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### Knidian Amphorae of the 4<sup>th</sup> – Early 3<sup>rd</sup> Centuries BC from the Maeotian Necropoleis of the Kuban

Kuban'ın Maeotis Nekropollerinden MÖ 4. - Erken 3. Yüzyılın Başlarına Ait Knidos Amphoraları

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## KNIDIAN AMPHORAE OF THE 4<sup>TH</sup> – EARLY 3<sup>RD</sup> CENTURIES BC FROM THE MAEOTIAN NECROPOLEIS OF THE KUBAN<sup>[1]</sup>

#### **ABSTRACT**

This paper presents the problems of typology and chronology of amphorae produced in Knidos in the 4th century BC. The history of the archaeological study of the territory, wineries and amphora workshops, in particular, is briefly given. The container pottery of this center is reliably identified starting from the second quarter of the 4th century BC. Based on the materials of excavations of barbarous necropolises located in the Kuban region, a specified dating of individual variants of the containers is provided in the paper. The accompanying inventory justifies narrowing the chronology of specific vessels. In addition to Knidos amphorae, there were container vessels from other centers of production (Mende, Thasos, Sinope), including those with stamps, in the burials. Painted and black-glazed vessels were found in particular burials. The first type of Knidian amphorae had a characteristic morphological feature - a mushroom-shaped rim. Amphorae of this type were produced in two varieties: large pythoids with a short neck and a low sharp-ridged toe, and fractional, more proportional and tall vessels with a tall neck. In the third quarter of the 4th century BC, they were replaced by vessels with roller-shaped rims. Mainly large pythoids with a flaring neck and a characteristic toe shape were produced as the second type. Only a few vessels of a different morphology with a tall cylindrical neck and a conical body are known (as a sample from the collection of N. Haviaras). The article also presents some stamped Knidian vessels, as well as preliminary results of petrographic studies of some Knidian amphorae.

*Keywords:* Knidian Amphorae, Typology, Kuban River Region, Maeotian Necropolises, Ceramic Complexes.



# KUBAN'IN MAEOTİS NEKROPOLLERİNDEN MÖ 4. - ERKEN 3. YÜZYILINBAŞLARINA AİT KNIDOS AMPHORALARI

ÖZ

Bu makale, MÖ 4. yüzyılda Knidos'ta üretilen amphoraların tipolojisi ve kronolojisi ile ilgili sorunları ele almaktadır. Çalışma, bölgenin, özellikle de şarap imalathanelerinin ve amphora atölyelerinin arkeolojik incelemesinin tarihçesini kısaca vermektedir. Bu merkezin saklama kapları MÖ 4. yüzyılın ikinci çeyreğinden itibaren güvenilir bir şekilde tanımlanmıştır. Kuban bölgesinde yer

<sup>&</sup>lt;sup>[1]</sup> The study was conducted with the financial support of the Ministry of Education and Science of the Russian Federation (Grant FSRR-2023-0006)

almakta olan barbar nekropollerinde yapılan kazılardan elde edilen materyallere dayanarak, kapların özgün cesitlerinin güncellenmis bir tarihlendirmesi önerilmiştir. Ekteki envanter, belirli kapların kronolojisininin daraltılmasının gerekçesini de vermektedir. Knidos amphoralarına ek olarak, gömütlerde diğer üretim merkezlerinden (Mende, Thasos, Sinope) damgalı olanlar da dahil olmak üzere başka kaplar da bulunmuştur. Boyalı ve siyah firnisli kaplar ise belirli gömülerde bulunmuştur. İlk tip Knidos kapları, mantar şeklinde karakteristik bir ağız kenarına sahiptir. Bu tipteki amphoralar kısa boyunlu ve alçak keskin kenarlı bir dip kısmına sahip büyük pitoidler veya bölümlü, daha orantılı ve uzun boyunlu kaplar olmak üzere iki ana çeşitte üretilmiştir. MÖ 4. yüzyılın üçüncü çeyreğinde, bu kapların yerini silindir ağızlı kaplar aldı. İkinci tip olarak da çoğunlukla dışa dönük boyunlu ve karakteristik bir dip profili sunan büyük pitoidler üretilmiştir. Uzun silindirik boyunlu ve konik gövdeli farklı bir morfolojiye sahip sadece birkaç kap bilinmektedir (N. Haviaras koleksiyonundan bir örnek şeklinde). Çalışmada ayrıca kimi damgalı Knidos kapları ile kimi Knidos amphoralarının petrografik çalışmalarının ön sonuçları verilmiştir.

*Anahtar Kelimeler:* Knidian Amphoraları, Tipoloji, Kuban Nehri Bölgesi, Maeot Nekropolleri, Seramik Kompleksleri.



For the past 30 years, several Maeotian necropoleis have been extensively explored in the Kuban region, where some hundreds of burials with representative complexes of inventory have been discovered, and where samples of ancient imports primarily amphorae and Attic black-glazed and red-figured pottery are massively presented along with Maeotian pottery and weapons<sup>[2]</sup>. Knidian ceramic containers appear quite often in these complexes, falling short in a quantitative sense only to the Mendean, Heraklean and Thasian amphorae. This enables the existing developments on the typology and chronology of Knidian amphorae to be significantly refined.

The existence of Knidian amphora containers became known to science as early as the middle of the 19<sup>th</sup> century when stamp prints with the ethnikon of Knidos began to be selected from the bulk of ceramic stamps. A complete amphora, with identical prints on both handles, was first mentioned by E. Pridik in a set of stamps from Athens<sup>[3]</sup>. Later, V. Grace published photographs of three Knidian vessels of the Hellenic period<sup>[4]</sup>. Now it has been established that the ethnikon in the stamps

Limberis - Marchenko 2010; Limberis - Marchenko 2013; Limberis - Marchenko 2015a; Limberis - Marchenko 2015b; Limberis - Marchenko 2016a; Limberis - Marchenko 2016b; Limberis - Marchenko 2017a; Limberis - Marchenko 2017b; Limberis - Marchenko 2018; Limberis - Marchenko 2019; Monakhov et al. 2018.

<sup>[3]</sup> Pridik 1896, 172, no. 245, 246.

<sup>[4]</sup> Grace 1934, 202, fig. 1/6-8.

of Knidos appeared only in the middle of the 3<sup>rd</sup> century BC<sup>[5]</sup>, which is why it has been generally accepted for a long time that large-volume amphorae production was launched in the polis at that particular time. However, the results of archaeological studies on the Knidos peninsula made it clear that this is not the case.

So, what we know about Knidos wine-making and wine trade from narrative and archaeological sources. The polis of Knidos was located in the southwest of Caria on the large Datça peninsula and a calf connected to the mainland with a dam. In ancient times, the city was a famous producer of wine, which, judging by the few mentions in written sources was noticeable for its premium taste. Strabo identified Knidos as one of the producers of "remarkably fine wines" that were pleasant to drink or suitable for medicinal purposes (XIV. 15). However, Athenaeus noted that the wine "when drunk in large quantities, it inhibited the stomach" (I. 59). We know about the cost of Knidian wine from the reports of magistrates in the Delphic temple: in 178,60 drachmae were paid for 10 amphorae of Knidian wine, while 35 amphorae of Koan wine cost 100 drachmae<sup>[6]</sup>. In fact, Knidian wine cost 2.1 times more expensive than Koan. Considering that Knidian amphorae were of smaller volume, it appears that the real difference in cost was even greater.

The so-called Old Knidos was located on the territory of the town of Burgaz in the modern city of Datça (Muğla province, Turkey) (Fig. 1). After the 360s BC<sup>[7]</sup>, an attempt was made to found a new city on the westernmost tip of the Datça Peninsula at Cape Tekir (Fig. 1/1, 2) with two convenient bays on the transit sea route<sup>[8]</sup>. As a result of the seabed investigations carried out there since 1973, several shipwrecks carrying cargoes which include amphorae and tiles have been found. The bulk of the material dates from the Hellenistic period<sup>[9]</sup>. According to Strabo, one of the bays could be locked and was designed for trieras, whereas the second one served as anchoring for 20 ships<sup>[10]</sup>. The resettlement of the inhabitants from the old centre was rather long-lasting, and went along with the building of city walls, terracing and urban infrastructure planning, and according to some estimates, lasted until 330<sup>[11]</sup>. The abandoned area came into use for product manufacturing and cargo shipping during the Hellenistic period and later<sup>[12]</sup>. The residential areas

<sup>[5]</sup> Kats 2007, 220-231.

<sup>[6]</sup> Jefremow 1995, 84, not. 747; Georgopoulos 2005, 181.

Originally, in 408 BC, Rhodes underwent the procedure of synoikism as a result of which Lindos, Ialysos and Kamiros found a new city on the north-eastern most tip of the island (Tuna 2012, 14). Then, presumably in 366 BC, on the easternmost tip of the island of Kos, near Cape Skandariya, the new city of Kos was founded (Strabo XIV.II.19), which was also located on the transit route (Tuna et. al. 2009, 518).

