former one by means of form and design. Twenty two bowls (M2-M23) were classified in this group. The main characteristics of this type are a shallow body in semi-spherical form, a low base, a convex lip, and a decoration with a deep groove on the inside. Rim diameters of moulds lie between 12-13 cm; their highs between 6-7 cm. M15 and M16 are exceptional in this aspect with rim diameters of 9 cm. and heights of 4.7 cm - 5 cm respectively. The fabric of almost all moulds is of reddish-yellow color, some are burnished on the exterior (M8, M15, M17). The non-porous fabric is well refined and contains very little lime and muscovite.

Except for mould M2, there are inscribed names and abbreviation letters on all bowls such as X, XK, KPA, X KPA and APTEMEOYΣ, indicating the names of the workshops and Potters. It can be assumed, though, that the writing on M2 could have disappeared by abrasion. Although the moulds have same similar forms and decorations, they are divided into two sub-groups here in order to examine them in more detail and in which extent they represent the related categories. The subgroups have been determined according to their decorations and not by the name of the manufacturers since all moulds were produced by the same workshop and decorated in similar style.

Type 2, Group 1 (M2-M14)

There are thirteen mould samples in this group with rim decorations consisting of rows of bead and reel¹⁸ (M3, M4, M5, M6, M7, M8, M12) and Ionian kymation (M2, M9, M10, M11). Besides, rows of dolphins directed towards right are depicted on the rim sections of moulds M13 and M14.

There are wall sections on the mould samples M2-M8. Rows of Eros figures and dolphins are preferred as wall decorations on these samples. Sample M6 however, is decorated with alternating dolphins and amphorae.

The calyx of these moulds show quite similar decorations. The Eros figures on the calyx of moulds M9, M10 and M11 were repeated in the same dimensions. Mould M12 is decorated with dolphins in this part. Two fighting warriors are depicted just under the rim of mould M13. The warrior on the left holds his shield

¹⁸ Laumonier 1977, Pl.11, Fig. 4727, 4731, 8640, Pl. 31, Fig. 1015; Bouzek 1990, Pl. 12, Fig. 3; Kossatz 1990, 50, Taf. 8, M362, M363; Mitsopoulos-Leon 1991, Taf. 83 - D41; Gürler 1994, Çiz. 27-87, 34,119; Gassner 1997, Taf. 18, Abb. 232; Dereboylu 2001, Taf. 23, Abb. 209; Künzl 2002, Taf. 45, 46, 47, Kat. Nr. 19, Taf. 52, 53, Kat. Nr. 22, Taf. 54, 55, Kat. Nr. 23, Taf. 59, 60, 61, Kat. Nr. 25, Taf. 85, 86, 87, Kat. Nr. 34, Taf. 88, 89, 90, Kat. Nr. 35, Taf. 91, 92, 93, Kat. Nr. 36, Taf. 112, 113, 114, Kat. Nr. 43, Taf. 116, 117, 118, Kat. Nr. 45, Taf. 130, Kat. Nr. 56, Taf. 131, Kat. Nr. 57, 58; Rotroff – Oliver 2003, Pl. 65, 77, 83, Fig. 391, 451, 479; Karcı 2006, 24, Çiz. 17; Saraçoğlu – Çekilmez 2011, 226, Res. 8.

in front of his body and has raised his arm with a sword in his hand, ready to strike his opponent. The warrior on the right has raised his shield above his head to defend himself against the oncoming attack of the first warrior. This scene is repeated on four sections of the body with flower rosettes in between. An identical depiction of the same two fighting warriors can be observed on a medallion of a mould in the Mainz Museum¹⁹. The Mainz sample, which is inscribed with the name ΑΡΤΕΜΕΟΥΣ on the exterior side, indicates that KPA X and the other inscriptions mentioned above were products of the same workshop. In addition, some figures, e.g. Eros figures, which are depicted on the medallion were used for the decoration of the calyx as well. In conclusion, the bowl masters from Kremna created numerous decorations with the same stamp/mould by this method.

Although the body decorations of Group 1 are quite similar, there are no identical moulds. This reflects the artists' concern for variety. The production of mould-made bowls runs through various phases before they are fired in the oven. One important point of the whole production process is the use of several moulds at the same time. The leather-like solid clay was put into the mould, and then the inner side was flattened by the potter's wheel. When the bowls had reached enough hardness, they were removed from the moulds and were fired in the oven²⁰. Small stamps processed in addition to decorations were used by bowl masters to provide variety²¹. The Eros and dolphin figures can be seen as the most important figures in the Kremna samples to increase decoration variety. Identical Eros figures of Type 2 Group 1 were used on the wall and medallion of samples M2, M4, M5, and on the wall section of M3 and M8, and on the medallion of M6 and M13. Eros figures were also used on the calyx-body of moulds M9, M10 and M11. Similarly, Eros figures are also processed on medallions of M16 and 20 of Type 1 Group 2 moulds. These two categories are classified as different groups since the calyx-body and wall decorations are based on the classification of decoration with figures. Consequently, the Kremna bowl masters used the same stamps on various parts of their moulds to provide variety in their decorations.

Floral motives such as lotus, long petals, acanthus and tongue leaves, and also flower rosettes, which all were popular at that time, were also employed as decoration on the calyx-bodies of the Type 2 Group 1 samples. These motives were used as the only decoration on samples M8 and M9. Lotus leaves are the preferred decoration on all moulds (M2, M3, M4, M5, M6, M7, M8, M9, M10, M11, M12, M13, M14), besides other floral motives. There are long-double petals between lotus figures on M2, M5 and M6; the number of petals is four times higher on

¹⁹ Künzl 2002, Taf. 119, Kat. Nr. 26.

²⁰ Rotroff 1982, 5.

²¹ Ekiz – Ünlü 2005, 51-56.

M7. Lotus-acanthus leaves were used in combination on M3, M4 and M11. It is understood that two different lotus types (*nymphaea nelumbo* and *nymphaea caerulea*) were processed in the same section on M12 and M14. On the other hand, lotus motives were used as secondary decoration element between tongue leaves on M10. The medallion of M13 is easy to distinguish from the other samples by its decoration with small lotus leaves around the central Eros figure.

Eros figures were used for decoration on the medallions of Group 1 moulds (M2, M4, M5, M6, M13). The Eros figures are identical as they were produced with the same stamp. There are embossed points around the Eros figure on M13, which separates it from the other four samples.

