

IARPotHP

INTERNATIONAL ASSOCIATION FOR RESEARCH
ON POTTERY OF THE HELLENISTIC PERIOD E. V.



Manufacturers and Markets

The Contributions of Hellenistic Pottery to
Economies Large and Small

Edited by Laura Rembart and Alice Waldner

Wien 2022

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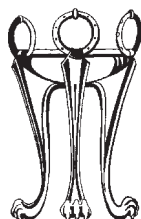
MANUFACTURERS AND MARKETS

The Contributions of Hellenistic Pottery to Economies Large and Small

Proceedings of the 4th Conference of IARPotHP,
Athens, November 2019, 11th–14th

Edited by Laura Rembart – Alice Waldner

Offprint



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Preface by the Chair of the IARPotHP

The proceedings of the fourth conference of the International Association for Research on Pottery of the Hellenistic period (IARPotHP) (Athens, Greece, 2019) that I am proudly presenting on behalf of the IARPotHP's Board were prepared during the challenging times of the Covid 19 pandemic, the worst the world had to face since the Spanish flu in 1918, which deeply affected our lives and imposed various changes to our normalities. Staying at home, self-isolation, remote research and communication became our new reality for the past two years. Most of us were unable to access and study pottery in museum collections and storerooms, and we had to deal with frustration when libraries were closed and access to online publications was limited. Nevertheless, this volume was prepared and published in less than three years thanks to the strong will, perseverance, and competence of our community to deliver high quality research on Hellenistic pottery against all odds.

In 2021, reacting to the restrictions of our opportunities for scholarly interaction due to the outbreak of the pandemic and benefiting from the available online tools and services, the Board of IARPotHP organised a series of three webinars, which took place from February to May. Senior members of our Association and younger scholars presented topics of their preference on Hellenistic pottery in an online platform kindly hosted by the University of Colorado Boulder. This alternative way of communication within the scholarly community made IARPotHP's footprint more visible to a wider audience of students and specialists; the metrics from these online events demonstrated that the Association significantly contributed to the academic discourse and the diffusion of knowledge on Hellenistic pottery. We also had the opportunity to celebrate the publication of the proceedings of our Association's third international conference, which was made possible through funds from the University of Colorado Boulder Kayden Research Grant, Ceramica-Stiftung Basel, and generous private donations from members and friends of IARPotHP, complimented by the membership fees.

The unprecedented circumstances created by the pandemic imposed changes in the implementation of certain events and activities of our Association. As a result, our fifth conference in Seville, Spain in June 2021 was held online by the Departamento de Prehistoria y Arqueología of the Universidad de Sevilla, as was our General Assembly (25 June 2021), which, according to IARPotHP's constitution, must take place during our conferences. As the two-year term of the IARPotHP's Board, elected in Athens (2019), was expiring at the time of the Seville conference, and considering the conditions of IARPotHP's constitution and the German law which made virtual voting very complicated, the Board was forced to explore other possibilities. In spring 2021, following amendments to German law, which recognised the extenuating circumstances of the pandemic, and in accordance with the Association's constitution, it became possible for the entire Board to serve one additional term until in-person elections can take place at our next conference in October 2023. Both the Board and the IARPotHP's members agreed to this development, which was validated during the online General Assembly in June 2021. Therefore, the Board remained the same for the years 2021-2023 with Asst. Prof. Eleni Zimi as Chair, Dr. Alexandros Laftsidis as Secretary, Assoc. Prof. Sarah James as Editor, Dr. Marina Ugarković as Treasurer, and Dr. Guy Ackermann, Asst. Prof. Francisco José García Fernández, and Francesca Tomei (representing our doctoral students) as the Board Ordinary Members. Prof. Susan Rotroff remained as the Trusted person, Dr. Gabrielle Puschnigg as the Auditor, and Dr Zoi Kotitsa as the Administrator of the Association's website.

In 2021, IARPotHP also celebrated its tenth anniversary. Our community has progressively grown through the years not only because of the increasing interest in the field, but also because

of our Association's contribution towards research and the multifaceted study of Hellenistic pottery. IARPotHP has currently 121 members from 24 countries.

An annual online publication of bibliography on Hellenistic pottery (since 2012) and links on pottery databases are available through our website (<https://iarpothp.org>). Moreover, conferences held at regular intervals (every two years) provide a communication platform for specialists and students of Hellenistic pottery. To date, IARPotHP has held five international conferences in Berlin (2013), Lyon (2015), Kaštela (2017), Athens (2019), and Seville (2021), with a sixth conference planned for Catania, Sicily in 2023. These conferences typically take place over four days, with roughly 100 papers presented and many more participants. The proceedings of these conferences, three of which are already published in the form of hard copies and e-books, are high-quality publications, with professional copy-editing and layout, and high-resolution illustrations in colour and black and white.

The present volume is the laborious outcome of the fourth international conference of our Association, entitled *Manufacturers and Markets. The Contributions of Hellenistic Pottery to Economies Large and Small*, organised by the Austrian Archaeological Institute of the Austrian Academy of Sciences on November 11–14, 2019 with assistance from their Athens branch. It was held at the Institute of Historical Research of the National Hellenic Research Foundation in Athens, Greece, with 120 participants, both IARPotHP members and other scholars. We explored various topics related to ceramic manufacture and workshops in the East and West, the markets of Hellenistic pottery and their role in trade, the Aegean networks and the local economies in the light of regional connectivity and identities.

The Athens conference was particularly successful thanks to the efforts and hard work of several people. We warmly thank the organising committee and express our deepest appreciation to Dr. Alice Waldner, the chief organiser, Dr. Laura Rembart and Dr. Horacio González Cesteros of the Austrian Archaeological Institute (ÖAI) of the Austrian Academy of Sciences, Vienna, and Dr. Marina Ugarković, of the Institute of Archaeology in Zagreb, for the impeccable planning and coordination of the conference. Our gratitude extends to the Institute of Historical Research (IHR), Section of Greek and Roman Antiquity (KERA) of the National Hellenic Research Foundation (NHRF) in Athens, Greece, for hosting our conference, and, especially, to Dr. Charikleia Papageorgiadou, Research Director of KERA.

On behalf of the Board, I would like to acknowledge with gratitude the painstaking efforts of Dr. Alice Waldner and Dr. Laura Rembart for the prompt completion and publication of the proceedings, and of Assoc. Prof. Dr. Sarah James, editor of IARPotHP, who oversaw the preparation process of this volume with diligence and care. Our thanks also extend to Ceramica-Stiftung Basel for their generous funding of the current volume and their continuous support.

The sixth conference of IARPotHP will be held in Catania, Sicily in 2023 and we are all looking forward to meeting again in person!

Asst. Prof. Dr. Eleni Zimi
Chair of the IARPotHP (2019–2023)
Kalamata, May 2022

Preface by the former Chair of the IARPotHP

It is a great joy and honor to introduce the next volume of post-conference materials, which is the result of the activities of the International Association for Research on Pottery of the Hellenistic Period (IARPotHP). This volume contains the results of a conference that took place in pre-pandemic times in Athens in November 2019.

It was the fourth symposium organised by our Association after those held in Berlin in 2013 (published in 2017), Lyon in 2015 (published in 2019) and Kaštela in Croatia held in 2017 (and published in 2020).

The idea of organising the fourth IARPotHP conference in Athens came from the director of the Austrian Archaeological Institute (OeAI of the Austrian Academy of Sciences in Vienna), Dr. Sabine Ladstätter, to whom I would like to express my sincere thanks.

In December 2018, Dr. Ladstätter invited me to Vienna to discuss the details of the conference. It was then that I also met Dr. Alice Waldner and Dr. Laura Rembart, who are the editors of this volume. Our cooperation was very good, for which I would also like to thank them cordially, as well as two other chief organisers, Dr. Horacio González Cesteros (then in OeAI), and Dr. Marina Ugarković (the Institute of Archaeology in Zagreb).

The Athens conference was hosted by the National Hellenic Research Foundation which together with the IARPotHP and OeAI was its co-organiser. I would like to express my gratitude to all people involved in the organisation of the conference, its efficient conduct and publication of this volume, which is the best and lasting testimony to the consolidation and efficient functioning of our Association.

For me personally, the conference in Athens, apart from its scientific and social value, had a very personal dimension. During the conference, the General Assembly took place, during which I decided not to run for the next term of office of the president of IARPotHP, which I had held from the GA in Lyon in 2015. Asst. Prof. Eleni Zimi has replaced me in this function. She was entrusted with the difficult role of presiding over the Association in the uncertain and unpredictable times of the pandemic. I am very pleased that, despite everything, the IARPotHP and our colleagues from Sevilla managed to organize the next conference, although it was online. Next year we have the chance to hold the sixth IARPotHP conference in Catania, Sicily, live, which I sincerely hope will take place for us all.

*Prof. Dr. Ewdoksia Papuci-Władyka
Chair of IARPotHP 2015–2019
Athens, May 2022*

Introduction and Acknowledgements

We are honoured to present the proceedings of the 4th conference of the International Association for Research on Pottery of the Hellenistic Period (IARPotHP), entitled “Manufacturers and Markets. The Contributions of Hellenistic Pottery to Economies Large and Small”. The topic was decided at the General Assembly at the 3rd conference of the IARPotHP in Kaštela 2017. This volume includes 59 papers presented on the occasion of the 4th conference of the IARPotHP, which was held in Athens from November 11–14, 2019. The event was organised by the Austrian Archaeological Institute of the Austrian Academy of Sciences (OeAI – OeAW) and the Institute for Historical Research (IHR) of the National Hellenic Research Foundation Athens (NHRF), where the conference was hosted. We want to express our deep gratitude to the involved institutions and colleagues in Vienna and Athens and the chair and board of the IARPotHP active until 2019 for the financial, logistic, and collegial support in the organisation and implementation of the conference. The director of the OeAI, HR PD Dr. Sabine Ladstätter, brought the IARPotHP conference to the OeAI and together with the IARPotHP chair Prof. Dr. Ewdoksia Papuci Władyka worked well to bring to the two organisations together for this event. Besides the chief editorial team of this volume, the Organising Committee consisted of Dr. Horacio González Cesteros, Mag. Astrid Pircher, Dr. Walter Gauß (all OeAI – OeAW, Vienna and Athens), Dr. sc. Marina Ugarković (Institute of Archaeology, Zagreb), Dr. Charikleia Papageorgiadou, Dr. Anastasia Yangaki and Dr. Sophia Zoumbaki (all IHR – NHRF). The Scientific Committee was composed of E. Papuci-Władyka (Jagiellonian University in Kraków), S. Ladstätter (OeAI – OeAW, Vienna), Prof. Dr. Taxiarchis G. Kolias (National and Kapodistrian University of Athens), Dr. Pari Kalamara (Hellenic Republic, Ministry of Culture and Sports, Ephorate of Underwater Antiquities, Athens), Dr. Annette Peignard-Giros (Université Lumière Lyon 2), Ass. Prof. Sarah James (University of Colorado Boulder), Dr. Alexandros Laftsidis (Xavier University, Cincinnati), Dr. Christiane Römer-Strehl (Rheinische Friedrich-Wilhelms-Universität Bonn), M. Ugarković (Institute of Archaeology, Zagreb), Dr. Raffaella Da Vela (Rheinische Friedrich-Wilhelms-Universität Bonn alumna) and Dr. Alice Waldner (OeAI – OeAW, Vienna).

A total of more than 140 scholars from 21 different countries attended the conference. In 67 papers and 17 posters, new research results on Hellenistic ceramics as a source of economic and social history were presented. The geographical frame was very broad, spanning from the Western, Central and Eastern Mediterranean to the Black Sea, Azerbaijan, the Middle East, and Uzbekistan. The conference programme followed four sub-topics that were developed for the 4th IARPotHP conference:

TOPIC 1 – Ceramic Manufacturers and their Workshops from East to West

TOPIC 2 – Aegean Networks

TOPIC 3 – Local Economies in Light of Regional Connectivity and Identities

TOPIC 4 – Defining a Market. Widespread Distribution of Goods as “Globalisation” Markers?

These topics were each examined from different geographical perspectives, concerning production and consumption, distribution and trade of Hellenistic ceramic products and the organisation of pottery workshops. Economies large and small were investigated, including, for example, research on the economic relations between cities and their hinterland, necropolises as markets for pottery products, the transfer of technological and cultural know-how, and networks and ceramic consumption as expressions of identities. In addition, innovative methodological and economic theoretical approaches were presented. The constructive discussions during the conference made clear

that it is important to illuminate the aforementioned topics together and pursue a combined methodological approach and that some of the questions have to remain open.

We were pleased to assume the role of editors in chief for the proceedings of the fruitful 4th IARPotHP conference. This was only possible through the generous support of our employer, the OeAI – OeAW and its director S. Ladstätter. Despite all the constraints imposed by the COVID-19 pandemic that began in early 2020, a considerable number of 59 authors have contributed to this volume. We would like to warmly thank them for their efforts which made a timely publication of their research possible. Following the structure of the 4th IARPotHP conference, we have decided to organise the contributions in this volume according to the four sub-topics. Within these four sub-topics, the contributions are arranged geographically.

We owe a great debt of gratitude to the members of the IARPotHP board for their support. In particular, the current editor S. James who not only supported us throughout the editorial process but also assumed the language editing of the English papers, and Dr. Guy Ackerman, who gratefully reigned in the French contributions. Last, but not least, we would also like to thank the current chair of the IARPotHP, Ass. Prof. Dr. Eleni Zimi. She submitted an application for financial support to the Ceramica Stiftung Basel, which was gratefully granted. We are delighted that the proceedings of the Athens conference are now available to the scholarly community and consider it another milestone in the research of pottery of the Hellenistic period.

*Dr. Laura Rembart – Dr. Alice Waldner
Austrian Archaeological Institute of the Austrian Academy of Sciences
Vienna, May 2022*

Topic 1:

Ceramic Manufacturers and their Workshops from East to West

Tableware for Symposia in Northern Bactria (Central Asia)

Verónica Martínez-Ferreras – Josep M. Gurt-Esparraguera –
Anno Hein – Sara Carrión

Abstract

This paper presents the archaeological contextualization, the morphological classification and the archaeometric characterisation of tableware recovered in three settlements founded in northern Bactria (Central Asia) after the conquest of Alexander the Great. Kampyr Tepe and Termez were two fortified centres located in the alluvial plain of the Amu Darya (ancient Oxus River) to control the river crossing at these points; Kurganzol was a military fortress situated in the Baysantau Mountain range to control one of the border crossings between Bactria and Sogdia. Besides their military function, these centres were trading posts on the route linking with India, Sogdia and onwards to the Caspian Sea, as well as a source of transmission of the Hellenistic culture in Central Asia. The tableware from these sites, dated between the late 4th and mid/late 2nd century B. C., exhibits certain resemblances with coeval vessels from the Mediterranean. The most common shapes used for the symposium have been analysed using a multidisciplinary approach. The aim is, first, to contribute to the creation of a chrono-typological seriation based on well contextualised vessels; second, to give insight on pottery production and distribution in ancient Bactria; third, to bring new data on the technological processes involved in the manufacture of the vessels (the procurement and processing of raw materials, forming, surface treatment, and firing) in order to assess the degree of standardisation in pottery production, as well as to identify possible morphological, stylistic and technological correlations with contemporary Mediterranean pottery productions.

1. Introduction

Ancient Bactria was one of the Achaemenid satrapies in Central Asia that was conquered by Alexander the Great in the late 4th century B. C. (329–327 B. C.). It covered nowadays territories of southern Uzbekistan and Tajikistan and northern Afghanistan, and was irrigated by the Amu Darya (ancient Oxus River) and its tributaries (fig. 1). It is limited with Sogdia to the north, with Margiana to the northwest, with Aria to the southwest, with Arachosia to the south and Gandhara to the southeast.

After the military campaigns in Central Asia, Alexander founded several cities, some of them named *Alexandria*, as well as military fortresses in strategic positions along the ancient trade routes¹. These centres housed Greek and local populations and, besides their military function, they were trading posts on the route linking north-west India with Bactria and Sogdia and onwards to the Caspian Sea, as well as a source of transmission of Hellenistic culture in Central Asia. Some settlements were concluded or maintained by the successors of Alexander, the Seleucids kings (Seleucus I, Antiochus I and Antiochus II) who ruled Bactria together with Sogdia, Margiana and Aria. They also built cities, promoted the diffusion of Greek technology, science, architecture, religion and arts, and stimulated the cultural integration between the local population and the Greek settlers. In parallel, they had to face constant threat posed by the *Saka* nomadic tribes in the north-eastern satrapies of the empire.²

¹ Nowadays Afghanistan hosts some of the most important cities founded by Alexander and the Seleucid kings in Central Asia, such as Alexandria Arachosia (Kandahar), Alexandria in Aria (Herat), Alexandria in the Caucasus (Begram), Bactra (Balkh) and Alexandria in Oxus (probably Ai Khanoum), together with Alexandria in Margiana

(Merv) in Turkmenistan, *Maracanda* (Afrasiab), Kampyr Tepe and Termez in Uzbekistan, and Alexandria Eschate in Tajikistan.

² For an overview of historical and archaeological data on the Hellenistic/Seleucid period, see DANI – BERNARD 1994; LERICHE 2007; BAUMER 2012, 274–283.

The unstable political situation profited the satrap of Bactria, Diodotus I, who declared the independence of the region in the mid-3rd century B. C. and founded the Greco-Bactrian kingdom. These political changes did not entail differences in the urbanism or the material culture, and Greek traditions persisted. The successive Greco-Bactrian kings fought against the Indo-Greek rulers from north-west India and extended the Greco-Bactrian kingdom until the Indus including Bactria, Sogdia, Margiana and maybe some areas of eastern Aria³. However, its prosperity was cut short during the second half of the 2nd century B. C., when a second important wave of nomadic tribes from the north and east of the Eurasian steppe and the Tarim (the Yuezhi, named Tocharians by the Greek sources) invaded Sogdia and northern Bactria. The Yuezhi settled in the pre-existing centres and introduced new cultural traditions that progressively brought the Hellenistic culture in ancient Bactria to an end.

Pottery recalling the tableware of the Hellenistic tradition has often been recovered in most of the settlements founded in ancient Bactria after Alexander the Great's conquest and during the Seleucid and Greco-Bactrian periods.⁴ The tableware repertoire is diverse and comprises all the vessels required for the *symposium* or the consumption, preparation or storage of foods and drinks in daily life: cups, bowls, plates and 'fish' plates, platters, kraters and jugs. These vessels usually exhibit reddish-orangish or black slips, sometimes with stamped palms and applied ornaments.

The current knowledge of the timeframe of the production and use of the different type of vessels, on the location of the production centres and the distribution areas, is still limited. There are no accurate chrono-typological seriations published to date and the vessels are classified according to the chronological phases of occupation at each site, which are principally distinguished through numismatics. Only in the last years, some researchers have attempted to classify the vessels recovered in well-dated ceramic contexts on functional categories and shapes, according to their morphological and stylistic characteristics. For instance, the pottery repertoire found during the excavations carried out by the DAFA team at Ai Khanoum⁵ in Afghanistan, or by other scholars in Kurganzol and Termez in Uzbekistan⁶. In addition, a multidisciplinary archaeological and archaeometric approach has recently been developed by the authors in the framework of the research carried out by the Spanish-Uzbek IPAEB team⁷ in northern Bactria. It includes the categorization of the main ceramic prototypes according to their morphological characteristics and stylistic attributes, the contextualization and dating of the ceramic types, mostly based on absolute chronologies obtained through ¹⁴C analysis, the complete archaeometric characterisation of the ceramic pastes and slips.

In this paper, we present a comparative study of the results obtained so far by the IPAEB on the investigation of the tableware in Hellenistic tradition from Kampyr Tepe, Termez and Kurganzol. For a better morphological categorisation and archaeological contextualisation of the ceramic prototypes identified, analogies have been made with the tableware found at Ai Khanoum⁸, probably the *Alexandria Oxiana* mentioned by Ptolemy (6.12.6)⁹. It is considered a royal city

3 For an overview of historical and archaeological data on the Greco-Bactrian period, see BERNARD 1994; BAUMER 2012, 283–302.

4 The typological classification of reference presenting more analogies is that performed by J.P. Morel in 1981 on 'Campanian' wares.

5 The DAFA team (*Délégation Archéologique Française en Afghanistan*) carried out archaeological excavations at Ai Khanoum between 1969 and 1973 led by P. Bernard. The ceramic repertoire has been recently reassessed by B. LYONNET (2013a; 2013b).

6 SVERCHKOV 2013; HOVAL 2016.

7 International Pluridisciplinary Archaeological Expedition to Bactria led by Josep M. Gurt Esparraguera from

the University of Barcelona and Shakir R. Pidaev from the Institute of Fine Arts of the Academy of Sciences of Uzbekistan. Archaeometric research has been performed on ceramics from Kampyr Tepe, Kurganzol and ancient Termez (MARTÍNEZ FERRERAS ET AL. 2016; MARTÍNEZ FERRERAS ET AL. 2018; MARTÍNEZ FERRERAS ET AL. 2019).

8 According to the pottery and numismatic evidence identified at the Heroon of Kineas, the foundation has been dated during the kingdoms of Seleucus I or Antiochos I (LYONNET 2013b). The occupation during the Greco-Bactrian period, until the final abandonment at, has been attested in one house located in the south-west quarter of the city (LYONNET 2013a).

9 MARTÍNEZ-SÈVE 2014; MARTÍNEZ-SÈVE 2015.

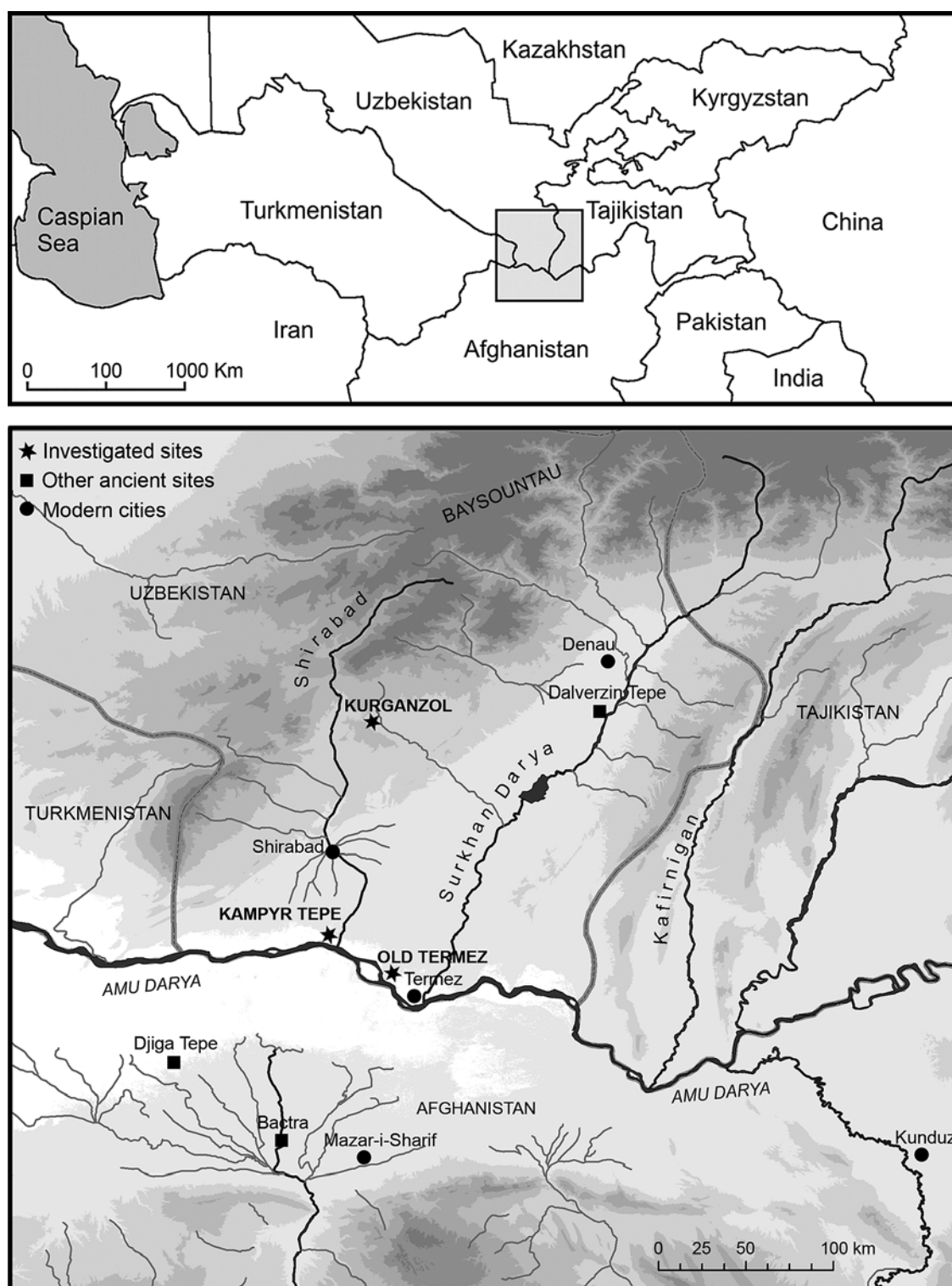


Fig. 1: Map of the studied area with the location of the three sites investigated (© IPAEB).

founded to the late 4th or the early 3rd centuries B.C. and abandoned to the mid-2nd century B.C. as a consequence of the Yuezhi nomadic invasion. It included a fortified acropolis and temples, a palace, a theatre, a Heroon, a palaestra, and houses.

The aims of the research are: 1) to contribute to the creation of a chrono-typological seriation for the wares in the Hellenistic tradition recovered in ancient Bactria based on accurate chronological data; 2) to provide new data on the compositional characteristics of the vessels in

order to identify the pottery production areas, and define the technological processes involved in their manufacture (raw materials procurement and processing, forming, surface treatment, and firing); 3) to assess the technological evolution in pottery manufacture during the Hellenistic period and possible technological influences from the Mediterranean.