<sup>[8]</sup> Tuna et. al. 2009, 518; However, there is a point of view that the city-state of Knidos was originally located on Cape Tekir (Demir - Doğan 2017, 57-77).

<sup>[9]</sup> Aslan 2015, 102-104.

<sup>[10]</sup> Strabo XIV. II. 15.

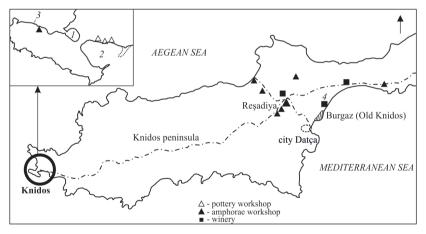
<sup>[11]</sup> Tuna et al. 2009, 518 ff.; Tuna 2012, 16, 30.

<sup>[12]</sup> Koparal et. al. 2014, 95.

gradually were adapted for use as production and distribution facilities. As a result of the excavations, workshops for metal goods production, as well as placements with stone presses, which showed that there was winemaking in the Late Classic period<sup>[13]</sup>, were discovered. However, the researchers emphasize that during the archaic and early classical periods, the city was not engaged in large-scale exports of wine or olive oil, profiting from shipping and little foreign trading<sup>[14]</sup>.

In addition, during underwater work in the Lighthouse Breakwater area, northwest of the naval harbour (Fig. 1/3), numerous fragments of Knidian amphorae were discovered, indicating the existence of one more, third harbour in this point, where shipping of the goods manufactured in the surroundings to the boats took place, for their further delivery to the city market. The existence time of this port according to amphora fragments is dated from the middle of the  $4^{\rm th}$  to the  $1^{\rm st}$  century BC<sup>[15]</sup>.

The process of moving to a new town centre went along with changes in the land use system of the peninsula. In the course of archaeological studies and exploration conducted in the 1980s–1990s on the Knidian peninsula, it was found that during the 4<sup>th</sup> century BC the significant efforts of inhabitants were applied towards the development of farming lands by terracing fields suitable for growing grapes and olives<sup>[16]</sup>.



**Fig. 1:** Knidian Peninsula: 1 – naval port; 2 – commercial port; 3 – Lighthouse Breakwater; 4 – Hellenistic winery<sup>[17]</sup>.

<sup>[13]</sup> Tuna et. al. 2010, 203 ff.

<sup>[14]</sup> Tuna 2012, 12.

<sup>[15]</sup> Aslan 2019, 353, 354.

<sup>[16]</sup> Tuna et. al. 2010, 200 ff.; Tuna 2012, 29, 30, fig. 7.

<sup>[17]</sup> Tuna 2012; Aslan 2019.

Two kilometres northeast of the modern harbour of Datça (old Knidos) (Fig. 1/4), the remains of a large winery, which was in operation from the early 3<sup>rd</sup> to the middle of the 1<sup>st</sup> century BC, were discovered<sup>[18]</sup>. On a rough calculation, the maximum amount of different matured wine, which could simultaneously be on the territory of the winery, could reach 100,000 litres<sup>[19]</sup>. There is still discussion surrounding the location of "Old Knidos". Researchers, attracting various arguments, proselytize two main opinions: 1. "Old Knidos" was located near the modern site of Burgaz, and in the middle of the 4<sup>th</sup> century BC it was relocated to Cape Tekir. 2. The city of Knidos was originally located on Cape Tekir, which is confirmed by the findings of the Protogeometric and Geometric periods<sup>[20]</sup>, and on the site of modern Burgaz there was the ancient city of Stadia<sup>[21]</sup>. Both points of view have recently been reviewed in detail by W. Held<sup>[22]</sup>. The tasks of our publication do not include solving the issue of the location of the Old Knidos. The whole containers found in the Northern Black Sea region are considered below, the production of which is currently associated with the products of the Knidos workshops.

For the first time the remains of amphorae workshops were recorded during excavations conducted by I.K. Love in 1973<sup>[23]</sup>. As a result of the work of the 1980–the 1990s, the traces of ceramic production were identified, starting from the archaic period and up to the 8<sup>th</sup> century AD, including traces of the container amphorae production – from the late 4<sup>th</sup> century BC until the 6<sup>th</sup> century AD<sup>[24]</sup>. Remains of ten different workshops specialized in the manufacture of the container and simple ceramics were found. They were located on the coastal plain close to possible shipping places. Workshops were also found deep in its heartland near the town of Reṣadiya (Fig. 1) along streams banks, which, according to researchers, were more water-rich in ancient times<sup>[25]</sup>. For a long time, there was a perception in the literature that amphorae production appeared on the peninsula in the Archaic period. Nevertheless, only fragments of painted glazed ceramics, including table amphorae, were discovered. There was no talk about container amphorae of the Archaic period or early Classical period.

Despite the small scale of the excavations, the study of these objects was of great importance for the localization of the Knidian containers. Firstly, several series of stamps: with the "prora"; groups "A" and "B" of Zenon and monogram stamps with

<sup>[18]</sup> Tuna et. al. 2010, 202.

<sup>[19]</sup> Koparal et. al. 2014, 101.

<sup>[20]</sup> Tozluca - Doksanaltı 2014, 217-225.

<sup>[21]</sup> Ünver 2020, 467.

<sup>[22]</sup> Held 2022, 1-13.

<sup>[23]</sup> Tuna 2012, 38.

<sup>&</sup>lt;sup>[24]</sup> Tuna et. al. 1987, 48, 49; Empereur – Garlan 1992, 15.

<sup>[25]</sup> Empereur 1988, 159; Empereur - Picon 1986, 118.

the legend A $\Pi$ O or  $\Pi$ A $\Theta^{[26]}$  were reliably identified as Knidian. Secondly, it turned out that some of these stamps were imprinted on vessels with mushroom-shaped rims<sup>[27]</sup>. Unfortunately, there are no drawings of the found profile parts in almost all publications only J.Y. Empereur cites two samples of mushroom-shaped rims, dated by him presumably to the late  $4^{th}$  – early  $3^{rd}$  century BC<sup>[28]</sup>.

Nevertheless, because of the publications of stamps collected during the inspection of ceramic workshops both in the coastal part and on the coast, it was possible to confidently connect two series of amphorae with the production of Knidos: with "mushroom-shaped" and "roller-shaped" rims, known from the materials of the Northern Black Sea region<sup>[29]</sup>. Amphorae were divided into two main types: type I "with a tall cylindrical neck and a mushroom-shaped rim"; type II "with a conical neck and a spinning top-shaped toe". Within type I, four variants were singled out and an approximate chronological framework for their existence was determined on the basis of morphological differences. Most of the vessels known by that time did not originate from the complexes and did not have reliable dating. Currently, because of the excavations of the Prikubanskiy necropolis<sup>[30]</sup>, the necropoleis near the Stanitsa Starokorsunskaya and at Lenin khutor, a dozen and a half complete vessels from burials, where there were also other imports, became available, which makes it possible to clarify or correct the former suggested dates.

So, a wide range of vessels of the earliest to this date "*Elizavetovskiy*" variant of the I type of Knidian amphorae have been identified. One of them originates from the burial No. 186 of the Prikubanskiy necropolis, where it contained Mendean amphora, a red-figured skyphos and a base of another black-glazed skyphos<sup>[31]</sup> (Fig. 2/1–4). The *Knidian* amphora is almost identical to the vessel from the burial mound No. 5 of the "Five Brothers" group of the early 370s BC, differing in slightly smaller metric parameters and a small toe size<sup>[32]</sup>. The second amphora from this burial is classified as the production of Mende of the "Melitopol" variant, dating back to the second quarter of the 4<sup>th</sup> century BC<sup>[33]</sup>. A skyphos of the «fluent» style (*Fat Boy Group* by J. Beazley) is dated to the same period. Taking into account the peculiarities of morphology, the association of the vessel to the amphora from the "Five brothers" burial mound, as well as the short neck and the large diameter of

<sup>[26]</sup> Empereur 1988, 159, 160, Fig. 2-4.

<sup>[27]</sup> Tuna et. al. 1987, 48.

<sup>[28]</sup> Empereur 1988, 162, fig. 1.

<sup>[29]</sup> Monakhov 1999a, 161 ff.; Monakhov 2003, 101-106, 301-304, pl. 71-74.

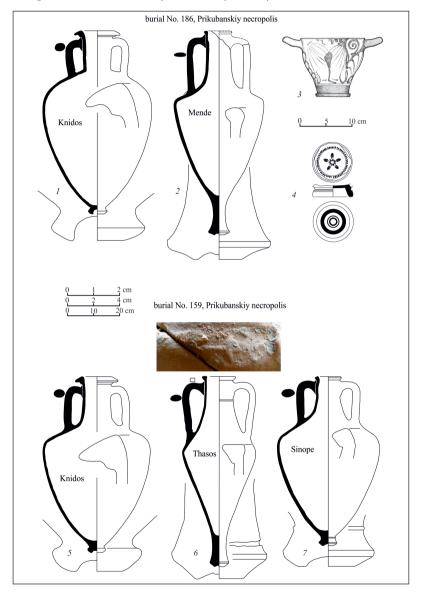
<sup>[30]</sup> Maeotian necropolis, located near the Prikubansky khutor in the Krasnoarmeyskiy district of the Krasnodar Territory. For more information see Monakhov et. al. 2018; Monakhov et. al. 2021.

