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CONTENTS

STUDIES

ANCIENT HISTORY	WITH THE OTHER CYCLADIC ISLANDS, LEFKANDI AND THE ARGOLID
Vasileios SPANOS HISTORICAL REFERENCE POINTS OF ANCIENT LARISSA	Ramaz SHENGELIA, Levan GORDEZIANI, Nikoloz TUSHABRAMISHVILI, Nodar
Lucreţiu MIHAILESCU-BÎRLIBA THE MOBILITY VECTORS OF SOLDIERS RECRUITED FROM THE RURAL MILIEU IN MOESIA INFERIOR. I. THE INSCRIPTIONS	POPORADZE, Othar ZOURABICHVILI DISCOVERY OF UNKNOWN SCRIPT SIGNS IN GEORGIA: THE BASHPLEMI LAKE TABLET
FROM CLAUDIUS TO TITUS	Derviş Ozan Tozluca WHEEL-MADE TERRACOTTA AND HOLLOW BULL FIGURINES FROM THE KNIDOS TERRITORY
Raúl GONZÁLEZ-SALINERO JEWISH EXEMPTIONS FROM ROMAN MILITARY SERVICE: A REPLY	Dávid Petrut, Sorin COCIŞ DOMESTIC LIGHTING IN ROMAN NAPOCA. THE LAMPS DISCOVERED ON THE SITE AT V. DELEU STREET (CLUJ- NAPOCA, ROMANIA)
Noé CONEJO THE MATERIALIZATION OF IDENTITY: ARCHITECTURE AND CONSUMPTION IN THE LATE ROMAN VILLAS OF LUSITANIA45	Sever-Petru BOŢAN, Vitalie BÂRCĂ, Sorin COCIŞ NOTES ON SOME OF THE GLASS FINDS IN THE VILLA RUSTICA OF DEALUL LOMB – CLUJ-NAPOCA
ARCHAEOLOGY Harun OY	Vladyslav SHCHEPACHENKO ROMAN GLASSWARE FROM THE AREA OF THE CHERNIAKHIV/ SÂNTANA DE MUREŞ CULTURE: TYPOLOGY, CHRONOLOGY AND DISTRIBUTION
AN IMPORTANT SETTLEMENT RELATED TO YORTAN CULTURE IN CENTRAL WEST ANATOLIA: KIZILKABAAĞAÇ, EŞME, UŞAK .57	Deniz Berk TOKBUDAK A LAMP-BEARER (?) IN THE FORM OF DIONYSUS FROM
Gayane POGHOSYAN RITUAL SCENES IN THE ARTISTIC DECORATION OF THE URARTIAN BRONZE HELMETS	ANATOLIAN CIVILIZATIONS MUSEUM
Arturo SANCHEZ SANZ GRYPHOMACHIAS. AMAZONS AND GRYPES IN ANCIENT ART77	Nathaniel S. KATZ THE LEGIONARY COINS OF SEPTIMIUS SEVERUS
ARCHAEOLOGICAL MATERIAL	

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Stefanos SPANOS

THE MYCENAEAN POTTERY OF THE TEMPLE-TEMENOS AREA FROM KOUKOUNARIES (PAROS) AND THE CONNECTIONS

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WHEEL-MADE TERRACOTTA AND HOLLOW BULL FIGURINES FROM THE KNIDOS TERRITORY

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DOI: 10.14795/j.v11i3.1085 ISSN 2360 – 266X ISSN-L 2360 – 266X **Abstract:** Terracotta Bull Figurines are among the most significant finds from the 8th and 7th centuries BCE in the Knidos territory. Major centers where these figurines have been discovered include the Emecik Apollo Sanctuary, Knidos, Burgaz, and Kumyer. In the Knidos territory, bull figurines were produced using three different techniques: hand-shaped, wheel-made, and hollowformed. Figurines found at Emecik, Knidos, and Kumyer were crafted in three distinct body types. The bull figurines, which have survived to this day in fragments, consist of body, head, and leg parts. The bodies of these figurines in this group were made in a cylindrical form on a wheel. The cylindrical bodies were sealed with clay slabs on both ends, and details such as the head, legs, penis, anus, and tail were added later. The outer surface of the wheel-made bodies was burnished with a spatula-like tool, thus removing the wheel marks. In the hollow-formed figurines, the body was shaped by hand. It is likely that hollow bull figurines required less time and skill compared to the wheel-made ones. In our study, wheel-made and hollow bull figurines, which had not been comprehensively evaluated before, have been assessed, identified, dated, and their significance for the Dodecanese region explained.

 $\textbf{Keywords:} \ Emecik, Knidos, terracotta, bull \ figurines, Wheel-made.$

INTRODUCTION

Knidos and its territory are located at the southwestern tip of modern Turkey. Herodotus¹ reports that the lands of Knidos extend from the Bybassos strait to the western end of the peninsula. This narrow, long, and rugged peninsula is referred to as Steep Knidos in the Homeric Hymn to Apollo². The present-day Datça Peninsula, which encompasses the ancient Knidos territory, is a landmass 65 km long³. The peninsula is 15 km wide at its widest point and only 0.6 km wide at its narrowest. Although much of the Knidos territory is rugged, two large plains offered significant agricultural potential for the city.

There are three major archaeological sites in the Knidos territory. The first is Knidos, located at the western end of the peninsula. The second major site is the Burgaz Archaeological Site, located in the center of the peninsula in the Datça District Center. The Emecik Apollo Sanctuary, located approximately 10 km east of Burgaz, is the earliest and most important cult center of the peninsula. In addition to these archaeological sites, there are important

¹ Hdt. I, 174, 2–3.

² Hymn. Hom. Ap. III, 30.

³ TUNA 1983, 14–15.

fortresses, quarries, and workshops in areas such as Alavara, Kumyer, and Mesudiye, scattered across the peninsula.

The Knidos territory, especially Knidos itself, has been studied for many years. The surface survey conducted by G. Bean and M. Cook in the 1950s provided important data for identifying the archaeological sites in the Knidos territory⁴. The research conducted by N. Tuna from 1986 to 1992 and the excavations of ceramic workshops in Reşadiye have increased our knowledge about the archaeology of the peninsula⁵. Furthermore, N. Tuna's excavations at Burgaz and the Emecik Apollo Sanctuary are significant for demonstrating Knidos' overseas relations during the Archaic Period⁶.

Terracotta bull figurines have been present in mainland Greece since the Bronze Age and are widespread around the Aegean. In the Iron Age, terracotta bull figurines were the most popular animal figurines at Olympia⁷, while bulls remained the most preferred animal figurines at the Thebain Kabirion until the fifth century⁸. In Ionia, Samos and Claros offer numerous and varied examples of these bull figurines⁹.