2. The archaeological sites

The three selected sites consist of fortified settlements established during the late 4th and the early 3rd centuries B.C. in modern southern Uzbekistan. Kampyr Tepe and Termez remained inhabited after the territory's occupation by the Yuezhi nomadic tribes and underwent major expansions during the early Kushan period. According to archaeologists, the Kurganzol fortress was inhabited during a short period in the late 4th century B.C, although a longer occupation cannot be ruled out.

2.1. Kampyr Tepe

Kampyr Tepe is a fortress (*phrourion*) founded on the right bank of the Amu Darya (fig. 2a). The site has been excavated by a joint Russian-Uzbek team and its foundation is dated to the late 4th century B.C. according to some radiocarbon dating carried out by the IPAEB team. During the Greco-Bactrian period (c. 250 to 150 B.C.), the settlement occupied some 13 ha and consisted of a walled citadel or acropolis and a dwelling area in the alluvial terraces (called the Low city). At mid-2nd century B.C., the settlement endured the territory's occupation by the nomadic Yuezhi tribes although it remained inhabited until its final abandonment at the end of Kanishka's kingdom in mid-2nd century A.D.¹⁰

Archaeological remains at Kampyr Tepe point to the existence of important and long-lasting pottery production. A pottery workshop was excavated in 2000–2001 in the eastern sector outside the walls and comprised two circular kilns (c. 2.15 m of diameter) positioned 110 m apart (fig. 3a). They were made up of two levels: an underground firebox and a domed firing chamber connected through six radial conduction channels; each channel was in turn attached to two straight holes placed in a concentric way on the grade, allowing the distribution of the heated air and other gases into the firing chamber. Kilns with similar shapes and dimensions were widely used in ancient Greece and they were also common in northern Bactria as evidenced by the remains at Ai Khanoum (north Afghanistan), Dalverzin Tepe (south Uzbekistan) and Saksanokhur (south Tajikistan).¹¹ Archaeologists have stated that this workshop was used seasonally, probably by itinerant and specialist craftsmen who moved through the territory to manufacture specific types of vessels in large pottery kilns intended to supply the nearby sites.

Another pottery production area was identified in 2009 in a large courtyard at the southeast sector of the citadel, where five rectangular kilns¹² (1.8/2 m long and 1.3 m wide) were excavated (fig. 3b). They were built with mud bricks and clay over a platform following the same pattern. Each one consists of two different chambers placed in a single level with a lateral channel through which the gases originated during combustion escaped. The firebox and the firing chamber were covered by a false vault 70 to 80 cm high, while the total height of the kiln was about 1 m. Radiocarbon analysis dates this production area to the Seleucid and Greco-Bactrian periods, cal B.C. 375–160 (1σ, 64.6%) and 375–150 cal B.C. (1σ, 61.6%)¹³. This kind of structure has not been documented in any other site in the region. Given the small size of these kilns, their productive capacity had to be lower than in the two circular kilns outside the walls.

¹⁰ For a general overview, see LERICHE 2007.

¹¹ For the Hellenistic pottery workshops found in ancient Bactria, see BOLELOV 2001; for a general overview of

ancient Greek ceramic kilns, see HASAKI 2006.

¹² BOLELOV 2011

¹³ MARTÍNEZ FERRERAS ET AL. 2016

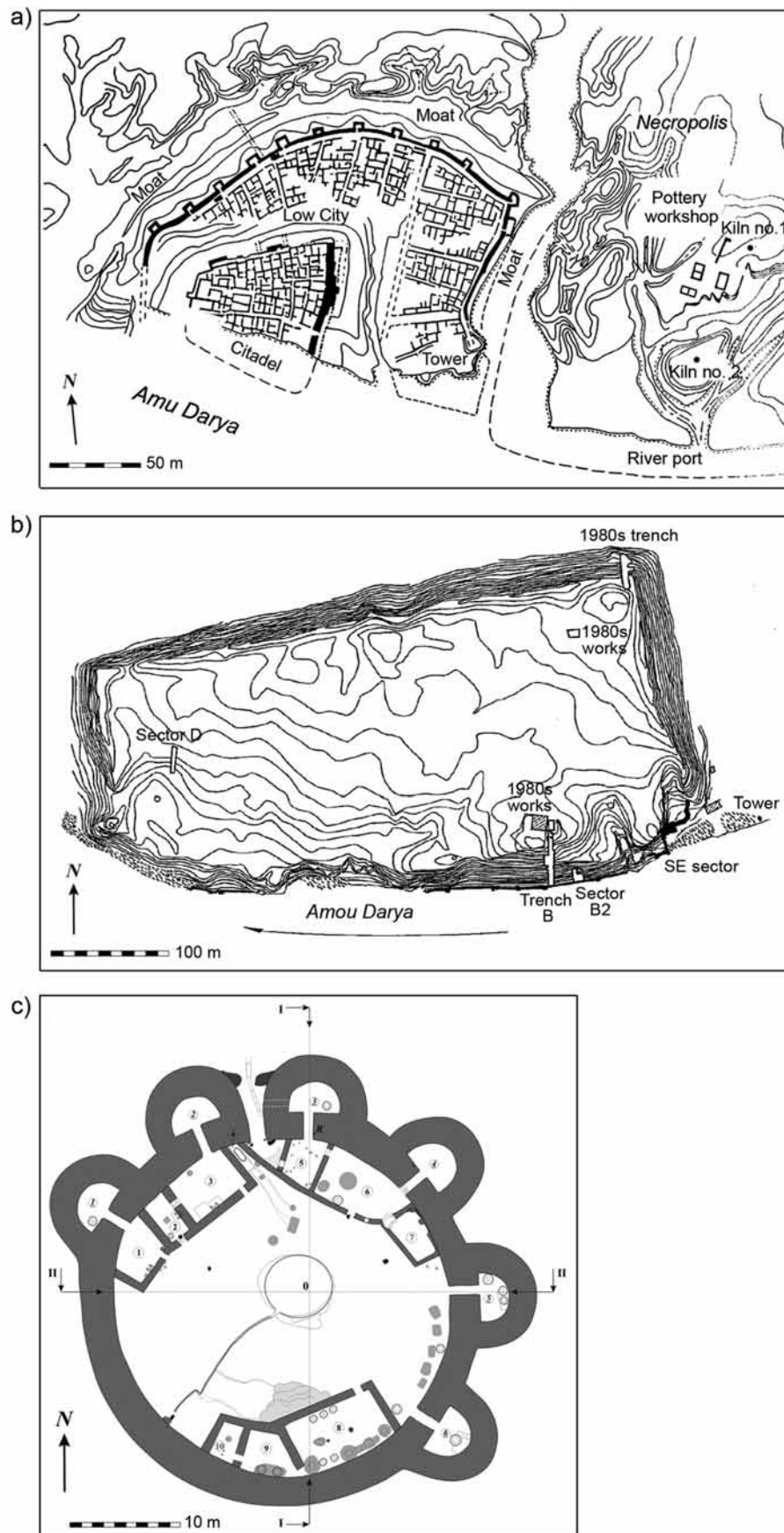


Fig. 2: a) General plan of Kamyrt Tepe (MARTÍNEZ FERRERAS ET AL. 2016, 737 fig. 1b). b) Plan of the citadel of Termez (LERICHE 2010, 159 fig. 7). c) General plan of Kurganzol (SVERCHKOV 2013, 19 fig. 11).

2.2. *Ancient Termez*

The ancient city of Termez is located 30 km to the east of Kampyr Tepe on the right bank of the Amu Darya River. The first settlement consisted of a rectangular fortress (citadel) that measures 500 m long (east-west) and 200 m wide (north-south), although the defensive walls of the earliest Greek settlement enclosed a smaller area (fig. 2b). The site has been explored only in specific sectors; first in 1973 by E. G. Nekrasova and B. A. Kozlovskii, and in the 1980s by the Termez expedition¹⁴ led by S. R. Pidaev, who excavated a large trench in the central area of the citadel. Since 1993 the French-Uzbek MAFOUz¹⁵ team of Bactria worked in several sectors of the fortress. The Seleucid and Greco-Bactrian strata were reached in 2006 in Trench B, located in the southern area; the finding of a circular column base, together with ceramics in Hellenistic tradition proved that the citadel housed Greek settlers from the Seleucid period. This fortress was enlarged in the Kushan period and successively occupied until the 17th century, which reveals its singular role as a watch-point to control the river-crossing¹⁶.

2.3. *Kurganzol*

Unlike the already mentioned centres, Kurganzol is located at the southern end of a fluvial terrace of the Uchkul River (altitude 924 m), in one of the southern foothills of the Baysantau, the south-western spurs of the Hissar Range (Uzbekistan). This fortress was founded to control one of the mountain border crossings between the Bactria and Sogdia regions. The site had a diameter of 35 m and it consisted of a circular defensive wall (2.6 m thick) made of mud bricks, with the entrance at the north and six semi-circular towers attached to the north-eastern side, the most vulnerable flank (fig. 2c). Buildings of different sizes and layouts were arranged around the edge of the defensive wall surrounding a central courtyard provided with a water deposit in the centre. Dendrochronology has proved that the fortress was founded in the late 4th century B.C. During the period of occupation, Kurganzol endured two warlike events as suggested by traces of fire and destruction in most of the areas. The historical and archaeological data support the idea that it was one of the six citadels founded by Alexander the Great in strategic positions at checkpoints between the Amu Darya plain and Sogdia¹⁷.

3. *Tableware from northern Bactria*

One of the main constraints for building a chrono-typological seriation of the tableware from ancient Bactria is the highly fragmented state of the wares; therefore, the attribution of some specimens to a particular shape or prototype cannot always be made with total certainty; usually, the same shape is attributed by several authors to different functional purposes, especially in the case of the cups, bowls and plates. Thus, we propose a preliminary open classification for specific prototypes of tableware based on three hierarchical levels of definition: the first level refers to the shape, related to the intended use or functional purpose (i.e., B: bowl, P: plate, C: cup, etc.); the second category concerns the “prototype”, that is, the basic form of a profile (i.e., P.1 or P.2 among the plates); the third level represents the “type” which refers to each variant of the basic forms (i.e., types P.1.1 and P.1.2 within prototype P.1); the type has only been specified in some cases due to the high state of fragmentation of the vessels.

The most common prototypes of plates in the Seleucid and Greco-Bactrian periods can be divided into two main groups or prototypes. One comprises different modules with a conical body with flared walls and two types have been distinguished according to the rim’s profile. Type P-1.1 exhibits a vertical or oblique hanging rim, with a flat base or with a disc or annular foot (fig. 4). The surfaces are usually non-slipped or reddish or black-slipped. Some of the specimens

¹⁴ The Termez expedition was a branch of the Institute of Archaeology of the Uzbek Academy of Sciences.

S.R. Pidaev.

¹⁵ MAFOUz (Mission Archéologique Franco-Ouzbèque) of Bactria was led by P. Leriche and T. Annaev, then

¹⁶ LERICHE – PIDAEV 2007; LERICHE 2010.

¹⁷ SVERCHKOV 2013.

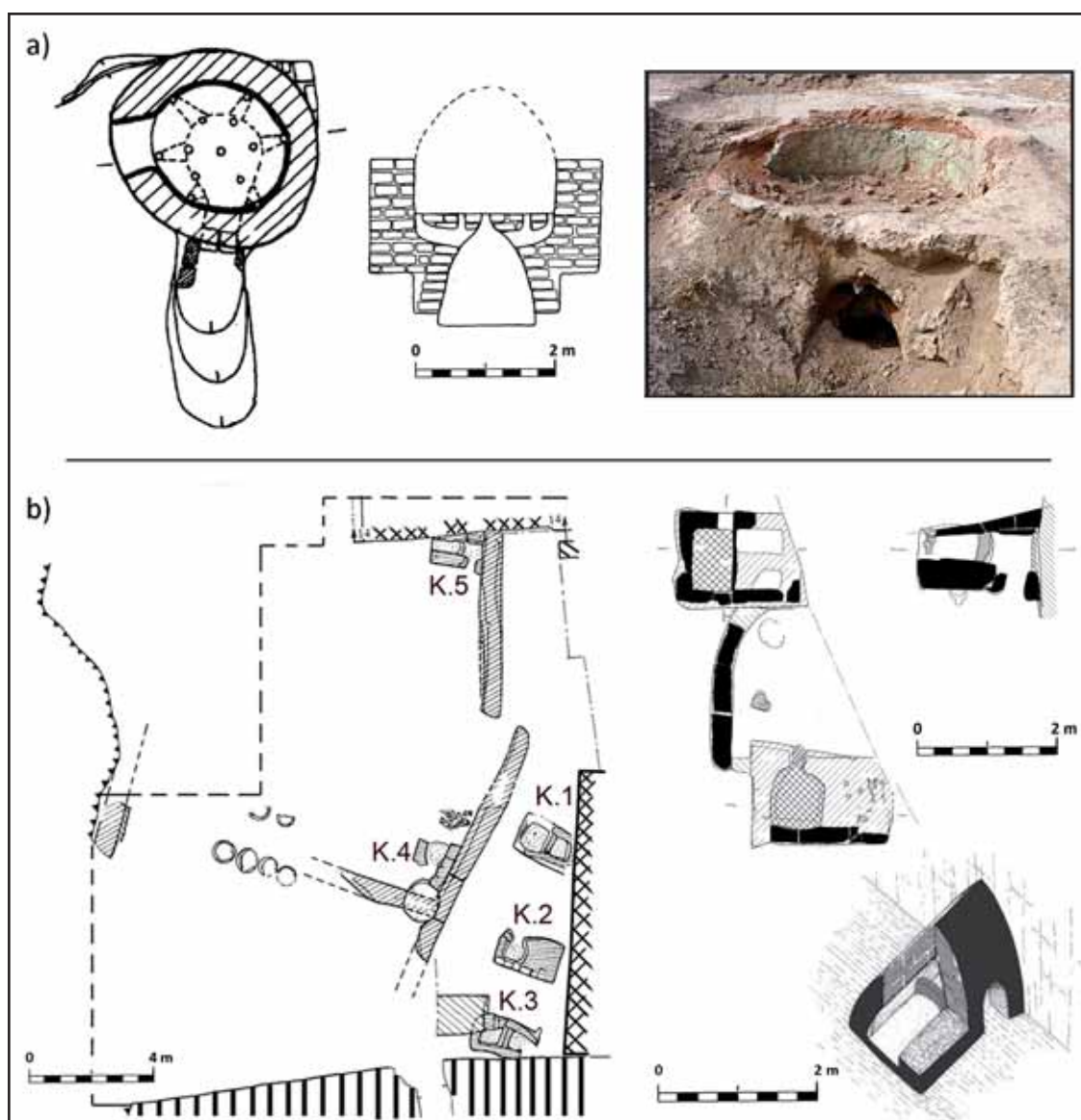


Fig. 3: Pottery workshops at Kampyr Tepe. a) Plan, section and photograph of one of the pottery kilns found in the eastern fluvial terrace (BOLELOV 2001). b) General plan of the pottery production area with 5 kilns (K) in the south-eastern sector of the Citadel, plan of kilns 1, 2 and 5 and reconstruction of kiln 5 (BOLELOV 2001).

belong to the “fish-plate” form since they contain a hemispherical indentation on the inner bottom. This form is detected in the late 4th century B.C. at Kurganzol and it appears to be more frequent in the first chronological phase identified¹⁸. This type is also recorded in the ceramic contexts dated during the Seleucid and Greco-Bactrian periods at Ai Khanoum¹⁹, Kampyr Tepe²⁰, and the citadel of ancient Termez²¹. Type P-1.2 exhibits a direct rim, sometimes slightly thickened, and a flat base. It has been recovered at Kurganzol from its foundation and it is also

¹⁸ For the first phase: SVERCHKOV 2013, figs. 42, 31–32; 43, 15–16; 44, 4; 45, 4. 7–13. 34–38; 50, 1–2. 6. 13–17; 55, 18–20. 22–24. 27. 35; 56, 17. 22. 27; 57, 15–20; 59, 4; 61, 1–2. 4. 11–25; 64, 14–16; 66, 10; for the second phase: SVERCHKOV 2013, figs. 70, 39–42; 74, 1–6. 8; 76, 6–7. 11; 82, 10.

¹⁹ LYONNET 2013a, figs. 101–104; 107; LYONNET

2013b, fig. 4, 2–3.

²⁰ SVERCHKOV 2006, figs. 1, 8; 4, 12; MARTÍNEZ FERRERAS ET AL. 2016.

²¹ PIDAEV 1991, figs. 1, 13–14; 2, 1–4; 3, 1–7; HOUAL 2016, fig. 2, 1; 2, 6; 3, 1; MARTÍNEZ FERRERAS ET AL. 2019, fig. 3.

more abundant in the earliest chronological phase²². At Ai Khanoum²³ and in the citadel of Termez²⁴ this type is scarce and associated with contexts dated to the Greco-Bactrian period. The vessels clustered in prototype P-1.3 exhibit conical walls and inverted rims. According to the findings at Ai Khanoum, B. Lyonnet²⁵ included this shape within a rather heterogeneous group of bowls with a short rim presenting a great morphological variety (conical and convex walls; inverted, everted or horizontal rims prolonged inwards and/or outwards, etc.). In our opinion, some of these shapes could be considered plates, such as those attributed to prototype P-1.3, although their use as bowls should not be excluded.

The second group of plates includes several types with a convex body, usually slightly carinated, and a flat base or a disc-shaped or ring-shaped foot. Two main types have also been distinguished within this group, both considered bowls by B. Lyonnet²⁶. The former (P-2.1) joins deep, open shapes with an elongated everted rim arranged horizontally or slightly inclined outwards (fig. 4). They appear non-slipped or covered with reddish or black slips. This type is recovered at Kurganzol in levels dated to the late 4th century B.C.²⁷; it is also found during the Seleucid and Greco-Bactrian periods at Ai Khanoum²⁸, Kampyr Tepe²⁹ and Termez³⁰. The second type (P-2.2) represents a rather standard module of small, hemispherical plates, although some large pieces have also been recorded. They contain a thickened triangular or round rim projected outwards and a flat base or disc-shaped foot. This type is recovered at Kurganzol, usually non-slipped or black-slipped, from the late 4th century B.C.³¹. Instead, at Ai Khanoum³², the citadel of Termez³³, and Kampyr Tepe³⁴ it is less frequent than the previously defined types.

Regarding the bowls, the most common type consists of small hemispherical vessels with an incurved rim, also called “echinus bowls” and codified as prototype B-1³⁵ (fig. 4). They exhibit different modules, usually non-slipped or reddish/orangish slipped. The base is flat or contains a disk-shaped or ring-shaped foot. At Kurganzol is recorded from the late 4th century B.C.³⁶, while at Ai-Khanoum³⁷, Termez³⁸ and Kampyr Tepe³⁹ is documented from the late 4th/early 3rd century B.C. and during the Greco-Bactrian period.

Some other prototypes of bowls (B-2 to B-4) appear to be common at Ai-Khanoum and Kampyr Tepe, and rare at Kurganzol and Termez. Prototype B-2 joins non-slipped or reddish-slipped convex vessels with triangular, slightly incurved rim marked with an inflexion;⁴⁰ even if they are considered bowls by Lyonnet, their function as plates cannot be rejected. Prototype B-3

22 For the first phase: SVERCHKOV 2013, figs. 42, 29–30; 43, 10; 45, 1–3. 40–52; 50, 4. 8–11. 18; 55, 30–34; 56, 14. 23; 57, 13–14; 59, 6–8; 61, 6–10. 26–35; for the second phase: SVERCHKOV 2013, figs. 70, 48; 74, 7. 9–10; 76, 10; 77, 5; 78, 33; 80, 5; 83, 12.

23 LYONNET 2013a, figs. 109, 1; 113, 8.

24 PIDAEV 1991, fig. 3, 10–11; HOUAL 2016, fig. 3, 1.

25 LYONNET 2013a, fig. 119.

26 LYONNET 2013a, fig. 117.

27 For the first phase: SVERCHKOV 2013, figs. 42, 22. 24. 27; 43, 14. 18–20; 44, 5–6; 45, 15–17. 19–23. 29. 59–60; 55, 36; 56, 19; 57, 23–24; 58, 14; 59, 11; 61, 3. 41–42; for the second phase: SVERCHKOV 2013, figs. 70, 49. 52; 74, 33–35. 38; 77, 7; 80, 7; 82, 11; 84, 4.

28 LYONNET 2013a, fig. 117; LYONNET 2013b, fig. 4, 14.

29 SVERCHKOV 2006, figs. 1, 9–10; 2, 17–19; 3, 17–20; 4, 21–23; MARTÍNEZ FERRERAS ET AL. 2016.

30 PIDAEV 1991, figs. 1, 11–12; 2, 9–12; 3, 9; HOUAL 2016, fig. 2, 2; 2, 6; MARTÍNEZ FERRERAS ET AL. 2019, fig. 3.

31 For the first phase: SVERCHKOV 2013, figs. 43, 12–13; 45, 25–28. 32; 49, 17–18. 20–56. 58; 50, 3. 11. 20; 52, 6–7; 54, 8–10; 57, 25–26; 58, 13. 18; 59, 12; 61, 40; 64, 18–20. 22–23; 66, 6. 20–21; 67, 6–7; 68, 10–11; for

the second phase: SVERCHKOV 2013, figs. 70, 26–28. 43–47; 72, 7–9. 11–13. 16. 20; 74, 18–22. 25. 27–31. 36; 76, 9; 78, 24. 26–27. 29–32. 34–43; 79, 24–26; 80, 31–35; 81, 5; 82, 9; 83, 14–16; 84, 3.

32 LYONNET 2013a, fig. 118.

33 PIDAEV 1991, figs. 2, 5–8; 3, 10–11; HOUAL 2016, fig. 2, 2.

34 SVERCHKOV 2006, fig. 4, 21.

35 MARTÍNEZ FERRERAS ET AL. 2019, fig. 3.

36 For the first phase: SVERCHKOV 2013, figs. 42, 13–19; 43, 6–7; 44, 3. 31–37; 49, 1–2. 5–14; 54, 11–1; 55, 1–3. 9–17; 56, 7–11; 57, 7–12; 58, 6–7. 11–12; 59, 1–2; 60, 29–47; 64, 7–8; 67, 1; 68, 8; for the second phase: SVERCHKOV 2013, figs. 70, 25. 30–35; 72, 5–6; 73, 16–22; 76, 3–5; 78, 20–23; 79, 25; 80, 2–4. 27–30; 81, 4; 82, 1–2; 83, 7; 84, 6. 8.

37 LYONNET 2013a, figs. 115; 116, 5; LYONNET 2013b, fig. 4, 9–11.

38 PIDAEV 1991, figs. 1, 4–5; 2, 17–24; 3, 24–25; HOUAL 2016, fig. 3, 2.

39 SVERCHKOV 2006, figs. 1, 7; 2, 10–13; 3, 11–13; 4, 13–16.

40 LYONNET 2013a, fig. 119, 4–11; HOUAL 2016, fig. 2, 2; 2, 6; 3, 2; MARTÍNEZ FERRERAS ET AL. 2016.

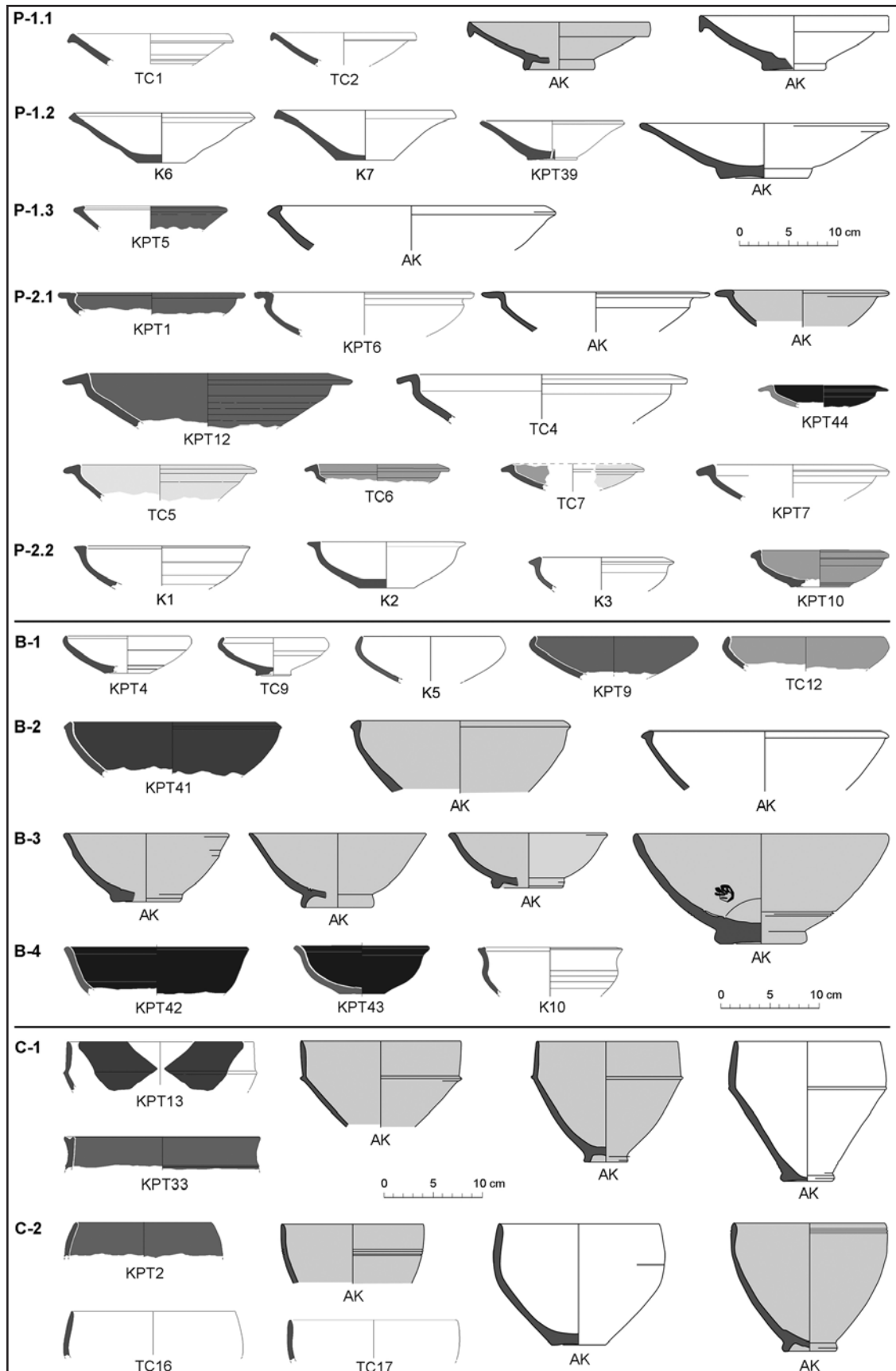


Fig. 4: Main prototypes of plates, bowls and cups found in northern Bactria. AK: Ai Khanoum (LYONNET 2013a). K: Kurganzol (MARTÍNEZ FERRERAS ET AL. 2018). KPT: Kampyr Tepe (MARTÍNEZ FERRERAS ET AL. 2016). TC: Termez-Citadel (MARTÍNEZ FERRERAS ET AL. 2019).

is represented by bowls with direct rim or slightly out-turned, usually slipped⁴¹. Prototype B-4 clusters a series of carinated bowls, with a more or less marked inflexion, resulting in a convex lower body and a concave upper body, with an out-turned rim. This prototype is rare in the two chronological phases identified at Kurganzol⁴². Instead, it appears to be more frequent at Ai Khanoum⁴³, Kampyr Tepe⁴⁴ and Termez⁴⁵, usually black-slipped, in contexts dated to the Greco-Bactrian period.