<sup>[31]</sup> Kuznetsova et. al. 2021, 593-597, Fig. 4; Monakhov et. al. 2021, 64 ff., fig. 92.

<sup>[32]</sup> Monakhov 1999b, 252, 611, pl. 100, 1, app. 3.

<sup>[33]</sup> Monakhov 1999b, 220, 276.

the body, the Knidian amphora from the burial No. 186 can be dated to the early second quarter of the  $4^{th}$  century, most likely as early as 370s BC.



**Fig. 2:** Complexes with Knidian amphorae of the "elizavetovskiy" variant from the Prikubanskiy burial ground: 1–4 – burial No. 186 (3, 4 after: Kuznetsova et. al. 2021); 5–7 – burial No. 159 (1, 5 – Knidos; 2 – Mende; 6 – Thasos; 7 – Synope).

The Knidian amphora from the burial No. 159 of the Prikubanskiy necropolis, where the vessels of Thasos and Sinope were found with it, is dated slightly later [34]. The *Knidian* amphora is classified as the same "Elizavetovskiy" variant, but differs in the profiling of the toe, elongated proportions and a taller neck (Fig. 2/5; tabl. 1). On the *Thasian* amphora there is a stamp, the legend of which is unreadable, but two emblems have been preserved, which makes it possible to confidently restore the pint:  $[\Theta \acute{\alpha} \sigma \iota \sigma v]$  "phial", "torch" |  $[\Lambda \epsilon \acute{\nu} \kappa \omega v]$  (Fig. 2/6). In this case, we are dealing with the magistrate's emblem "phial", which according to all existing chronological developments, dates back to the late 360s or early 350s BC<sup>[35]</sup>. According to morphological characteristics, the *Sinopean* vessel (Fig. 2/7) dates back to the 360s BC<sup>[36]</sup>. Due to the combination of materials from the burial, the Knidian vessel should also be dated to the late 360s – 350s BC.

The fragmented amphora from the burial No. 236 of the Prikubanskiy necropolis (Fig. 3/5, 6, tabl. 1), found together with the Sinopean amphora  $^{[37]}$  of "pythoid" type of the 360s BC $^{[38]}$  is practically similar to the previous one.

Two *Knidian* vessels of the same "Elizavetovsky" variant were discovered at once in the burial No. 224 of the Prikubanskiy necropolis, together with an amphora of *Thasos* and a black-glazed bolsal<sup>[39]</sup>. These Knidian vessels differ somewhat from those described above in terms of parameters (tabl. 1) and different profiling of the toes (Fig. 3/1, 2). The Thasian unstamped amphora<sup>[40]</sup> is classified as the "developed" series of the biconical variant (Fig. 3/3) and can be dated within the second quarter of the 4<sup>th</sup> century BC<sup>[41]</sup>. According to several analogies, its chronology can be narrowed down to the 360–350s BC<sup>[42]</sup>. The black-glazed bolsal (Fig. 3/4) is similar to the samples from the Athenian agora, which dates back to the 380–350s BC<sup>[43]</sup>. According to some observations, the import of such bolsals to the Northern Black Sea region stopped at the end of the second quarter of the 4<sup>th</sup> century BC<sup>[44]</sup>. Taking into account all imports from burial No. 224, its dating is determined within the 360–350s BC.

<sup>[34]</sup> Kuznetsova 2020, Fig. 1/3; Monakhov et. al. 2021, 52, fig. 74; Monakhov – Kuznetsova 2021, 186, fig. 2/5-7.

<sup>[35]</sup> Kats 2007, 415; 2015, no. 204-232; Garlan 1999, 212 ff.; Tzochev 2016, tabl. 2.

<sup>[36]</sup> Monakhov 2003, 331, pl. 101/4, 5.

<sup>[37]</sup> Monakhov et. al. 2021, 71, fig. 103; Monakhov – Kuznetsova 2021, 186, fig. 3/5-6.

<sup>[38]</sup> Monakhov 2003, 331, pl. 101, 6; Monakhov et. al. 2019, 221, Sn. 1.

<sup>[39]</sup> Monakhov et. al. 2021, 69, fig. 100, 101; Monakhov – Kuznetsova 2021, 186, fig. 3/1-4.

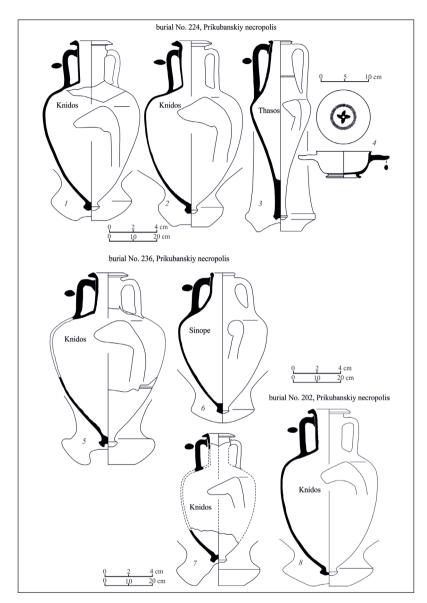
<sup>[40]</sup> Limberis - Marchenko 2018, 101, fig. 5/9.

<sup>[41]</sup> Monakhov 2003, pl. 44/1-3.

<sup>[42]</sup> Monakhov et. al. 2019, 130-132, Th. 19-21; Monakhov et. al. 2020, 146, Th. 11.

<sup>[43]</sup> Sparkes – Talcott 1970, no. 558, pl. 53.

<sup>[44]</sup> Monakhov - Rogov 1990, 135, 139, pl. 2; Rogov - Tunkina 1998, fig. 5/2, 3, no. 53, 54; Rogov et. al. 2005, 185.



**Fig. 3:** Complexes with Knidian amphorae of the "elizavetovskiy" variant from the Prikubanskiy burial site: 1–4 – burial No. 224; 5, 6 – burial No. 236; 7, 8 – burial No. 202 (1, 2, 5, 7, 8 – Knidos; 3 – Thasos; 6 – Synope).

Two more Knidian vessels of the "Elizavetovsky" variant originate from the burial No. 202 of the Prikubanskiy necropolis<sup>[45]</sup>. There was no other import capable of defining more exactly the dating of the vessels in the burial, however, morphological (Fig. 3/7, 8) and metric parameters (tabl. 1) make it possible to date them back to the 360–350s BC.

Finally, the neck of another Knidian amphora of the "Elizavetovsky" variant was found in the burial No. 138 of the Prikubanskiy necropolis, together with the amphora of *Thasos* and the neck of the *Mendean* vessel of the "Melitopol" variant<sup>[46]</sup> (Fig. 4/1–3). The Thasian vessel is classified as the "developed" series of the biconical variant and is similar to the amphora described above from the burial No. 224. The complex is also dated back to the second quarter of the 4<sup>th</sup> century BC.

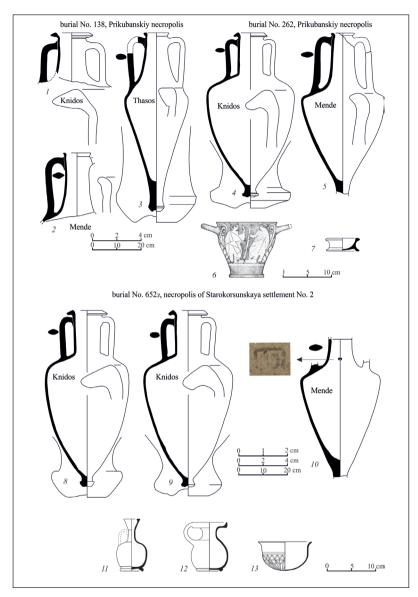
Simultaneously with the containers of the "Elizavetovsky" variant, vessels classified as the "Cherednikov" variant were produced. They differ from the previous ones in more elongated proportions as a result of reducing the body diameter. One of the similar vessels with a toe that is not unique to the Knidian container (Fig. 4/4) originates from the burial No. 262 of the Prikubanskiy necropolis, where it was found together with the Mendean amphora of the "Melitopol" variant, a red-figured skyphos and a black-glazed salt cellar<sup>[47]</sup> (Fig. 4/5–7). The Mendean vessel and the red-figured Attic-typed skyphos are similar to the above-described samples from the burial No. 186 and date back to the second quarter of the 4<sup>th</sup> century BC. The black-glazed saltcellar is classified as the type of saltcellars with concave walls, which began to be produced in Attica as early as in the second half of the 5<sup>th</sup> century BC, reaching particular popularity in the second and third quarters of the 4<sup>th</sup> century BC<sup>[48]</sup>.

<sup>[45]</sup> Limberis - Marchenko 2018b, 101, fig. 4; Monakhov et. al. 2021, 68, fig. 98.

<sup>[46]</sup> Monakhov et. al. 2021, 56, fig. 79.