It is understood that the mould medallions were arranged in floral rosette form on the moulds, except for the above samples. The most characteristic forms are eight-leaved rosettes (M8, M11, M12) and sixteen-leaved rosettes (M3, M9, M10). The same floral rosettes were used intensively on the medallions of Group 2 (M15, M18, M19, M21).

Type 2, Group 2 (M15-M23)

Moulds with floral decorations of Group 2 cannot be distinguished from Group 1 on exact terms of decoration. The main distinction is based on whether they bear figurative decoration or not. One characteristic feature of Group 2 moulds is that there is no wall section. Nine out of ten moulds have decorations on the rim sections consisting of bead and reel decoration (M14, M15 and M16), Ionian kymation (M17, M18, M19 and M20), and “S” shaped spiral motives (M23).

The most common decoration type of Group 2 moulds are *nymphaea nelumbo* and *nymphaea caerulea* lotus leaves. They appear as the only decorative element on the body of mould M16. In combination with lotus leaves, another leaf form was used on M17, long six-petal leaves on M18, long single-petal leaf on M19, and acanthus leaves on M20 and M21. Long petal leaves were also used as decoration on the body of M15. Tongue leaves, acanthus leaves and long leaves were used together on the body of M22 which has no decoration on the rim section. Three different decoration motives were used on Mould M23. However, fern leaves, thyrus and palmette decorations appear as singles in this group.

The medallions of Group 2 moulds are decorated with floral motives consisting of eight leaves (M15, M17), sixteen leaves (M18, M19, M21), and plant decorations with Eros figures (M16, M20). Additionally, flower rosettes with nine narrow and nine wide leaves on M22 and lion figures on M23 are not observed in Group 1.

The most significant feature of Type 2 moulds are marks of the potter's names which were inscribed on the exterior side of the mould. Two types of signatures/marks can be observed on the Kremna moulds.

The first one belongs to a bowl manufacturing master named ΑΡΤΕΜΕΟΥΣ (M3, M4, M5, M7, M8, M15, M16). This name was inscribed under the rim of the moulds except for sample M5 where it appears in the middle of the body. The potter's name was written in smaller dimensions both under the rim and in the middle part of the body of sample M8. It is quite difficult to distinguish them on exact terms because of the similarity of the decorations on the inner sides of the moulds. Anyway, the samples which were manufactured by the same master have been used both in Type 2 Group 1 and Type 2 Group 2²². It can be assumed that the classification of typology and dating by way of decorations are a wrong method for Hellenistic moulded bowl typology when these results are considered. Identical samples of moulds with the signature of a bowl master named ΑΡΤΕΜΕΟΥΣ are displayed in the Mainz Museum. Künzl, who evaluated these moulds, has documented about 20 pieces of Hellenistic bowl moulds inscribed with this name.

It was stated that the moulds which were explicated as "*Mainzer Werkstatt*" originated from Anatolia without determining any place or location name. In this context, two suggestions can be made for the moulds in Mainz. First, these moulds were manufactured in regional workshops with ΑΡΤΕΜΕΟΥΣ signatures. Second, all the samples in Mainz belong to a bowl master who manufactured his products in Kremna. If the signatures/marks would appear on the section with decorations, the first suggestion would be reasonable because it is known that popular forms and decorations became brands with the masters' names and they were imitated in many workshops. However, the signature which was inscribed on the exterior side of the mould is related to the bowl master, and not to the purchaser of the bowl. Therefore, the second suggestion seems more reasonable when evaluated in this perspective.

The second type of signatures is abbreviations which were written on the exterior sides of the moulds. Five different abbreviations can be observed on the moulds. The abbreviation "KPA" and its derivatives were inscribed in larger letters than the signature of "ΑΡΤΕΜΕΟΥΣ". However, it is quite difficult to distinguish them from the moulds with the signatures of "ΑΡΤΕΜΕΟΥΣ" in terms of form and decoration. On mould M20 appears an "X" as abbreviation, on M9 the abbreviation "X K". The abbreviation "KPA" which was written on M23 was inscribed also on M6, M10, M11, M12, M14, M17, M18, M19 and M21 moulds but an "X" was put before it. There is same application on M13 but "X" letter was marked as "KRA X". The writings on the exterior sides are not identical on

²² Metin 2015b, 77-83, Res. 1.

any moulds since they were inscribed with a sharp tool after the firing. However, “APTEMEOYΣ” was written uniformly on the exterior sides in all moulds. In other words, it can be read when looked across. Furthermore, “X KPA” or “KPA X” letters were written reversely on the exterior sides of M6, M12, M13, M17. It might be because of a mass production that there were different applications in the writings on the exterior sides. On the other hand, it is very difficult to state whether the moulds were manufactured in the region or purchased from any other place unless archaeological excavations are made in the workshop in Kremna. However, these moulds certainly prove that Kremna was a center of bowl production in Pisidia.

It is obvious that the letters such as X, X K, KPA, X KPA and KPA X are abbreviations. However it is difficult to say whether they represent names of masters or workshops. Künzl, who evaluated more than twenty bowls with identical signatures in the Mainz Museum, and which we assume originate from Kremna, thought that “KPA” was an abbreviation of the name Κρότερος, and asserted that “KPA” might be the signature of a bowl master, and not a workshop. He also discussed that the letter “X” next to the bowl master’s name was used extensively on terra sigillata vessel forms²³. A master’s name Κρότερος was written on terracotta figurines from Kerameikos²⁴. Similar signatures written as “KPA” which was considered as a bowl master’s name appear on the bases of Attic oil lamps dating between the late 3rd and the early 4th century AD²⁵. However, the major problem is what the letter “X”, which was written together with the abbreviations, stands for. This is also known from oil lamps where the letter X was written in a similar way next to oil lamp masters’ names. For example, an oil lamp master known from the city of Kibyra signed his products with either “KYNHPOY” or “X KYNHPOY” on the bases of the oil lamps²⁶. In the light of this information, some suggestions can be made concerning the letter “X” which appears on some of the Kremna moulds: The letter must have been used either to distinguish the products of two different masters working in the same workshop, or to distinguish moulds with similar but slightly different decorations of one master. However, it is quite difficult to prove these suggestions because it is almost impossible to distinguish the decorations on the Hellenistic bowl moulds from Kremna on exact terms. Probably, “KPA” represents the owner of a workshop and the letter “X” is the mark of the bowl master. Furthermore, it is asserted that the sign “Δ” which was inscribed on the base of M22, apart from other signatures, was a master’s monogram.