The cups present elongated profiles with a narrow base and are mainly non-slipped or reddish/orangish slipped (fig. 4). Two main profiles can be distinguished which, according to B. Lyonnet⁴⁶, have influences from earlier shapes from the Achaemenid period. Prototype C-1 exhibits a carinated body with and straight or concave upper part; the rim is direct, sometimes thickened and forked. This prototype is particularly documented in the earliest phase of Kurganzol⁴⁷, and at Ai Khanoum⁴⁸, Kampyr Tepe⁴⁹ and Termez⁵⁰, both non-slipped and reddish/orangish slipped. Prototype C-2 comprises a convex body, flat base and straight rim or slightly inclined inwards. It appears to be the most frequent prototype of cup at Kurganzol⁵¹ and Ai Khanoum⁵² during the Seleucid and Greco-Bactrian⁵³ periods. It is found in the same periods at the citadel of Termez⁵⁴ and at Kampyr Tepe⁵⁵.

Craters and jugs, also used in service or ceremonial activities such as the *symposium*, appear to be very frequent in the Seleucid and Greco-Bactrian contexts of the archaeological sites investigated. Craters consist of two main prototypes that have been detected in all the investigated sites from their foundation. Nevertheless, the specimens found at Ai Khanoum and Kampyr Tepe usually exhibit reddish or black slips and impressed decorations, while the shapes and decorations of the craters from Termez and Kurganzol are generally simpler. Prototype K-1 includes large craters with a sinuous wall and high or annular foot (fig. 5). These craters are most often reddish slipped and present grooves or mouldings as decorations, as well as stamped patterns. The most ancient specimens found at Kurganzol exhibit an everted rim inclined outwards⁵⁶ or triangular in shape⁵⁷. The latter variant is also found at Ai Khanoum⁵⁸ since the early 2nd century B.C. and it evolves to broadly flared walls during the first half of this century. This shape is very frequent at Kampyr Tepe⁵⁹ and Termez⁶⁰ during the Seleucid and Greco-Bactrian periods.

A second prototype of craters (K-2) is characterised by a convex body with a high or annular foot and a flattened rim, slightly prolonged inwards and outwards, horizontally or slightly inclined (fig. 5). It is recovered at Kurganzol⁶¹ although in less quantity than prototype K-1. Its production and use endured during the Seleucid and the Greco-Bactrian periods, as attested by the specimens found at Ai Khanoum⁶² and Kampyr Tepe⁶³, where they appear reddish or black slipped and presenting small grooves or stamped palmettes.

41 LYONNET 2013a, fig. 109,3–6; HOUAL 2016, fig. 80,1; 83,1–6; 84,1.

42 SVERCHKOV 2013, figs. 48,1–2; 78,45; 80,9.

43 LYONNET 2013a, figs. 110–112.

44 MARTÍNEZ FERRERAS ET AL. 2016.

45 HOUAL 2016, figs. 2,2; 2,6; 3,2.

46 LYONNET 2013a.

47 For the first phase: SVERCHKOV 2013, figs. 44,12. 20. 25–26. 29; 49,3; 57,2; 60,3; 64,1; 68,1. 5; for the second phase: SVERCHKOV 2013, figs. 70,4; 82,5.

48 LYONNET 2013a, fig. 120.

49 SVERCHKOV 2006, figs. 1–4.

50 HOUAL 2016, fig. 2,3; MARTÍNEZ FERRERAS ET AL. 2019, fig. 3.

51 For the first phase: SVERCHKOV 2013, figs. 42,4–12; 43,1–4; 44,12–28; 49,3–4; 54,1–5; 55,6–7; 56,1–6; 57,1. 4; 58,2–5; 60,1–2. 4–28; 64,2–5; 66,29; 68,1–3; for the second phase: SVERCHKOV 2013, figs. 70,5–24; 72,1–4; 73,1. 4–15; 76,1; 77,1–2; 78,1–2. 4–13; 79,22;

80,1; 83,1–6; 84,1.

52 LYONNET 2013b, fig. 4,17.

53 LYONNET 2013a, fig. 120.

54 PIDAEV 1991, figs. 1,1; 2,32; 3,37–38; HOUAL 2016, figs. 2,3; 3,3; MARTÍNEZ FERRERAS ET AL. 2019, fig. 3.

55 SVERCHKOV 2006, figs. 1,1; 2,1–4; 3,1–7; 4,1–6.

56 SVERCHKOV 2013, figs. 42,50; 46,24–27. 36. 38; 51,34; 52,22–23; 59,3; 67,10. 16; 68,15; 71,15. 24. 27; 72,23. 26; 75,33. 42–43; 85,4.

57 SVERCHKOV 2013, figs. 42,52; 55,51; 57,40; 58,26; 66,22; 67,11; 71,14. 16; 72,25; 75,34–35; 79,10. 28; 80,22; 81,10–11; 85,1–2.

58 LYONNET 2013a, fig. 96.

59 MARTÍNEZ FERRERAS ET AL. 2016.

60 HOUAL 2016, figs. 2,5; 3,4.

61 SVERCHKOV 2013, figs. 43,34; 66,11.

62 LYONNET 2013a, fig. 97.

63 MARTÍNEZ FERRERAS ET AL. 2016.

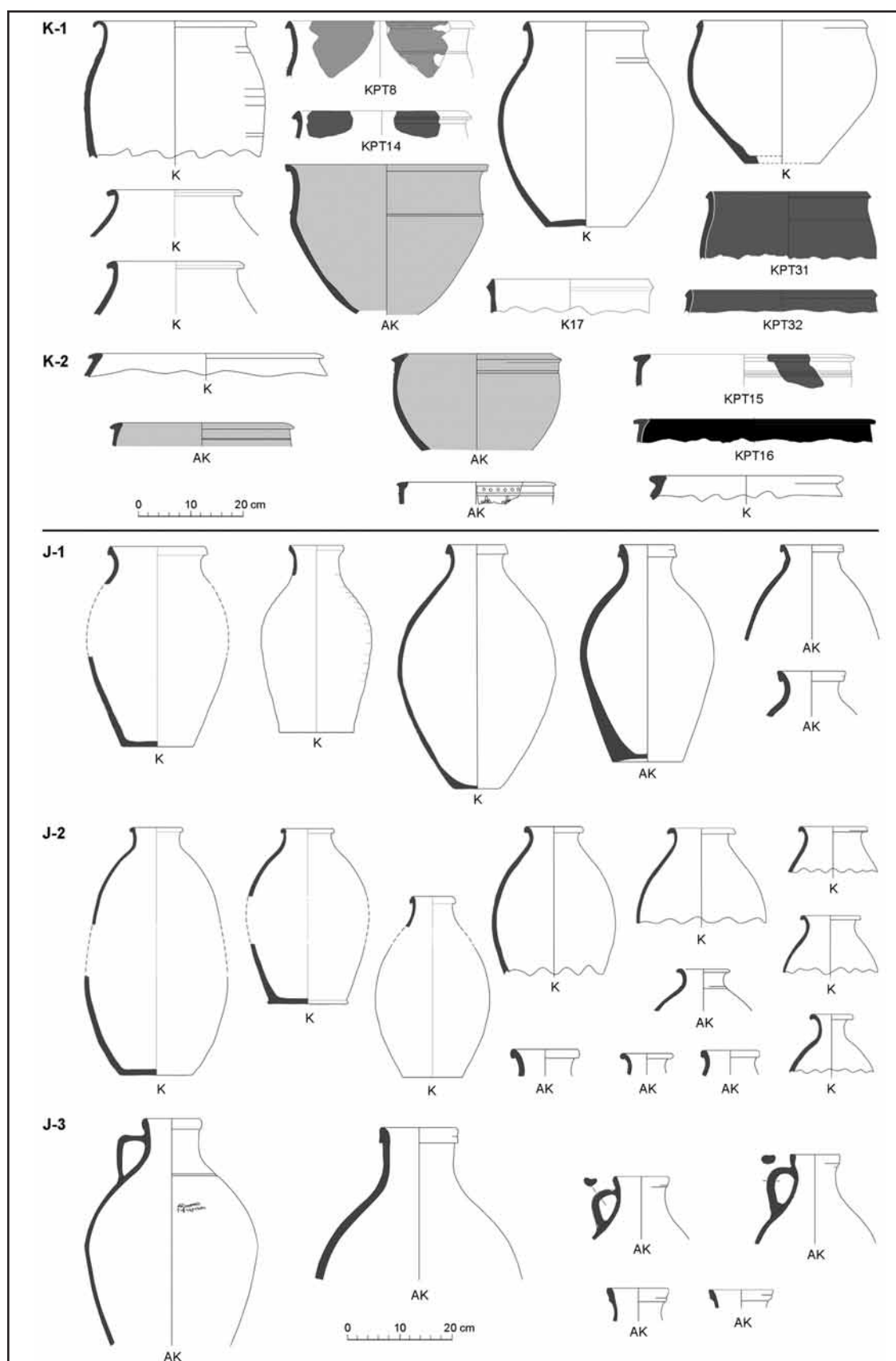


Fig. 5: Main prototypes of craters and jugs found in northern Bactria. AK: Ai Khanoum (LYONNET 2013a). K: Kurganzol (SVERCHKOV 2013; MARTÍNEZ FERRERAS ET AL. 2018). KPT: Kampyr Tepe (MARTÍNEZ FERRERAS ET AL. 2016).

The jugs are narrow-necked with a flat base; they exhibit different shapes and modules and some specimens contain at least one handle (fig. 5). Three main prototypes have been identified according to the form of the rim. Prototype J-1 is characterised by a thickened rim with a triangular shape or an out-turned, inclined rim. In prototype J-2 the rim is also thickened but rounded. These jugs have been recovered at Kurganzol from the late 4th century B.C.⁶⁴. At Ai Khanoum⁶⁵, prototype J-1 appears in contexts dated from the late 3rd century B.C. and is more common than the jugs of prototype J-2, which are found from the early 2nd century B.C. At Termez⁶⁶, the two prototypes are found from the foundation of the citadel until the mid-2nd century B.C., although prototype J-1 also appears to be more frequent than J-2⁶⁷. The same tendency is observed at Kampyr Tepe⁶⁸, where the jugs J-1 are found from the earliest levels.

4. Compositional and technological characteristics

The archaeometric characterization of tableware from Kampyr Tepe, Termez and Kurganzol included the examination of fresh-fractures through the micro-stereoscope, the chemical analysis by X-ray Fluorescence (WD-XRF), the mineralogical analysis by X-ray Diffraction (XRD) and the petrographic analysis by thin-section optical microscopy (OM), together with the analysis of the composition and microstructure of the slipped surfaces through the Scanning Electron Microscope equipped with an energy dispersive X-ray spectrometer (SEM-EDS). The study reveals low variability in the raw materials and rather standardised process of manufacture⁶⁹. The local-regional origin of the ceramics is supported by the consistency among the petrographic composition of the vessels and the geological environment of southern Uzbekistan. Nevertheless, the vessels from Kampyr Tepe and Termez, located in the Amu Darya alluvial floodplain, exhibit a very similar composition because of the proximity of the two sites. They can be differentiated in geochemical and petrographic terms from those recovered at Kurganzol, situated in the southern foothills of the Baysantau. It should be highlighted that only Kampyr Tepe provided evidence of pottery production in the Seleucid and Greco-Bactrian periods and most of the ceramics analysed from this site have been considered local products. No pottery kiln belonging to this period has been recovered at Termez to date, although the city was an important pottery centre in the Kushan and Islamic periods⁷⁰. Therefore, the ceramics analysed from the citadel of Termez have been attributed to a local-regional origin, since they can be associated with local products from a hitherto unknown pottery workshop in Termez, or with imports from Kampyr Tepe or from another nearby pottery workshop⁷¹. The tableware from Kurganzol should be mainly attributed to a different production site in the region, although vessels produced in the Amu Darya floodplain, probably in Kampyr Tepe, have also been recorded in this fortress⁷².

According to the archaeometric characterisation, the technological processes focused on raw materials processing were highly standardised in a regional context. All the wares correspond to calcareous, rather fine fabrics, with more or less homogeneous matrix and common to abundant crystalline inclusions ≤ 0.5 mm grain-sized (fig. 6). They resemble coeval tableware from the Mediterranean basin, which were also produced using calcareous pastes with few to common fine inclusions⁷³. Forming or modelling was more diversified since diverse designs and varying dimensions of the same types can be recognised. The morphological characteristics of the main proto-

64 For the first phase: SVERCHKOV 2013, figs. 42, 48–49; 43, 22–30. 46; 47, 1–15; 50, 24. 26. 51; 52, 10–12; 54, 14–19; 55, 38–45; 58, 22; 62, 4–32; 64, 24–32; 66, 31; for the second phase: SVERCHKOV 2013, figs. 71, 1–16; 75, 6–29; 77, 10–14; 79, 1–7. 27; 81, 8–14; 83, 20–21. 24–25.

65 LYONNET 2013a, figs. 86; 87.

66 PIDAEV 1991, figs. 1, 16–19; 2, 36–39; 3, 42; 3, 43; HOUAL 2016, fig. 2, 5.

67 PIDAEV 1991, figs. 1, 15; 3, 45.

68 SVERCHKOV 2006, figs. 1, 11; 2, 28; 3, 22; 4, 31.

69 MARTÍNEZ FERRERAS ET AL. 2016; MARTÍNEZ FERRERAS ET AL. 2018; MARTÍNEZ FERRERAS ET AL. 2019.

70 GURT ET AL. 2015; TSANTINI ET AL. 2016; MARTÍNEZ FERRERAS ET AL. 2020.

71 MARTÍNEZ FERRERAS ET AL. 2016, 2019.

72 MARTÍNEZ FERRERAS ET AL. 2018.

73 GLIOZZO – MEMMI TURBANTI 2004; MONTANA ET AL. 2009.

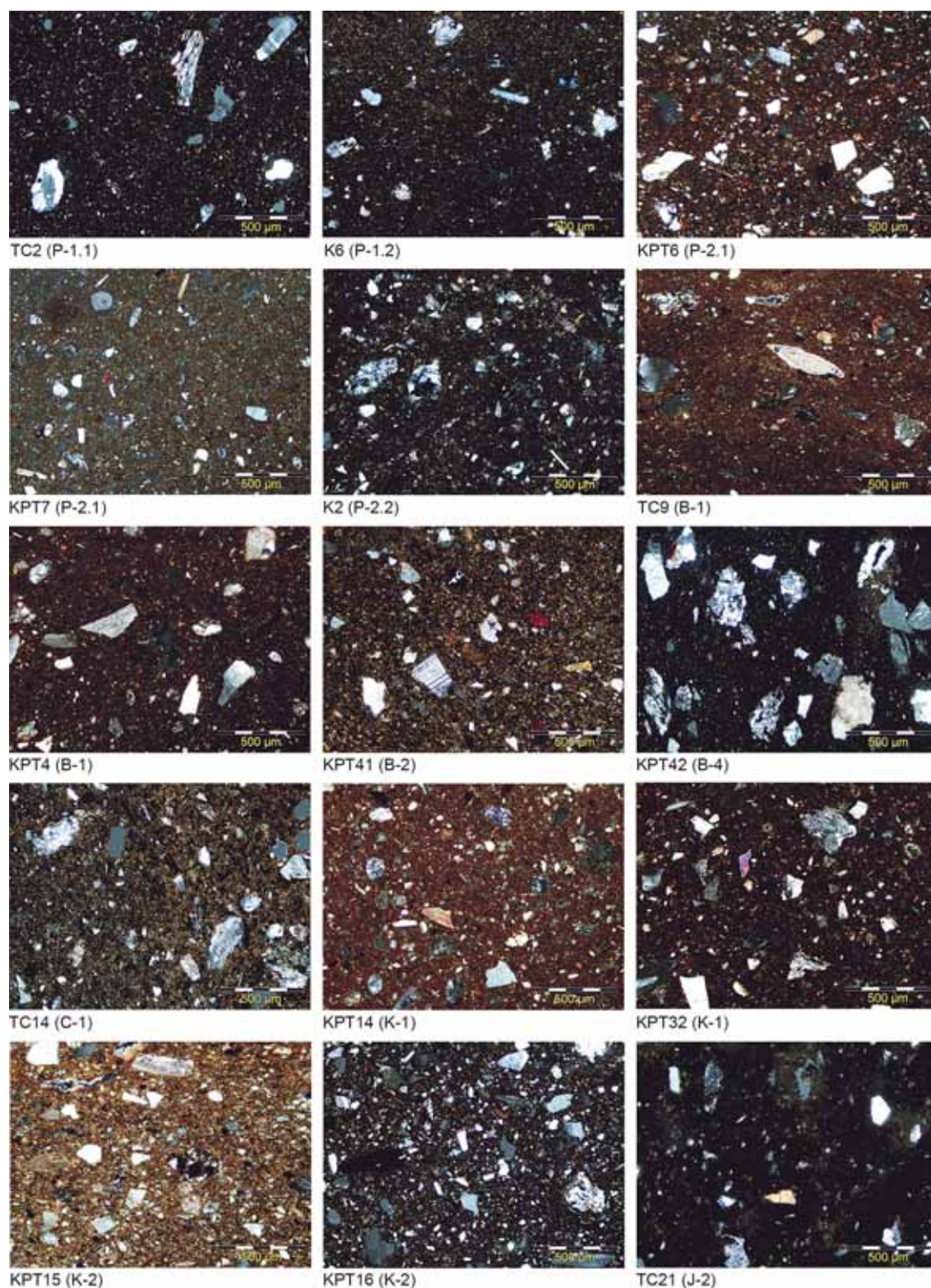


Fig. 6: Photomicrographs of thin sections, $\times 100$, cross-polarized light of representative sherds of different ceramic prototypes (in parentheses) from Kampyr Tepe (KPT), the Citadel of Termez (TC) and Kurganzol (K). Scale bars = 500 μm (© IPAEB).

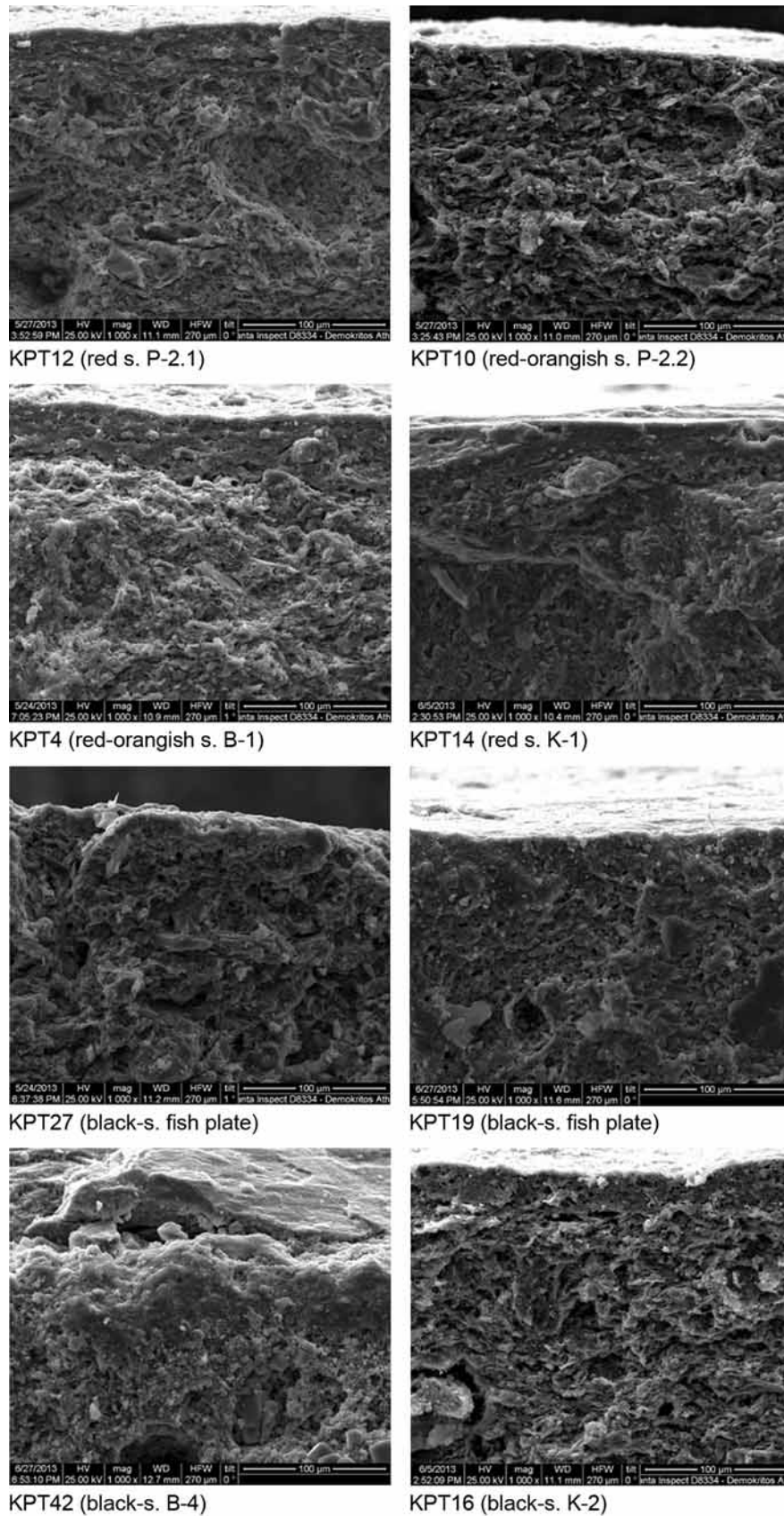


Fig. 7: SEM microphotographs of the slip and the ceramic body of some representative samples from Kampyr Tepe taken in secondary electron mode, with indication of the colour of the slip and the ceramic prototype. Scale bars = 100 μm (© IPAEB).

types remained until mid-2nd century B.C., although decorations became more sophisticated from the first half of the 3rd century B.C. onwards.

The analysis of the surface coatings reveals that slip layers were applied over the smoothed surfaces (fig. 7). They are irregular and less sintered than that of the 'Campanian A, B and C' wares from Italy⁷⁴. The intra-site compositional variability of the black or red slips is significantly high, which suggests the use of slightly different raw materials and also rather low standardised processes to prepare the slips⁷⁵. Regarding the composition, the most common pattern is composed of illitic clay rich in aluminium and potassium; the potassium content could have been further increased by the addition of potash obtained from plant ashes. Another pattern refers to Fe-rich clays which exhibit increased iron content, while only in few individuals the slips potentially consist of the refined fraction of the same clay used for the vessel body. Thus, the surface treatments appear to have been technologically rather inconsistent although a certain level of technology transfer originating assumedly from the Mediterranean can clearly be deduced. The detected variability could be related to the presence of itinerant craftsmen who used the same pottery kilns in specific periods of the year to supply the neighbour settlements, as proposed by Bolelov for the circular pottery kilns found at Kampyr Tepe⁷⁶. However, more archaeological data regarding the pottery workshops and more archaeometric data on the different ceramic categories is required to confirm this hypothesis.

The firing process of the non-slipped and the reddish or black slipped vessels from the three sites investigated entailed single oxidising or reducing conditions and the temperatures achieved can be estimated in a considerably large range of 800 to 1100 °C. Even though the kiln structures found at Kampyr Tepe are rather analogous to those used in the Mediterranean, the single firing consisting on three stages (oxidation, reduction and reoxidation) required to produce Attic and Campanian A and B wares⁷⁷ (with brown/pink pastes and black surfaces) is very rarely documented at ancient Bactria. In particular, the black and greyish slipped wares show strong resemblance with the Campanian C tableware and the grey slipped wares produced in Sicily in the Late Hellenistic period⁷⁸.

5. Conclusions

The tableware recovered in the Hellenistic centres of ancient Bactria consists of local-regional products which imitated to a great extent both the shapes and the decorations of coeval Mediterranean wares. In general, the earliest foundational levels of Kampyr Tepe, Kurganzol and Termez comprised several prototypes of plates, fish-plates, bowls, craters and jugs with typical Greek shapes. This is proved by the morphological resemblance between the plates and the types defined by Morel as 1514e 1, Morel 1312b 1 and Morel 2537b 1, or between prototype B-1 and the types Morel 2721a 1 and 2732c 1⁷⁹. The same prototypes of cups have also been recorded in the three sites, although their shapes exhibit clear Achaemenid influences according to B. Lyonnet⁸⁰. Most of the pieces are non-slipped and they rarely appear reddish slipped.