<sup>[47]</sup> Kuznetsova et. al. 2021, 597-600, fig. 5.

<sup>[48]</sup> Sparkes - Talcott 1970, 136-137, no. 921-938.



**Fig. 4:** Complexes with Knidian amphorae of "elizavetovskiy" (1) and "cherednikovyi" (4, 6, 9) variants from burial No. 138 (1–3), No. 262 of the Prikubanskiy necropolis (4–7; 6, 7 after: Kuznetsova et. al. 2021) and burial No. 6523 necropolis of Starokorsunskaya settlement site No. 2 (8–13): 1, 4, 6, 9 – Knidos; 2 – Synope; 3 – Thasos; 5, 10 – Mende; 11–13 – after Limberis – Marchenko 2016c.

The complexes from the excavations of *the necropolis of the Starokorsunskaya settlement No. 2* are important for clarifying the dating of the amphorae of the "Cherednikov" variant. Two vessels of this variant originate from an interesting burial No. 6523, where, in addition to them, various imports were found: a fragmented amphora of *Mende*, a glassy bowl, a black-glazed lekythos and a black-glazed vessel<sup>[49]</sup> (Fig. 4/8–13). In the lower part of the neck of the Mendean amphora, there is a relief stamp "E". An extensive analysis of the inventory made it possible for the authors of the excavations to date the burial within the second quarter of the 4<sup>th</sup> century BC<sup>[50]</sup>.

The next complex – burial No. 2943 from the necropolis of the Starokorsunska-ya settlement No. 2 is of particular interest. It contained Knidian amphorae of the "Elizavetovsky" and "Cherednikov" variants, along with a fragmented amphora of Heraklea and two black-glazed vessels (Fig. 5/1–5). This complex was already published and was dated to the second quarter of the 4th century BC<sup>[51]</sup>. However, later its chronology was revised. A cup-shaped kantharos of non-Attic production originates from the burial, which according to the analogy from the Athenian agora, dates back to 375–350s BC<sup>[52]</sup>. A similar kantharos was also discovered in burial No. 2 of burial mound No. 19 near the settlement Novaya Mayachka along with a Thasian amphora stamped by magistrate Megon II<sup>[53]</sup>, whose activity dates back to the 350s BC<sup>[54]</sup>. In the burial No. 1 of the burial mound No. 4 of the Sharp Grave group, a similar kantharos (distinguished by elongated proportions and small diameter) was found with a Heraklean amphora stamped by magistrate Themistokles, whose activity was attributed to the 350–340s BC by S. V. Polin<sup>[55]</sup>.

Returning to burial No. 2943, let us add that a black-glazed skyphos of type A was discovered there, dated according to its form to the 350–330s BC<sup>[56]</sup>. Thus, according to the combination of the material, the Knidian amphorae of the "Cherednikov" variant from burial No. 2943 date back to the late second – the very early third quarter of the  $4^{th}$  century BC<sup>[57]</sup>.

First, S. Yu. Monakhov suggested that perhaps they were produced until the 330s BC<sup>[58]</sup>. The ground for such a conclusion was the complex of the burial mound

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[49] Monakhov - Kuznetsova 2021, 189, fig. 4/8-14.
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<sup>[50]</sup> Limberis - Marchenko 2016c, 76-85.

<sup>[51]</sup> Monakhov 2003, 104, pl. 71/3, 72/7; Limberis – Marchenko 2005, 260, 261, fig. 31, 32.

<sup>&</sup>lt;sup>[52]</sup> Limberis - Marchenko 2017a, 188; Kuznetsova 2020, fig. 1/1, 2; Monakhov - Kuznetsova 2021, 192, fig. 5/1-5.

<sup>[53]</sup> Polin 2014, 348, fig. 268.

<sup>[54]</sup> Garlan 1999, 50; Kats 2015, 415; Tzochev 2016, tabl. 2.

<sup>[55]</sup> Polin 2014, 534, 535, fig. 461.

<sup>[56]</sup> Sparkes - Talcott 1970, no. 351, 352.

<sup>[57]</sup> Limberis - Marchenko 2017b, 189.

<sup>[58]</sup> Monakhov 2003, 104.

No. 8 of the Cherednikovaya grave group, where a similar amphora was found in a trizna. In addition to it, the trizna contained 14 Heraklean amphorae with the stamps of Amphita and Bakh, whose activity dated back to the 350s BC<sup>[59]</sup>. However, it was at that time, when describing the complex, a contradiction was indicated between the dating of the amphorae from the trizna and the date of the Thasian vessel from the main burial stamped by Deialkos, whose activity was dated to the second half of the 330s BC<sup>[60]</sup> at that time. However, the situation has changed in recent years. Having conducted an analysis of the Thasian stamping system and using data from ceramic complexes, Ch. Tzochev proved that the activities of several Thasian magistrates, including Deialkos, should be downgraded to the 350s BC<sup>[61]</sup>. As a result, the existing contradiction has been removed and now it can be confidently asserted that the burial mound No. 8 of the Cherednikovaya Grave group should be dated no later than the middle of the 4th century BC<sup>[62]</sup>. It turns out that the latest of the known complexes containing the Knidian amphora of the "Cherednikov" variant is burial No. 2943 of the burial mound of the Starokorsun-Starokorsunskaya settlement No. 2.

Thus, it is obvious that the vessels of the "Elizavetovsky" and "Cherednikov" variants were produced simultaneously from the beginning of the second quarter to the middle (the very beginning of the third quarter) of the 4<sup>th</sup> century BC.

The vessels classified in due time as the "Chersonesos" variant and, for indirect reasoning (due to the absence of complexes by that time) dated to the third quarter of the 4<sup>th</sup> century BC appear to be a continuation of the development of the "Cherednikov" variant containers. Morphologically, they have much in common with the "Elizavetovsky" variant, however, their total height, the height of the neck increases, the rim becomes less massive, and the body nears conical (tabl. 1).

In the Maeotian necropoleis, there is only one complex with amphorae of this variant – burial No. 353 of Prikubanskiy necropolis. In addition to the Knidian vessel, an amphora of Ikos and a neck of a Sinopean amphora<sup>[63]</sup> (Fig. 5/6–8)<sup>[64]</sup> were found in it. There is no interception on the toe of the amphora of Ikos which is classified as the second group, the dating of which is within the middle – the begin-

<sup>[59]</sup> Monakhov 1999b, 340-348.

<sup>[60]</sup> Monakhov 1999b. 347.

<sup>[61]</sup> Tzochev 2016, tabl. 2.

<sup>[62]</sup> Polin 2014, 467.

<sup>[63]</sup> Kuznetsova 2020, 103, fig. 1/4; Monakhov et. al. 2021, 94, fig. 145, 146; Monakhov – Kuznetsova 2021, 192 ff., fig. 5/6-8.

In the late article it was noted that this burial possibly gives us the only combination of two different types of Knidian amphorae. At that time, we did not know the neck from this burial. However, in the summer of 2020, it was found in the funds of the Krasnodar Museum – it turned out to be the neck of the Sinopean amphora.

ning of the fourth quarter of the  $4^{th}$  century BC<sup>[65]</sup>. The closest analogy to the vessel originates from the burial No. 196, which, according to the amphora of Kos and the black-glazed lekythos, is dated to the beginning of the third quarter of the  $4^{th}$  century BC. The fragmented Sinopean amphora is classified as the variant II-C and, according to the known analogies, is dated back to the 330-320s BC<sup>[66]</sup>. Thus, the Knidian amphora from burial No. 353 should be dated back to the 340-330s BC.

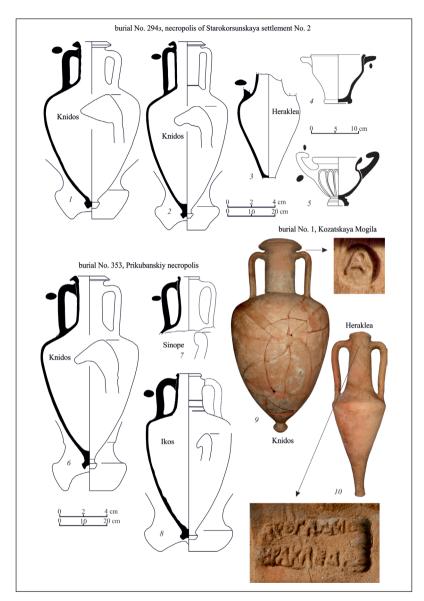
Reliable dating of similar amphorae of the "Chersonesos" variant is given by the burial No. 1, investigated in 2011 in the Kozatskaya Mogila on the left bank of Rossi, near the village of Neterebka, Cherkassy region<sup>[67]</sup>. A Knidian amphora was found in it, attributed by the author of the excavations to the type of "Solokha I". On its handle is stamped a round relief monogram stamp "AP" in direct writing (Fig. 5/9). There is no doubt that the vessel belongs to the products of Knidos – it is almost identical to the amphorae from the Prikubanskiy necropolis, representing a larger standard. Of special importance were present at the burial of the Heraklean amphora with stamp  $\lambda \pi o \lambda \lambda \dot{\omega} vio c$  ['H $\rho \alpha \kappa \lambda \epsilon i \delta \alpha c$  (Fig. 5/10) that gives us a solid date within the end of 350 years BC, as the magistrate Herakleides according to the modern view is one of the first in IVA MG<sup>[68]</sup>.