²³ Künzl 2002, 10-11.

²⁴ Perlzweig 1961, 40.

²⁵ Perlzweig 1961, 146, Pl. 28, Fig. 1552.

²⁶ Metin 2012, 89, K210, K217.

Hellenistic bowl moulds do not provide enough information in terms of typology and chronology since only very few examples have been found in archeological excavations. Therefore, a solid basis for the typology of moulded bowl production is still lacking. For this reason, Kremna Type 2 moulds are dated here by considering the production dates of other bowls manufactured in Anatolia and other centers.

Thompson states that the bowl production started in Athens in the first quarter of the 3rd century B.C., and asserts that the earlier bowls manufactured in Athens might be decorated with plants²⁷. According to Rotroff the production began in 225 B.C.²⁸. Also in Corinth the production started in the last quarter of the 3rd century B.C. and ended in 146 B.C.²⁹. In Delos the production began just before the 2nd century B.C. and continued to the middle of the 1st century B.C.³⁰. Although it is observed that moulded bowls in Argos were seen after the second half of the 3rd century B.C., it was not possible to determine the exact termination date of their production³¹.

Samples of the early bowl production in Anatolia were dated to the end of the 3rd century B.C. in Pergamon³². In Tarsus they were manufactured from the end of the 3rd century B.C. to 1st century A.D.³³. In Metropolis the moulded bowl production is dated between the second quarter of 3rd century B.C. and the 1st century B.C. by means of coins found in the same layers³⁴. Gassner assumed that the bowls found in Ephesus might date to 200 B.C. by relating the decorations on them to those seen on lamps of Ephesian type³⁵. In Tralleis bowls and moulds were dated to the middle of the 2nd century B.C. and the second half of 2nd century B.C.³⁶. The bowl moulds found in Kibyra were considered to belong to the 2nd century B.C.³⁷.

In the light of the above comparanda, it derives that in Anatolia the most intensive period of moulded bowl production was during the 2nd century B.C. The decorations used on Kremna Type 2 moulds resemble the bowls of Ephesos, Ionia and Delos. Therefore, a dating of the moulds of Type 2 to the period between the

²⁷ Thompson 1934, 457-458.

²⁸ Rotroff 1982, 108.

²⁹ Edwards 1975, 152.

³⁰ Laumonier 1977, 7.

³¹ Siebert 1978, 159-162.

³² Ziegenaus- Luca 1968, 123-125.

³³ Jones 1950, 163-164.

³⁴ Gürlür 1994, 38.

³⁵ Gassner 1997, 80 – 81.

³⁶ Saraçoğlu – Çekilmez 2011, 231.

³⁷ Saygılı 2012, 402-403.

second half of the 2nd century B.C. and the beginning of 1st century B.C. is suggested here. Künzl suggested a similar date for the Kremna moulds in the Mainz Museum³⁸.

Type 3 (Fig. 6-7, M24-M30)

There are seven embossed bowl moulds belonging to this Type (M24-M30). These samples have wider bodies and larger dimensions than Type 2 moulds. The decorations are completely different from the Type 2 samples. It is highly possible that Type 3 moulds were products of a workshop in Kremna. On the other hand, they resemble Type 2 moulds with their hemispherical forms and low bases. The rim diameters of most of the moulds are between 14 and 15 cm. and the heights between 6 and 8 cm.

Almost all moulds consist of reddish-yellow clay, only sample M27 is bur-nished on the exterior side. The nonporous refined clay is fired semi-hard and contains very little mica and lime. Some colour fluctuations and small deformations on the decorations are observed on most of them resulting from firing. The decorations are worn out because of an extensive use of the moulds. Although Type 3 moulds have various elements in the decorations, all of them were executed with inattentive workmanship. They also constitute the latest bowl forms of the Kremna bowl potters.

Daphne bundles were usually preferred as rim decoration on Type 3 moulds (M24, M25, M26, M30). Apart from these, rows of embossed points were used on M27, leaf bundles on M28, and stylized tongue motives on M29.

Although the calyx body section of M24 and M25 has similar decorations, there appear some differences when studied in detail. Hence, while there are eight small lotus leaves on the calyx section of M24, their number is thirteen on M25. There appears a naked Aphrodite between figures of Eros and Psyche together with lotus and acanthus leaves on the bodies of M24 and M25. On sample M25, however, also appears another Aphrodite figure with her right hand leaning on a column on which an Eros figure is standing. A camomile motive was processed in form of a rosette on M25 and a five-leaved rosette on the medallion of M24.

The rim of M26 is decorated with a series of daphne bundles similar to those on the previous two samples. The upper wall section is decorated with a series of eels. It was fashion that the wall section of Hellenistic bowls was confined with horizontal lines. However it appears that this application was neglected on M26. The calyx section of the mould is separated in four sections with the acanthus leaves exiting from the medallion circumference, and there is also similarly

³⁸ Künzl 2002, 27-29.

spaced palmette motives adjoined to the medallion. Two fighting figures are portrayed on the upper section of a palmette. While the right one of the two fighters raises his spear in his left hand ready to attack, the other figure is kneeling down a little with his body bending backwards. The medallion of M26 is decorated with flower rosette, being the only sample of Type 3. There is also a single “X” sign inscribed on the middle of the base of M26.

The wall section of M27 is decorated with horseriders, and unlike M26 it was not confined with horizontal lines. While the rims of the previous three samples are decorated with daphne bundle, the rim of M27 shows leaves bundles. The calyx/body of this mould is decorated with acanthus and fern leaves which appear most frequently on bowls of the same period.