The morphological and stylistic evolution of the tableware throughout the late 4th and 2nd centuries B.C. is rather consistent with the changes in fashion documented in Mediterranean centres. The slipped vessels, especially the black/greyish-slipped pieces with stamped decoration (palms), became more common during the 3rd century B.C. Plates, bowls and cups included disk-shaped or ring feet and the moulded bowls of "Megarian" or "Pergamenian" types appeared during this century in the most singular sites, such as Ai Khanoum; however, they are absent in the three military and trading posts investigated. From the late 3rd and in the early 2nd centuries B.C.

⁷⁴ MAGGETTI ET AL. 1981; VENDRELL-SAZ ET AL. 1991; MIRTÌ 2000; MIRTÌ – DAVIT 2001; MONTANA ET AL. 2013.

⁷⁵ MARTÍNEZ FERRERAS ET AL. 2016; MARTÍNEZ FERRERAS ET AL. 2018; MARTÍNEZ FERRERAS ET AL. 2019.

⁷⁶ BOLELOV 2001.

⁷⁷ MAGGETTI ET AL. 1981; VENDRELL-SAZ ET AL. 1991.

⁷⁸ MIRTÌ 2000; MIRTÌ – DAVIT 2001.

⁷⁹ MOREL 1981.

⁸⁰ LYONNET 2013a.

the black slipped vessels increased, while the moulded bowls comprised simpler decorations. Although slight differences are detected between the sites, probably due to their different status and functional role, the most common forms used for the symposium and the daily life are present in the whole stratigraphic sequence of the three sites.

The morphological categorization and the archaeometric characterisation reveal a partial Greek technological influence in the pottery manufacture processes of the tableware. However, the surface treatments (composition, thickness and microstructure of the slips) and the firing process indicate a significantly decreased level of craftsmanship. Tableware from Bactria exhibits slips from varying quality and brightness as the result of the use of multiple receipts and low standardized processes. Moreover, firings were mainly performed using a single atmosphere (oxidising or reducing) indicating that the kilns operated in rather basic conditions.

The research presented significantly contributes to the definition, contextualisation and categorisation of the tableware in Hellenistic tradition from ancient Bactria; it also brings insight into the production and distribution areas, and the technological processes developed from the late 4th to the late 2nd centuries B.C. Nevertheless, more research is required to characterise the pottery workshops and to better recognise local and foreign influences on the evolution of profiles and manufacturing techniques during the period considered.

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Imitation of Greek Ceramics Imported from the Ancient Settlements of the Bosporus

(Some Features of the Ceramic Complex of the late 2nd and
1st centuries B.C. from the Settlement of Akhtanizovskaya-4)

Marina E. Klemeshova – Georgy A. Lomtadze

Abstract

During all the years of excavations of the settlement of Akhtanizovskaya-4 (2004–2019) in the Taman Peninsula (the northern coast of the Azov sea), an unusually large number of fragments of handmade casseroles and pots with the same rims with a groove “for a lid” was found in the layers of the second half of the 2nd–1st centuries B.C. – from 25 to 30 % of the total amount of ceramics. Therewith, such casseroles, in contrast to the most of similar pieces from other sites of antique times, were very accurate copies of Greek casseroles made with the use of a potter’s wheel. So far, such products have been found only in the settlements of the central part of the Taman Peninsula. Fragments of 47 vessels were studied with the methods of technological analysis developed by the Soviet and Russian scientist Dr. Alexander A. Bobrinsky. The research showed that liman silt and liman silty clay with a natural impurity of shell were used to make these vessels. Considering that such pottery tradition was typical for the indigenous population of the Bosporus, the authors believe that such casseroles and pots were made by the craftsmen of indigenous origin who had previously worked in Greek pottery workshops. The manufacturing of these products may have been caused by the difficult economic and political situation in the Bosporus due to the war of Mithridates against Rome and the lack of inexpensive forms of widespread Greek cookware.

Introduction

Imitations of Greek wares made with or without the use of a potter’s wheel are often found in the excavations of the archaeological sites of the Northern Black Sea region. The group of such handmade ware on the Bosporus is quite numerous. There are different opinions among the researchers on its origin. Most scholars traditionally believe that such vessels were made by the local population, and such samples are a consequence of the influence of ancient culture on the indigenous ceramic tradition. According to another point of view, such ware, originating from Greek settlements, was made by the local Greek colonists¹. It has been proposed that the current state of the sources and the methods traditionally used in the study of handmade ceramics do not provide grounds to speak of the manufacture of such vessels by the Greeks². Still, according to another point of view, in some cases, based on study of the technology of handmade ceramics manufacture, it is possible to assume that some samples of such ware were made by the local people of Greek origin³.

Indeed, the very fact of the presence of imitations and emulation of the forms of Greek and Roman dishes in archaeological sites of the Northern Black Sea region has been fixed for a long time and does not raise doubts. In some cases, the production of borrowed and reduced forms by local tribes became widespread, and those forms became an integral part of their material culture. A typical example of such production is two-handed and three-handed kantharoi of Meotian tribes of the Kuban region of the 3rd–1st centuries B. C., which are imitations of Greek

1 GAVRILIYUK – SOKOLOVA 2007, 258, 260; GAVRILIYUK 2014; GAVRILIYUK – TIMCHENKO 2014.

2 VLASOV 2019.

3 KLEMESHOVA 2019a.



Fig. 1: The location of Akhtanizovskaya-4 settlement (created by M. E. Klemeshova – G. A. Lomtadze).

kantharoi of the Hellenistic era⁴. Similar examples of copying of glass and metal prestigious Roman imported ware – goblets, unguentarium, phials, jars by making them from clay – are found in significant quantities in materials of Chernyakhov culture of the North-Western Black Sea region, dating back to 2nd–4th centuries A. D.⁵. Handmade imitations of the Greek ware forms are found on various sites of the Northern Black Sea region since the first contacts of the local population with the products of Greek pottery workshops⁶.

In the Bosphorus and in the North-Western Black Sea region, casseroles are known as one of the most frequent handmade forms copying Greek wheel-made ceramics. They appear in the late archaic period, but mainly are made in the 4th century B. C.–3rd century A. D.⁷. In most cases, they are more or less coarse, thick-walled samples carrying all features of the Greek originals: a rounded body, a rim with a groove “for a lid”, a round or flattened, less often a flat bottom, two horizontal handles. Carefully made pieces are less common. Often, lids were also made that were close or similar in shape to the Greek original forms. As a rule, the number of such imitation vessels in the total number of handmade vessels in a settlement does not exceed a few percent.

4 LIMBERIS – MARCHENKO 2005, 236–238. Chronological plate of ceramic complexes.

5 BOBRINSKY 2018, pls. VIII–XVI.

6 KNIPOVICH 1940, pls. XXVI–XXVII, 5–6; KRUGLIKOVA 1951, 100 fig. 7, 1–6; KRUGLIKOVA 1954, pls. I, 12–13, 22; II, 5, 40; III, 26, 28; ARSEN'EVA 1969, pl. I, 8; KASTANAYAN 1981, pls. III, 5–7; V, 5; VI, 1; XX, 1; XXXI, 2, 4; XXXVI, 7; XXXVIII, 8; XXXIX, 1, 3; ALEXEEVA

1980, 36 fig. 10, 31–32, 34; ALEXEEVA 1997, pl. 85, 7; MARCHENKO 1988, figs. 16; 18; 32, 5–8; GAVRILIYUK 1984, figs. 1, 4; 6, 2, 12; GAVRILIYUK – SOKOLOVA 2007 figs. 4; 6, 2, 7; GAVRILIYUK 2017, 98 fig. 45; STOLBA, 2002, pls. 131; 133, D 127–128; VLASOV 2005, fig. 1–3; NECHIPORUK 2017, fig. 6, 8; KLEMESHOVA 2019b, fig. 4, 11–17.

7 MARCHENKO 1988, 85–87; GAVRILIYUK – SOKOLOVA 2007, 273–276.

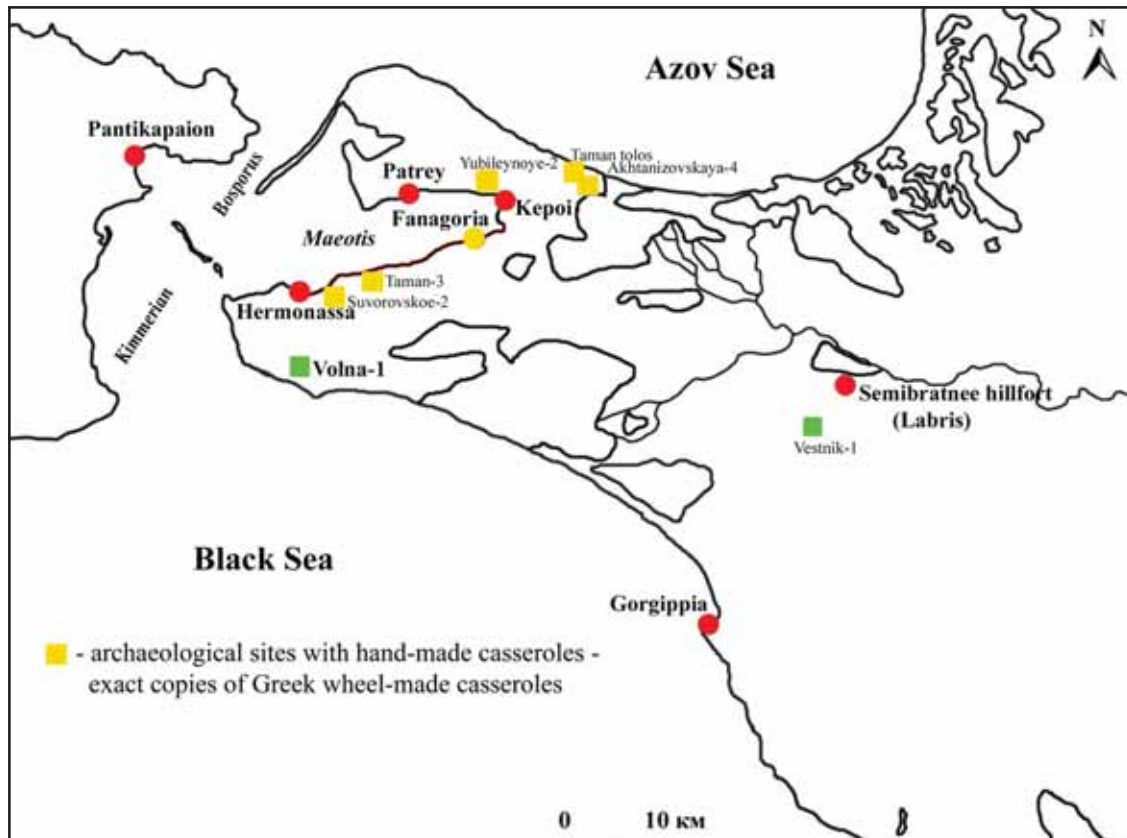


Fig. 2: The location of sites with hand-made casseroles in Taman Peninsula (created by M. E. Klemeshova – G.A. Lomtadze).

Materials of the settlement Akhtanizovskaya-4

A completely different picture is revealed in the Akhtanizovskaya-4 settlement which is located in the north-east of the Asian Bosphorus⁸ (fig. 1).

Throughout the years of the excavations of this site (2004–2019) an unusually large number of fragments of handmade casseroles and pots with the similar rims with a groove “for a lid” has been found in the layers and pits of the second half of the 2nd–1st centuries B.C. They account for 25–30 % of the total amount of ceramics, excluding transport amphorae, and for up to 70 % of all handmade vessels. These products are characterized by a number of specific features. First of all, they are exact copies of the corresponding Greek forms, copying in every small detail the features of the rim profile⁹ (fig. 3; 4, 1–10. 12–13). This makes them different from most of the published examples of handmade casseroles from the excavations of antique sites in the Northern Black Sea region. Second, they are characterized by a very high quality of manufacturing: they have uniformly thin walls (4–7 mm thick); an even, carefully smoothed surface; there is no curvature of the products, often inherent in handmade vessels. Many of them have a cut through “groove” on the upper plane all around the rim. Third, on the rim of some of them, there are parallel stripes resembling traces from a potter’s wheel. This may indicate the use of a potter’s wheel for smoothing or partial profiling of the rim of some of those vessels, i.e. using the elementary functions of a potter’s wheel for their manufacture¹⁰.

The study of this phenomenon is not yet finished. It needs emphasizing that all these pots, with traces of a potter’s wheel on the rim or without it, are handmade. From the Greek originals

⁸ LOMTADZE 2010; LOMTADZE 2015.

600–603; 620; 636–643; 658–662.

⁹ SPARKES – TALCOTT 1970, 227 fig. 18, 1965. 1970; ROTROFF, 2006, 173–174. 177. 179–182, figs. 595–599;

¹⁰ BOBRINSKY 1978, 27.

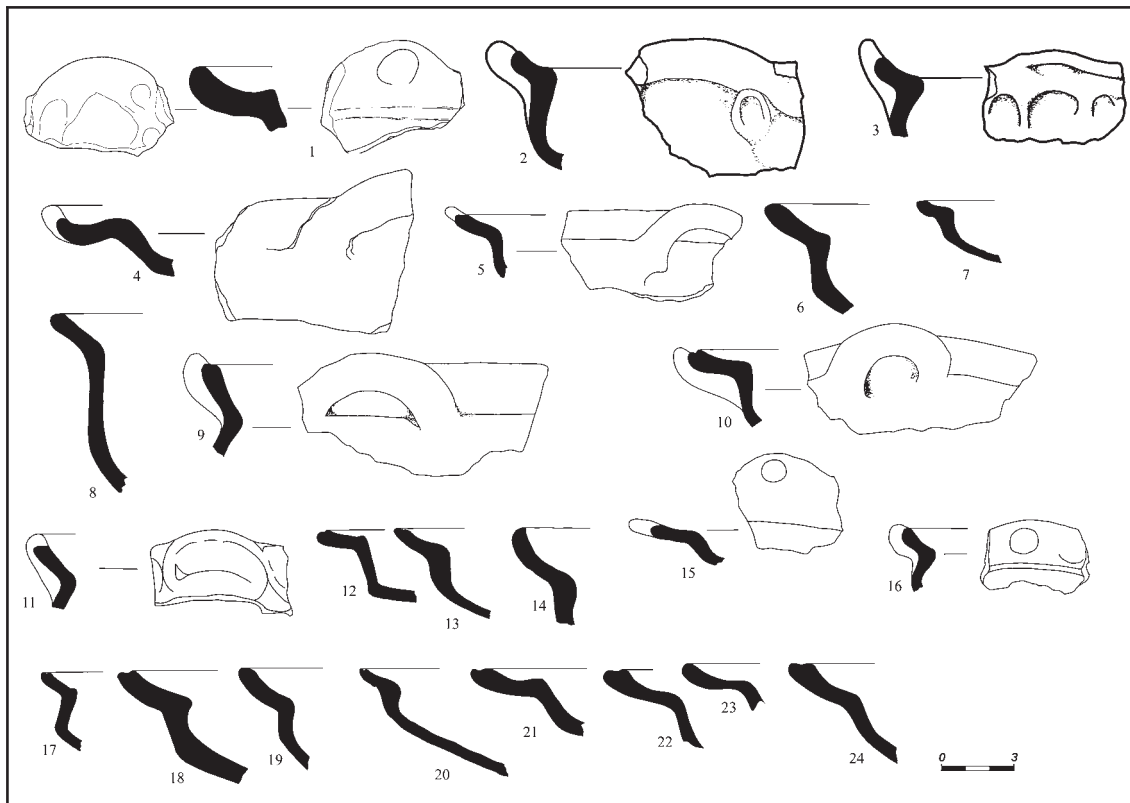


Fig. 3: The fragments of hand-made casseroles, type 1, from Akhtanizovskaya-4 settlement (drawings by S. S. Tischenko).

they differ only in the handles. In all found samples, they were round in cross-section, fixed horizontally, but small and kept close to the walls of casseroles in contrast to those separated from the walls and often raised high handles of Greek original products. In all the years of excavations a flattened bottom, with a diameter of about 30 cm, was discovered only once (fig. 4, 11). Fragments of lids were not found at all. The diameter of rims of such vessels is 16–35 cm. In some cases, the parts of the rims that remained were so small that it was impossible to determine if they were part of casseroles or pots with much smaller rim diameter. Still both kinds of ware apparently belong to kitchen pottery, and such pots were probably close in their functionality. The fragments of coarse handmade imitations of antique casseroles were found rarely if ever (fig. 4, 14).

Similar fragments of handmade casseroles – perfect copies of wheel-made Greek ones – were found also in other sites of the Asian Bosphorus, in the layers of the same time: in the settlement of Yubileynoye II (layer of the 1st century B. C., E. A. Savostina's excavation, 1986)¹¹, the Suvorovskoye-2 settlement in the layer of the 3rd–1st centuries B. C. (T. V. Blavatskaya's excavation, 1950), the Taman tolos (N. I. Sokol'skiy's excavation, 1970–1973)¹², and Fanagoria¹³ (fig. 2). According to the currently available data, such casseroles are not found in the territory of the Bosphorus after the 1st century B. C. The exact chronology of this shape is still to be specified. A considerable number of fragments of handmade pots with similar rims with a groove “for a lid” are found in the Artyushenko I settlement in the layers of the 3rd–2nd centuries B. C.¹⁴

¹¹ This information is known only from the materials of field report.

¹² These materials from the excavations of T. V. Blavatskaya and N. I. Sokol'skiy are kept in the State Historical

Museum of Moscow.

¹³ KRUGLIKOVA 1951, 100 fig. 7, 1–2.

¹⁴ STOYANOV 2009, fig. 3.

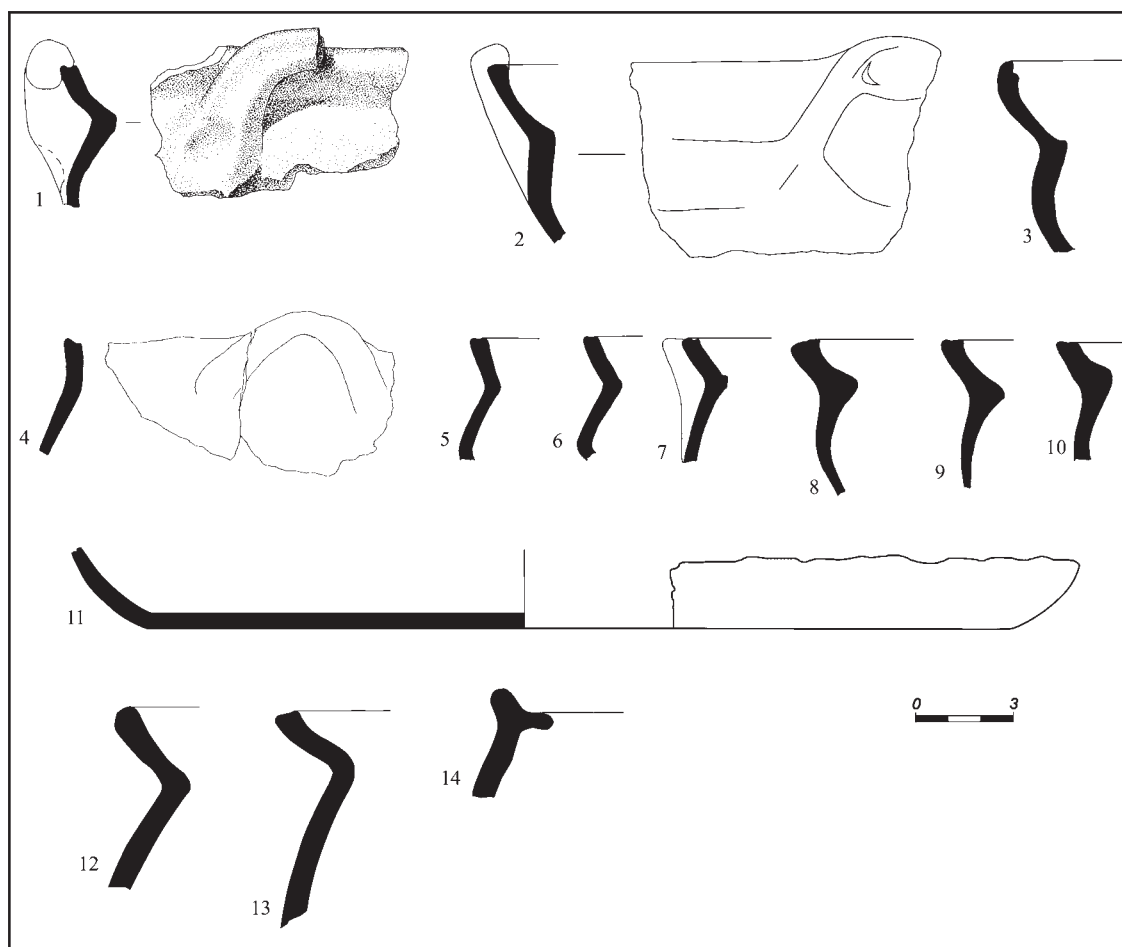


Fig. 4: The fragments of hand-made casseroles and pots from Akhtanizovskaya-4 settlement: 1–10: the rims of casseroles, type 2; 11: a bottom of hand-made casserole; 12–13: the rims of pots with a groove “for a lid”; 14 – a rim of coarse hand-made casserole (drawings by S. S. Tischenko).

So far, the examples of such casseroles and pots with rims with a groove “for a lid” have been found only in the territory of the Asian Bosphorus, they are not listed in the published materials of the sites of the European Bosphorus. Handmade casseroles found in the Akhtanizovskaya-4 settlement belong to two basic morphological types, differing in the forms of the edge of a rim and the body (fig. 3; 4, 1–10). Based on a number of mentioned finds it is possible to speak of mass production.

Methodology of research

Discussions about the manufacturers of handmade casseroles as well as other vessels imitating Greek ceramics, based on the study of their exterior only, falls under a risk of being fruitless, although the solution of this issue is important. It influences the formation of notion of presence or absence of the local population in Greek settlements, trade and social relationships between the Bosporan Greeks and the indigenous population. It seems reasonable that the use of data on the manufacturing technology of such ceramics may be of help.

Fragments of handmade casseroles and pots with rims “for a lid” were studied with the methods of technological analysis developed by the Soviet and Russian scientist Alexander A. Bobrinsky (1930–2010). He was an outstanding researcher of ancient ceramics and pottery production in general, the founder of the laboratory “History of Ceramics” at the Institute of Archaeology of the Russian Academy of Sciences in Moscow. His methodology for studying of ceramics manufacture technology is set forth in his monograph “Pottery of Eastern Europe” and

the collective monograph “Actual problems of Study of Ancient Pottery”, which are currently available, unfortunately, only in Russian¹⁵. The main provisions of this methodology are also set forth in the monograph of one of his students¹⁶. Using the huge amount of archaeological and ethnographic material originating from the territories of European Russia, the Baltic States, Ukraine, Belarus, Moldova, the Caucasus and Central Asia, Dr. A. Bobrinsky identified patterns in the technological, cultural and historical processes of ceramics manufacture. In particular, he established that in pottery, at all times, predominantly there was a hereditary system of passing the skills of making vessels; that is, the whole process of creating ceramics was passed through related channels within a family (usually from father to son, from mother to daughter) unchanged, saving it exactly the way it had been obtained from the previous generation. This included the selection of raw material, paste composing and methods of shaping, ornamentation and firing.

The composition of these skills was very conservative. None of them had ever been changed by a craftsman arbitrarily, despite the current thinking. As a result, there arose certain pottery traditions of making ceramics, inherent to specific ancient collectives. Changes in them occurred as a result of contacts and mixing of groups of population with different cultural backgrounds – carriers of different traditions of making vessels. Therewith, Dr. A. Bobrinsky found that given the mixture of technological traditions, various skills in manufacture of ceramics changed at different speeds. The fastest to react to mixing processes between population with different background are skills related to the selection of raw material and paste composing, the slowest were notion of raw material and the skills of creating of the primary part of a vessel and methods of creating of its body. The most conservative and the most sustainable skill in pottery technology is the potter’s notion of the raw material.

This means that in the hereditary transfer of skills of making ceramics the craftsmen would use familiar types of raw material even if they had lived next to potters who used different raw material for a long time, and mixing between the representatives of those different cultures occurred. The process of changing this skill and transitioning to a different type of raw material use could take up to a thousand years¹⁷. Dr. A. Bobrinsky, and later his student Dr. Irina N. Vasil’eva established the fact that other types of raw material were used for pottery besides clay, namely dung, silt and silty clay¹⁸. The main conclusions of Dr. A. Bobrinsky were confirmed by his students repeatedly.

Analysis of materials

Forty-seven fragments of rims of handmade casseroles and pots from the settlement of Akhtanizovskaya-4, excavations 2016, were researched by M. E. Klemeshova at the Laboratory “History of Ceramics” at the Institute of Archaeology Russian Academy of Sciences, Moscow, to determine the raw material and paste compounds. Each piece was from a separate vessel. The study was carried out on fresh fracture of the sherd, using a binocular microscope with a magnification of up to 56 times, with use of the reference base of experimental samples from the Laboratory.

The study showed that, with the exception of one fragment, liman silt (fig. 5; 7, 1–3) and liman silty clay (fig. 6; 7, 4–6) with a natural additive of shell¹⁹ were used for the manufacture of those vessels. Silty clay is a natural raw material consisting of a mixture of littoral clay, sand and silt, which sediments are located on the banks of waterbodies with low current, in places recently freed from flooding²⁰. In 42 cases (62,7 %), these materials were used as mono-materials, i.e. for the manufacture of vessels, they were used in their pure form, without artificial additives. One sample was made of low-sanded clay, with a natural additive of powdery sand. In 12 cases it was

¹⁵ BOBRINSKY 1978; BOBRINSKY 1999.

¹⁶ TSETLIN 2012.

¹⁷ VASIL’EVA 2009, 69–73.

¹⁸ BOBRINSKY 1978, 67–73; BOBRINSKY 1999, 17–20; VASIL’EVA 1994; BOBRINSKY – VASIL’EVA 1998;

VASIL’EVA 1999, 194.