<sup>[65]</sup> Monakhov - Kuznetsova 2009, 158; Monakhov - Kuznetsova 2011, 247; Monakhov - Fedoseev 2013, 260 ff., fig. 4.

<sup>[66]</sup> Monakhov 2003, 150, pl. 102/2, 3.

<sup>&</sup>lt;sup>1671</sup> Bessonova – Sivolap 2012, 51-53; There is no complete publication of the complex. Some of the photos can be found in the public domain. The report, during which illustrations were presented, based on the results of the work was made by S.S. Bessonova at a meeting of the department at IA NASU in 2012.

<sup>[68]</sup> Kats 2015, no. 678.



**Fig. 5:** Complexes with Knidian amphorae of "elizavetovskiy" (1), "cheredni-kovyi" (2) and "chersonesos" (6, 9) variants from burial No. 2943 necropolis of Starokorsunskiy settlement site No. 2 (1–5; 4, 5 after: Limberis – Marchenko 2005, burial No. 353 (6–8) and burial No. 1 of kurgan Kozatskaya Mogila (9, 10): 1, 2, 6, 9 – Knidos; 3, 10 – Heraklea; 7 – Synope; 8 – Ikos.

Another Knidian vessel of the "Chersonesos" variant originates from the burial No. 105 of the Prikubanskiy necropolis<sup>[69]</sup> (Fig. 6/1). There were no other imports in the burial. However, the amphora is identical to the one described above, and should also be dated to the 340s – 330s BC. Probably, the production of the Knidian containers of this variant did not last long – during the third quarter of the  $4^{th}$  century BC. On the vessels of the "Chersonesos" variant, there are monogram stamps  $\Pi A\Theta$  and  $A\Pi O^{[70]}$ , the dating of which is still a matter of debate<sup>[71]</sup>.

However, the absence of clear dating is typical not only for this series of Knidian stamps but also for the rest of the so-called early or "Protoknidian" stamps. These include single letters, ligatures, monograms, and "prora" stamps. Establishing an exact dating is complicated by the fact that researchers still do not have a single reliable closed complex with a narrow date containing early Knidian stamps. The fact of their discovery in the same workshop can mean both their concurrent and consistent existence, without adding clarity to the order of their appearance.

The materials from the Northern Black Sea region also keep from shedding light on this issue. The well-known neck from Kerkinitis with the monogram stamp "HP" [72] does not originate from the complex and has no exact date. Its morphological characteristics because of its great fragmentation, also make it impossible to clarify the chronology.

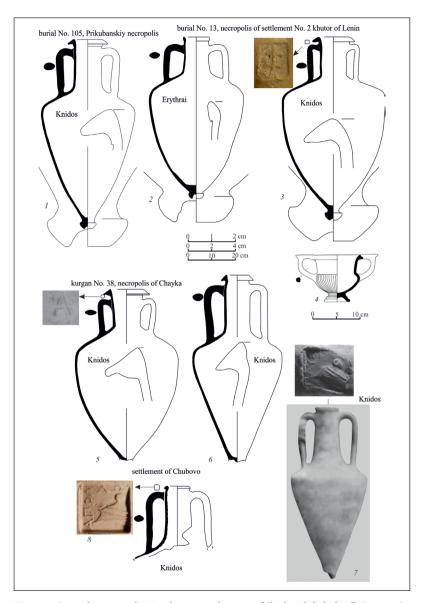
PROPONTICA, 2023, Cilt 1, Sayı 1, Sayfa 47-82

<sup>[69]</sup> Monakhov et. al. 2021, 199, Kn. 11; Monakhov – Kuznetsova 2021, 194, fig. 5/9.

<sup>[70]</sup> Monakhov 2003, pl. 72, 1, 2.

<sup>[71]</sup> Jefremow 2013; 2018; Bolonkina et. al. 2019.

<sup>[72]</sup> Monakhov 2003, pl. 71/4.



**Fig. 6:** Complexes with Knidian amphorae of "gelendzhikskiy" (1, 3, 5) and "chersonesos" (6) variants of type I and the variant "haviaras" of type II (7, 8): burial No. 105 of the Prikubanskiy necropolis (1); burial No. 13 of the necropolis of the settlement No. 2 khutor of Lenin (2–4; 2 – Erythrai; 4 – after Limberis – Marchenko 2017b); from the kurgan No. 38 of the Chayka necropolis (5, 6); 7 – amphora of Knidos from the Haviaras collection (after Grace 1971, not to scale); 8 – from the settlement Chubovo.

As for the *Knidian* amphora with a mushroom-shaped rim with the monogram stamp " $\Phi\Lambda$ " (?) from the burial No. 13 of the necropolis of the ancient settlement No. 2 at khutor of Lenin<sup>[73]</sup> (Fig. 6/3), it's dating still remains to be seen<sup>[74]</sup>. At the time of the first publication, S. Yu. Monakhov did not know the second amphora from this burial. Later N. Yu. Limberis and I. I. Marchenko published a blackglazed kantharos from this complex and mentioned two amphorae produced in Erythrai<sup>[75]</sup>. During our work, the second vessel from burial No. 13 was recorded in the funds of the Krasnodar Museum - it indeed turned out to be an Erythrain amphora of type IV (Fig. 6/2), the dating of which was once determined within the late 4th - early 3rd century BC[76]. The challenge is only two complexes containing Erythrain amphorae of this type combined with Sinopean stamps of the early 3rd century BC[77] are known. The rest of the known Erythrain vessels had no accompanying inventory, which makes their dating difficult. In this regard, the materials of the burial No. 13 could also shed light on the dating of Erythrain amphorae of type IV, due to the availability of black-glazed kantharos of the classical type in the burial (Fig. 6/4), the existence of which is well within the second or third quarters of the 4th century BC<sup>[78]</sup>. Taking into account the short neck of the Erythrain vessel, the high handle attachment, as well as its similarity to the amphorae from the shipwreck near the island of Chios, it is fair to say that the manufacture of type IV vessels in Erythrai began as early as the third quarter of the 4th century BC. Accordingly, the Knidian amphora with the monogram stamp should be dated to that time.

However, there is another fact that we have to point out. There is only the inventory number of the museum – 5455/1425 on this Knidian amphora, there is no field cypher. According to the inventory books, a vessel from burial No. 13 of the necropolis of the ancient settlement No. 2 near the khutor of Lenin is itemized under this number. However, in the album to the scientific report of A. Z. Aptekarev, there is a photograph of a completely different amphora<sup>[79]</sup>, and in the description of the vessel in the text, there is no reference to the stamp<sup>[80]</sup>. Conversely, the amphora shown in the photo is remarkably similar to the vessel pictured in the figure burial No. 9<sup>[81]</sup>. However, the amphora on which there is a field cypher with reference to the burial No. 9 affiliation is kept in the museum collection. This

<sup>[73]</sup> Kuznetsova 2020, 103, fig. 2/1; Monakhov – Kuznetsova 2021, 194, fig. 6/1-3.

<sup>[74]</sup> Monakhov 2003, 103; pl. 71/6.

<sup>[75]</sup> Limberis - Marchenko 2017b, 182, 183, fig. 1/1.

<sup>[76]</sup> Monakhov 2012, 116, 122.

<sup>[77]</sup> Monakhov 2013, 44, 45.

<sup>[78]</sup> Limberis - Marchenko 2017b.

<sup>[79]</sup> Aptekarev 1980b, sh. 24, photo 113.

<sup>1801</sup> Aptekarev 1980a, sh. 28-32; Although it is worth noting that the reference to the stamp in the text of the report misses quite often.

<sup>[81]</sup> Aptekarev 1980b, sh. 18, fig. 81.

is the *Erythrian* amphora of the same type IV, which has nothing to do with the one pictured in the figure in the album. Moreover, according to the report, the Erythrian amphora was crushed and glued together afterwards. It is quite possible that a technical error occurred during the preparation of the report. Working with scientific reports and materials in the funds shows that such discrepancies often take place. In some cases, it is possible to learn the actual truth whereas in some others it is not. In this regard, it is worth emphasizing that we are not absolutely certain that the Knidian amphora with the stamp " $\Phi\Lambda$ " originates from burial No. 13 and has got a reliable dating within the third quarter of the century, although this is possible.