M28, decorated with rows of embossed points on the rim, is one of the most significant samples of Type 3. Especially on M28, different modes which were used for the decoration of Hellenistic period bowl were used altogether. Hence, overlapping leaves constituting the calyx/body of the mould were used as a decoration element on Hellenistic bowls. A series of dolphins appears on M28 in addition to the overlapping leaf-series. The overlapping leaf-decorations were created by repeating a simple stamp/press with the interior side either left empty or decorated further with ribbed lines just like on M28³⁹. The series of dolphins processed on the leaf-decoration leads us to the conclusion that the bowl masters from Kremna used various styles for decoration. In addition, these figures are of inferior workmanship since they were pressed randomly on the moulds. The same inferior quality can be observed on the medallion of the mould. Hence, the palmette decoration on the medallion was processed randomly on the decoration without considering the limits of the medallion. On this purpose, it appears obviously that the palmette decoration was misplaced towards the right, and not in the center of the mould.

M29 and M30 which have reddish-yellow clay colour are the last samples of Type 3. Details of their decoration are only partly clear since these moulds were used intensively. Rows of embossed points and stylized tongue motives were used together as rim decoration on M29. The rim section of M30 is decorated with daphne bundles like on M24, M25 and M26. However, M30 is distinguished from these three samples with its sprout decoration on the tips of the daphne bundles. The calyx of M29 is decorated with pointed lotus (*nymphaea caerulea*) leaves; in the lower section appears a female warrior (Amazon?), and in the upper section two fishing Eros figures and a lion figure in between facing away.

Although the decoration arrangement of M30 is unique with the front part of a bull figure between lotus and fern leaves, the samples M24, M25 and M26 are

³⁹ Rotroff 1982, 16-17.

similar since the arrangement of the figures is repeating on the four parts of the calyx/body. A difference can be observed on the medaillon of M30 where the same bull figure appears as decoration element as on the calyx/body.

The decorations appearing on Type 3 moulds are not common among the Hellenistic bowls. Similar samples of M24 and M25 were found in the excavations in Kibyra, the most important city of the Cabalis region and were dated to the second half of the 2nd century B.C. based on the moulds in the Mainz Museum⁴⁰. An identical bowl sample of M24 and M25 was found in Boubon, another city in the Kabalia region, and dated to the second half of the 2nd century B.C. and later⁴¹. Another bowl piece identical to M24 was found on the surface in the rescue excavations in Sagalassos in 1989⁴². Moulds with identical forms and decorations of Type 3 are displayed in the Mainz Museum and dated to the second half of the 2nd century B.C. and later⁴³. In the light of the information above, it can be asserted that Type 3 moulds were manufactured in regional workshops in Pisidia and Kabalia, and were confined to a narrow area. The second half of the 2nd century B.C. is a common date for moulds which differ from Type 2 in terms of form and decoration. However, attention must be drawn that the moulds from Kremna are of sloppier workmanship than the moulds from Kibyra and Boubon. In addition, the decorations used on the moulds are worn out, and the deformations on the moulds on the Kremna samples may indicate a later date of their manufacture. Therefore, it is possible to date the Type 3 moulds to the period between the last quarter of the 2nd century B.C. and the middle of 1st century B.C.

Conclusion

In this study, thirty pieces of bowl moulds of the Hellenistic period from Kremna, displayed in the Burdur Museum are evaluated. The moulds which are examined in three categories according to their formal features are of great importance since they definitely prove the production of mould-made bowls at Kremna. In addition, it is thought that the production shows some regional characteristics since identical bowl samples were found in the rescue excavations at Sagalassos in 1989⁴⁴. Bowls and mould samples of all three types were found also in Boubon and Kibyra, two neighboring cities to Pisidia. These findings indicate that there was a production which constitutes integrity in itself and displays local characteristics.

⁴⁰ Saygılı 2012, 400-401, Lev. 3, Res. 9-11.

⁴¹ Metin 2014, 245-246, K1.

⁴² B.M. Inv. No: K217.43.89.

⁴³ Künzl 2002, 15-16.

⁴⁴ B.M. Inv. No: K.216.43.89, K.217.43.89.

The classification according to decoration is an approval method in the study of Hellenistic mould bowl production. However, the moulds from Kremna indicate that this method is only partly correct. The body forms and exterior dimensions of the bowls should be taken into account as well. Hence, the motives including different groups such as long petals, figures and floral decorations which are explicated here under separate groups of Type 2 were used together. Similarly, while researchers evaluate bowls with overlapping leaves as a separate group, the samples of Type according to body size are also decorated with figures and floral motives.

The only comprehensive study on Hellenistic bowl moulds relates to the samples displayed in the Mainz Museum. These samples show similar features with the Kremna moulds according to their forms and decorations. Therefore, it is suggested here that the moulds in the Mainz Museum originate from Kremna. Our assertion is also supported by Künzl's statement that these moulds came from an unknown workshop in Anatolia.

Catalogue⁴⁵

M1	B.M. Inv. No: K.70.42.81	Çamlık/Kremna.
H: 6.3 cm.	R.R: 8.2 cm.	B.R: 4.4. cm.
Clay: 5 YR 5/6 Reddish Yellow.		
First half of 2 nd century B.C.		
M2	B.M. Inv. No: K.63.42.81	Çamlık/Kremna.
H: 5.2 cm.	R.R: 12.2 cm.	B.R: 5.8 cm.
Clay: 5 YR 5/6 Reddish Yellow.		
Second half of the 2 nd century to early 1 st century B.C.		
M3	B.M. Inv. No: K.66.42.81	Çamlık/Kremna.
H: 5.7 cm.	R.R: 12.8 cm.	B.R: 6.5 cm.
Clay: 5 YR 6/4 Light Brown.		
Second half of the 2 nd century to early 1 st century B.C.		
M4	B.M. Inv. No: K.61.42.81	Çamlık/Kremna.
H: 5.6 cm.	R.R: 12.8 cm.	B.R: 6.2 cm.
Clay: 5 YR 5/6 Reddish Yellow.		
Second half of the 2 nd century to early 1 st century B.C.		

⁴⁵ For the clay colour Munsell Soil Color Charts (2010) were used.