¹⁹ KLEMESHOVA 2017, 228–233; KLEMESHOVA 2019c, 102.

²⁰ VASIL’EVA 1999, 194; KLEMESHOVA 2017, 228–230. 232–234.

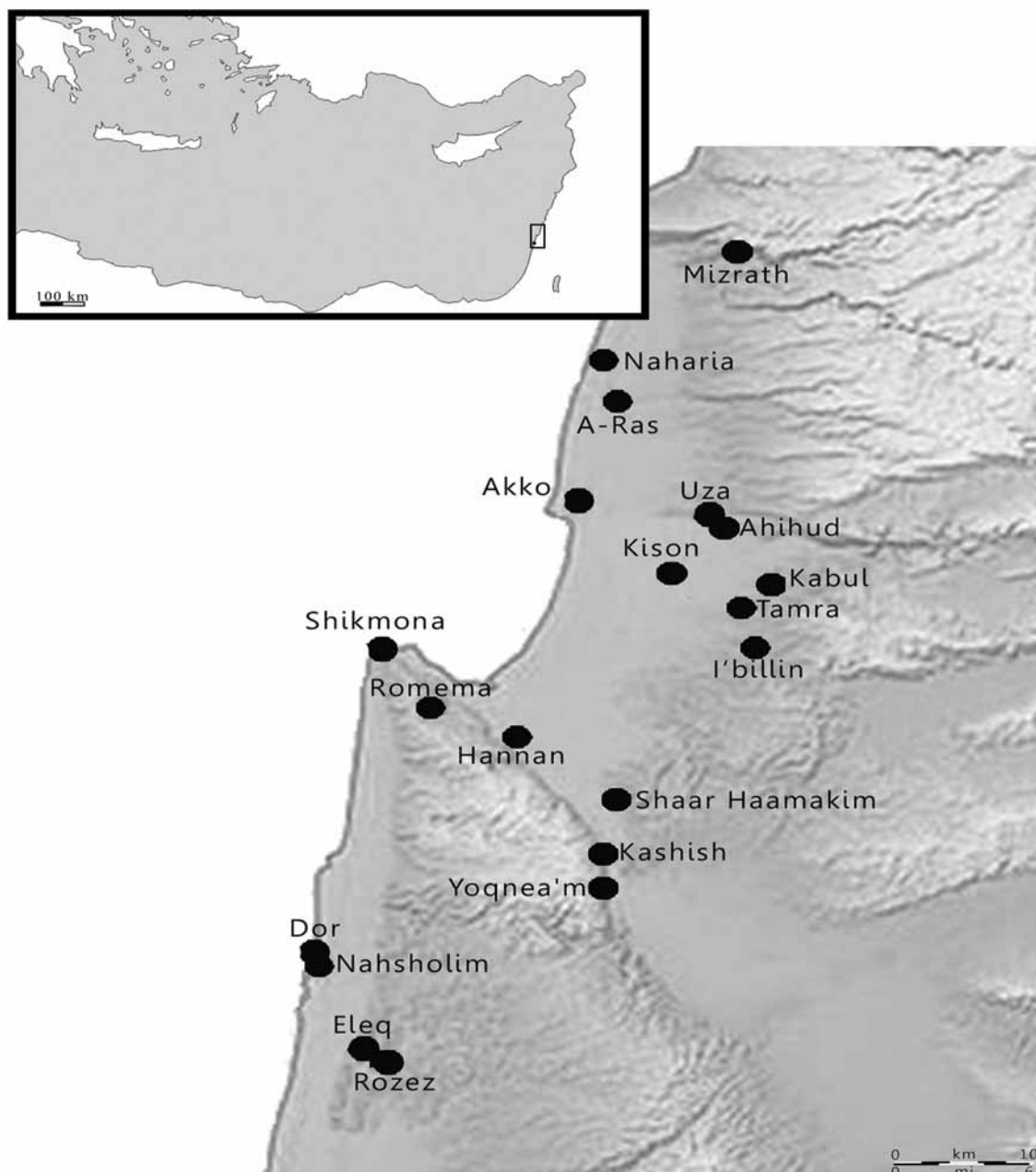


Fig. 5: Microphotographs of natural silt from the limans of Taman Peninsula (photos by M. E. Klemeshova).

difficult to establish whether the raw material used was silt or silty clay, as they are characterized by a similar set of features. The following recipes for paste compounds were identified (tab. 1):

N	Paste recipe	Quantity	Percentage
1	Silt without additive	13	19,4 %
2	Silt + organic solution	1	1,5 %
3	Silty clay without additive	18	26,9 %
4	Silty clay (silt?) without additive	11	16,4 %
5	Silty clay + organic solution	2	3%
6	Silty clay (silt?) + grog	1	1,5 %
7	Clay + grog + dung	1	1,5 %
Total amount		47	100 %

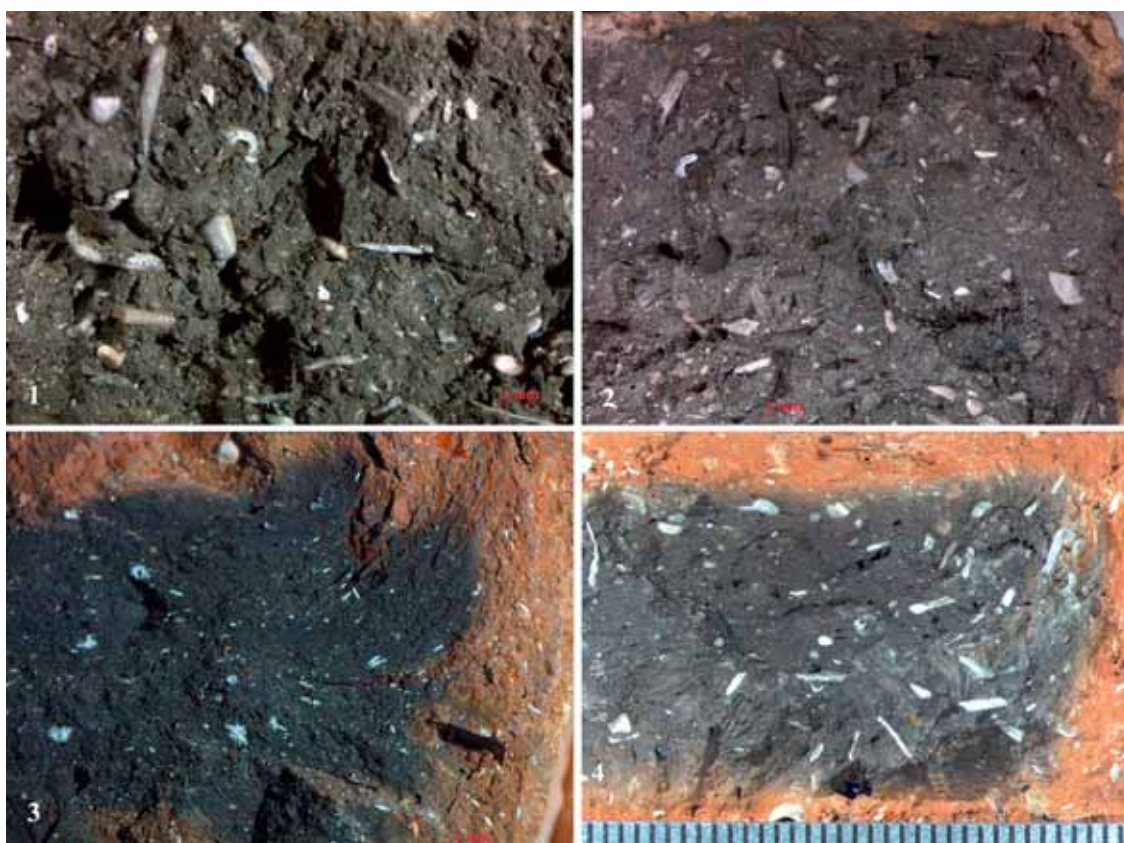


Fig. 6: Microphotographs of natural silty clay from the limans of Taman Peninsula (photos by M. E. Klemeshova).

In terms of artificial additives, an organic solution was used (detected by black shining patina in fractures, sometimes with black shining clots in hollows), in one case – grog, and in one case – dung, most likely, of small cattle. Organic solutions are fluid substances of organic origin, presumably used in ancient pottery for utilitarian properties (i.e. strength, waterproofness)²¹.

Discussion of the results

The tradition of making ceramics from silty raw materials is typical for the local population of the Asian and European Bosphorus²². In the settlement of Vestnik-1, from the end of the 6th to the beginning of the 3rd centuries B.C., 86 % of handmade ceramics were made of silty clay²³. Such ware was also known from other sites of ancient times in this territory – Volna-1, Vyshesteblievskaya-3, Taman-3, Patrey, the necropolis Volna-1, the settlement of Suvorovskoye-2, Phanagoria, Hermonassa²⁴, and Golubitskaya-2²⁵. In the settlements of Polyanka and Syuyurtash, as well as in the ceramic complex of the Kazan Yuzhny watchtower on the Uzunlar earth bank on the European Bosphorus, 93 to 100 % of handmade ceramics were made of silty clay and silt, in many cases with additive crushed shells²⁶.

Based on this, it is highly likely that the handmade casseroles and pots under consideration were made by the local indigenous population. This is also supported by the data obtained by Dr. A. Bobrinsky in his study of ceramics of different archaeological cultures of Eastern Europe. On the Bosphorus, several centuries after the beginning of Greek colonization, there co-existed

21 BOBRINSKY – VASIL'eva 1999, 213–214.

22 KLEMESHOVA 2017; KLEMESHOVA 2019b; KLEMESHOVA 2019c; KLEMESHOVA 2019d.

23 KLEMESHOVA 2017, 228.

24 KLEMESHOVA 2019d.

25 KAMELINA 2018, 195–196.

26 KLEMESHOVA 2019c, 103; KLEMESHOVA 2018b, 39–40; KLEMESHOVA 2018a, 95–98.

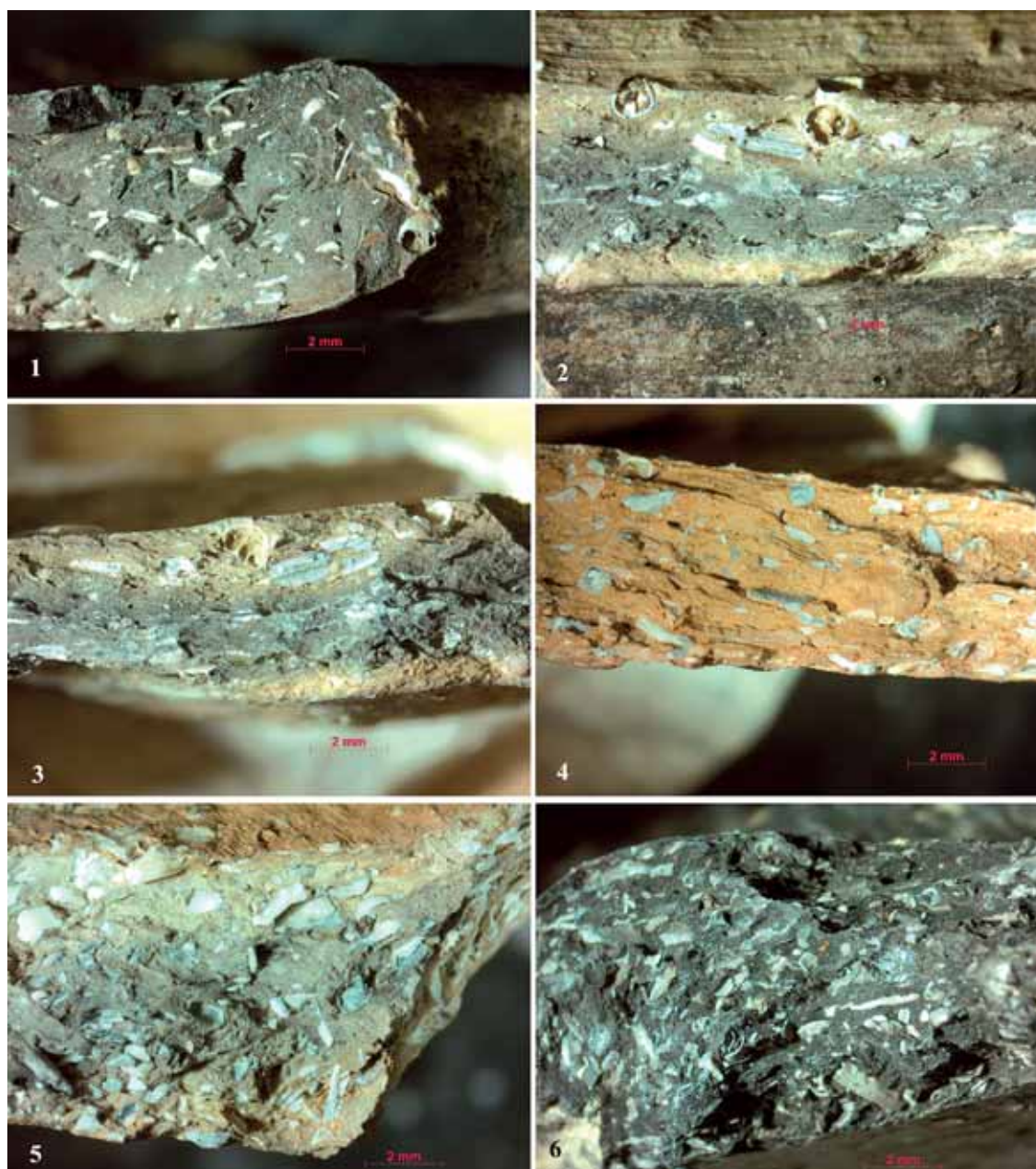


Fig. 7: Microphotographs of fresh fractures of hand-made casseroles from Akhtanizovskaya-4 settlement: 1–3: fragments made of liman silt; 4–6: fragments made of liman silty clay (photos by M. E. Klemeshova).

two different pottery traditions – Greek, characterized by the manufacture of vessels from clay and using a potter’s wheel, and local indigenous, based on the use of silty raw materials and hand sculpting methods. The fact that the notion of raw material, i.e. what kind of raw material to make a vessel from – clay, silt or other – is subject to the slowest change of all the potters’ skills and can remain unchanged for a very long time even given the mixing of different pottery traditions, may explain the fact that local potters made handmade casseroles of Greek forms from silt and silty clay, while the Greek casseroles were made from ordinary clay with use of a potter’s wheel. It is very doubtful that the potters of Greek origin would change their usual raw material – clay – for an absolutely unusual – silt, which had to be mined from under water.

In addition, silts and silty clays are very complex materials from the point of view of choice of places for extraction of raw materials of acceptable quality as well as in modeling. Firing of ceramics made from these raw materials would not be easy for an unexperienced person either.

Significant amounts of shell inclusions make it impossible to fire such ceramics at high temperatures, that is, it is necessary to have experience in creating such a regime in which the shell in the raw material would not turn into slaked lime and destroy the finished product. In general, the described casseroles and pots are characterized by firing in an oxidizing atmosphere and a light-red color of surfaces with grey spots; however, there are also samples fired in reducing and semi-reducing atmosphere with dark grey and grey-beige colored surfaces and fractures. Experimental firing of fragments of these vessels in muffle furnace at 850°C in an oxidizing atmosphere showed that, regardless of the duration of their exposure to this temperature (5–30 minutes), they became very brittle and crumbled into pieces in 1–3 days. This indicates that the primary firing of such vessels was made at a temperature when the chemical process of transforming calcite, which the shell consists of, into CaO, and its subsequent swelling while turning into slaked lime, had not yet started. That is, the temperature of firing of these casseroles and pots was not over 600–650°C.

The presence of fragments of handmade casseroles of different quality in many sites of the Bosphorus, as well as in Akhtanizovskaya-4, may possibly be explained by the fact that coarse replicas of Greek casseroles were made by individual representatives of local indigenous people for the needs of their families, local potters not being familiar with the technology of making similar Greek vessels and orientating themselves to the exterior view of the products. The rim came to be the most difficult part for copying as such complex form had never been used in the local pottery, and its manufacture demanded some new engineering solutions based on traditional methods of making vessels. The results were similar products which clearly show the prototype, but with changed proportions, form and thickness of separate parts.

Judging by the standardization and high quality of the replicas of Greek casseroles and pots with the same rims, as well as by their large number at sites in the Taman Peninsula, they could have been produced on a large scale by professional potters, possibly for sale. A significant number of them in the settlement of Akhtanizovskaya-4 may probably be associated, first, with the nature of the economic purpose of the area of the settlement in which they were found, and, second, with the increased household demand for these types of kitchen vessels in the settlement at that time. We believe that handmade casseroles and pots of the indicated type from the excavations of Akhtanizovskaya-4 could be made by local potters of non-Greek origin, possibly Meotian, who received some experience in Greek pottery workshops. This was the fact that may have made it possible for them to acquire proper skills of forming the rims. Mass findings allow us to infer organized production, possibly in different places, but not the handicraft production within individual families, therefore we suppose, it is more appropriate to assume the existence of specialized workshops for production of such ware. Perhaps it is possible to assume the presence and spread of such production only in the Asian Bosphorus since until now fragments of such vessels were found only at sites in the central part of the Taman Peninsula.

An interesting question is what the reasons were for creating such products. The settlement of Akhtanizovskaya-4 at the last stage of its existence was a fortified outpost of the eastern frontier of the Asian Bosphorus. Poor life of a small garrison was heavily dependent on external factors. Any crisis was most clearly reflected in the living standards of inhabitants of such settlements. The long-lasting war of Mithridates against Rome and its consequences, the blockade of the straits by the Roman fleet could not but have affected the life in such settlements. Most likely, the challenging economic and political situation prevailing in the Black Sea at the end of the 2nd to the first half of the 1st centuries B. C., forced the reproduction of cheaper local imitations of widespread forms of Greek ceramics for residents. Moreover, this applied not only to ceremonial vessels, but also to simple kitchen ceramics. This large number of fragments of handmade vessels in the ceramic complex of the site can be associated with their fragility, which correlates to the quality of workmanship.

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Cooking Vessels Production in Southern-Phoenicia: A Selective Use

Barak Monnickendam-Givon

Abstract

During the Hellenistic period, Southern-Phoenicia inhabitants were highly involved in the shifting trends in the Hellenistic eastern Mediterranean's behaviors and culture, as reflected in their pottery repertoire. Those shifting trends were not limited to the consumers of pottery vessels but also affected the local potters and workshops. While no kilns or pottery workshops were found during the excavations, the macroscopic ware analysis combined with thin-section petrographic analysis helps identify pottery's features produced by local potters. Tracing the local pottery reveals different trends in local pottery production from both morphological and technological aspects. During the Hellenistic period, the local potters gradually incorporated into their repertoire new pottery types that were not previously produced by them, such as tableware, lamps, small containers, and jars. In both produced types and manufacturing processes, the transformations are part of a broad phenomenon in the production and consumption of pottery products during the period. This article deals with understanding how local potters chose what kind of pottery types to produce and the technical approach they applied during the manufacturing process.

Introduction

Pottery consumption patterns have changed throughout the Eastern Mediterranean during the Hellenistic period. New types that represents new behaviors in table manners and cooking habits were appropriated by many groups during that time. The changes in pottery related behaviors were not limited to the consumption sphere but also effected pottery production around the Mediterranean. Tracing the pottery products of Southern-Phoenicia during the Hellenistic period reveals different trends in local pottery production from both morphological and technological aspects. This article seeks to define the mechanism by which local workshops decided which pottery vessels to produce and the process of production.

During the earlier, Persian period, the local production was minimal; local potters focused mainly on producing cooking pots. During the Hellenistic period, the local potters gradually incorporated into their repertoire new pottery types that were not previously made by them, such as tableware, lamps, small containers, and jars. In both produced types and manufacturing processes, the transformations are part of a broad phenomenon in the production and consumption of pottery products during the Hellenistic period.

This article will not address why the consumers at Southern-Phoenicia used only a selection of imported pottery vessels out of a broader array of vessels circulating the region. It will focus solely on the local potters and ceramic workshops of southern Phoenicia that worked in the dynamic Hellenistic world. This article will focus on manufacturing cooking vessels to demonstrate the tension between shifting trends and traditional pottery production aspects.

Cooking vessels are perfect candidates for the study of behavioral changes and cultural mechanisms. Cooking vessels are the product of a careful production process, and the modification of this production process can indicate cultural and behavioral changes. The technical properties of cooking vessels have been studied very intensively in the past decades¹. Cooking vessels were analyzed for the role of inclusions and temper² and their ability to handle heat conductivity and

¹ RICE 1987, 224–226; SPATARO – VILLING 2015.

² BRONITSKY – HAMER 1986; RYE 1976; SKIBO ET AL. 1989.

thermal shock³. More particular works on cooking vessels production were published concerning specific assemblages such in Southeast USA⁴, Alaska⁵, North Syria⁶, and Greece in varied periods⁷.

The unique features of cooking vessels posit some challenges for the potters' work. The vessels should be durable to sustain thermal shock and multiple rounds of heating and cooling. They also should transfer and distribute heat efficiently. Those factors sometimes contradict, so cooking vessels are the product of checks and balances within their production process. The extent to which the shifting trends of the Hellenistic period influenced the manufacture of cooking vessels lies at this article's core. This will be done by defining how local potters and workshops choose what vessels to produce and how to create them.

Southern-Phoenicia during the Hellenistic Period

This article focuses on a defined geographical unit on the coast of Southern-Phoenicia (the northern coastal plain of modern-day Israel). The region's borders are the current Israel-Lebanon border in the north, the Galilee's raised area to the east (on the route of modern road 70), and to the south, the marshes area of the Sharon coastal plain (on the course of modern road 67). The area is situated on a *kurkar* ridge with alluvial soils formed from stream drainage running along the region, from the Galilee to the Mediterranean Sea.

During the Hellenistic period, the region was settled by large harbor cities such as Dor, 'Akko, and Nahariya alongside smaller rural settlements (fig. 1). The excavations conducted in the region yielded various urban public and residence assemblages, together with rural sites and burials. Those varied archaeological contexts reflect different social classes and diverse access to natural and economic resources. The excavations of well-stratified sites, such as Tel Dor⁸, yielded a rich sequence of stratified and dateable pottery assemblages throughout the Hellenistic period. The excavations' data allow us to trace the shifting trends securely at the site and the region during that time.

The region of Southern-Phoenicia was highly involved within the shifting trends of the Hellenistic Eastern Mediterranean world. The inhabitants of Southern-Phoenicia consumed and used various imported pottery vessels. Consumption of Aegean and Greek pottery was prevalent alongside vessels shaped in Aegean and Greek-style produced in multiple Eastern Mediterranean workshops. This is evident from the pottery assemblages found in wealthy harbor sites with easy access to imported goods, such as Tel Dor⁹ and 'Akko¹⁰. Some of the rural sites, with limited access to luxury goods, such as Horvat 'Eleq, also consumed imported pottery¹¹.

The Provenience of pottery vessels found in Southern-Phoenicia is determined by pottery analyses such as macroscopic analysis and thin section petrography that identified their origin¹². The results yielded a map of commercial ties between the inhabitants of Southern-Phoenicia and other regions in the Eastern Mediterranean basin. The region's inhabitants were mainly in contact with Cyprus (especially on the northwest part of the on the coast of the Troodos mountains foothill) and the Aegean and western Anatolia. These imports express a commercial and social connection with regions surrounding the Eastern Mediterranean¹³. Apart from imported com-

3 SKIBO 1992; HEIN ET AL. 2015; HEIN ET AL. 2008; TITE ET AL. 2001; TITE – KILIKOGLU 2002; VEKINIS – KILIKOGLU 1998; KILIKOGLU ET AL. 1998; MÜLLER ET AL. 2015; SILLAR – TITE 2000; SKIBO 2013.

4 SASSAMAN 1993.

5 HARRY ET AL. 2009; HARRY – FRINK 2008; HARRY – FRINK 2009.

6 VOKAER 2011; VOKAER 2010a; VOKAER 2010b; VOKAER 2007.

7 KLEBINDER-GAUSS 2012; WHITLEY – BOILEAU 2015; WHITBREAD 2015; JACOBS ET AL. 2015; GAUSS ET AL. 2015.

8 NITSCHKE ET AL. 2011.

9 MONNICKENDAM-GIVON 2018; MONNICKENDAM-GIVON 2011; GUZ-ZILBERSTEIN 1995; ROSENTHAL-HEGIN-BOTTOM 1995.

10 BERLIN – STONE 2016; MONNICKENDAM-GIVON ET AL. 2017; SMITHLINE 2013.

11 MONNICKENDAM-GIVON forthcoming; SILBERSTEIN 2000.

12 MONNICKENDAM-GIVON 2011; MONNICKENDAM-GIVON 2018.

13 MONNICKENDAM-GIVON 2011, 102–106.

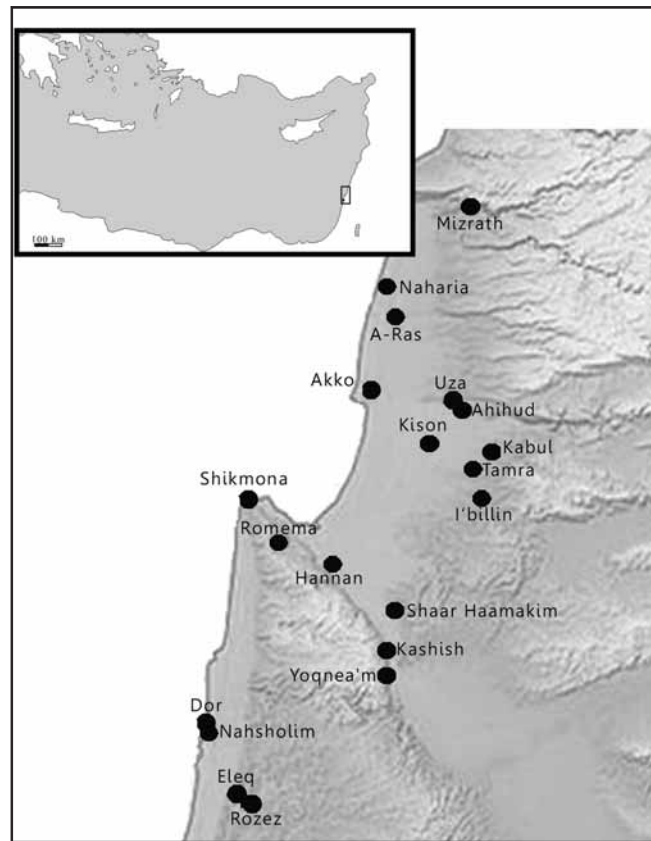


Fig. 1: Map of the Eastern Mediterranean and sites in Southern-Phoenicia (B. Monnickendam-Givon).

modities brought inside various clay-made containers, such as amphorae, jars, unguentaria, and amphoriskoi, other pottery vessels were imported as merchandise due to a specific function or social and cultural importance, such as dining and cooking vessels.