There are two main techniques for producing terracotta bull figurines. The first involves shaping all anatomical features of the figurine by hand. The other method involves shaping the body of the figurine on a wheel, with the head, legs, and other appendages hand-shaped and then applied to the figurine. In this study, we will evaluate wheel-made and hollow bull figurines found in the Knidos territory.

Wheel-made bull figurines were used as votive offerings in many sanctuaries in the Greek Mainland, Crete, the Aegean, and Cyprus from the Late Bronze Age to the Geometric Period¹⁰. In Cyprus, they were used almost continuously from the end of the Late Bronze Age to the Archaic Period¹¹. Nearly all the examples found in Knidos have been previously published in my studies¹². However, the Emecik finds have only been partially evaluated in different publications or published as images without detailed examination¹³.

The wheel-made and hollow figurines included in this study come from the Emecik Apollo Sanctuary, Knidos, and Kumyer Fortress. A total of 29 examples are included in our study. Unfortunately, the examples of wheel-made/hollow bull figurines from the Knidos region have survived to the present day only in fragments of bodies, heads, and legs.

CLAY AND TECHNIQUES

The wheel-made and hollow bull figurines found in the Knidos territory exhibit different clay colors. The dominant clay colors include 2.5 YR 4/6 reddish brown, 2.5 YR 5/1 reddish grey, and 7.5 YR 7/6 reddish yellow. The clay used in all figurines contains black/grey inclusions, lime particles, and a small amount of silver or gold mica. Only two of the figurines included in our study underwent Neutron Activation

Analysis (NAA). However, these samples were evaluated as 'single' examples¹⁴. Nevertheless, all examined samples have similar clay content, indicating that all the figurines were produced on the Knidos Peninsula.

Two different production techniques are observed in the figurines included in our study. The first technique involves shaping the body and neck of the bull on a wheel, with the exposed parts covered with clay slabs. The other technique involves hand-shaping the body as a hollow form, which is then joined in a way that is not visible from the outside. The head, legs, tail, penis, and testicles were hand-shaped and applied to the wheel-made or hollow-formed figurines.

DESCRIPTION AND DATING

Type 1

All figurines in this group are wheel-made. None of the figurines in this group have survived intact to the present day. These figurines have cylindrical bodies, with the front and back covered by flat slabs. Other details of the body were applied to the main structure. The existing body fragments indicate that the figurines had bodies approximately 10 cm in diameter. Based on examples from other find sites, it is estimated that the figurines in this group were quite tall. With the addition of the head and horns, the figurines were likely 25 cm or taller.

Figurines numbered **Nr. 1 – 4** are included in this group. These are body fragments of wheel-made bull figurines. The **Nr. 1** example is a fragment of the rear section of the bull's body, indicating a solid area. Initially appearing as a flat slab, the piece shows slight bulging at the right and left hip levels. A single hole marking the anus is located at the center of the piece. A clay appliqué separates the right and left hips, beginning just below the anus. **Nr. 2** is the head fragment of a wheel-made bull figurine, with the eye depicted in a circular form. **Nr. 3** and **4** are cylindrical body fragments of a wheel-made bull figurine. The surface of the body fragments has been smoothed with a spatula-like tool to remove wheel marks.

The use of the wheel can be traced back to the early 2nd millennium BCE, although Mycenaean examples do not typically predate the 12th century BCE¹⁵. While bull figurines were frequently seen in Minoan cult activities and sacred sites, wheel-made bull figurines became one of the most popular votive offerings in Crete from the Late Minoan IIIB period onwards, continuing into the Archaic period and beyond¹⁶. Around the same period, wheel-made bull figurines began to appear in the Cyclades, Mycenaean mainland, the Aegean, and Cyprus¹⁷. The technique persisted throughout the Dark Ages¹⁸. In Samos, the use of the wheel can be traced from the 10th century BCE to the second half of the 7th century BCE¹⁹. The examples from Claros, similar to those from Samos, date from the second half of the 9th century BCE to

⁴ BEAN/COOK 1952, 172.

⁵ TUNA 2022, 18.

⁶ TUNA 2012, 79

⁷ HEILMEYER 1972, 123.

⁸ SCHMALTZ 1980, 160.

⁹ JAROSCH 1992.

¹⁰ BENZI 1999.

¹¹ KARAGEORGHIS 1993.

¹² TOZLUCA 2023.

¹³ BERGES 2006; TUNA 2022.

¹⁴ BERGES 2006, 155–156, 199–201.

¹⁵ HIGGINS 1967, 1–17; JAROSCH 1994, 55.

¹⁶ KOUROU/KARETSOU 1997, 108.

¹⁷ KARAGEORGHIS 1993; KOUROU/KARETSOU 1997.

¹⁸ DESBOROUGH 1972, 282.

¹⁹ JAROSCH 1994, 55-56.

the 8th century BCE²⁰. Dewailly has dated some wheel-made bull figurines from Klaros to the 8th–7th centuries BCE²¹. Similar examples from Chios are also from the same period²².

The hole in the anus of **Nr. 1** was made to prevent the figurine from cracking or exploding during firing. The presence of holes in the body or anus is a technique frequently used in Samos²³. Bull figurines with similar hip structures from Samos are dated to the Late Geometric Period II²⁴. The body fragments **Nr. 3** and **Nr. 4** show significant similarities to wheel-made bull figurines found in Kos, Heraklis. The Heraklis examples, decorated with geometric patterns, are dated to the Middle Geometric Period²⁵.

Type 1b

This is a subgroup of the wheel-made terracotta bull figurines categorized under Type 1. It includes figurines numbered **Nr. 5–7**. All figurines in this group were found at the Emecik Apollo Sanctuary. The general characteristic of this group is a cylindrical body with hand-shaped solid conical legs. The Type 1b figurines are smaller than those of Type 1 and have a 'barrel-shaped' body.

Nr. 5 is the front body fragment of a wheel-made bull figurine. The cylindrical body of the figurine ends in an ovoid shape. There is a slightly protruding dewlap in front of the body. A wheel-made figurine found in Ayia Irini, Cyprus, shares a similar wheel-made and ovoid body form with the Emecik example²⁶. The Ayia Irini example is dated between 675–600 BCE²⁷. A wheel-made bull figurine with an ovoidended body found in Late Geometric contexts in Eretria closely resembles **Nr. 5**²⁸.

Nr. 6 is a bull figurine fragment, of which only a small part of the leg and body has survived. Its cylindrical body is closed with a flat slab, giving it a barrel-shaped form. It has short conical legs.

Nr. 7 is the best-preserved example among the wheelmade bull figurines from the Knidos territory. The typical conical head with horns rising from both sides of the head, which is common in Knidos-Emecik bull figurines, is present. The eyes are depicted as convex circular protrusions²⁹. The nose is represented by two holes, while the mouth is rendered as a single line. A clay appliqué forming the dewlap begins just below the mouth/throat and continues to the front legs. The wheel-made hollow cylindrical body extends towards the back legs without any change in form, maintaining a barrel-shaped structure. Considering the body structure and form, it can be compared to examples from Cyprus and Samos dated to the 7th century BCE³⁰.