- M5 B.M. Inv. No: K.46.42.81 Çamlık/Kremna.
H: 5 cm. R.R: 12.8 cm. B.R: 6.1 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M6 B.M. Inv. No: K.55.42.81 Çamlık/Kremna
H: 5.1 cm. R.R: 12.4 cm. B.R: 6 cm.
Clay: 5 YR 5/6 Reddish Yellow
Second half of the 2nd century to early 1st century B.C.
- M7 B.M. Inv. No: K.62.42.81 Çamlık/Kremna.
H: 6.5 cm. R.R: 16 cm. B.R: 6.5 cm.
Clay: 5 YR 5/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M8 B.M. Inv. No: K.50.42.81 Çamlık/Kremna
H: 5.6 cm. R.R: 12.6 cm. B.R: 5.6 cm.
Clay: 5 YR 4/6 Yellowish Red Glaze: 10 YR 2/1 Black
Second half of the 2nd century to early 1st century B.C.
- M9 B.M. Inv. No: K.69.42.81 Çamlık/Kremna.
H: 5 cm. R.R: 12.5 cm. B.R: 6.5 cm.
Clay: 5 YR 5/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M10 B.M. Inv. No: K.44.42.81 Çamlık/Kremna.
H: 4.9 cm. R.R: 11.9 cm. B.R: 6 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M11 B.M. Inv. No: K.53.42.81 Çamlık/Kremna.
H: 5.7 cm. R.R: 14.7 cm. B.R: 6.6 cm.
Clay: 5 YR 5/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M12 B.M. Inv. No: K.45.42.81 Çamlık/Kremna.
H: 5.3 cm. R.R: 12.7 cm. B.R: 6.2 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M13 B.M. Inv. No: K.58.42.81 Çamlık/Kremna.
H: 5.3 cm. R.R: 12.2 cm. B.R: 6 cm.
Clay: 5 YR 5/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.

- M14 B.M. Inv. No: K.68.42.81 Çamlık/Kremna.
H: 5.3 cm. R.R: 12.2 cm. B.R: 5.8 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M15 B.M. Inv. No: K.52.42.81 Çamlık/Kremna.
H: 5.4 cm. R.R: 12.6 cm. B.R: 6.1 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M16 B.M. Inv. No: K.74.42.81 Çamlık/Kremna.
H: 4.1 cm. R.R: 9.1 cm. B.R: 5 cm.
Clay: 5 YR 6/6 Reddish Yellow Glaze: 7.5 YR 4/1 Dark Gray.
Second half of the 2nd century to early 1st century B.C.
- M17 B.M. Inv. No: K.71.42.81 Çamlık/Kremna
H: 3.4 cm. R.R: 9 cm. B.R: 4.7 cm.
Clay: 5 YR 6/6 Reddish Yellow
Second half of the 2nd century to early 1st century B.C.
- M18 B.M. Inv. No: K.59.42.81 Çamlık/Kremna.
H: 5.1 cm. R.R: 13 cm. B.R: 6 cm.
Clay: 5 YR 5/6 Reddish Yellow Glaze: 7.5 YR 4/1 Dark Gray.
Second half of the 2nd century to early 1st century B.C.
- M19 B.M. Inv. No: K.43.42.81 Çamlık/Kremna.
Yük: 5.5 cm. R.R: 14.4 cm. B.R: 6.4 cm.
Clay: 5 YR 5/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M20 B.M. Inv. No: K.48.42.81 Çamlık/Kremna.
H: 5.2 cm. R.R: 13 cm. B.R: 5.5 cm.
Clay: 5 YR 5/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M21 B.M. Inv. No: K.54.42.81 Çamlık/Kremna.
H: 5.1 cm. R.R: 12.4 cm. B.R: 6 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.
- M22 B.M. Inv. No: K.67.42.81 Çamlık/Kremna.
H: 5.8 cm. R.R: 13.4 cm. B.R: 6.4 cm.
Clay: 5 YR 6/6 Reddish Yellow.
Second half of the 2nd century to early 1st century B.C.

M23 B.M. Inv. No: E.8850.

H: 5.1 cm. R.R: 12.9 cm. B.R: 6.1 cm.

Clay: 5 YR 5/6 Reddish Yellow.

Second half of the 2nd century to early 1st century B.C.

M24 B.M. Inv. No: K.57.42.81 Çamlık/Kremna.

H: 6 cm. R.R: 14 cm. B.R: 6 cm.

Clay: 5 YR 5/6 Reddish Yellow.

Last quarter of the 2nd century to middle of the 1st century B.C.

M25 B.M. Inv. No: K.60.42.81 Çamlık/Kremna.

H: 6.6 cm. R.R: 14 cm. B.R: 5.3 cm.

Clay: 5 YR 5/6 Reddish Yellow.

Last quarter of the 2nd century to middle of the 1st century B.C.

M26 B.M. Inv. No: K.51.42.81 Çamlık/Kremna.

H: 7.2 cm. R.R: 14.2 cm. B.R: 6.2 cm.

Clay: 5 YR 6/4 Light Reddish Brown.

Last quarter of the 2nd century to middle of the 1st century B.C.

M27 B.M. Inv. No: K.47.42.81 Çamlık/Kremna.

H: 7.1 cm. R.R: 14.4 cm. B.R: 6.2 cm.

Clay: 5 YR 6/6 Reddish Yellow.

Last quarter of the 2nd century to middle of the 1st century B.C.

M28 B.M. Inv. No: K.65.42.81 Çamlık/Kremna.

H: 7.2 cm. R.R: 14.7 cm. B.R: 6 cm.

Clay: 5 YR 5/6 Reddish Yellow Glaze: 5 YR 4/1 Dark Gray.

Last quarter of the 2nd century to middle of the 1st century B.C.

M29 B.M. Inv. No: K.49.42.81 Çamlık/Kremna.

H: 7.1 cm. R.R: 14.6 cm. B.R: 6.1 cm.

Clay: 5 YR 6/6 Reddish Yellow.

Last quarter of the 2nd century to middle of the 1st century B.C.

M30 B.M. Inv. No: K.64.42.81 Çamlık /Kremna.

H: 7.6 cm. R.R: 14.6 cm. B.R: 6.1 cm.

Clay: 5 YR 6/6 Reddish Yellow.

Last quarter of the 2nd century to middle of the 1st century B.C.