Local Production

Studying of the local pottery production during the Hellenistic period is being conducted by analyzing the *chaîne opératoire* – the sequence of actions and decisions each potter makes during the production process. Examining the *chaîne opératoire* does not end with just describing the potter's actions and decisions. The end state lies with understanding the meaning of the technological transformations from social, cultural, and behavioral perspectives¹⁴. Beyond any individual potter's work, this method is crucial in understanding the array of techniques and actions that a particular group or community preserves and distributes to its members. The *chaîne opératoire* defines groups and communities from a technological perspective. The method can also reveal what kind of technical preferences are preferred in a specific regional or social context alongside the mechanism of assimilating new technological approaches¹⁵. All of this will contribute to a better sense of how technological knowledge circulates between workshops in the Hellenistic Eastern Mediterranean.

Another aspect is the study of the level of organization of production. The level of organization of production can be seen from the extent of homogenous production and distribution of their products¹⁶.

¹⁴ MARTINÓN-TORRES 2002.

¹⁵ ALBERO SANTACREU 2014; ROUX 2017.

¹⁶ RICE 1981; RICE 1987, 176–191 tab. 173. 176;

COSTIN 1991; PANITZ-COHEN 2006; VAN DER LEEUW 1984, 719–724.

The local population's use of imported pottery exposed local workshops to Aegean and Greek originated vessel types. The demand for those vessels grew as they took an essential part in daily life. While the full range of Greek and Aegean pottery vessels was accessible to local consumers, a selection process can be seen by local workshops that manufactured only a limited range of pottery shapes out of the vast array of pottery shapes used in the region. The local production can be analyzed from two main perspectives, the forms that were manufactured and the technical approach applied by local potters and workshops, creating the local ware. The technical approach is how the local potters and workshops applied and used the local raw material. The same raw materials can be used in different approaches, hence creating various wares.

No kilns or pottery workshops dated to the Hellenistic period were found or excavated in the region. The local production of pottery workshops in the area was determined by macroscopic ware analysis combined with thin-section petrographic analysis. Both methods help identify the nature of pottery produced by local workshops that used the local soils to the region.

The local workshops in Southern-Phoenicia throughout the Hellenistic period were concentrated around the large urban centers, a phenomenon that started during the earlier, Persian period¹⁷. The local workshops produced cooking vessels, tableware, utility vessels, and storage jars. As mentioned before, while a broader range of shapes was available from local consumers, the local potters produce only a selection of them.

The locally-made vessels are all made from the same raw material. They are characterized by red clay with low optical activity. Elongated and round voids (about 15–20 %), the central inclusion is medium sorted sub angular silt and sand-sized quartz (about 25–35 % of the visible area). The other prominent inclusions are silt size subrounded limestone (5 %). Rarely there are small fragments of feldspars, olivine, orthopyroxene, and epidote. The local ware was used in the production of tableware, cooking vessels, and storage jars.

The origin of this clay is local to Southern-Phoenicia (in the northern coastal plain of modern-day Israel). The local soils comprise from sand that originated in the kurkar ridge that forms a dark red iron-rich soil called *Hamra* alongside alluvium soils drained from the Galilee¹⁸.

Local cooking repertoire

Taking the cooking assemblage as an example can reveal how local potters choose what kind of vessel shapes they will be produced. During the Hellenistic period, the overall cooking vessel array was comprised of closed globular cooking vessels, lids, and casseroles. By the late Hellenistic period, the cooking vessels assemblage became even more varied with pans and braziers adopted. During the Hellenistic period, the local cooking assemblage integrated both vessels traditionally used in the Levant, such as the globular cooking vessels alongside newly incorporated vessels originating in the Greek world (figs. 2; 3).

The overall shape and design of the local Levantine closed globular cooking pot (also known as the Syro-Palestinian pot) did not change much from the Persian period throughout the Hellenistic period. The only change in the vessels' design can be seen in various rim shapes (figs. 2, 1–3). The most substantial change with the cooking pot production is manufacturing new types of cooking vessels that were not part of the local cooking vessels assemblage. During the Persian period, this appropriation started with cooking lids, a vessel known in Southern-Phoenicia during the Iron Age. This process continued more extensively during the early Hellenistic period with the local production of casseroles. During the late Hellenistic period, local workshops also added the horned braziers to their production repertoire.

All the newly adopted types are originating from the Greek world. Cooking lids appear in Athens already during the early fifth century BCE¹⁹. Casseroles and pans are part of the Athenian repertoire from the fifth century BCE²⁰.

¹⁷ MONNICKENDAM-GIVON 2021.

¹⁸ SINGER 2007, 39–45; SEGEV – SASS 2010; SNEH 2011.

¹⁹ SPARKES – TALCOTT 1970, 227–228.

²⁰ ROTROFF 2015; GAUSS ET AL. 2015.

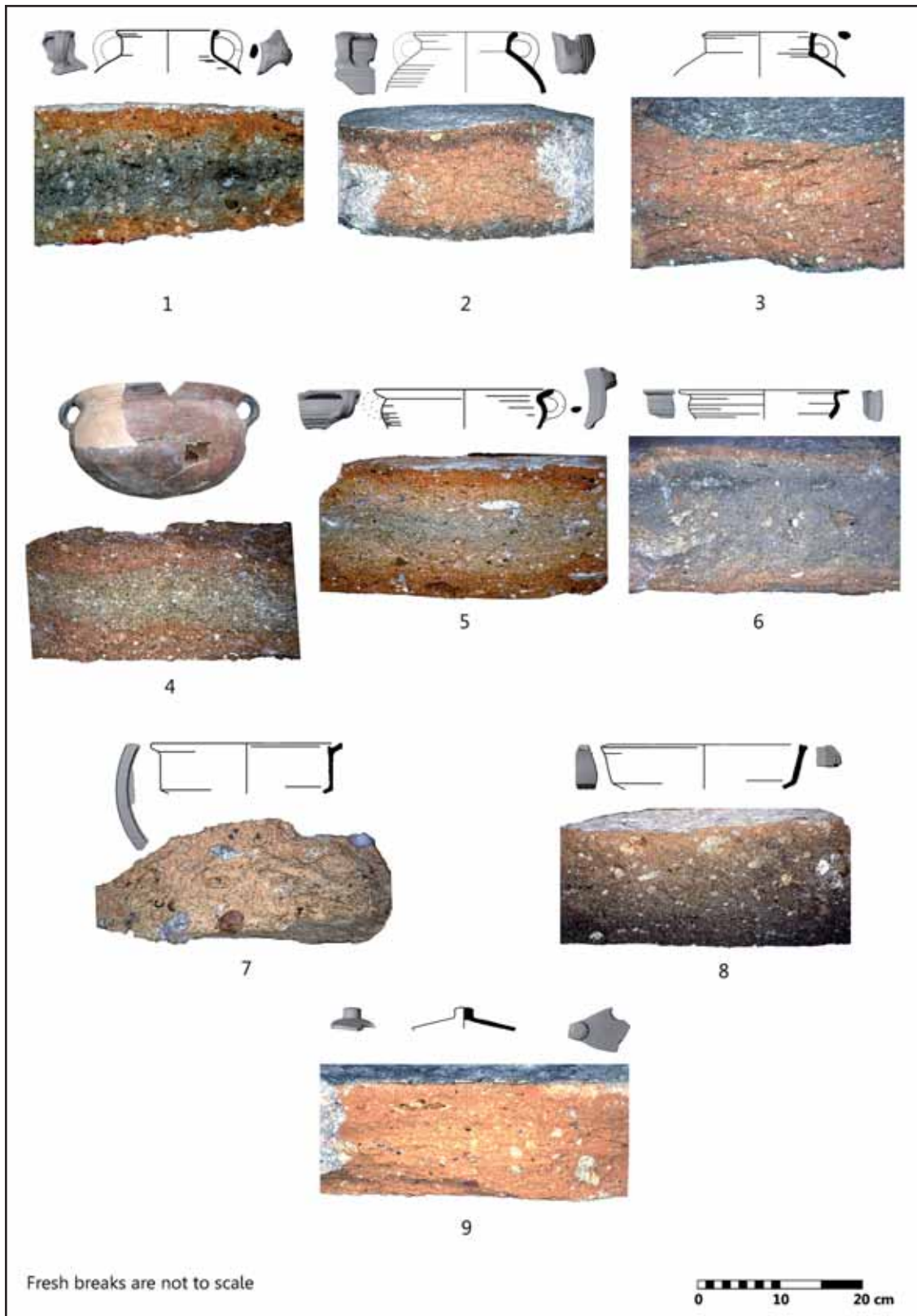


Fig. 2: Tel Dor, Hellenistic cooking vessels assemblage (Cooking pots, casseroles, and a lid). Courtesy of the Tel Dor Archaeological Project, B. Monnickendam-Givon.

No.	Vessel	Reg. No.	Locus	Technical Approach
1.	Cooking Pot	08D4-3727/6	08D4-334	Sandy
2.	Cooking Pot	08D4-3192/6	08D4-306	Sandy
3.	Cooking Pot	08D4-3280/2	08D4-325	Sandy
4.	Casserole	08D5-6485	08D5-714	Sandy
5.	Casserole	08D4-3440/12	08D4-334	Sandy
6.	Casserole	08D4-3907/5	08D4-354	Compact
7.	Casserole	08D4-3485/3	08D4-334	Crude
8.	Casserole	08D4-3429/11	08D4-335	Crude
9.	Lid	08D4-3674/4	08D4-334	Sandy

Table for fig. 2: Tel Dor, Hellenistic cooking vessels assemblage (Cooking pots, casseroles, and a lid)

Discussion

The appropriation of new types by local workshops raises a few issues. The first is how did the appropriation process takes place? Were Levantine potters serving as apprentices at Greek workshops? Or did just the local potters use their skills to imitate and produce their version of Greek originated vessels? Another issue is whether other elements in the *chaîne opératoire* were also adopted besides the shapes, such as the firing process's technical approach. The last point is understanding why only particular shaped were locally produced, and others were rejected and did not become part of the local production repertoire. Why didn't the local potters produce pans and satyr braziers?

Local workshops' appropriation of new pottery types shows that they were not attached to a specific set of forms for centuries. The way those new types started to be manufactured locally is not entirely clear. Most of the scholarly literature concerning apprenticeship in pottery production focuses on the learning process itself²¹. Others deal on how technology circulated between regions in earlier periods, with most of them focus on the shift from handmade vessels to wheel-made vessels²². The information from excavations in Southern-Phoenicia is not sufficient to determine how those new vessels were appropriated. Generally, making new vessels using traditional techniques implies that it was done by just watching the shape and imitating it²³.

As already discussed, only one ware, made from the same raw materials, was used by the local workshops. The use of one ware implies confidence in the local ware. Even if the local potters did apprentice in the Greek or Aegean workshops for the new vessels' design and shape, they did not apply any of the Greek or Aegean techniques of raw material preparation or firing techniques. Another thing is that there is no sense of "hybrid-design" of local cooking pots. No Greek or Aegean elements of vessel design, such as plain rims, rounded handles, and elongated bodies, were adopted or used to manufacture the local cooking pots (the same phenomenon is known from some sites in Cyprus²⁴). All of these suggest that probably those shapes were imitated by just watching them.

An ethnoarchaeological study of how children gain potting skills in Côte d'Ivoire suggested that it is possible to imitate a shape from just watching. However, it requires growing up in an industrial environment²⁵. Looking at the level of organization of production in Hellenistic Southern-Phoenicia (see below) cannot rule out the possibility that production happened throughout the year, which regularly exposed potters to pottery production.

Discussing how local potters learned to make new types of vessels cannot end with studying only the vessels that eventually were locally made. The question about "what did local potters chose not to make?" is also crucial in understanding the local production and economic and cultural processes during the Hellenistic period. As seen before, the local potters manufactured only

²¹ WENDRICH 2012; HASAKI 2012; BUDDEN – SOFAER 2009; CROWN 2014.

²² LONEY 2007; CREWE 2007; ROUX 2003.

²³ GANDON ET AL. 2014.

²⁴ WINTHER-JACOBSEN 2015.

²⁵ KÖHLER 2012.

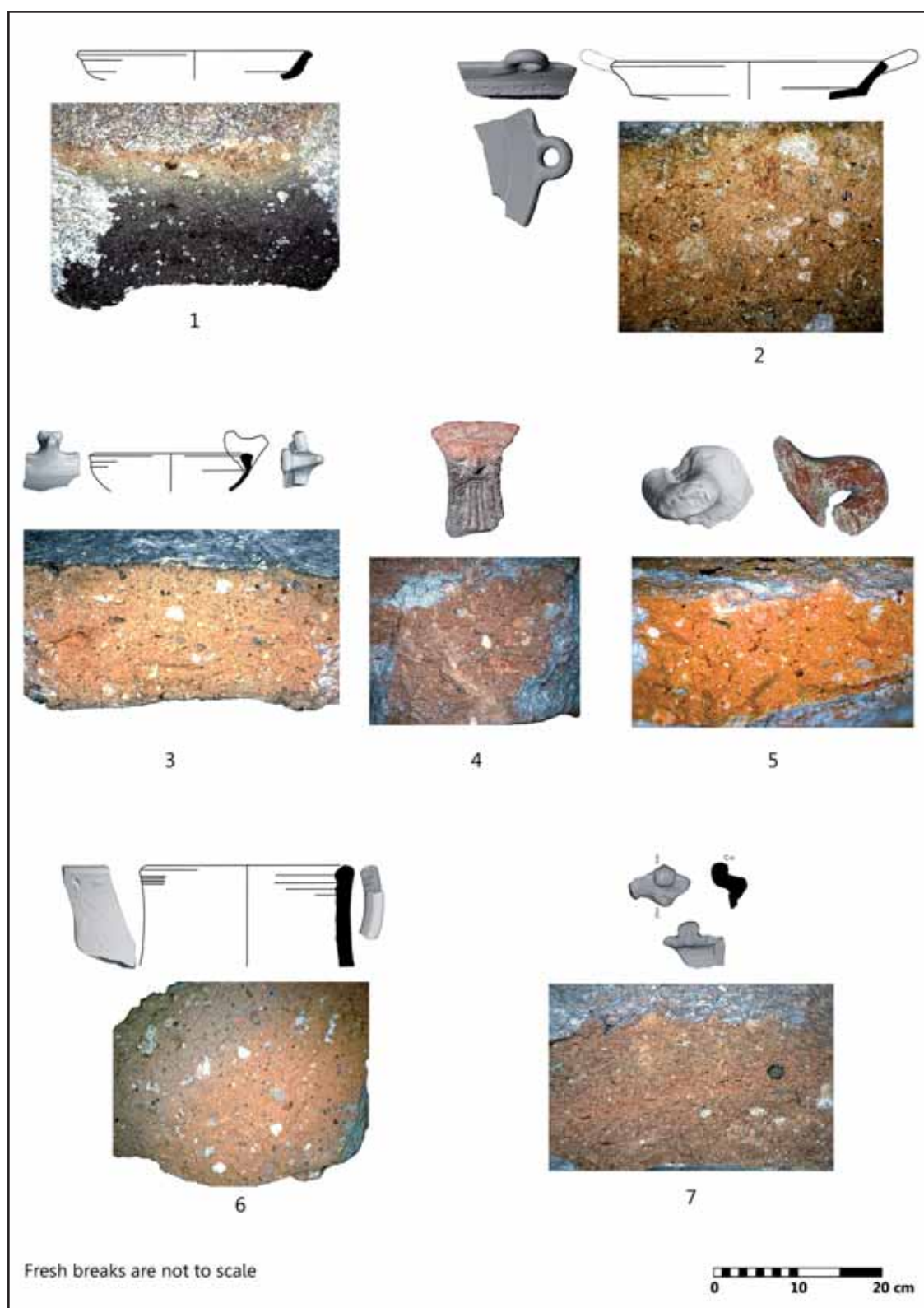


Fig. 3: Tel Dor, Hellenistic cooking vessels assemblage (Pans and braziers). © Courtesy of the Tel Dor Archaeological Project, B. Monnickendam-Givon.

No.	Vessel	Reg. No.	Locus	Technical Approach
1.	Pan	13D4-9489/1	08D4-354	Crude
2.	Pan	08D4-3205/1	08D4-306	Crude
3.	Brazier	13D4-9003/1	05D4-099	Crude
4.	Brazier	08D4-4336/1	08D4-304	Crude
5.	Brazier	13D4-9614/1	13D4-946	Crude
6.	Brazier	13D4-9980/1	13D4-984	Crude
7.	Brazier	08D4-3700/1	08D4-306	Sandy

Table for fig. 3: Tel Dor, Hellenistic cooking vessels assemblage (Pans and braziers)

a selection of pottery types used by the local inhabitants. The regional workshops did not manufacture pans and satyr braziers. Only the imported versions of those vessels were in use in the sites examined in the research²⁶.

Few different factors can explain the lack of local versions of pans and satyr braziers. Possibly, the demand for new types was supplied by the imported vessels. Therefore, the local potters did not have any commercial incentive to produce a local version of them. The problem with that suggestion is that the number of pans and casseroles, which some were locally produced, is very similar²⁷.

Another option can be linked to a ‘technical gap’. Frying pans need to handle more stress and heat shocks than cooking pots and casseroles. Wet cooking in a closed pot is limited to 100°C when water boils. Pans need to reach a fraying temperature of at least 150°C for the food to be browned with Maillard’s reaction²⁸. Pans also need to distribute and conserve heat. In the same way, the satyr braziers need to handle direct contact with coals and open fire.

To handle those stresses, pans and braziers were manufactured using a technical approach that is much cruder from the other cooking vessels. The crude ware is formed by using large-silt size angular quartz inclusions. Therefore, it is possible that local workshops could not handle the technological challenges applied successfully by workshops in Aegina²⁹, Priene³⁰, or Phocaea, which produced thick-walled vessels.

A different variant of the ‘technical gap’ suggestion may be that local potters just focused and maintained only one technical approach and did not want or need to apply others. A closer look at the manufacturing technique and the *chaîne opératoire*, primarily by examining thin sections and macroscopic analysis, can help determine that proposal.

The Cooking vessels of Hellenistic Southern-Phoenicia are comprised of three different technical approaches. Unlike ‘ware,’ technical approach analyzing the way the raw materials were used. The factors that are considered in the technic approach division are the use of inclusions, clay kneading, and firing process. The definition of a technical approach is not linked to the raw material that is locally available in every region. For instance, different workshops could apply the same technical approach and decision-making throughout the production process of clay vessels, although they use other raw materials.

As already discussed, the local potters of Southern-Phoenicia applied a technical approach that used rounded in silt size. Occasional sand size inclusions that were added to the fabric (Fig. 4). The inclusions, most of them originating from sand, comprise about 25–35 % of the section’s area, with some large limestone inclusions that hold about 5 % of the section’s area. This ware has elongated voids for approximately 15–20 % of the section’s area, which implies medium attention for kneading and high-speed wheels. This technique was sufficient for manufacturing vessels with medium-sized walls. This ware is identical to the LCP ware ‘Carmel coast sandy cooking ware’³¹.

26 Contrary to GUNNEWEG – PERLMAN 1984; RAHMANI 1984 who suggested some satyr braziers were locally made.

27 MONNICKENDAM-GIVON 2018, fig. 3.36, 37.

28 MAILLARD 1912.

29 GAUSS ET AL. 2015 .

30 AMICONE ET AL. 2014.

31 BERLIN ET AL. 2018.

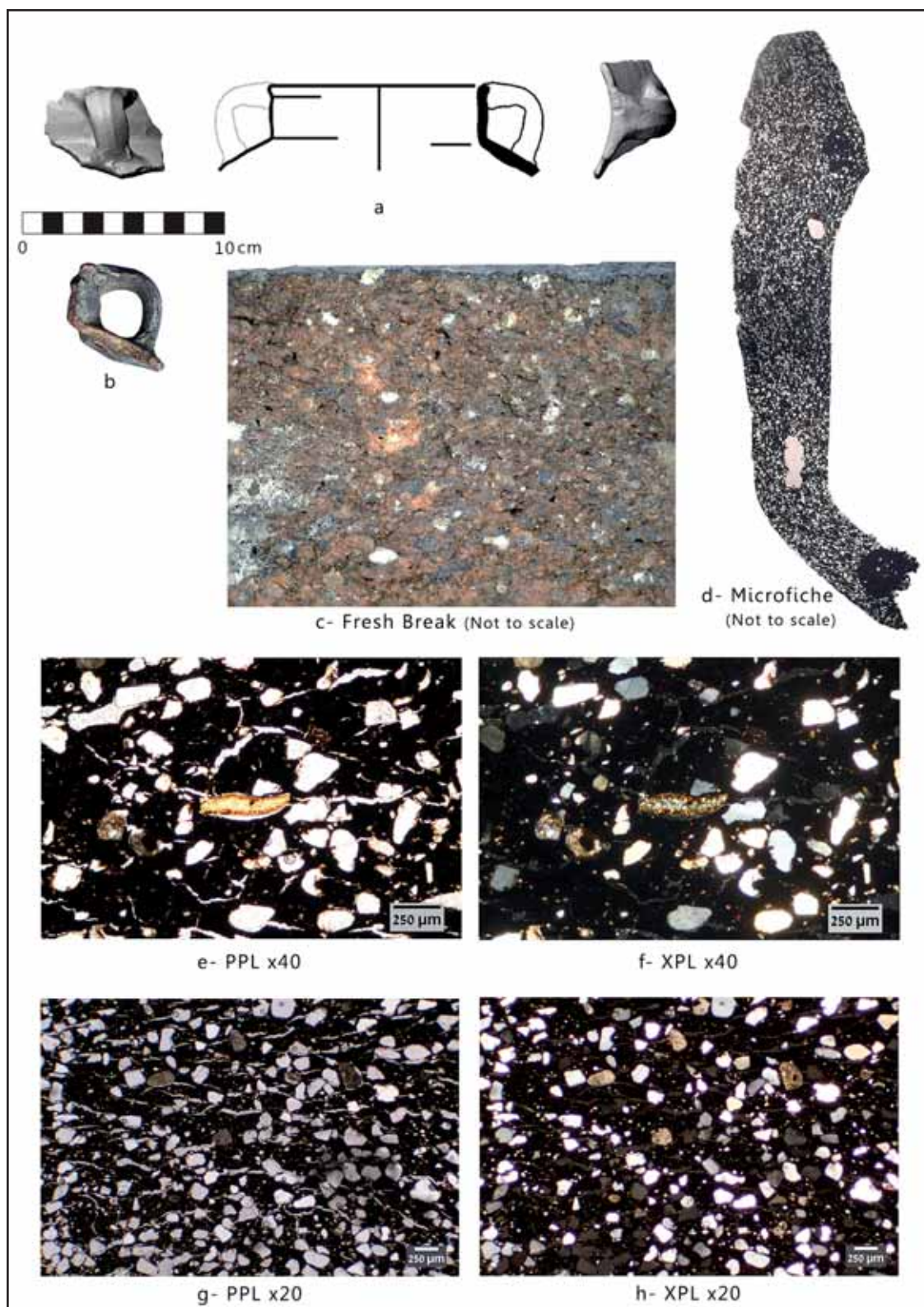


Fig. 4: Sandy technical approach (Southern-Phoenician cooking pot). © Courtesy of the Tel Dor Archaeological Project, B. Monnickendam-Givon.