Type 2

Examples **Nr. 8**, **9**, and **10** are included in the Type 2 group. These fragments have survived as parts of the body and hip. The bull figurines in this group have bodies shaped on a wheel, with the rear part of the body sealed with a flat slab. **Nr. 8** has a cylindrical body and an 'S'-shaped curved tail. This tail type is also seen in bull figurines decorated with geometric patterns and dated to the Late Geometric Period, found in Emecik and Knidos³¹. Similarly, **Nr. 9** has a cylindrical body with a flat-ended hip section, and the anus is indicated by a single hole. The upper body of **Nr. 10** is decorated with a black-dark brown band that extends along the entire body. The cylindrical bodies and flat-ended design of the geometrically decorated bull figurines found in Knidos and Emecik show great similarity with the Type 2 examples.

Although the production and usage of the Knidos-Emecik bull figurines differ, the technique used for the body, head, and legs can be compared to askoi found in Rhodes. The ram-headed askos from Siana, Rhodes, features a wheelmade cylindrical body with the head, neck, conical legs, and tail applied later³². Similar types of askoi found in Lindos, Kamiros, and Ialysos also show similarities with examples from the Knidos territory³³. Ram askoi from Siana, Rhodes, in the Philadelphia and National Museum of Denmark collections, exhibit similar production techniques and stylistic features³⁴. Bourgogiannis suggests that ram-shaped askoi found in Rhodes, associated with well-known Late Geometric and Subgeometric ceramic classes such as the 'Bird and Zigzag Painter' and Spaghetti Ware style, likely date to the late 8th century to the mid-7th century BCE35. A bull askos of uncertain origin, but likely found near Bodrum, can be compared to the Knidos-Emecik examples. The Bodrum example has been compared to those found in Rhodes and the Akpınar necropolis in Klazomenae, dated to the second half of the 7th century BCE³⁶.

While askoi bear great similarities to the wheel-made bull figurines from the Knidos territory, their intended uses were entirely different. Animal-shaped askoi were significantly produced from the Late Cypriot IIIB period to the Cypro-Archaic I period³⁷. During the Late Cypriot IIIB period, the primary animal for askoi was the horse, but from the Cypro-Geometric I period onwards, ram and bull figurines became prominent³⁸. In the Aegean, wheel-made figurines did not evolve into askoi but retained their own forms and styles³⁹. Askoi entered Cypriot art during the Late Geometric Period of the Late Bronze Age and were fully adopted in Cyprus by the 11th century BCE. With the development of overseas relations between Cyprus, Crete, and the Aegean from the 9th century BCE onwards, these types of vessels were

 $^{^{\}rm 20}\,$ AKAR-TANRIVER 2009,126; DOĞAN GÜRBÜZER 2012, 366–368.

²¹ DEWAILLY 2001, 368, Fig. 4.

²² BOARDMAN 1967, Pl. 76.

²³ JAROSCH 1994, 56.

²⁴ JAROSCH 1994, 20, Nr.32, Taf.. 11.

²⁵ ELPIDA 2019, Pl. 17.

²⁶ KARAGEORGHİS 1996, 30, Pl. XVIII:2.

²⁷ KARAGEORGHİS 1996, 29–30.

²⁸ VERDAN 2013, Nr.486, Pl.109; THURTSON 2015, 247, Fig. 115.

²⁹ BERGES 2006; KLEIBL 2010; TOZLUCA 2016; TOZLUCA 2023.

³⁰ SCHMIDT 1968, 47, Pl.87; KARAGEORGHİS 1996, 29–30, Pl. XV, 3, XVI, 1–2.

 $^{^{31}\,}$ TUNA 2022, 315, Fig. VII.2–59; TOZLUCA 2016, Pl. 1; TOZLUCA 2023, Fig. 1a.

³² BOURGIANNIS 2019, 227.

 $^{^{\}rm 33}$ LINDOS: BLINKENBERG 1931; CR VI–VII, 45–51, 54–55, Fig. 49; MAURI 1923–1924, 301, Fig. 197.

³⁴ CVA USA 29, 18, Pl.6; CVA DENMARK 2, 61, 8, Pl.81; BOURGIANNIS 2019, 229.

³⁵ BOUROGINNIS 2019, 229-230.

³⁶ MARIAUD 2022, 8-9, Fig. 13.

³⁷ KOUROU 1997, 94.

³⁸ KOUROU 1997.

³⁹ KOUROU 1997, 94–95.

reintroduced to Crete and the Dodecanese⁴⁰. A bull figurine from the Limassol Museum collection, found in Amathus, recalls the body and leg structure of the Knidos-Emecik examples. The Amathus example is dated to the Cypro-Geometric III – Cypro-Archaic I period⁴¹.

Type 3

The bull figurines numbered Nr. 11 - 15 are included in the Type 3 group. Three of these examples were found at the Emecik Apollo Sanctuary, and one was identified at the foot of Kumyer Fortress, located in the western part of the Datça Peninsula. The bodies of these figurines were hollow and the other limbs were applied to the body later. In the Type 1 and 2 groups, the bodies were wheel-made and cylindrical. However, in Type 3, the wheel was not used; the body was hand-shaped, and the hip had an hourglass form. When viewed in profile, the hand-shaped figurines have bodies that widen towards the front and rear legs and narrow in the middle. In profile, the bulls generally exhibit a slightly hourglass-shaped hip. Nr. 14 has a preserved height of 9.3 cm. Nr. 11, with a height of 8.9 cm, is estimated to have been approximately 15-20 cm in size when all limbs were attached.

The body of **Nr. 11** is decorated with three rows of stamped ornaments, two on the upper sides and one on the top of the body. The tail of the **Nr. 11** bull figurine curves over the left hip and is attached to the body. All limbs were applied to the body later. Bull figurines with stamped ornaments found in Emecik are dated to the Late Geometric Period⁴². Examples with stamped ornaments include an example from Olympia⁴³ dated to the 8th century BCE, examples from the Kombothekra Artemis Limnatis Sanctuary dated to the Late Geometric Period⁴⁴, a chariot with stamped ornamentation from Syme Viannou, Crete, dated to the 7th century BCE⁴⁵, and an example from Aegina dated to the Late Geometric-Early Archaic Period⁴⁶.

Nr. 12 does not exhibit any decoration, but its hip section is shaped in a slight hourglass form. The tail of the **Nr. 13** bull figurine curves over the left hind leg, with the anus and penis indicated by circular holes.