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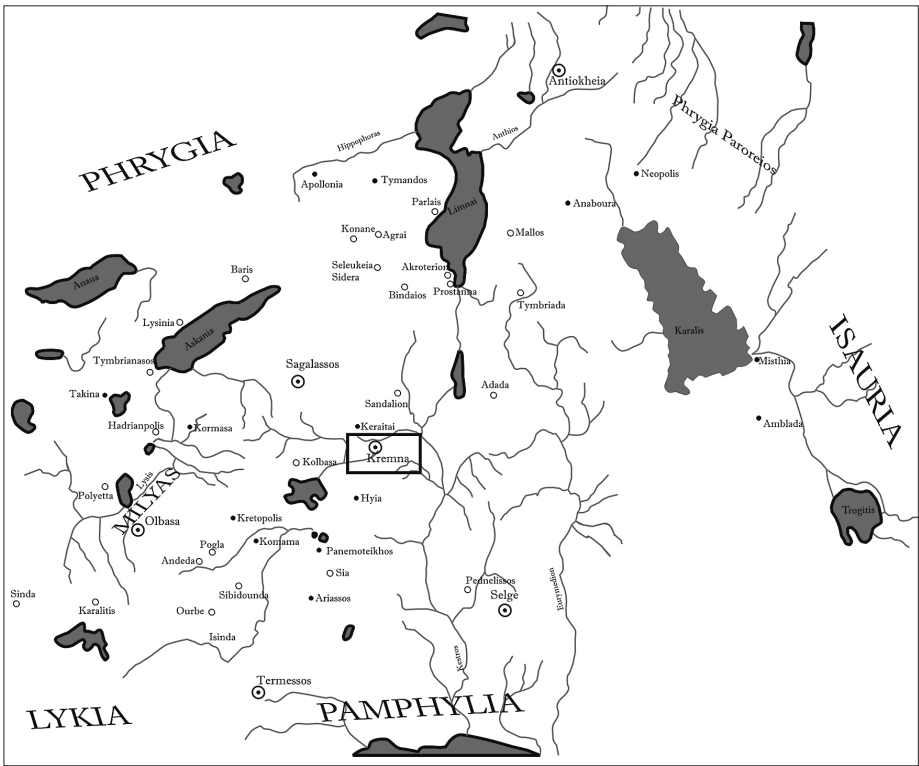