Concerning stamped Knidian amphorae, we can't help mentioning another very interesting complex, although it is not one of the Kuban complexes. The point at issue is the burial mound No. 38/1977 of the Chayka necropolis. In the eastern sector of the burial mound, at the level of the horizon, two amphorae were found. One of them is classified as the "Chersonesos" variant of the Knidian container of the third quarter of the 4th century BC (Fig. 6/6); the second one was misclassified as the production of Kos (Fig. 6/5)[82], although in fact, it is definitely the Knidian amphora of "Gelendzhiksky" variant. On its handle, there is a round monogram retrograde stamp "AP", which is currently classified as Knidian production[83]. The stamp with a retrograde "AP" stamp, but not a monogram, was discovered during the investigation of the workshops in Resadiye<sup>[84]</sup>. The direct writing of the monogram is known from the stamp on the amphora from the kurgan near the village of Neterebka (see above). Most likely, we may speak of the Knidian origin of the vessel from the burial mound No. 38 of the Chayka necropolis. If that is so, then we have an example of a combination of the "Chersonesos" and "Gelendzhiksky" variants of the Knidian container in a single complex of amphorae. As for the dating of the burial mound, it is within the third quarter of the 4th century BC.

<sup>[82]</sup> Kuznetsova 2017, 142, fig. 1/1, 2.

<sup>[83]</sup> Bolonkina et al. 2019, 293, pl. 5, Kn 47 - of different print.

<sup>[84]</sup> Empereur 1988, 160, fig. 2.

**Table 1.** Metric parameters of amphorae from the Northern Black Sea region<sup>[85]</sup>.

Burial No.	Centre of production	Parameters, mm							
		Н	$H_{_0}$	H <sub>1</sub>	H <sub>3</sub>	D	d <sub>1</sub>	Date BC	Fig.
			KNII	DIAN A	MPHOR	AE			
			«Eliz	abethia	n» varia	nt			
186 Pr. <sup>[86]</sup>	Knidos	706	675	310	150	420	176	Early 2/4 of the 4 <sup>th</sup> cent.	2 -1
159 Pr.	Knidos	678	633	290	165	414	166	360-350s	2 -5
236 Pr.	Knidos	≈740	-	-	166	-	170	360-350s	3 -5
224 Pr.	Knidos	732	690	336	190	418	170	360-350s	3 -2
224 Pr.	Knidos	720	645	300	170	395	175	360-350s	3 -1
202 Pr.	Knidos	704	692	320	165	410	182	360-350s	3 -8
202 Pr.	Knidos	-	-	-	-	-	140	360-350s	3 -7
138 Pr.	Knidos	-	-	-	190	-	176	360-350s	4 -1
2943 (St. )	Knidos	707	680	300	160	406	164	350-340s	5 -1
			«Che	redniko	vy» vari	ant			
262 Pr.	Knidos	678	630	270	170	366	140	375-350	4 -4
652з (St. )	Knidos	725	690	290	180	365	164	375–350	4 -9
652з (St. )	Knidos	720	680	300	180	325	170	375–350	4 -8
294з (St. )	Knidos	750	690	320	185	342	156	350-340	5 -2
			«Che	ersoneso	os» varia	nt			
353 Pr.	Knidos	818	743	335	200	413	168	340-330	5 -6
105 Pr.	Knidos	806	760	320	210	400	170	340-330	6 -1
Chayka, 38/1977	Knidos	≈790	772	355	245	380	136	340-320	6 -6
			«Gele	ndzhiks	ky» vari	ant			
13 (L.)	Knidos	783	723	282	163	438	≈180	350-325	6 -3
Chayka, 38/1977	Knidos	≈724	715	315	155	440	186	340-320	6 -5
			Va	riant «H	laviaras>	>			
Chubovo, 2014	Knidos	pres. =308	-	-	250	-	110	340-320?	6 -8
			«P	ythoid»	variant				

<sup>[85]</sup> H – height;  $H_0$  – depth;  $H_1$  – high of the upper part;  $H_3$  – neck height; D – body diameter;  $D_1$  – rim diameter.

I861 Pr. – Prikubanskiy necropolis; St. – necropolis of Starokorsunskiy settlement site No. 2; L – necropolis of settlement khutor of Lenin No. 2; Zel. – random finds near khutor of Zelensky; Chayka – necropolis near vil. Zaozernoe (Chayka); Chubovo – settlement Chubovo; without No. – passport-free.

Kitey	Knidos	730	675	330	-	384	118	340-320?	7 -1
103 Pr.	Knidos	764	712	350	175	440	108	350-325	7 -2
91 L.	Knidos	746	690	320	215	434	123	350-325	7 -4
316 Pr.	Knidos	≈720	≈674	≈285	≈170	≈435	114	330-320	8 -1
381в St.	Knidos	770	724	340	185	444	118	330-310s	8 -3
331 Pr.	Knidos	pres. 716	700	340	209	444	116	325–290	8 -5
173 Pr.	Knidos	768	706	360	205	458	140	330-280	9 -1
275 Pr.	Knidos	712	650	295	175	426	114	330-280	9 -2
without No.	Knidos	≈275	-	-	200	-	120	330-280	9 -3
110 L.	Knidos	≈652	680	300	170	438	118	330-280	9 -4
Zel.	Knidos	737	673	310	183	426	115	330-280	9 -5
8 L.	Knidos	740	678	327	165	420	118	330-280	9 -6
St.	Knidos	744	680	320	200	432	118	330-280	10 -1
L.	Knidos	≈680	680	325	175	436	116	330-280	10 -2
without No.	Knidos	≈255	-	-	180	-	110	330-280	10 -3
without No.	Knidos	-	-	-	-	-	115	330-280	10 -4
				Oth	er				
381в St.	Knidos	555	503	210	128	336	176	330-310s	8 -4
			Oï	HER C	ENTRE	S		•	
2943 St.	Heraklea	437	-	-	-	264	-	360-350s	5 -3
353 Pr.	Ikos	705	660	235	158	366	110	340-330	5 -8
103 Pr.	Kos	754	692	300	140	466	168	350-325	7 -3
331 Pr.	Kos	-	-	-	-	≈508	-	325-290	8 -6
138 Pr.	Mende	-	-	-	225	-	120	360-350s	4 -2
186 Pr.	Mende	786	635	290	202	344	110	Early 4th cent.	2 -2
262 Pr.	Mende	-	612	280	209	340	96	375-350	4 -5
159 Pr.	Sinope	652	595	280	140	394	110	360s	2 -7
236 Pr.	Sinope	596	554	250	120	380	104	360s	3 -5
316 Pr.	Sinope	700	614	280	177	356	112	330-320	8 -2
353 Pr.	Sinope	240	-	-	195	-	97	340-330	5 - <i>7</i>
138 Pr.	Thasos	738	614	280	176	265	104	375-350	4 -3
159 Pr.	Thasos	734	615	295	210	253	116	the end of the 360s – 350s	2 -6

224 Pr.	Thasos	757	592	285	215	260	100	375-350	3 -3
13 L.	Erythrai	686	630	270	160	400	111	350-325	6 -2
91 L.	Erythrai	732	690	352	170	445	128	350-325	7 -5

In general, the Knidian amphorae from the burial No. 13 of the necropolis near khutor Lenina and the burial mound No. 38 of the Chaykinsky necropolis are morphologically very close to the vessels of the "Elizavetovsky" variant, differing in larger metric parameters – overall height and diameter, with a short neck (tabl. 1). In fact, the same tendency is observed as for the vessels of "Cherednikov" and replacing it "Chersonesos" variants. The change in the profiling parts is also clearly visible: massive rims, which in the second quarter of the century had an evident ledge on the lower surface; were refined after the middle of the century. The toes from broad sharp-ridged ones, as a rule, with a swallow hollow, become taller and smaller in diameter, approaching in shape to the "Classic" spinning top-shaped Knidian toes.

In fact, the analysis of the complexes suggests that amphorae production at Knidos in the 4<sup>th</sup> century BC targeted the production of two varieties of amphorae within the *first* type:

- 1. full-standard large pythoids with a short neck and a low sharp-ridged toe (so-called "Elizavetovsky" and "Gelendzhiksky" variants);
- 2. fractional, more well-proportioned and taller vessels with a tall neck (so-called "Cheridnikov" and "Chersonesos" variants).

Moreover, approximately in the middle of the century, changes in the sizes of both vessel groups, increasing in their height and diameter occurred. Occasionally there are vessels of smaller fractions, but their number is not big<sup>[87]</sup>.

The *second* type of Knidian container ("with a conical neck and spinning top-shaped toe") is noted for a roller-shaped rim, a flaring neck and a specific shape of the toe (Fig. 7/1, 2). The bulk of the known vessels is large full-standard pythoids. The only exceptions are the vessels of the "*haviaras*" variant, named after the only complete amphora known by that time (the toe is missing) with the stamp with "prora" from the collection of N. Haviaras<sup>[88]</sup>. It is noted for a tall neck and a strictly conical body (Fig. 6/7). It is morphologically close to the vessels of the "Chersonesos" type I variant, differing only in the shape of the rim. The closest analogues originate from the above-described burial No. 105 of the Prikubansky necropolis (Fig. 6/1) and the burial mound No. 38/1977 of the Chayka necropolis (Fig. 6/6).

<sup>[87]</sup> Monakhov 2003, pl. 71, 72.

<sup>[88]</sup> Grace 1971, fig. 15/15, 16; Monakhov – Kuznetsova 2021, 196, Fig. 6/7.