Bull figurines with stamped ornamentation from Knidos and Emecik are dated to the second half of the 8th century BCE to the first half of the 7th century BCE. Horse figurines with a similar hourglass-shaped body structure from Emecik are both hand-shaped and hollow. The Emecik horse figurines have long, slender cylindrical bodies with a considerable distance between the front and hind legs. Wheelmade bodies have a smooth circular body form, with a more abrupt transition from body to hip. The hourglass form seen in the transition from body to hip in hand-shaped hollow bull figurines is absent in horse figurines. The Emecik horse figurines are dated to the end of the 7th century BCE to the first quarter of the 6th century BCE⁴⁷. A horse figurine found

in Olympia shows great similarity to examples from the Knidos territory in terms of body construction technique⁴⁸. Based on comparisons with examples from other find sites, **Nr. 11** should be dated to the late 8th century BCE, while the bull figurines **Nr. 12–15** should have been produced until the third quarter of the 7th century BCE.

HEAD FRAGMENTS

Examples **Nr. 16 – 25** are fragments from wheel-made or hollow-formed figurines. While two of the examples were found in Knidos, the remaining pieces are from Emecik. The broken traces on the head fragments indicate that they were applied to the bodies they belong to.

Two different techniques are observed in the production of head fragments that were applied to the bodies. The first technique is seen in examples **Nr. 18, 19**, and **25**. The concave curve seen on the inner surface of the broken rear section of the head indicates where the head was attached to the body. Additionally, the wall of this concave curve tapers towards the body. In contrast, head fragments **Nr. 20, 21, 22**, and **24** have a completely circular form with equal wall thickness in the neck area. The necks of fragments **Nr. 22** and **24** were shaped on a wheel. The existing traces do not allow us to determine whether the necks of all the aforementioned head fragments were wheel-made. Most likely, the hollow necks made on a wheel were capped with the typical conical triangular heads. During this capping process, the cylindrical form of the neck may have been altered at the end.

The head and neck fragment of the Nr. 16 bull figurine is one of the most distinctive bull figurines found in the Knidos territory. With a total height of 14.3 cm including the preserved horns, it must have belonged to a rather large bull figurine. The hollow-formed neck and head fragment taper from the body to the neck, featuring a conical head and slightly curved horns that rise upwards. The oval indentation where the neck fits into the body is quite pronounced. Just below the horns, the ears are depicted in a spoon/leaf-like shape. The exterior surface of the figurine is coated in a yellowish/white slip. Red band decorations are prominent on the neck, head, and horns. There are no other figurines in the Knidos-Emecik series with a slip color similar to the Nr. 16 bull figurine. K. Kleibl compared Nr. 16 to Cypriot terracottas and suggested it might belong to the Late Bronze Age, possibly the Late Helladic III/12th-11th centuries BCE⁴⁹. However, when compared to early Cypriot figurines, such as the Amathus figurine, Nr. 16 does not show significant similarities⁵⁰. The comparison of the Emecik example with Late Bronze Age wheel-made head and neck fragments is debatable. The wheel-made bull figurines from the 12th century BCE Phylakopi Sanctuary differ from the Emecik example due to their trumpet-like mouth/nose structures⁵¹. Additionally, the band decorations on Nr. 16 do not resemble the wavy, straight, and curvilinear patterns seen on

⁴⁰ KOUROU 1997, 99.

⁴¹ KOUROU 1997, 103. Nr. 35, Pl. XXVIc.

 $^{^{42}\ \} BERGES\,2006, Taf..\,106.4; TUNA\,2012, Fig.\,90; TUNA\,2022, Fig.\,VII.2-66.$

 $^{^{\}rm 43}\,$ Olympia Nr.239: HEILMEYER 1972, Taf.. 40.

⁴⁴ SINN 1981, 69, Nr. 77-78, Taf.. 10.3-4.

⁴⁵ MUHLY 2008, 28–29, Nr. 87, Pl. 17.

⁴⁶ SPATHI 2022, 222–225, Pl. 17.

⁴⁷ BERGES/TUNA 2000, 205, Abb 17c; BERGES 2006, 173-174,

Taf.. 102-104; TUNA 2022, 295, Figs. VII.2.57-58.

⁴⁸ HEILMEYER 1972, 85, Nr. 238, Taf.. 40.

⁴⁹ BERGES 2006, 176, Nr. 457, Taf.. VII.1.

⁵⁰ BERGES 2006, 176, Nr. 457, Taf.. VII.1.

⁵¹ FRENCH 1985, 236–248, Figs. 6.15–24.

Mycenaean animal figurines⁵². Mycenaean figurines decorated with monochrome patterns in LH III B feature wavy, straight, and curvilinear patterns, while LH IIIC introduces stepped and lattice patterns⁵³. Thus, the **Nr. 16** example differs in terms of depiction and decoration style from Late Bronze Age finds in the Aegean.

NAA analyses performed on the **Nr. 16** bull figurine fragment did not provide information about its origin, classifying it as a 'single' example⁵⁴. Our examinations of the figurine fragment show significant similarities in clay composition and color with some Knidos figurines. As mentioned above, there are no bull figurines with a slip comparable to that of Nr. 16⁵⁵. We can compare the slip of Nr. 16 to a ceramic fragment found around the Knidos Small/Military Harbor, dated to the Late Helladic IIIC period. However, the yellowish slip of the LH IIIC ceramic from Knidos appears more homogeneous and of higher quality compared to the slip of Nr. 16⁵⁶. Additionally, we do not yet have information about the origin of the Knidos example. It has been noted that the thick yellowish slip color of Mycenaean bull figurines found in Kos Heraklion transitioned to a thinner and more whitish color in later periods⁵⁷.

The head fragment Nr. 17 is very similar to the Nr. 16 figurine in terms of the placement of the head, neck, and horns, the spoon/leaf-like shape of the ears, and the structure of the mouth and nose. The area between the horns and the horns themselves are painted in dark black/brown, and the existing traces indicate that the eyes were painted in black/ brown with an outer ring and a central dot. Nr. 17 has a preserved height of 6.8 cm. If the horns were fully preserved, the height of the head and neck would be approximately 10 cm. The Nr. 17 head fragment differs from the Nr. 16 figurine by its light orange-brown clay color, which is typical of Knidos clay. NAA analysis on Nr. 17 indicated that the origin of the figurine fragment could not be determined and it was classified as a single example⁵⁸. Despite differences in clay and slip characteristics, the similarities between the Nr. **16** and **Nr. 17** figurines are striking. The similarity in ear structures, in particular, allows for the comparison of the Nr. 16 figurine, which is suggested to be dated to the Late Bronze Age, with other figurines. A bull figurine fragment from Cyprus, dated to the Cypro-Geometric I-II period, has ears reminiscent of our Nr. 16-17 figurines⁵⁹. A votive figurine of a priest wearing a bull mask found in Ayia Irini has bull mask ears very similar to the Knidos-Emecik examples. This figurine is dated to the Cypro-Archaic period⁶⁰. A terracotta bull figurine head and neck fragment found in Samos is very similar to **Nr. 16**, with its tapered structure from body to head, vertically rising slightly curved horns, and spoon/ leaf-like ears⁶¹. The similarity of the attachment points to

the body between the Samos example, dated to the 7th century BCE, and **Nr. 16** is particularly noteworthy.