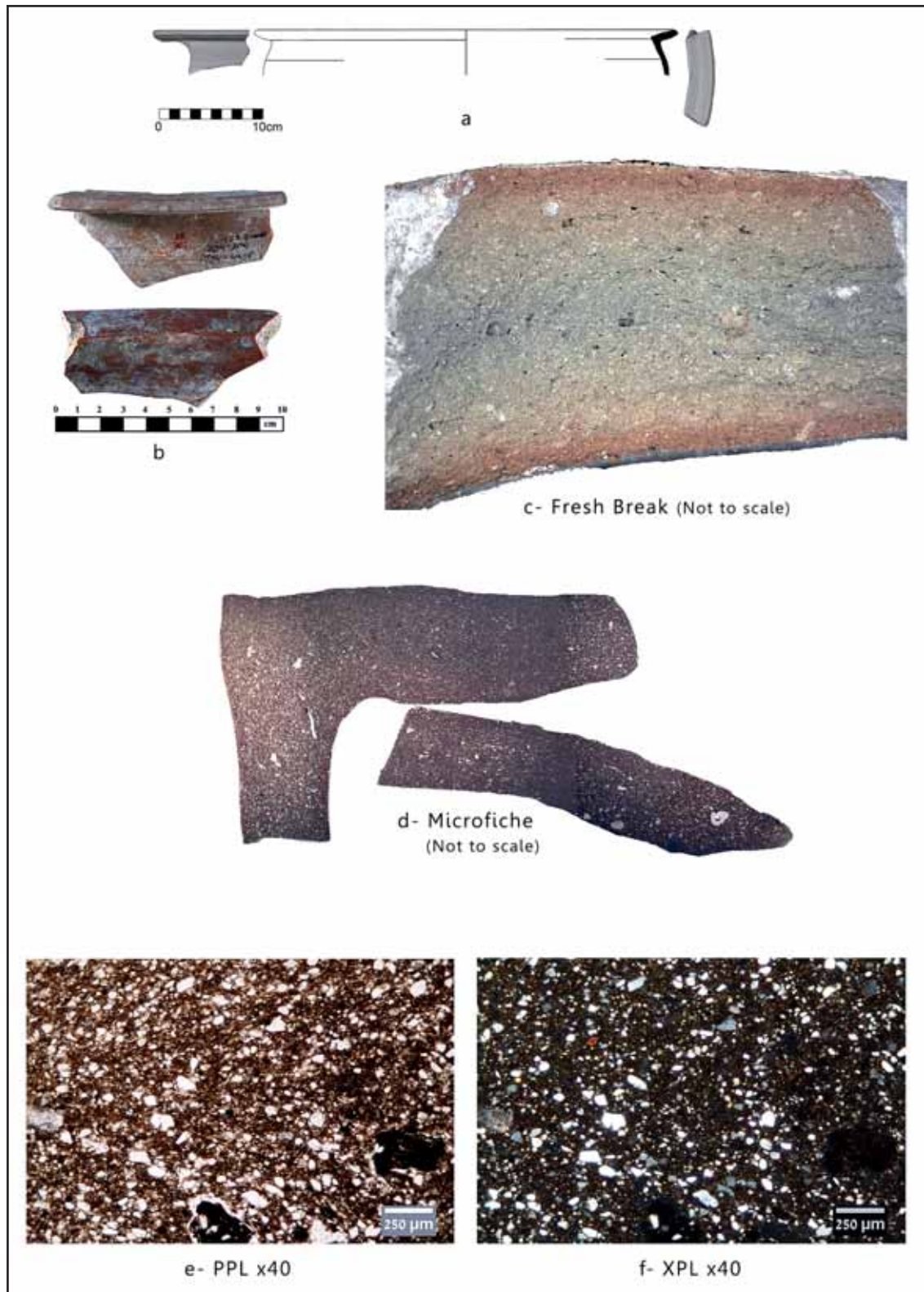


Fig. 5: Compact technical approach (Aegean casserole). © Courtesy of the Tel Dor Archaeological Project, B. Monnickendam-Givon.

Imported cooking vessels found in Hellenistic Southern-Phoenicia were made by applying two other technical approaches. However, those two approaches were not used by the local potters during the Hellenistic period. The first can be called the “Crude Ware” approach, and the second can be called the “Compact Ware” approach.

The ‘compact ware’ approach is characterized by using small, rounded silt and clay-sized inclusions. With rarely some arbitrary sand sized, the inclusions are visible (fig. 5). The inclusions, consisting of 10 % from the section’s area, seemed to originate from the fabric and were not added intentionally. The ware consists of less than 5 % of small voids in the section’s area. The lack of voids implies high-quality kneading of the clay before firing. Some of the imported Aegean casseroles were made using the compact technic.

The ‘crude technique’ comprises added angular sand and silt size inclusions that comprise about 45 % of the section’s area. This ware consists of about 15 % voids that imply less kneading, which allows the quartz particles to expand (fig. 6). The walls of vessels using that technique are usually thick. The imported Aegean pans and braziers and some casseroles were made using the crude technique.

Comparing the vessel’s imported and locally manufactured shapes reveals the local tendency to focus on one technical approach. Imported Aegean casseroles were made by applying the compact approach, using fine-grained material with almost no added inclusions and minimal voids (figs. 2,6; 5). Other imported Aegean casseroles were made by applying the crude technical approach (figs. 2,7–8). However, the local version of casseroles was made by applying the local sandy technique (figs. 2,4–5), preserving their traditional technical approach. The differences between the two approaches regard the use of inclusions and how sorted they are, and the extent of kneading that results in the number of voids. The same trend is also seen in braziers’ production (figs. 3,3–6). While no local version of the satyr braziers was found during the current research, some local horseshoe braziers were made with the sandy technique (fig. 3,7).

The fact that the local sandy technique ruled the roost for centuries from the fifth century and throughout the Hellenistic period may explain why only specific shapes, out of the broader array of shapes circulating the Eastern Mediterranean, were locally produced. The exposure to imported pottery influenced only the shapes that were manufactured, but no technical change occurred.

The local workshops made only vessels suitable to be produced using the traditional technical approach. Thick-walled vessels such as pans and satyr braziers that could not be produced using the local sandy approach were only imported and did not have local versions. However, casseroles, produced around the Aegean using the compact technical approach and the crude technical approach, could also be made using the coastal approach and had their local versions.

The focus, or specialization in one technical approach, also corresponds with other aspects of the production level. The pottery workshops of Southern-Phoenicia were characterized by the production of various types, with high standardization, especially regarding the technical approach. Unlike the previous Persian period, the range of different types of products increased during the Hellenistic period. The products of the local workshops were distributed all around the region and beyond. Both urban and rural sites all over northern Israel used those vessels. Those urban workshops were supplied with all the demand for the closed cooking pots, as no other cooking pots were found in those sites. Except for a few rare imported chytrai found at the region’s main harbor cities, Dor³² and Akko³³. Some local Levantine cooking pots were even distributed beyond the Levantine coast and reached Corinth³⁴.

32 MONNICKENDAM-GIVON 2018, 37–38 fig. 33. 39,10–12.

33 BERLIN – STONE 2016, fig. 9. 16,16; SMITHLINE 2013, fig. 8, 6.

34 PEMBERTON ET AL. 1989, 74. 187. Vessel 656. The

vessel was not properly identified in the original publication. I thank G. Sanders and I. Tzonou from the Corinth excavations team for the opportunity to examine this vessel from first-hand.

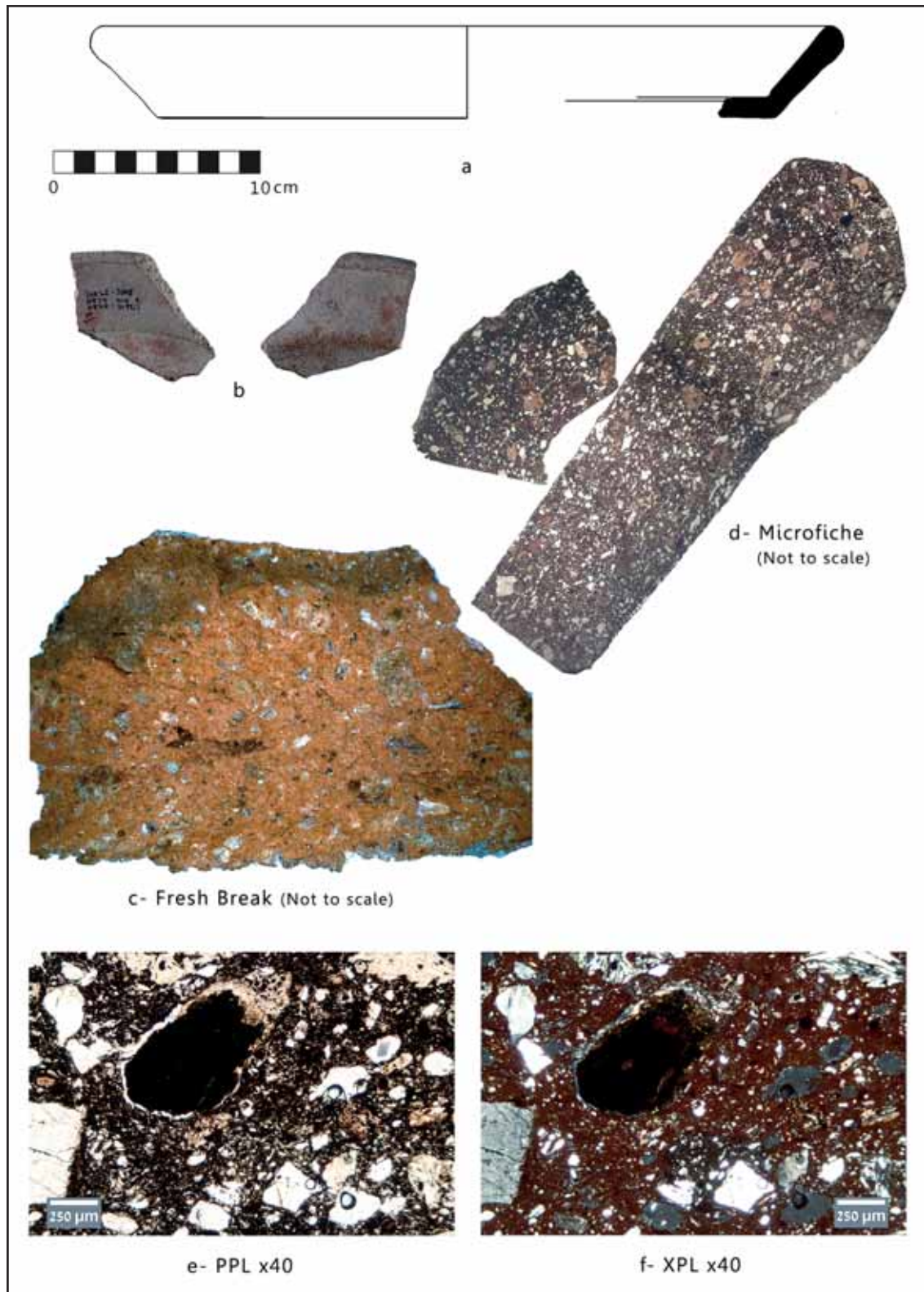


Fig. 6: Crude technical approach (Aegean pan). © Courtesy of the Tel Dor Archaeological Project, B. Monnickendam-Givon.

These features correspond to a “personal industry”³⁵. At this level, industries focus on a good regional distribution and small-scale international distribution of a few standardized types made from the same ware. Therefore, the local demand for thick-walled vessels was supplied by imports. It seems that thick-walled cooking vessels were imported even to places with a strong tradition of pottery production such as Athens³⁶.

Comparison with other regions illuminates their distinctiveness of Southern-Phoenicia within the broader Hellenistic world. This comparison shows how unique is Southern-Phoenicia in terms of the mechanism by which the local potters operated. Some sites around the Mediterranean also used the technical approach of rounder inclusions and elongated voids to produce cooking vessels. It was applied at other Phoenician sites such as Anafa and Kedesh with the local production of ‘spatter ware’ cooking vessels³⁷, and at Porphyreon in Central-Phoenicia³⁸. In Cyprus, this technique is known from several sites such as Nea-Paphos³⁹ and sites north to the Troodos mountain range, where this technique was prevalent around the urban centers⁴⁰.

As for the shapes and pottery types produced at Southern-Phoenicia, at other sites, there was no use in casseroles, pans, and braziers during the Hellenistic period, and therefore no local production of Greek and Aegean style vessels⁴¹. In other regions, local potters started producing their version of thick-walled cooking vessels such as pans⁴². Even at sites with close geographical and cultural relations, such as Porphyreon, in Central-Phoenicia, the local potters there produce their version of pans and braziers⁴³ and also in at Tel Anafa⁴⁴.

Conclusion

Applying analytic methods is crucial in understanding social, behavioral, and cultural issues. In this article, a thorough ware analysis, including thin section petrography and macroscopic analysis using a digital microscope, demonstrated the extent of shifting trends in pottery production. Although traditional societies specialized in pottery production tend to be a more rigid in their approach in pottery production⁴⁵, the potters of Southern-Phoenicia did renew some aspects of their production manner.

During the Hellenistic period, the potters of Southern-Phoenicia are characterized by mixed trends of continuity, change, and participation within the Eastern Mediterranean’s broader scope. The local workshops adopted new types that originated in the Greek repertoire and circulated throughout the Hellenistic world. These types were not part of the local repertoire until the Hellenistic period. The appropriation of new types did not happen at once and was a gradual process. Comparing the technical approach applied by the local workshops of Southern-Phoenicia to the technical approaches of imported pottery reveals that the local potters did not produce pottery shapes that their manufacturing was bound with a different technical approach.

The production of cooking vessels shows the region’s tension between changes in shape adaptation and continuity in the technical approach. Comparing the mechanism by which potters of Southern-Phoenicia chose what and how to manufacture is unique, as in other regions, different trends are shown. The detailed analysis here emphasizes how unique each region is even when they are highly involved in global shifting trends.

Acknowledgments

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³⁵ After RICE 1987, 176–191 tab. 176, 173; COSTIN 1991; PANITZ-COHEN 2006; VAN DER LEEUW 1984, 719–724; RICE 1981.

³⁶ ROTROFF 2015; GAUSS ET AL. 2015.

³⁷ STONE 2012, 123–124; BERLIN 1997, 7–9.

³⁸ WICENCIAK 2016, 31.

³⁹ GABRIELI – MERRYWEATHER 2002.

⁴⁰ WINTHER-JACOBSEN 2015.

⁴¹ FERGUSON 2016; SANDHAUS 2020.

⁴² DE MITRI 2016.

⁴³ WICENCIAK 2016, 55.

⁴⁴ BERLIN 1997, tab. 2; 4.

⁴⁵ LONEY 2007.

and Morton Mandel School for advanced study in the Humanities' (HUJI). The Petrography for this research was done by the author at the 'Center for Materials Research in Archaeology and Ethnology,' Massachusetts Institute of Technology, and by D. Ben-Shlomo (HUJI). The pottery drawings were done by the 'Computational Archaeology Laboratory' (HUJI). The article here was first presented at the '4th Conference of the International Association for Research on Pottery of the Hellenistic Period, Manufacturers and Markets: The Contributions of Hellenistic Pottery to Economies Large and Small', held in Athens, Greece, November 2019. Many thanks to the wonderful community of IARPotHP for their helpful and supportive comments.

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Vases de banquet, de culte (?), offrandes funéraires et urnes cinéraires. Nouvelles données pour un groupe de céramique peinte hellénistique d'Alexandrie et d'Égypte

Cécile Harlaut

Abstract

In the course of my on-going researches on Ptolemaic Alexandria, my attention was drawn to a small pottery group of vessels sharing the same technical and decorative features: vases belonging to this group are manufactured in fine marl clay and painted with a black-and-red decoration of mainly floral and geometric patterns. The repertoire of the shapes is restricted to few closed vessels: large cylindrical pyxides, ovoid jars with a flaring neck, hydriae, craters, alabastra, and oinochoai.

Outside of Alexandria, specimens belonging to the same family are known from Tell Atrib (western Delta), Tebtunis (Fayoum), Coptos, Thebes (Upper Egypt).

This paper is entirely dedicated to this series, which has now to be recognized as a specific ceramic production. In Alexandria, such vessels are attested in the eastern necropolis, employed as cinerary urns as well as funerary offerings. Nonetheless, a large pyxis and other pieces in the Graeco-Roman Museum were found on the hill of the Serapeum (pottery relics for cultic rituals?). Among the materials found in the CEAlex excavations, I could isolate several other fragments belonging to this production, and the stratigraphy of the domestic contexts from which it comes allowed me to establish a chronological sequence and to get some quantitative data.

The geographical origin of this group of pottery is still uncertain: Alexandria, but also south Italy and Rhodes have been proposed.

Examination of the nature of the various find-spots of these vases, correlated with a reflection on their aspect and their possible function, could bring some light on the consumer markets targeted by this workshop.

Le groupe de vases faisant l'objet de la présente contribution¹ n'est pas véritablement nouveau dans le panorama de la céramique de l'Égypte gréco-romaine, mais les produits qui s'y rattachent n'ont été traités jusqu'à présent que de façon isolée dans la bibliographie². La thématique de ce colloque, centrée sur les problèmes de marchés et de consommateurs, fournissait donc l'occasion d'en rassembler les témoignages.

1. Histoire des recherches

C'est G. Botti, directeur du Musée gréco-romain, qui publie le premier en 1895 le dessin d'un curieux vase cylindrique à décor floral et géométrique, venant des fouilles qu'il effectue alors sur la colline du Sérapéum, le principal sanctuaire à Alexandrie³ (fig. 1, 1–3). Comparant les motifs

¹ Les observations qui font l'objet de cette contribution s'inscrivent dans le cadre des recherches menées depuis 2016 au sein du projet développé par l'Université de Leyde, intitulé « Innovating objects: the impact of global connections and the formation of the Roman Empire (ca. 200–30 B.C.) » et dirigé par M.-J. Versluys.

² Je tiens à exprimer mes remerciements à S. Marchand (IFAO), chargée de l'étude de la céramique de Teb-

tynis des campagnes de 1994 à 2002, pour m'avoir permis d'en illustrer quelques éléments inédits lors de ma présentation orale à ce colloque et dans le présent article. Mes remerciements vont aussi à C. Edwar du CEAlex pour l'élaboration des illustrations graphiques et des photographies.

³ BOTTI 1897, 72–75.

géométriques de son décor à ceux des vases du Dipylon, il y voit un témoin du noyau originel de la capitale, remontant aux VIII^e–VII^e siècles av. J.-C.

R. Pagenstecher, qui commente ce même vase quelques années plus tard dans les pages de l'Expédition Von Sieglin, le date lui aussi de l'époque géométrique, mais il le rapproche plutôt des grandes jarres chypriotes à large col cylindrique⁴.

En 1912, E. Breccia présente dans sa publication des fouilles de la nécropole de Chatby une grande pyxide cylindrique ornée d'un décor assez similaire⁵ (fig. 1, 1–3). Réfutant les datations de Botti et Pagenstecher, et remarquant certaines similitudes entre ce type de décor et celui des hydries de Hadra, il préfère la dater vers le début de l'époque hellénistique.

Au début des années 2000, P. Ballet identifie un petit groupe de vases dans le matériel céramique des fouilles de Tebtynis, une fondation grecque aux marges du Fayoum⁶. Elle isole un lot de formes fermées à pâte claire, principalement des cruches et des alabastres, dont le décor aux couleurs brun-rouge alterne motifs géométriques, floraux et animaliers. Dans la publication du matériel des contextes urbains de Tebtynis en 2012⁷, elle fournit une description détaillée de la fabrique et du décor, et ajoutant aux formes précédemment citées un petit groupe d'hydries⁸, elle propose d'y voir la production d'un atelier égyptien, qui serait localisé à Alexandrie et aurait travaillé sous influence des hydries de Hadra.

En dernier lieu, M. Rodziewicz s'est penché lui aussi sur ce groupe, dont le système décoratif préfigure, selon lui, celui d'une série de gobelets peints hellénistiques tardifs d'Alexandrie auxquels il a consacré ses derniers travaux⁹.

Les recherches que je mène depuis plusieurs années sur la céramique d'Alexandrie¹⁰ m'ont permis d'identifier de nombreux fragments pouvant être rattachés à ce groupe, qui proviennent de deux sites importants au cœur de la ville¹¹, fouillés en 1996–1997 par le Centre d'Études Alexandrines (CEAlex) : il s'agit de deux terrains adjacents jadis occupés par l'ancien Consulat britannique et par le Cricket Ground, dans une zone qui est celle du quartier résidentiel du *Brucheion*, située non loin des *Basileia* antiques. Les restes de ces quartiers d'habitation sont les seuls du centre-ville où les fouilles ont clairement mis en évidence la séquence des niveaux d'époque hellénistique¹².

Parallèlement, des recherches personnelles entamées depuis 2016 dans les collections du Musée gréco-romain d'Alexandrie, musée dont les collections sont constituées en bonne partie par le matériel des nécropoles fouillées dans la première moitié du XX^e siècle, m'ont amenée à identifier des vases supplémentaires.

Cette double exploration des contextes domestiques et funéraires m'a permis de collecter un ensemble de vases et fragments qui vient compléter le tableau esquissé par P. Ballet pour les vases du Fayoum, et documente désormais clairement la présence de ce groupe de vases peints à Alexandrie, puisqu'on peut dénombrer approximativement 150 individus.

4 PAGENSTECHER 1909, 398; PAGENSTECHER 1913, 41.

5 BRECCIA 1912, 45–47 notice 87 pl. XLV, 64.

6 BALLET 2001, 107 fig. 24; BALLET 2002, 89 fig. 6.

7 BALLET – POŁUDNIKIEWICZ 2012, 15, description de la fabrique F XI.1.

8 BALLET – POŁUDNIKIEWICZ 2012, 102. Les vases dénommés «hydries» par Ballet n'ayant jamais de traces d'arrachement d'anses verticale ou horizontales, ils correspondent davantage, me semble-t-il, à ce que l'on nomme des «vases à col en trompette» dans le répertoire des vases en faïence où cette forme est particulièrement bien attestée : voir plus bas le paragraphe dédié à cette forme.

9 RODZIEWICZ 2020. Je tiens à remercier ici M.-D. Nenna, qui s'est chargée de la préparation du volume après le décès de M. Rodziewicz en mai 2019, pour m'avoir

donné accès au manuscrit.

10 HARLAUT 2001; HARLAUT 2018.

11 Le compte-rendu des fouilles de ces deux sites a été publié par J.-Y. Empereur dans le *BCH*; pour les références bibliographiques complètes, voir HARLAUT 2018, 12 note 7. Voir aussi les deux contributions d'H. Silhouette, chargée de l'étude archéologique du Cricket Ground, dans SILHOUETTE 2009; SILHOUETTE 2016.

12 Les quantifications que je mentionne ici s'appuient sur l'examen du matériel céramique de ces deux sites, qui n'est toutefois pas exhaustif et ne tient pas compte des fragments découverts sur d'autres sites fouillés par le CEAlex, tels que le Chantier Fouad, le terrain du Majestic et celui du Billiard Palace. Il ne s'agit donc que d'une estimation préliminaire.

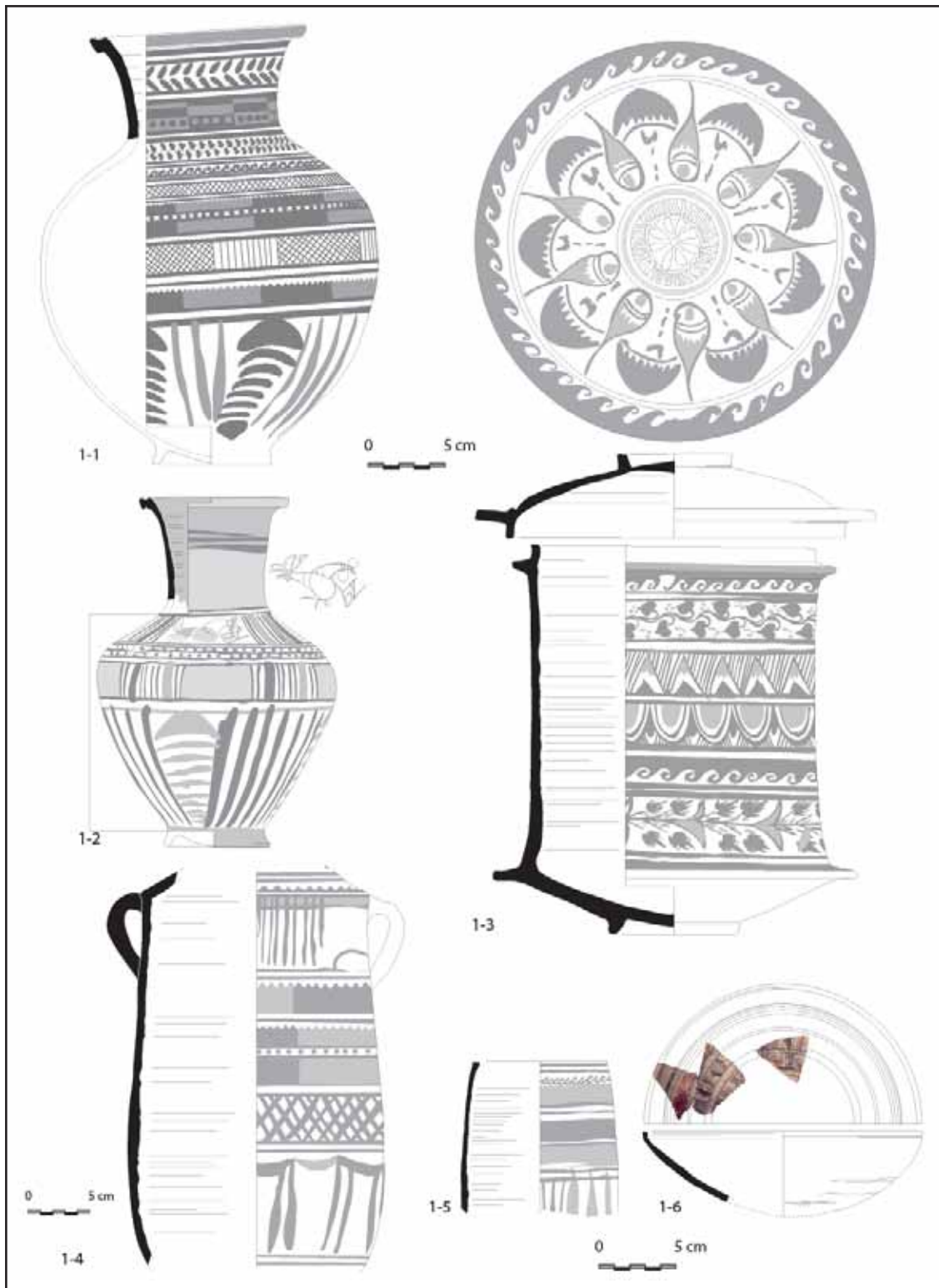


Fig. 1: 1-1: vase à col en trompette, Alexandrie, MGR inv. 8240 (dessin C. Harlaut, C. Edwar, © CEAlex Archives/Cnrs); 1-2 : vase à col en trompette, Alexandrie, MGR inv. 22750 (dessin C. Harlaut, C. Edwar, © CEAlex Archives/Cnrs); 1-3 : pyxide cylindrique, Alexandrie, MGR inv. 16153 (dessin C. Harlaut, C. Edwar, © CEAlex Archives/Cnrs); 1-4: amphore Torpedo, Thèbes TT 196 (d'après Graefe et al. 2003); 1-5: gobelet, Tebtynis (fouilles Ifao, autorisation de S. Marchand); 1-6: bol évasé, Tebtynis (fouilles Ifao, autorisation de S. Marchand).

Hormis les deux pyxides de Chatby et du Sérapéum et de quelques fragments publiés par M. Rodziewicz¹³, l'essentiel de ce matériel alexandrin est encore inédit, mais étant donné l'impossibilité d'en proposer ici une illustration adéquate, ma contribution se limitera à une présentation préliminaire.