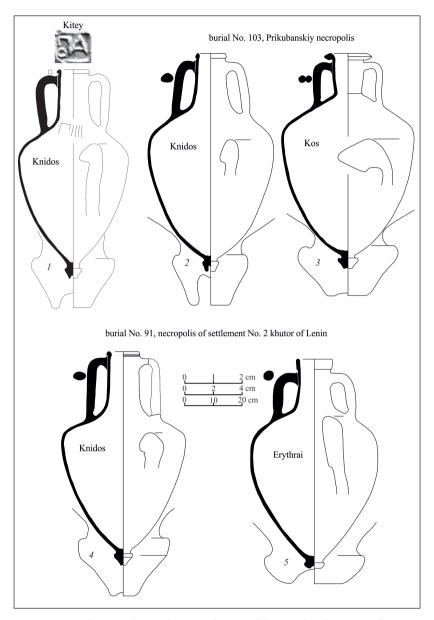
The morphological similarity of the vessels of two different variants may indirectly indicate their simultaneous manufacture over a certain period in the third quarter of the century [89]. The fact that stamps with "prora" and monograms A $\Pi$ O(---) and  $\Pi$ A $\Theta$ (---) are currently known only on the amphorae of these two variants, also calls attention to. On the other hand, there are monogram stamps on the amphorae of the "Gelendzhiksky" variant. This does not exclude the possibility of stamping vessels of other variants with these prints, but now we have no reason to state this.

In the two decades since, only one fragmented vessel of the "haviaras" variant, which originates from the excavations of the Chubovo<sup>[90]</sup> settlement, has become known (Fig. 6/8). Only the upper part of it has been preserved: the tall cylindrical neck, the near to beak-shaped rim; there is a stamp "A $\Pi$ O $\Lambda$ | $\Lambda$  $\Omega$ " and the emblem "prora"<sup>[91]</sup> on the handle. There is no chronological context.

<sup>[89]</sup> However, this interval appears to have been rather short. At least, we do not have a single complex where vessels of type I and II would have been found at the same time.

<sup>1901</sup> The settlement is located in the Temryuk district of the Krasnodar Territory near the stanitsa. Starotitarovska-ya. Excavations of Sh. Davudov in 2014. We express our gratitude to the excavation director for the provided drawing, photograph of the stamp and permission to publish them.

<sup>[91]</sup> Monakhov - Kuznetsova 2021, 196, fig. 6/4.



**Fig. 7:** Complexes with Knidian amphorae of the «pythoid» variant from Kitey (1); burial No. 103 of the Prikubanskiy necropolis (2, 3) and burial No. 91 of the necropolis of the settlement No. 2 khutor of Lenin (4, 5): 1, 2, 4 – Knidos; 3 – Kos; 5 – Erythrai.

Vessels of the "pythoid" variant of the second type are most widely represented in the materials of the Northern Black Sea region. At the same time, the number of complexes from which they are present is small. In addition to the previously known complexes of the "burial No. 25" of the Gorgippian necropolis, the burial mound No. 12 near the village settlement of Vysochino on the Lower Don and the Azov burial mound No. 2, all dated into the late  $4^{th}$  – the early  $3^{rd}$  century  $BC^{[92]}$ , several Maeotian burials with such vessels have been explored in recent years.

In the burial No. 103 of the Prikubansky necropolis (Fig. 7/2, 3), a Knidian vessel was discovered together with an amphora of Kos of the "early" variant I-A $^{[93]}$ . According to well-known analogies, it should be dated no later than the beginning of the third quarter of the  $4^{th}$  century BC. At the same time, the amphora of Knidos differs slightly from other vessels of the "pythoid" variant $^{[94]}$  (Fig. 7/2) and dates within the third quarter of the  $4^{th}$  century BC.

In the burial No. 91 of the necropolis of the ancient settlement No. 2 near khutor of Lenin (Fig. 7/4, 5), there was the amphora of Erythrai of variant III-A<sup>[95]</sup>. in addition to the amphora of Knidos. By the time of the publication of the Erythrian vessel, the second amphora from the burial was not known, and it was dated no earlier than the third quarter of the 4<sup>th</sup> century BC. As a result of work in the Krasnodar Museum collection, the second amphora, which turned out to be *Knidian*, was also found. Its roller-shaped rim is delineated with a small ridge; the neck is tall and cylindrical; the body is pythoid with sloping shoulders; the spinning top-shaped toe with slightly outlined hollow<sup>[96]</sup> (Fig. 7/4).

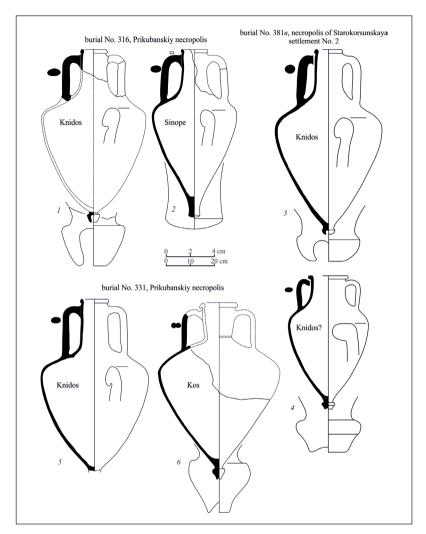
<sup>[92]</sup> Monakhov 1999b, 441-446, pl. 191-193.

<sup>[93]</sup> Monakhov 2014, 203, fig. 3/6.

<sup>[94]</sup> Kuznetsova 2020, 106, fig. 2/4; Monakhov et. al. 2021, 91 ff., fig. 139, 140; Monakhov - Kuznetsova 2021, 198, fig. 7/2. 3.

<sup>[95]</sup> Monakhov 2013, 39, 40, pl. V: 27.

<sup>[96]</sup> Monakhov - Kuznetsova 2021, 198, fig. 7/4, 5.



**Fig. 8:** Complexes with Knidian amphorae of the "pythoid" variant: 1, 2 – burial No. 316 of the Prikubanskiy necropolis; 3, 4 – burial No. 381B necropolis of Starokorsunskiy settlement site No. 2; 5–6 – burial No. 331 of the Prikubanskiy necropolis (1, 3–5 – Knidos; 2 – Synope; 6 – Kos)

In the burial No. 316 of the Prikubansky necropolis, the Knidian vessel was found together with the Sinopean amphora of variant II- $C^{[97]}$  (Fig. 8/1, 2). Previously, amphorae of this variant of the Sinopean container were dated from the late  $4^{th}$  century BC. Currently, based on the materials of the Nymphaeum warehouse of

<sup>[97]</sup> Monakhov - Kuznetsova 2021, 198, fig. 8/1, 2.

 $1993^{[98]}$ , the time of such vessels' appearance can be lowered the third quarter of the century. Moreover, the neck of the same Sinopean amphora was found in the burial No. 353 of the Prikubansky necropolis of the third quarter of the 4<sup>th</sup> century BC<sup>[99]</sup>. Taking into account the fact that the bulk of the Sinopean amphorae of variant II-C (from burials No. 45, 97 and 206 of the Prikubansky burial ground) date back to the last quarter of a century, the vessel from the burial No. 316 can be dated to the end of the third/ the beginning of the last quarter of the 4<sup>th</sup> century BC.

In 2020, two amphorae in burial No. 381B of the necropolis of the Starokorsunsky settlement No. 2 were found (Fig. 8/3, 4). One of them belongs to the early series II-B-1 of the "pythoid" variant of the Knidian containers and is almost a direct analogue to the vessel from the above-described burial and dates back to 330s – 310s BC<sup>[100]</sup>. The second amphora is attributed to the production of Knidos presumably. Doubts about its Knidian origin are caused by both morphological features and the nature of the clay: light beige, with fine sand, silver spangles and small brown inclusions. The question of the exact place of its production remains open, analogues are unknown to us.

Finally, another complex originates from the burial No. 331 of the Prikubansky necropolis, where, together with the *Knidian* amphora, a fragmented amphora of *Kos* of the I-B-2 series<sup>[101]</sup> (Fig. 8/5, 6) was found. Taking account of the upper part missing, its dating can be set within the broad framework of the last quarter of the  $4^{\text{th}}$  – perhaps, the beginning of the  $3^{\text{rd}}$  century BC<sup>[102]</sup>.

The list of complexes from Maeotian necropoleis containing Knidian amphorae of the "pythoid" variant is limited to these five burials. It should not go without mentioning the complete fractional Knidian amphora of the "pythoid" variant with the stamp  $A\Pi O(---)^{[103]}$ , found during the excavations of Kitey (Fig. 7/1). The amphora is noted for its small size and rather tall cylindrical neck; the rim is rather beak-shaped than roller-shaped.

As we can see, there are still no available complexes that, in addition to the Knidian "pythoid" variant, would contain stamped amphorae from other centres, which would make it possible to set reliable dates. However, we can confidently indicate that the containers of this variant were produced in Knidos from the third quarter of the 4<sup>th</sup> century BC till the early 3<sup>rd</sup> century BC. The next modification

<sup>[98]</sup> Monakhov et. al. 2016, 52, fig. 12/9.

<sup>[99]</sup> Monakhov et. al. 2021, 94 ff., fig. 145, 146.