Of the 10 examples included in the group, 7 feature decorations in black or reddish-brown. For instance, the eye of **Nr. 20** is depicted with an outer ring and a single circle in the center representing the pupil. A line starts from the middle of the forehead and continues over the mouth and nose to both sides of the head. In **Nr. 21**, the horns are painted black. The front of the head is quite worn, but the eyes were likely painted. In **Nr. 22**, the horns and the reserved area between them are filled with a single band stripe, with the applied eye and pinched ear also painted black. **Nr. 23**'s eyes are depicted similarly to **Nr. 20**, with an outer ring and a single circle representing the pupil. Two bands starting from the central point between the eyes continue to both sides of the head.

When examining the sizes of the head fragments, it is likely that **Nr. 18, 20, 21**, and **23** belong to smaller figurines, with widths ranging from 3.1 cm to 4.3 cm. **Nr. 22** and **24** have widths of 6.2 and 6.4 cm, respectively. The face heights of these two head fragments are 6.2 and 4.4 cm. The mouth and nose section of **Nr. 24** is broken, so the actual height is estimated to be at least 6 cm or more. Thus, the head fragments **Nr. 22** and **24** likely belong to figurines taller than 15 cm.

The **Nr. 18** figurine has an exterior similar to the geometric decorated figurines found in Knidos-Emecik. It is coated with a slip ranging in color from reddish to reddish-brown. On the forehead of the bull's head, there should be a faintly visible triangular lattice decoration. The mouth and nose section of the conical head was made by pressing from both sides to extend the nose, giving the figurine a primitive appearance. This technique can be seen in various figurines from Rhodes⁶², in the wagenlenker/chariot drivers found at the Sanctuary of Zeus at Olympia⁶³, and in various figurines found in the Peloponnese⁶⁴. Similarly made examples from the Sanctuary of Artemis Orthia in Laconia have been dated to the 7th century BCE by Higgins, and the Rhodes examples published by Higgins are dated to the early 7th century BCE⁶⁵.

The heads of the **Nr. 20** and **Nr. 23** bull figurines resemble the wheel-made bull figurine heads found in Kos Herakles in terms of the construction of the eyes and the decorations above the mouth and nose. While the Herakles finds are dated to the Early Geometric Period, the similarities in the depiction of the eyes and the cross lines on the head from examples from Kalymnos indicate that this style continued to be used until the end of the Geometric Period⁶⁶. The head of the **Nr. 19** bull figurine is made of gray/brown clay and is entirely coated with a black slip on its exterior surface⁶⁷. The slightly raised eyes are left in reserve while being slip-coated, with the pupil represented by a single dot. Due to its clay and

⁵² FRENCH 1971, 153–158.

⁵³ FRENCH 1971; THURTSON 2015, 169.

⁵⁴ BERGES 2006, 155–156, 199–201.

⁵⁵ TOZLUCA 2016, 34, Pl. IV; TOZLUCA 2023, 168, Fig. 2.

 $^{^{56}\,}$ DOKSANALTI/KARAOĞLAN/TOZLUCA 2018, 10, Fig. 7.

⁵⁷ ELPIDA 2019, 49.

⁵⁸ BERGES 2006, 201.

⁵⁹ KARAGEORGHIS 1993, Nr. GI 1, Pl. XXXI.

⁶⁰ AVERRETT 2021, 9, Fig. 7.

⁶¹ KYRIELEIS 2022, 56, Taf.. 36.6-8.

 $^{^{\}rm 62}$ CR III, 48, 69, Figs. 36 and 59; HIGGINS 1954, 33–35, Nos. 7–11, Pl. 2; LINDOS IV, 2, 76, Fig. 54.

⁶³ HEILMEYER 1972, 45, Taf.. 24-25.

⁶⁴ MOLLARD-BESQUES 1954, 25–26, Pl. 19; HIGGINS 1954, 277–280, No. 1002, 1004–1007, Pl. 141; TOZLUCA 2023, 166.

⁶⁵ HIGGINS 1954, 34-35, 277-279.

⁶⁶ ELPIDA 2019, 58, Pls. 2-4.

⁶⁷ TUNA 2022, 316, Fig. VII.2-65.

slip characteristics, this head fragment is likely part of the **Nr. 5** figurine.

The wheel-made bull figurine head **Nr. 22**⁶⁸ is likely from the late Geometric Period. **Nr. 24** is an example of a wheel-made figurine from the 'Variante 3' group, characterized by the appliqué circular eye and single stamped circular pupil, as identified by D. Berges and his team⁶⁹. Analyses conducted by German archaeologists indicate that the **Nr. 22** example, which exhibits typical features of bull figurines from the Knidos territory, is of local production⁷⁰.

LEG FRAGMENTS

The leg fragments **Nr. 27 – 30** likely belong to wheelmade bull figurines, specifically those in the Type 1 group. The beveled or curved breaks on all pieces clearly indicate that these leg fragments broke off at the points where they connected to the body. The leg fragments range in height from 8 cm to 11 cm, which excludes the possibility that they belong to hand-shaped hollow bull figurines.

Nr. 27 shows a different type compared to the others. The nearly conical leg has a slight knee protrusion approximately in the middle. A groove is created at the foot level, and the base is completely flat. Similar hand-shaped and wheel-made leg fragments are seen in Samos, resembling the Emecik examples. The leg fragments Nr. 140, 150, 134, and 148 from Samos closely resemble Nr. 2771. The Samos examples are dated from the Early Geometric to the Middle Geometric I period, spanning from the second half of the 9th century BCE to the first half of the 8th century BCE⁷². Similar leg examples are also found in Klaros. The wheelmade bull figurines from Klaros have conical legs ending in grooves, and these examples are hollow⁷³. Similar to the Knidos-Emecik examples but more cylindrical in form, similar wheel-made bull figurines and legs from Vrakostro, Crete, are dated to the 9th and 8th centuries BCE⁷⁴.

Nr. 29 and **Nr. 30:** These examples have a more finely screened clay composition compared to some solid handmade bull figurines. Especially the leg fragment **Nr. 29** has been slip-coated almost to the extent of forming a second layer of clay, smoothed with a spatula-like tool. This technique is observed in Samos figurines⁷⁵. The reddish-brown band decoration seen on the slip-coated **Nr. 29** fragment suggests that the original figurine may have been decorated with band or geometric patterns. Additionally, the burnished-like exterior surfaces of the **Nr. 29** and **Nr. 30** figurine fragments are consistent with the clay and slip characteristics of geometric decorated figurines found in Knidos and Emecik.