Fig. 1 Pisidia Region Map

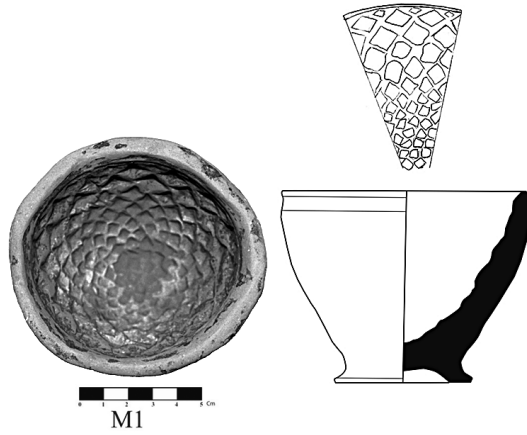


Fig. 2 Tyep 1

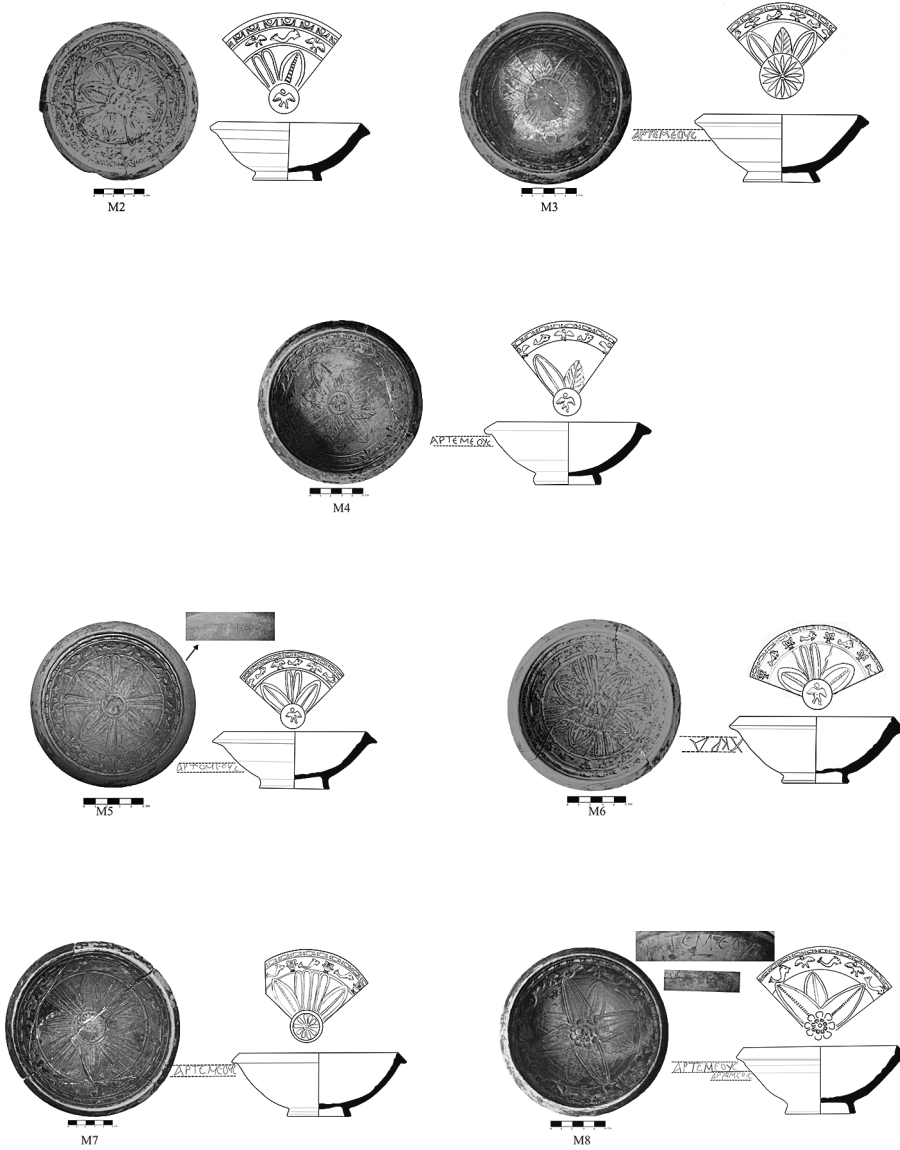


Fig. 3 Type 2

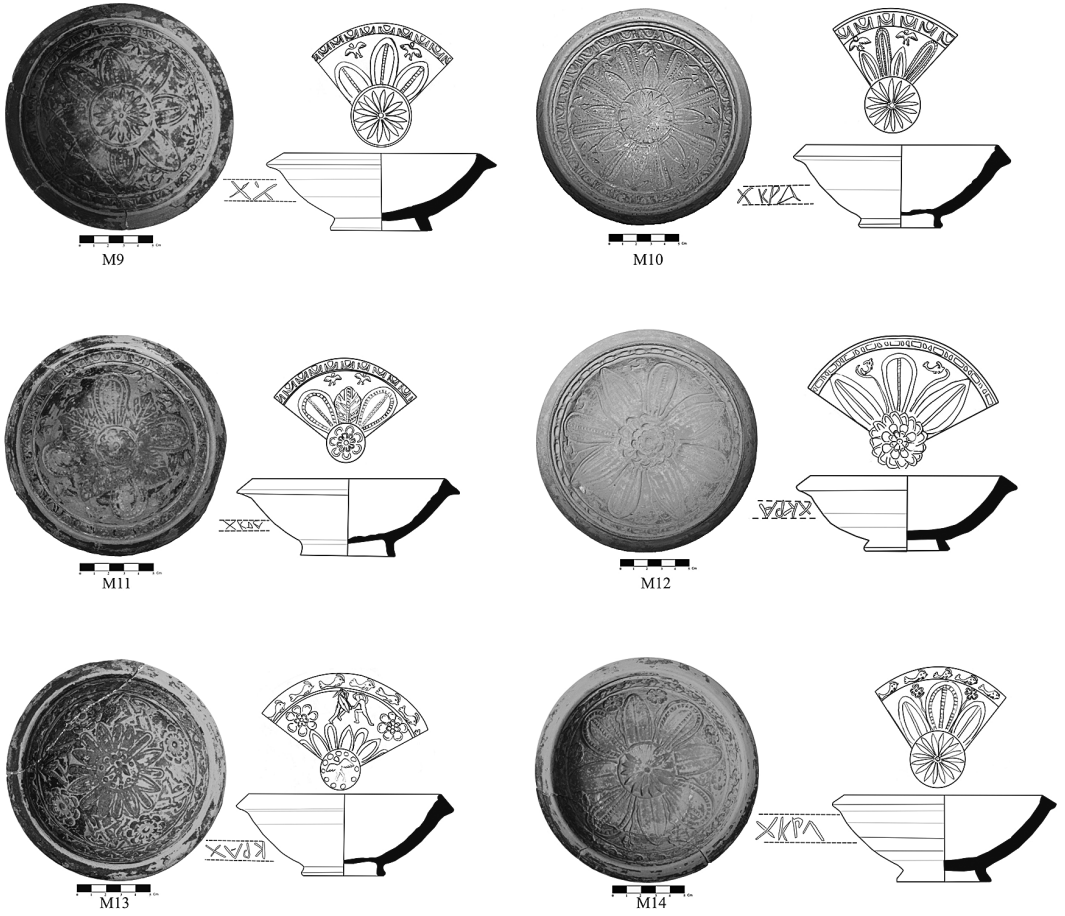


Fig. 4 Type 2