<sup>[100]</sup> Kuznetsova et. al. 2022, 140-142, fig. 1, 3.

<sup>[101]</sup> Kuznetsova 2020, 106; Monakhov et. al. 2021, 102, fig. 155.

<sup>[102]</sup> Monakhov 2014, 207, fig. 6/25.

<sup>[103]</sup> Monakhov et. al. 2016, 127, Kn. 1.

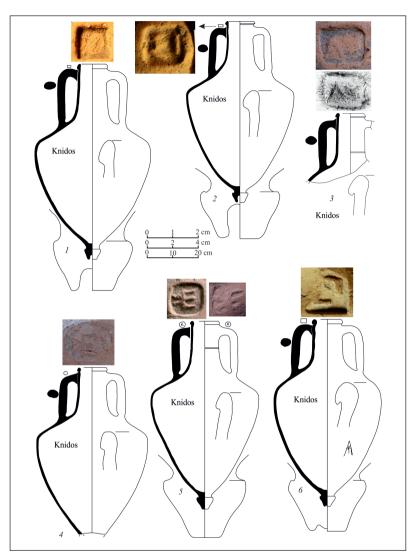
occurred around the 280s BC, when the stamps of the "Zenon group" appeared At least, the known stamped samples differ markedly from the vessels of the preceding period. At the same time, one cannot agree with the opinion that Knidian amphorae got their characteristic form only in the second quarter of the 3<sup>rd</sup> century BC<sup>[104]</sup>.

A change in the vessel types that occurred sometime in the third quarter of the 4<sup>th</sup> century BC was undoubtedly associated with transferring of the city to a new location, the terracing of new lands and the volumetric gaining of the wine trade, resulting in the growth of amphora production. Moreover, it's no wonder that the vessels of different types with different types of stamps coexisted for some time – system reorganization could not be completed at once. This also explains the insignificant amount of Knidian imports on the territory of the Northern Black Sea region in the second quarter of the 4<sup>th</sup> century BC – probably, deliveries at that time were sporadic. Meanwhile, after the middle of the century, closer to the last third, there was a stable growth – the number of the found amphorae of the "pythoid" variant is much more than the previous vessels. Moreover, the basic amount is accounted for full-standard vessels with a volume of 37–38 litres; however, there are also samples of far lesser volume – within 10–14 litres<sup>[105]</sup>.

Additionally, the materials of the Maeotian necropoleis provide us with fine samples of stamped Knidian containers of the "pythoid" variant (Fig. 9; 10). Even though these amphorae are single-piece, and often undocumented findings, they nevertheless make it possible to reliably localize the stamps on them, individual letters "E" (Fig. 10/2), " $\Phi$ " (Fig. 9/1); abbreviations " $\Lambda$ Y" (Fig. 9/3), " $\Sigma$ I" (Fig. 9/2); monograms " $\Lambda$ E" (?) of two different prints (Fig. 9/4, 5), " $E\Pi$ " (Fig. 9/6; 10/1, 3); anepigraphic (Fig. 10/4). It is worth noticing that all of them are on amphorae of the "pythoid" type II variant and, therefore, should be dated from the middle of the third quarter of the 4<sup>th</sup> to the beginning of the 3<sup>rd</sup> century BC.

<sup>[104]</sup> Doksanaltı et. al. 2019, 284.

<sup>[105]</sup> Monakhov 2003, pl. 72, 8; 75, 2, 3.

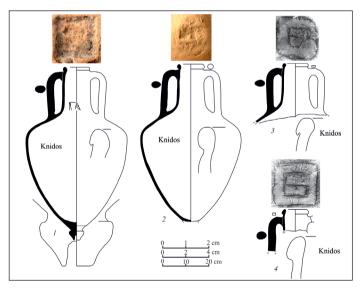


**Fig. 9:** Knidian amphorae of the "pythoid" variant with stamps, from the Prikubanskiy necropolis (1 – burial No. 173; 2 – burial No. 275), the necropolis of the settlement No. 2 khutor of Lenin (4 – burial No. 110; 6 – burial No. 8), an incidental finding near Zelenskiy khutor (5) and one, having no passport (3).

It should be added that most recently the comparison results of the ultimate composition of clay samples taken from various amphorae of Knidos and Kos were published<sup>[106]</sup>. The sampling under consideration also included several samples of

<sup>[106]</sup> Mandrykina et. al. 2021.

clays taken from vessels, which are shown in this article: among others, from burials No. 224, No. 353 and No. 103 of the Prikubansky necropolis (samples Nos. 220, 168 and 219, correspondingly), the burial No. 105 of the necropolis of the Starokorsunsky settlement No. 2 (the sample No. 166). Notwithstanding the fact that in the clay studies the main task was to compare the ultimate compositions of the test from two different production centres, some conclusions can still be drawn. Firstly, it is important for us that all four samples are separated from the containers of Kos<sup>[107]</sup>. Secondly, according to the same binary diagrams, all of them are quite close to each other, and only sample No. 166 is located at some distance and is part of the conditional group of samples, including stamped samples with  $\Pi A\Theta$  imprints and with a prora and the name of Pasikrates<sup>[108]</sup>. We suggested that these differences are explained by the location of the workshops in the centre of the Knidos peninsula in the town of Reșadiya<sup>[109]</sup>. It should be noted in particular that the sample No. 219 of the amphora of the "pythoid" variant of type II (the burial No. 103 of the Prikubansky necropolis), in its ultimate composition is very close to the samples of type I amphorae of two different variants<sup>[110]</sup>, which identically points to their Knidian origin.



**Fig. 10:** Knidian amphorae of the "pythoid" variant with stamps, from incidental findings at Starokorsunskaya stanitsa (1), khutor of Lenin (2) and ones, having no passport (3, 4).

<sup>[107]</sup> Mandrykina et. al. 2021, 693, fig. 6-8.

<sup>[108]</sup> Mandrykina et. al. 2021, 694, 696, fig. 9, 10.

<sup>[109]</sup> Mandrykina et. al. 2021, 693.

<sup>[110]</sup> Mandrykina et. al. 2021, 694, 696, fig. 9, 10 "Elizavetovskyi" and "Chersonesos".

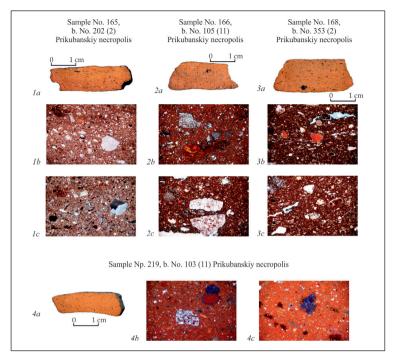


Fig. 11: Petrography thin sections of clay samples of Knidian amphorae: a - polish sections, b, c - thin sections (magnification x100).

Currently, work on the petrography study of samples of Knidian amphorae clays is being carried out<sup>[111]</sup>. The sample also contains instances taken from the amphorae considered in this article, including those for which the results of elemental analysis have already been obtained (Fig. 11). We are talking about samples Nos. 166, 168 and 219. In addition, a clay sample from a fragmented vessel from burial No. 202 of the Prikubansky necropolis was attracted (Fig. 3/7). According to petrography analysis, the vessels of the "Chersonesos" variant from burials No. 353 and No. 105 (samples Nos. 168 and 166, correspondingly) are made of almost identical clay. Visually, it is identical and contains the same thinners. The similar structure and composition of the clay dough and the amphora from burial No. 103 of the Prikubansky necropolis (sample No. 219). At the same time, as we can see, the results of the petrographic analysis are somewhat different from the elemental one – sample No. 166 does not differ significantly from the other two. This issue requires further study. Curious results were also obtained on the clay of the vessel

<sup>[111]</sup> The research was supported by a grant from the Russian Science Foundation (project No. 22-28-00375). Thin section and anschlyphs are made by S. O. Andrushkevich, photographs and descriptions of samples are made by D. A. Shelepov.

from burial No. 202 of the Prikubansky necropolis. Even from the photographs of the anshlifs, differences from the other three samples are noticeable. They become even more obvious with a hundredfold increase in the slot. According to observations, a very large amount of mica is present in this sample, which causes some confusion, since we did not notice such an amount of mica when examining the amphora with the naked eye[112], which can be explained by the properties of the mineral changed as a result of firing. The results of the petrography analysis make us doubt the Knidian origin of the vessel.

It is like this we think of amphorae production in Knidos in the 4<sup>th</sup> – early 3<sup>rd</sup> century BC. This situation appears to be changed with the advent of new complexes, which would be very useful.

#### Conflict of Interest:

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#### **Ethics:**

Author(s) have stated that there is no conflict of interest with any institution or person within the scope of the article.

#### **Author Contribution Rates:**

Design of Study: EVK (%50), SYM (%50)

Data Acquisition: EVK (%50), SYM (%50)

Data Analysis: EVK (%50), SYM (%50)

Writing up: EVK (%50), SYM (%50)

Submission and Revision: EVK (%50), SYM (%50)

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<sup>[112]</sup> Monakhov et. al. 2021, 197, Kn. 7.

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