Bronze bull figurines found in the Thebes Kabirion provide data for dating the bull figurine leg fragments **Nr. 28–30**. The typical conical and solid leg preference in Kabirion bull

figurines begins to change with figurines dated to the first half of the 8th century BCE. From the mid–8th century BCE onwards, hooves and spurs become more pronounced and realistically depicted on Kabirion bronze bulls. This realistic emphasis on bull legs continues to develop throughout the 8th century BCE and into the Early Archaic period⁷⁶.

In Samos, bull figurine foot fragments with distinct hooves, nails, and spurs start to appear during the Middle Geometric period. The Samos examples No. 160, 171, 172, and 199, which have a more cylindrical form compared to the Knidos-Emecik examples but are similar in terms of hooves and spurs to **Nr. 28–30**, are dated to the Late Geometric period. Wheel-made fragments from Samos, No. 222 and 225, which have similar hooves and spurs to the Knidos-Emecik examples, are from the first half of the 7th century BCE⁷⁷.

In the terracotta animal figurines found in the Sanctuary of Zeus at Olympia, the conical leg form was not abandoned, and none of the published examples attempted to depict hooves, spurs, or knees⁷⁸. A bronze Argive-Olympia type bull-cattle figurine dated to the last quarter of the 8th century BCE includes depictions of knees, spurs, and hooves, moving away from the typical conical leg application⁷⁹. In Olympia, the legs of bronze animal figurines became longer with an increased emphasis on knees during the Late Geometric period⁸⁰. In the Subgeometric and Early Archaic examples, the depictions of legs began to take on a more realistic appearance⁸¹.

CONCLUSION

Dating terracotta animal figurines is quite challenging due to their lack of reliable contexts. The prolonged use of similar techniques further complicates the dating process. Terracotta bull figurines are among the most significant find groups related to the 8th and 7th centuries BCE in the Knidos territory. These figurines were used as votive offerings in sacred areas. The presence of these figurines in all medium and large archaeological sites on the peninsula, such as the Emecik Apollo Sanctuary, Knidos, Burgaz Archaeological Site, and Kumyer Fortress, indicates that cult activities during the Geometric Period and thereafter were highly active in the Knidos territory, about which we know little.

Compared to hand-shaped bull figurines, fewer wheel-made bull figurines have been found. However, the presence of their precursors and successors at various points on the peninsula indicates that the group was distributed across the peninsula to a certain extent. The surviving fragments of wheel-made bull figurines suggest that these figurines could reach heights of 20–25 cm. These wheel-made figurines, which required more time and craftsmanship than hand-made figurines, were clearly used to create larger figurines. Hand-shaped hollow figurines, on the other hand, were smaller than wheel-made figurines.

⁶⁸ BERGES 2006, Taf.. 110:6.

⁶⁹ BERGES 2006; KLEIBL 2010.

⁷⁰ BERGES 2006, 155–156.

 $^{^{71}\,}$ Nr. 140 (JAROSCH 1994, TAF. 8), NR. 150 (JAROSCH 1994, TAF. 9), NR. 134 (JAROSCH 1994, TAF.13), NR.148 (JAROSCH 1994, TAF. 13).

⁷² JAROSCH 1994, 6.

⁷³ DOĞAN GÜRBÜZER 2012, 129–130, Pl. 42.

⁷⁴ HAYDEN 1991, 142, Pl. 52.

⁷⁵ JAROSCH 1994, 55–56.

⁷⁶ SCHMALTZ 1980, Nr. 148-150, Taf.. 8

⁷⁷ JAROSCH 1994, 22, Taf.. 12.

⁷⁸ HEILMEYER 1972.

⁷⁹ HEILMEYER 1979, Nr. 407–408, Taf.. 48.

⁸⁰ HEILMEYER 1979, Taf.. 91-95.

⁸¹ HEILMEYER 1979, Taf.. 98.

Wheel-made bull figurines, which became widespread during the Late Bronze Age, continued to be used throughout the Geometric Period and into the Archaic Period in Cyprus. The figurines in the Type 1 group particularly resemble the Kos Heraklion figurines. The group of figurines that can be traced back to the Late Bronze Age in Kos Heraklion suggests that there might have been earlier wheel-made bull figurines in the Knidos territory. Another possibility is that the Type 1 group could be later copies of figurines produced by Kos workshops. In the Dodecanese region, wheel-made figurines were produced from the Protogeometric Period until the end of the Geometric Period, in parallel with Samos and Crete⁸². Perhaps the workshops in Knidos had a long tradition dating back to the Bronze Age. The word 'ki-ni-di-ja' found on a tablet in Pylos at the end of the 13th century BCE has been interpreted to indicate that Knidos existed before Dorian colonization 83 . However, the Cycladic idols that J. Th. Bent claimed to have found in Knidos and the Late Bronze Age finds that American Iris Love claimed to have discovered are secondary and questionable evidence⁸⁴. Thus, aside from the LH IIIC ceramic fragments found in Knidos, our knowledge of the Bronze Age on the peninsula is quite limited85. Therefore, it is more likely that the Type 1 group was influenced by nearby centers such as Kos and Rhodes rather than stemming from a strong Late Bronze Age tradition.

The head fragment Nr. 16 does not resemble any figurines from the Knidos territory due to its different slip characteristics. Previously published, this bull figurine head fragment has been dated to the 12th–11th centuries BCE by German researchers. The yellowish-white slip on the head fragment is whiter than the LH IIIC ceramic slips found in Knidos. Additionally, the placement of the head, horns, and ears in **Nr. 16**, similar to **Nr. 17**, makes it more likely that these figurines belong to the Geometric Period. The Type 2 and Type 3 groups are local interpretations of the Type 1 group and exhibit all the characteristics of the bull figurine tradition in the Knidos territory. The figurines in these groups are dated from the last quarter of the 8th century to the last quarter of the 7th century BCE.

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REFERENCES

AKAR TANRIVER 2009

Akar Tanrıver, D. S., *Apollon Klarios Kültü, Kehanet Pratikleri* ve Adaklar, Ege Üniversitesi, Sosyal Bilimler Enstitüsü (Unpublished PhD Diserttation).

BEAN/COOK 1952

Bean, G.E./Cook, J. M., The Cnidia, *The Annual of The British School at Athens* 47, 171–212.

BENZI 1999

Benzi, M., Mycenaean Figurines From Iasos, *La parola del passato. Rivista di Studi Antichi* LIV/IV–VI, 269–282.

BERGES 2006

Berges, D., Knidos Beiträge zur Archaischen Stadt (Mainz am Rhein: Verlag).

BERGES/TUNA 2000

Berges, D./Tuna, N., Das Apollonheiligtum von Emecik. Bericht über die Ausgrabungen 1998 und 1999, *Istanbuller Mitteilungen* 50, 171–214.

BOARDMAN 1967

Boardman, J., *Excavations in Chios 1952–1955 Greek Emporio* [The British School at Athens. Supplementary Volumes, No. 6] (Oxford: Thames and Hudson).