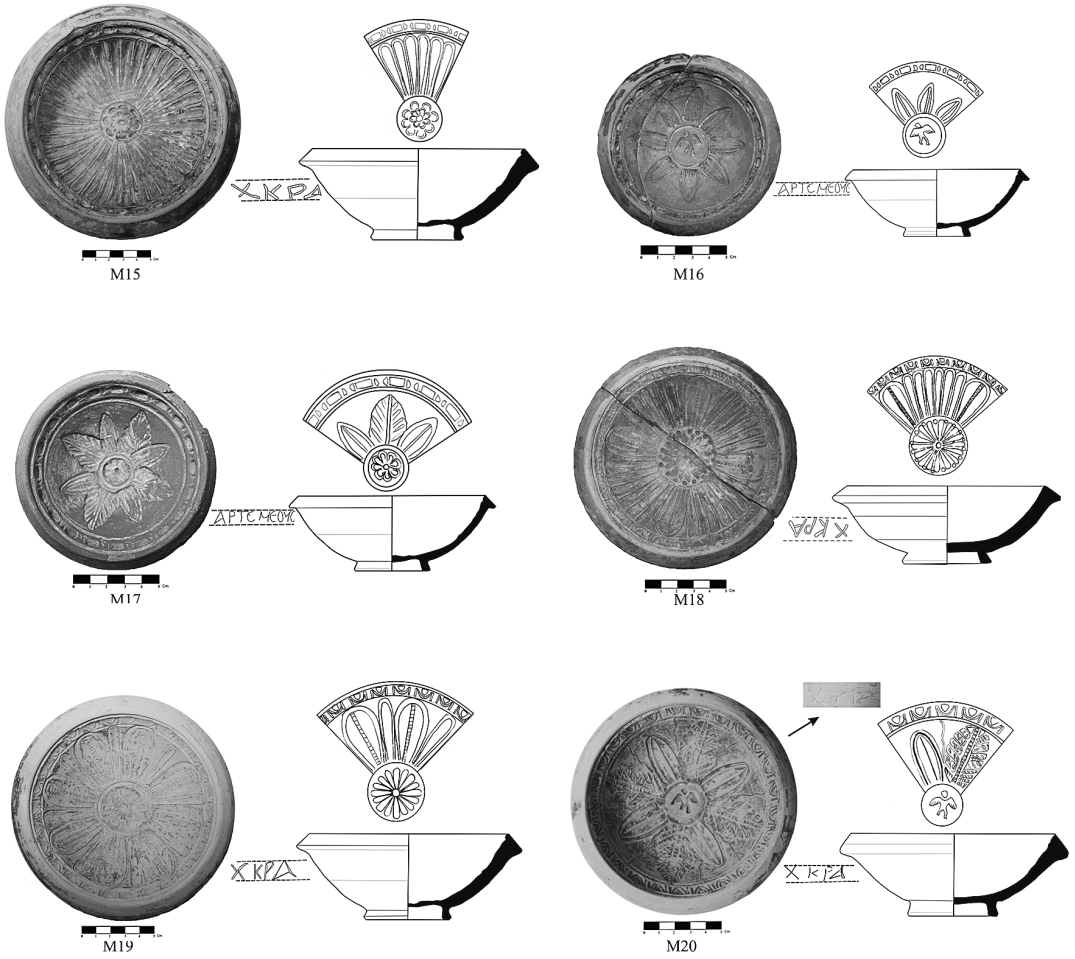


Fig. 5 Tyep 2

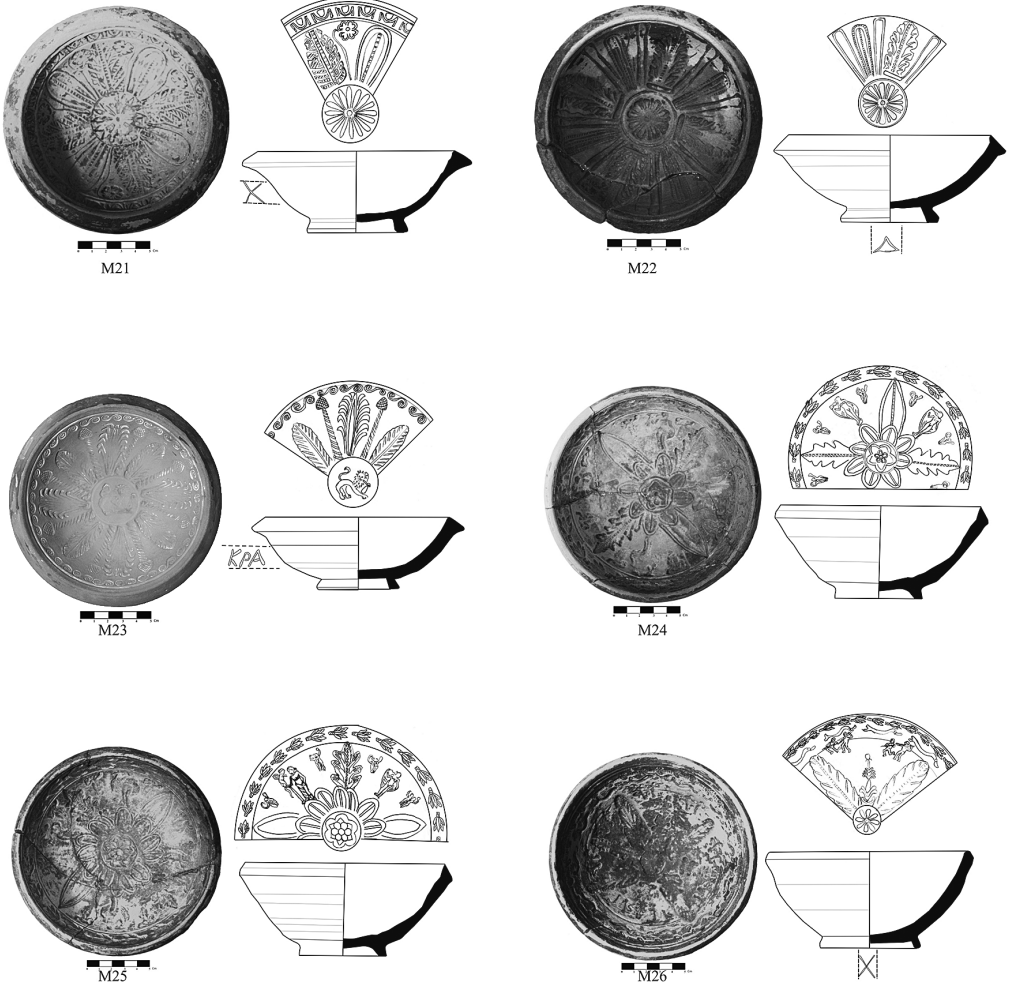


Fig. 6 Type 2 M21-23, Type 3 M24-26

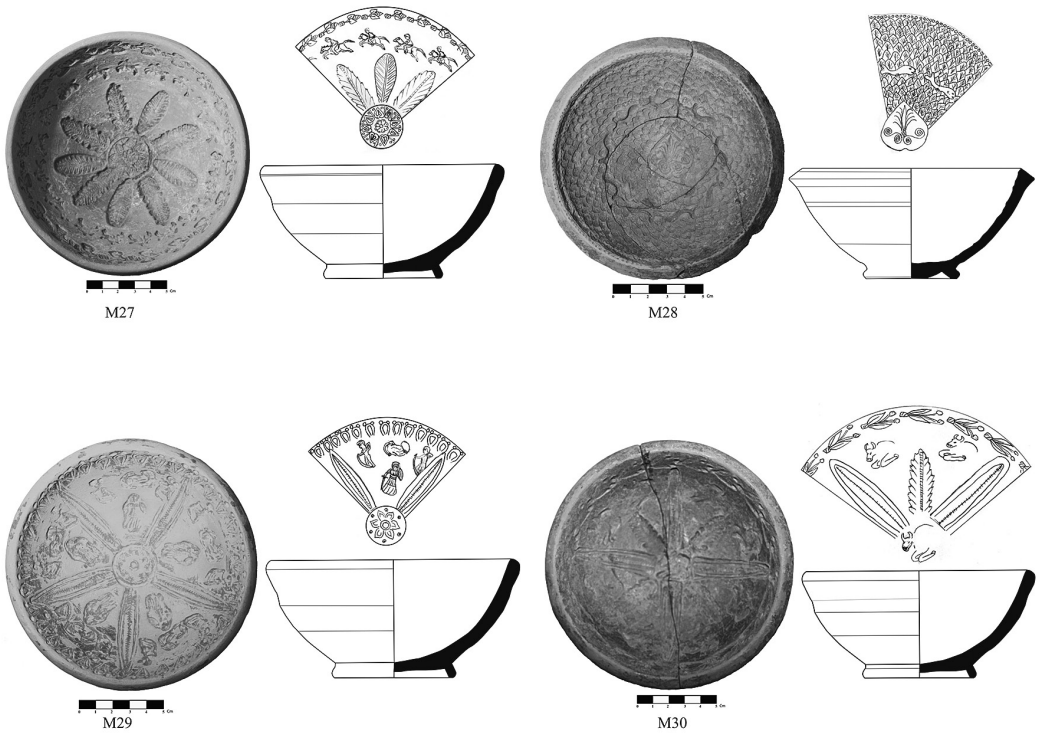


Fig. 7 Type 3