BLINKENBERG 1931

Blinkenberg, Chr., *Les petits objects, Lindos. Fouilles de l'acropole* 1902–1912, Bd. 1 (Berlin: De Guyter).

BOUROGIANNIS 2019

Bourogiannis, G., Late Geometric, Subgeometric and Archaic Pottery from Rhodes at Lund: A Fresh Look at Some Old Finds, In: Schierup, S. (ed.), Documenting Ancient Rhodes: Archaeological Expeditions and Rhodian Antiquities. Acts of the International Colloquium held at the National Museum of Denmark in Copenhagen, February 16–17, 2017 (Aarhus: Aarhus University Press), 222–239.

CAHN 1970

Cahn, H. A., *Knidos. Die münzen des 6. und 5.Jhs v. Chr.* (Berlin: De Guyter).

CR VI–VII

Jacopi, G., Esplorazione archeologica di Camiro II – Necropoli Acropoli, *Clara Rhodos VI–VII* (Bergamo: 1932–1933).

CVA

Corpus Vasorum Antiquorum

DOKSANALTI/KARAOĞLAN/TOZLUCA 2018

Doksanaltı, E.M./Karaoğlan, İ./Tozluca, D.O., Knidos: Denizlerin Buluştuğu Kent (Ankara: Bilgin Kültür Sanat).

DESBOROUGH 1972

Desborough, V. R. d'A., *The Greek Dark Ages* (New York: St. Martin's Press).

DEWAILLY 2001

Dewailly, M., Le sanctuaire d'Apollon à Claros: place et fonction des dieux d'après leurs images, *Mélanges de l'École française de Rome. Antiquité* 113/1, 365–382.

DOĞAN GÜRBÜZER 2012

Doğan Gürbüzer, E., Klaros Kazılarında Bulunmuş Olan Pişmiş Toprak Figürinler ve Kültler Açısından Değerlendirilmeleri, Ege Üniversitesi, Sosyal Bilimler Enstitüsü (Unpublished PhD Diserttation).

ELPIDA 2019

Elpida, S., A sanctuary in "Heraklis", Cos area during the dark ages: problems of continuity or discontinuity in the Dodecanese, National and Kapodistrian University of Athens (Unpublished PhD Dissertation).

FRENCH 1971

French, E., The Development of Mycenaean terracotta figurines, *Annual of the British School at Athens* 66, 101–187.

⁸² ELPIDA 2019, 105.

⁸³ CAHN 1970, 13.

⁸⁴ TUNA 2012; LOVE 1970, 152.

⁸⁵ DOKSANALTI/KARAOĞLAN/TOZLUCA 2018, 10.

FRENCH 1985

French, E., The Figures and Figurines, In: Renfrew, C. (ed.), *The Archaeology of Cult: The Sanctuary at Phylakoi* [London: The British School of Archaeology at Athens].

HAYDEN 1991

Hayden, B. J., Terracotta Figures, Figurines, and Vase Attachments from Vrokastro, Crete Hesperia: The Journal of the American School of Classical Studies at Athens 60, 103–144.

HEILMEYER 1972

Heilmeyer, W.D., Frühe olmypische Tonfiguren [Olymische Forschungen 7] (Berlin: De Guyter).

HEILMEYER 1979

Heilmeyer, W.D., Frühe olympische Bronzfiguren [Olympische Forschungen 12] (Berlin: De Guyter).

HERMARY 2000

Hermary, A., Amathonte 5: Les figurines en terre cuite archaïques et classiques, Les sculptires en Pierre (Athens: École Française D'Athénes).

HIGGINS 1954

Higgins, R.A., *Catalogue of the terracottas in the department of Greek and Roman antiquites* (London: The British Museum).

HIGGINS 1967

Higgins, R.A., *Greek Terracottas* (London: Methuen).

JAROSCH 1994

Jarosch, V., Samische Tonfiguren: des 10. bis 7. Jahrhunderts v. Chr. aus dem Heraion von Samos [Samos 18] (Bonn: Habelt).

KARAGEORGHIS 1993

Karageorghis, V., *The late Cypriote-Cypro Geometric III*, The coroplastic art of ancient Cyprus II (Nicosia: A.G. Leventis Foundation).

KARAGEORGHIS 1996

Karageorghis, V., *The Coroplastic art of ancient Cyprus VI. The Cypro-Archaic period. Monsters, animals and miscellanea* (Nicosia: A.G. Leventis Foundation).

KLEIBL 2010

Kleibl, K., Zypro-archaische Terrakottavotive aus dem Apollon-Heiligtum in Emecik XXVI (Türkei) als Zeugnis interkultureller Beziehungen. In: Bol, R./Klebil, K./Rogge, S. (eds.) Zypren, Insel im Schnittpunkt interkultureller Kontakte-Adaption und Abgrenzung von der Spätbronzezeit bis zum 5. Jahrhundert v. Chr. [Münster, Westf.: Waxmann Verlag], 113–138.

KOUROU 1997

Kourou, N., Cypriot zoomorphic askoi of the early Iron Age. A Cypro-Aegean interplay, In: Karageorghis, V./Laffineur, V./Vandenabeele, F. (eds.), Four Thousand Years of Images on Cypriote Pottery. Proceedings of the Third International Conference of Cypriote Studies, Nicosia, 3–4 May, 1996 (Nicosia: A.G. Leventis Foundation; Brussels: Vrije Universiteit Brussel; Liège: Université de Liège), 89–106.

KOUROU/KARETSOU 1997

Kourou, N./Karetsou, A., Terracotta Whell Made Bull Figurines from Central Crete, Types, Fabrics, Technique and Tradition, Craftsmen, Craftswomen and Craftsmanship in Aegean Bronze Age. In: Laffineur, R./Betancourt, P.P. (eds.), Texnh: Craftsmen, Craftswomen and Craftsmanship in the Aegean Bronze Age. Proceeding of the 6th International Aegean Conference, Philadelphia Temple University, 18–21 April 1996 [Aegaeum 16] [Liège: Université de Liège; Austin: University of Texas at Austin], 107–116.

KYRIELEIS 2022

Kyrieleis, H., *Ausgraben im Südostgebiet des Heraion von Samos* [Samos 28] (Berlin: Deutsches Archäologisches Institut).

LINDOS IV, 2

Wriedt-Sorensen, L./Pentz, P. (eds.), Lindos IV, 2. Excavations and surveys in southern Rhodos. The post-Mycenean periods until

Roman times and the medieval period. Results of the Carlsberg Foundation excavation in Rhodes 1902–1914 (Copenhagen: National Museum of Denmark, Collection of Near East and Classical Aniquities; Århus: Aarhus University Pres).

LOVE 1970

Love, I.C., A Preliminary report of the excavations at Knidos, 1969 *American Journal of Archaeology* 77/4, 413–424.

MARIAUD 2022

Mariaud, O., Terres cuites archaïques de Carie. Un aperçu (2^{nde} partie), *Bollettino Dell'Associazione Iasos di Caria* 28, 2–13.

MOLLARD-BESQUES 1954

Mollard-Besques, S., Catalogue Raisonné des Figurines et Reliefs en Terre-Cuite Grecs et Romains. I: Époques Préhellénique, Géométrique, Archaique et Classique (Paris: Editions Des Musées Nationaux).

MUHLY 2008

The Sanctuary of Hermes and Aphrodite at Syme Viannou IV: Animal images of clay (Athens: Archaeological Society at Athens).

SCHMALTZ 1980

Schmaltz, B., *Metallfiguren aus dem Kabirenheiligtum bei Theben*, Das Kabirenheiligtum bei Theben (Berlin: De Guyter).

SCHMIDT 1968

Schmidt, G., Kyprische Bildwerke aus dem Heraion von Samos [Samos 7] (Bonn: Habelt Verlag).

SINN 1981

Sinn, U., Das Heiligtum der Artemis Limnatis bei Komothekra, Des Deutschen Archäologischen Instituts Atenische Abteilung 96, 25–144.

SPATHI 2022

Spathi, M.G., What do terracotta figurines in a sacral context reveal? The case of the Aphaia sanctuary on the island of Aegina, *Journal of Greek Archaeology* 7, 213–232.

THURSTON 2015

Thurston, C., *The Co-occurrence of Terracotta Wheelmade Figures and Handmade Figures in Mainland Greece, Euboea, the Dodecanese, the Cyclades and the Northern Aegean Islands,* 1200–700 BC, Oxford University (Unpublished PhD Dissertation).

TOZLUCA 2016

Tozluca, D.O., *Knidos'tan Bir Grup Boğa Figürini*, Selçuk Üniversitesi, Sosyal Bilimler Enstitüsü (Unpublished MA Thesis).

TOZLUCA 2023

Tozluca, D.O., Knidos'tan Bir Grup Pişmiş Toprak Boğa Figürini, *Propontica* 1/2, 159–182.

TUNA 1983

Tuna, N., Batı Anadolu'da Kent-Devletlerinde Mekan Organizasyonu Knidos Örneği, Dokuz Eylül Üniversitesi, Mühendislik-Mimarlık Fakültesi (Unpublished Phd Dissertation).

TUNA 2012

Tuna, N., Knidos Teritoryumu'nda Arkeolojik Araştırmalar (Ankara: ODTÜ Yayıncılık).

TUNA 2022

Tuna, N., Knidos Teritoryumu I: Emecik'teki Apollon Kutsal Alanı Arkeolojik Araştırmalar (1998–2006) (İstanbul: Ege Yayınevi).

VERDAN 2013

Verdan, S. Eretria XXII. Le Sanctuarie d'Apollon Daphnéphoros à l'époque Géométrique (Gollion: Infolio éditions).



Fig. 5. Nr. 5.



Fig. 7. Nr. 7.



Fig. 8. Nr. 8.



Fig. 11. Nr. 11.

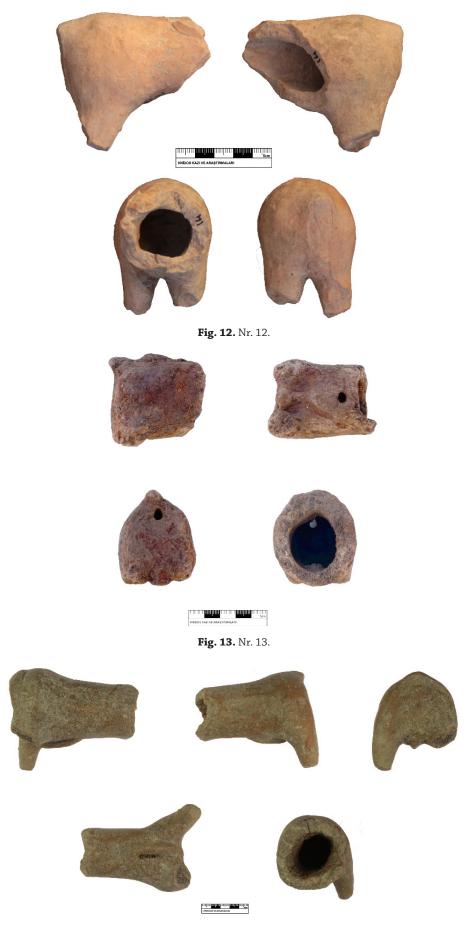


Fig. 14. Nr. 14.



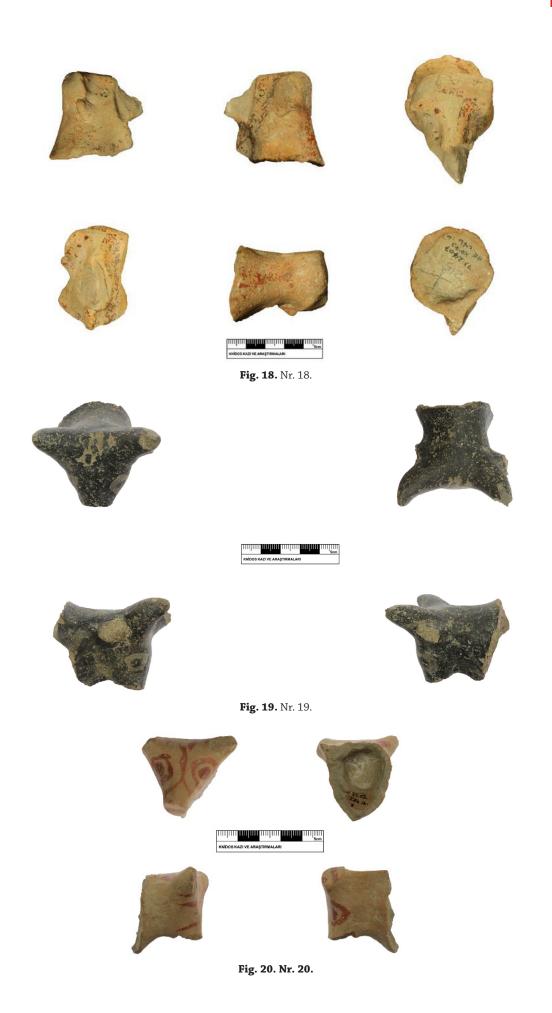
Fig. 15. Nr. 15.



Fig. 16. Nr. 16.



Fig. 17. Nr. 17.



127



Fig. 21. Nr. 21.



Fig. 22. Nr. 22.



Fig. 23. Nr. 23.



Fig. 24. Nr. 24.



Fig. 27. Nr. 27.



KNIDOS KAZI VE ARAŞTIRMALARI

Fig. 28. Nr. 28.



Fig. 29. Nr. 29.



Fig. 30. Nr. 30.