2. Caractéristiques techniques

D'un point de vue technique, les caractéristiques communes à tous les vases de ce groupe identifiés jusqu'à maintenant, sont les suivantes :

- La fabrique: conformément à ce qui a déjà été écrit à propos des vases de Tebtynis¹⁴, le matériau employé est une argile calcaire fine, à la texture dense et serrée, contenant peu ou pas d'inclusions visibles pour les vases de petite taille; pour les vases de grande taille en revanche, on doit préciser que la texture peut être un peu plus grossière et plus aérée par l'adjonction de dégraissant minéral et/ou végétal¹⁵. Des paillettes de micas dorés sont visibles sur la surface interne de certains vases. La cuisson produit généralement une surface claire de couleur crème, et une cassure d'un ton rosé à orangé, avec parfois des striures rougeâtres vers le centre lorsque la paroi du vase est épaisse. La présence d'un engobe crème – donc de couleur identique à celle de la surface – a parfois été notée sur certains exemplaires de Tebtynis, mais il pourrait s'agir d'une sorte d'auto-engobe, ou encore d'une altération de la surface obtenue notamment par aspersion d'eau salée¹⁶.
- Le décor peint: il s'agit toujours d'un décor bichrome, qui associe un rouge plus ou moins vif à un ton sombre brun-noir ou brun-violet¹⁷. On relève parfois la présence de rehauts jaunes sur les produits les mieux finis.

Dans la mesure où les vases de Tebtynis et d'Alexandrie permettaient de déterminer une production céramique spécifique, dont la diffusion dépassait une échelle simplement locale, l'idée s'est naturellement faite jour d'en mesurer – ou du moins d'en évaluer – la diffusion, au-delà de ces deux sites. Disons d'emblée que les vases identifiés pour l'instant dans le reste de l'Égypte sont pour l'instant très peu nombreux puisqu'ils sont moins d'une dizaine. Mais cette rareté reflète vraisemblablement plus un état de la bibliographie qu'une réalité archéologique, et l'on peut soupçonner que des vases non identifiés dorment encore dans les magasins de fouille.

Hors d'Alexandrie et du Fayoum donc, les sites où je crois avoir pu identifier des vases relevant de ce groupe technique sont les suivants :

- à Athribis (moderne Tell Atrib, dans le sud du Delta), en contexte d'habitat d'époque hellénistique; les formes et le nombre de fragments ne sont pas connus puisque ce matériel est encore actuellement inédit¹⁸,
- à Kom Abu Radi (gouvernorat de Beni Suef, à l'est du Fayoum), un vase a été trouvé dans une nécropole d'époque pharaonique et gréco-romaine située sur la rive Ouest du Nil¹⁹,
- à Coptos, en Haute-Égypte, trois vases ont été mis au jour dans un contexte domestique d'époque ptolémaïque situé dans l'enceinte du Temple de Min et d'Isis²⁰,
- à Thèbes en Haute-Égypte, un vase a été trouvé dans une tombe privée de la XXVI^e dynastie (VII^e–VI^e siècles av. J.-C.) réemployée à l'époque ptolémaïque²¹,

¹³ Voir notes 3. 5. 9.

¹⁴ BALLET – POŁUDNIKIEWICZ 2012, 15 fabrique F XI.1.

¹⁵ BALLET – POŁUDNIKIEWICZ 2012. Certains fragments de grands vases décorés de Tebtynis, classés parmi les fabriques XI.2 et XI.3, peuvent vraisemblablement être rattachés à ce groupe technique, puisque Ballet précise que l'appellation F XI recouvre l'ensemble des fabriques calcaires, classées selon leur granulométrie et leur finesse.

¹⁶ Observations personnelles effectuées sur le matériel

des contextes d'Alexandrie.

¹⁷ Les colorations varient d'intensité selon les conditions d'enfouissement.

¹⁸ On en trouve simplement mention dans BALLET – POŁUDNIKIEWICZ 2012, 15 note 45.

¹⁹ Fouilles du Service des Antiquités Égyptiennes en 1984–1987, voir ABDEL FATTAH 2000, 3–10.

²⁰ HERBERT – BERLIN 2003, 68 vase H2.30. 71–72 vase H2.35–36.

²¹ SCHREIBER 2003, pl. 3 n° 40.

- à Thèbes encore, deux vases ont été trouvés dans une autre tombe, datée du Nouvel Empire (2^e moitié du II^e millénaire), elle aussi réemployée à l'époque ptolémaïque²²,
- et enfin à Tod en Haute-Égypte, où les réaménagements tardifs du sanctuaire ont livré un petit fragment²³.

3. Répertoire des formes et origine des modèles

Avant d'analyser le répertoire des formes sélectionnées par le(s) atelier(s) qui ont façonné ces vases décorés, on peut d'emblée préciser que, sur l'ensemble des produits identifiés à Alexandrie et dans le reste de l'Égypte, dominent très largement les formes fermées.

3.1. Les vases à col en trompette

Ces vases semblent nettement plus fréquents dans les contextes de Tebtynis (env. 25 individus)²⁴ que dans ceux d'Alexandrie (12 individus), où l'habitat et les nécropoles en ont livré quelques autres exemplaires, façonnés dans des fabriques différentes et ornés d'un engobe noir, mais où la forme y est de toute façon très rare²⁵.

Le schéma morphologique de ces vases montre un col cylindrique s'évasant largement vers le haut et séparé de la panse par une transition très nette. Ils semblent se décliner en deux modules, pour autant que permettent d'en juger les deux vases du Musée gréco-romain qui sont les seuls exemplaires complets répertoriés à ce jour : le vase MGR 8240 illustre le grand module, avec une forme trapue et à panse globulaire, d'une hauteur de 29 cm (fig. 1,1–1), tandis que le vase MGR 22750 illustre le petit module, plus élancé et à panse ovoïde, d'une hauteur de 23 cm (fig. 1,1–2).

La forme s'inspire vraisemblablement du répertoire de la vaisselle métallique de tradition achéménide, mais il est probable que cette influence ait transité par les productions de la faïence alexandrine²⁶ : elle y est en effet l'une des formes les plus répandues, et présente une organisation du décor en registres horizontaux analogue à celle de nos vases en céramique, qu'on ne retrouve pas sur les vases en métal. En outre, plusieurs motifs décoratifs, qu'ils soient géométriques (frises de postes ou de triangles, lignes de points, oves et dards, damiers de losanges), floraux (guirlandes de lierre ou de laurier), figurés (rubans suspendus)²⁷ ou enfin animaliers (canards et coqs)²⁸, leur sont communs.

3.2. Les pyxides cylindriques

Outre les vases du Sérapéum (MGR 8689) (pl. 1,1–3) et de la nécropole de Chatby (MGR 16153) (fig. 1,1–3) mentionnés plus haut, seuls les fragments de deux autres pyxides²⁹ ont été identifiés dans les collections du Musée gréco-romain. Cette forme n'est donc attestée dans les contextes d'Alexandrie que par quatre individus³⁰, et à Tebtynis, seulement par un fragment de couvercle décoré³¹.

22 GRAEFE 2003, pl. 130–131 SCA 76 354. SCA 76 477.

23 PIERRAT-BONNEFOIS 2000, fig. 91. L'appartenance à notre groupe technique demeure toutefois incertaine.

24 Cette estimation est toutefois provisoire puisqu'elle s'appuie sur les fragments publiés ; il en existe d'autres inédits, d'après les indications fournies par S. Marchand.

25 Voir ADRIANI 1940b, pl. XLVI-5.

26 Voir NENNA – SEIF EL-DIN 2000, 134, pls. 9 n° 280 ; 48 n° 280–281.

27 NENNA – SEIF EL-DIN 2000, pour les motifs géométriques, voir les fig. 16–17 ; pour les motifs végétaux et les rubans suspendus, voir les fig. 18–19.

28 Les coqs et les canards apparaissent toujours isolés sur les vases de notre groupe, placés au sein de métopes disposées en registres horizontaux, alors qu'ils sont généra-

lement insérés dans des scènes de banquet sur les vases en faïence. Mais ces derniers montrent fréquemment un système décoratif analogue avec cette fois des griffons, voir NENNA – SEIF EL-DIN 2000, fig. 26. 31.

29 L'une du Sérapéum (RODZIEWICZ 2020, 16–17 fig. 21 inv. P. 7923), l'autre dans la nécropole de Hadra (ADRIANI 1940b, 114 pl. 48,6. Mentionné également dans ENKLAAR 1998, 270 note 38).

30 Aucun autre vase de taille comparable n'est attesté parmi la vaisselle alexandrine façonnée dans d'autres types d'argile. On en trouve quelques rares exemples de plus petite taille et ornées d'un simple engobe rouge, voir ADRIANI 1940b, 98 pl. XLIV-4. 6.

31 BALLE – POŁUDNIKIEWICZ 2012, 204 pl. 105 cat. 911.

La forme est celle d'une grande coupe à base annulaire et à large lèvre plate, sur laquelle est fixé un corps cylindrique. Au sommet de ce cylindre, un ressaut externe de section carrée sert de plan d'appui au couvercle, qui par son large disque et son bouton de préhension en forme d'anneau, forme une symétrie avec la base. La pyxide de Chatby, intégralement conservée, mesure 31 cm de hauteur sans couvercle, tandis que celle du Sérapéum, fragmentaire, était d'un module légèrement inférieur d'après son diamètre.

Les grandes pyxides cylindriques à base annulaire et à fond clair semblent avoir été peu répandues dans le monde hellénistique³². Quelques spécimens ornés de registres horizontaux sur fond blanc ont été trouvés à Rhodes³³. À Athènes, outre une pyxide conservée dans les collections du Musée National³⁴, un petit groupe vient des fouilles de l'Agora³⁵. Ces vases sont généralement rattachés par leur fabrique et leur décor à la classe des *Lagynos Ware*, et par conséquent, c'est vraisemblablement plutôt dans une tradition vasculaire de Grèce de l'Est qu'il faut chercher leur origine.

Le décor des pyxides de notre groupe, organisé en registres horizontaux, associe des motifs géométriques (frises de postes, d'oves et dards, de triangles, et parfois de damiers et de rosettes) et floraux (guirlandes de lierre, rinceaux de feuilles de vigne) qui, comme pour la faïence évoquée plus haut, puisent leur inspiration dans un répertoire commun à la *koinè* grecque hellénistique, mais dont la densité pourrait aussi rappeler l'aspect de certains vases chypriotes d'époque archaïque et classique³⁶. Plus intrigants, car extrêmement stylisés, sont les motifs qui figurent sur le couvercle de la pyxide de Chatby: Breccia songeait à un motif de poulpe³⁷. Les hellénistes y voient un motif de fleuron³⁸, tandis que les égyptologues croient y reconnaître un motif plus ancré dans le répertoire égyptien, tel que des feuilles et des fruits de mandragore³⁹.

3.4. Les hydries de taille moyenne à grande

Les grandes hydries, mesurant 40 à 60 cm de hauteur, sont attestées à Alexandrie par huit individus, mais sont totalement absentes de Tebtynis. Provenant de contextes domestiques, elles sont très fragmentaires, mais les deux hydries de Coptos⁴⁰, ainsi qu'une hydrie du marché de l'art⁴¹ (pl. 1,1–1), fournissent l'image d'une forme complète aux proportions plutôt trapues, avec un col droit et une lèvre éversée, une épaule et une panse au profil tronconique, et une simple base annulaire. Une hydrie provenant d'Alexandrie, de proportions plus élancées et pourvue d'un piédestal, est conservée au Musée du Caire⁴² (pl. 1,1–2).

32 Les pyxides cylindriques se rencontrent en divers points du monde hellénistique et notamment en Macédoine, mais elles sont généralement tripodes et décorées en technique *West Slope* plutôt que sur fond clair, et sont plutôt datées du II^e siècle av. J.-C., voir KYRIAKOU 2012, 187 fig. 9–10.

33 GIANNIKOURI ET AL. 1994, 183 pl. 101. Elles ne proviennent toutefois pas de contextes précis et sont donc datées par comparaison, notamment avec la pyxide de Chatby.

34 LEROUX 1913, 56–60 n° 121.

35 ROTROFF 1997, 230 fig. 91 pl. 118 n°s 1534–1537. S. Rotroff y mentionne aussi un couvercle trouvé à Pergame, et un vase trouvé au Céramique.

36 Voir notamment les vases du style d'Amathonte, dont le décor montre par ailleurs d'étroites connexions avec le répertoire iconographique égyptien à travers les représentations d'Hathor (voir FOURRIER 2008, fig. 1,7), mais aussi diverses amphores, cruches, jarres et coupes chypriotes d'époque archaïque, dont le décor foisonnant

se poursuit à l'époque classique et jusqu'au début de l'époque hellénistique à travers les cruches ornées de figurines en relief sur l'épaule, voir par exemple GJERTAD 1948, pl. XXXI–XXXII LI-6 ou LXIV.

37 Voir note 5.

38 Je remercie A.-M. Guimier-Sorbets pour cette suggestion.

39 Je remercie P. Gallo pour cette suggestion. Pour les représentations de plantes dans l'iconographie de l'Égypte ancienne et leur symbolisme, voir plus bas note 104.

40 HERBERT – BERLIN 2003, 71–72 vase H2.35, mesurant 41,5 cm de hauteur. Vase H2.36 (col manquant), mesurant 37 cm pour la partie conservée.

41 Hydrie présentée par P. Bergé & Associés, vendue chez Drouot en mai 2018 (lot n° 94), voir catalogue de la vente en ligne et <<https://www.drouotonline.com/en/lots/8797485>> (28.06.2021). Hauteur 49,5 cm.

42 EDGAR 1911, 47 pl. XIX CG 26251. Hauteur 42,5 cm.



Pl. 1: 1-1: hydrie, provenance inconnue, marché de l'art (photo C. Harlaut); 1-2: hydrie, Alexandrie, Le Caire CG 26251 (photo C. Harlaut); 1-3: pyxide cylindrique, Alexandrie, MGR inv. 8689 (© CEALex Archives/Cnrs); 1-4: alabastre, Alexandrie, MGR inv. 29506 (© CEALex Archives/Cnrs); 1-5: plat, Alexandrie, site du Consulat britannique, fouilles CEALex (photo C. Harlaut).

Ces deux variantes de l'hydrie s'inspirent plus ou moins étroitement des hydries à fond blanc et à décor polychrome⁴³, employées comme urnes cinéraires dans les nécropoles d'Alexandrie.

Le décor de ces vases se limite essentiellement à deux motifs purement grecs, les guirlandes de lierre sur l'épaule, et les rubans suspendus sur la panse⁴⁴. Sur l'hydrie du marché de l'art toutefois, l'épaule montre un double motif stylisé de fleurs et de boutons de lotus dont le traitement est tout à fait égyptien, identique à celui qui figure sur des vases peints d'époque hellénistique trouvés en Haute-Égypte, par exemple à Thèbes⁴⁵, à Akhmim⁴⁶ ou à Éléphantine⁴⁷.

3.5. Les cratères et les lékanai

Le cratère est représenté dans les contextes d'Alexandrie par dix individus; il semble plus rare au Fayoum (deux individus)⁴⁸, et un seul exemplaire vient de Thèbes⁴⁹.

Il se décline en deux variantes, celle du cratère à colonnettes, dérivé du cratère d'époque classique, et une sorte de cratère/*lékanè* à la vasque évasée et aux anses recourbées contre la paroi⁵⁰. Au-delà de leur origine grecque, on ne peut assigner à ces deux modèles une spécificité régionale puisqu'ils sont attestés dans l'ensemble du monde hellénistique⁵¹.

Leur décor, comme pour les hydries, se limite en général à des guirlandes de lierre sur le col ou sous le bord (et parfois une ligne de postes), et des rubans suspendus sur la panse.

3.6. Les alabastres

Les alabastres sont illustrés par quatre individus à Alexandrie⁵² et trois à Tebtynis⁵³. Deux exemplaires de la nécropole de Hadra montrent une forme allongée au profil biconique, qui semble plutôt spécifique de l'artisanat égyptien puisqu'on la retrouve sur des alabastres en terre cuite à décor en relief⁵⁴ et en faïence⁵⁵, eux aussi décorés en registres superposés.

À la différence des alabastres en faïence richement décorés, ceux de notre groupe montrent simplement des bandes horizontales avec parfois des damiers de losanges ou des files de triangles (pl. 1,1–4).

3.7. L'*oenochos*

Un large nombre d'*oenochoi* est répertorié dans les contextes domestiques d'Alexandrie, avec 55 individus; la forme semble beaucoup plus rare à Tebtynis, où seuls trois individus sont recensés⁵⁶. Un exemplaire est attesté à Coptos⁵⁷.

Bien qu'elles soient toujours dépourvues de décor, ces *oenochoi* se rattachent à notre groupe technique puisqu'elles sont façonnées dans la même fabrique. Leur haute anse en boucle

43 Voir par exemple BRECCIA 1912, 33 pl. XXXVIII–49 vases n° 51.

44 Sur l'hydrie du Caire apparaissent aussi sur l'épaule une ligne de poste ainsi qu'un motif en amande traité en à-plats de couleurs traversés d'une ligne de points (un ruban suspendu ?), identique dans son principe au motif que l'on rencontre sur les registres décoratifs de certains vases à col en trompette et sur la pyxide du Sérapéum.

45 SCHREIBER 2003, pl. 17 n°s 221. 223.

46 Alabastre E 11271 conservé au Musée du Louvre.

47 ASTON 1999, pl. 95 n° 2530. Daté du III^e siècle av. J.-C.

48 BALLET – POŁUDNIKIEWICZ 2012, 97 pl. 40 n°s 372–373.

49 SCHREIBER 2003, pl. 3 n° 40. Le vase de Thèbes, façonné dans une argile désignée comme alluviale (Nile B2), mais ornée d'un décor 'black and red', pourrait en fait être une imitation des produits en argile calcaire de notre groupe technique.

50 Ce type est bien attesté dans les contextes urbains d'Alexandrie et de Tebtynis, dans d'autres fabriques.

51 Sur les types de cratère en usage à l'époque hellénistique, voir l'état de la question dressé par Rotroff, dans ROTROFF 2006, 105–106.

52 Deux exemplaires viennent du Cricket Ground et du Consulat britannique, deux autres viennent de la nécropole de Hadra (tous sont inédits).

53 BALLET – POŁUDNIKIEWICZ 2012, pl. 60 vases 577–578.

54 MANDEL-ELZINGA 1988.

55 NENNA – SEIF EL-DIN 2000, 290–294, pour les alabastres biconiques. 145–146, pour leurs rapports avec la céramique moulée égyptienne à décor en relief.

56 BALLET – POŁUDNIKIEWICZ 2012, 99–101 pl. 43 vase 383. 391–392. Les vases 394–395 appartiennent à la même forme, mais déclinée en argile alluviale.

57 HERBERT – BERLIN 2003, 69 fig. 48 vase H2.30. Berlin l'identifie comme une production d'Assouan, dont la coloration rosée en cassure porte effectivement à confusion avec les produits de ce groupe, mais la surface crème de la surface diffère de celle des productions d'Assouan.

et leur fond ombiliqué pourrait suggérer l'inspiration d'un prototype en métal, mais plus qu'aux *oenochoi* de Grèce propre, c'est probablement de celles de Grèce de l'Est qu'on peut les rapprocher⁵⁸.

3.8. Les plats

Quelques rares plats (cinq individus) des contextes d'Alexandrie, et un de Tebtynis⁵⁹ peuvent être rattachés à notre groupe technique. Leurs décors montrent des frises de postes ou des guirlandes de lierre⁶⁰; le décor d'un de ces plats, provenant du site du Consulat britannique⁶¹, est toutefois plus original, puisqu'il reprend exactement par son organisation et ses motifs floraux celui du couvercle de la pyxide de Chatby⁶² (pl. 1,1–5).

3.9. Les thymiateria

Deux fragments trouvés l'un à Alexandrie et l'autre à Tebtynis pourraient appartenir à des *thymiateria* à pied haut⁶³, d'une forme comparable à celui trouvé à Kôm Abu Radi, qui par la description de ses couleurs et les motifs de son décor se conforme aux vases de notre groupe⁶⁴. Notons toutefois que les rares *thymiateria* à pied haut attestés en Égypte à l'époque hellénistique appartiennent aux productions de faïence et sont de type égyptien⁶⁵.

Leur décor, pour les mêmes raisons que les alabastres, se limite à des motifs géométriques (postes, triangles, damiers de losanges) et à des guirlandes de laurier.

3.10. Les unica

On a rassemblé dans ce dernier groupe des formes rares ou uniques, qui ne sont attestées qu'en dehors de la capitale.

À Tebtynis par exemple, on rencontre un type de bol évasé à fond arrondi, orné d'une série de métopes à décor de canards (fig. 1,1–6) ou encore un type de haut gobelet cylindrique, orné de frises de postes et/ou de buissons stylisés⁶⁶ (fig. 1,1–5). Il s'agit pour le bol évasé d'une forme bien connue du répertoire de la faïence⁶⁷; en revanche, pour le gobelet, les parallèles doivent être recherchés dans la céramique égyptienne⁶⁸. Cette forme est vraisemblablement introduite durant l'époque perse (V^e siècle av. J.-C.) sous l'influence de la vaisselle métallique de tradition achéménide⁶⁹.

⁵⁸ Voir notamment les *oenochoi* des nécropoles de Rhodes: GIANNIKOURI ET AL. 1990, pl. 88.

⁵⁹ Voir MARCHAND 2013, 246 fig. 18.

⁶⁰ Voir notamment les deux fragments de plat trouvé à Hadra dans la section d'Ezbet el-Mahlouf dans ADRIANI 1940b, 82 pl. XXX-4.

⁶¹ Voir RODZIEWICZ 2020, 14–16 fig. 19.

⁶² Voir note 5.

⁶³ Ils sont toutefois très incomplets, et on ne peut donc en avoir l'assurance.

⁶⁴ ABDEL FATTAH 2000, 6 fig. 6. L'objet est publié comme un support de vase datant du Nouvel Empire (II^e millénaire av. J.-C.), mais cette identification qui repose, selon l'auteur, sur une analogie du décor avec la poterie décorée du Nouvel Empire, est très vraisemblablement à rejeter. L'occupation continue de la nécropole, de l'Ancien Empire à l'époque romaine, plaiderait plutôt en faveur d'une datation tardive pour cet objet. Notons toutefois que le dessin publié montre un profil continu sans fond séparant la coupelle du pied, et un doute sur l'identification et la fonction de l'objet subsiste donc.

⁶⁵ Voir NENNA 2001, 186. 193 fig. 6–7. Les exem-

plaires en terre cuite que l'on recense à Alexandrie, par exemple, sont plutôt de petits objets facilement transportables, voir NENNA 2018, 93–95 fig. 29–30. Les *thymiateria* à pied haut semblent mieux attestés dans la péninsule italique à l'époque hellénistique.

⁶⁶ Pour le gobelet, voir MARCHAND 2013, 246 fig. 18.

⁶⁷ Pour les bols évasés à fond arrondi en faïence, voir NENNA – SEIF EL-DIN 2000, 157–158 pl. 2–3.

⁶⁸ Voir les gobelets de céramique du site de Tell el-Herr dans le Sinaï, dans DEFERNEZ 2010, 114 (avec renvois bibliographiques à des vases semblables en Basse-Égypte). 125–126 fig. 5–6. Pour un gobelet cylindrique en faïence (non référencé dans la typologie de NENNA – SEIF EL-DIN 2000; NENNA – SEIF EL-DIN 2014), voir le gobelet du Musée National d'Athènes Π 827 dans la salle dédiée aux objets provenant d'Alexandrie et d'Égypte (notamment la collection Demetriou).

⁶⁹ Pour une forme approchante en métal, voir les phiales achéménides en métal présentées dans PFROMMER 1987. Pour les gobelets cylindriques, voir ceux retrouvés sur le site de Deve Hüyük dans MOOREY 1980, 41 fig. 7, 120–121.

Quant à l'un des vases trouvés à Thèbes⁷⁰, il illustre l'unique exemplaire de ce type de décor décliné sur une forme apparentée aux amphores phéniciennes dites *Torpedo jars*⁷¹, qui furent importées et imitées en Égypte entre l'époque perse et le début de l'époque hellénistique⁷² (fig. 1,1–4).

4. Cadre chronologique

Les contextes domestiques d'Alexandrie permettent de situer assez précisément le cadre chronologique de cette production. Elle apparaît dans le 2^e quart du III^e siècle av. J.-C.⁷³, et donc à peu près à l'époque où arrivent à Alexandrie les premières hydries de Hadra. La concentration majeure de ces vases se situe entre la seconde moitié du III^e siècle, et la première moitié du II^e siècle av. J.-C. Leur présence se raréfie ensuite, et ils semblent disparaître vers la fin du II^e siècle av. J.-C.⁷⁴

Cette fourchette chronologique concorde bien avec les datations fournies par les contextes urbains de Tebtynis, où la présence de ce groupe est observée entre le début du III^e siècle (et donc peut-être un peu plus tôt qu'à Alexandrie), et le milieu du II^e siècle av. J.-C.⁷⁵, ainsi qu'avec les datations de l'assemblage dans lequel ont été trouvés les trois vases du Temple de Min à Coptos⁷⁶.

5. Contextes d'utilisation

La nature des contextes dans lesquels ces vases ont été trouvés apportent quelques indices sur la ou les fonctions qu'ils ont pu avoir dans le monde des vivants et dans celui des morts.

5.1. Contextes funéraires

Dans les nécropoles d'Alexandrie, et notamment à Hadra, les vases à col en trompette et les alabastres figuraient parmi les offrandes funéraires. Les vases complets parvenus jusqu'à nous sont rares, mais les rapports de fouille mentionnent çà et là des fragments⁷⁷ qui suggèrent que les produits de ce groupe y étaient mieux représentés qu'ils ne le semblent aujourd'hui⁷⁸.

Le cas de la grande pyxide cylindrique de Chatby est plus incertain : Breccia la découvrit dans une fosse creusée sous un monument, où elle était associée à une inhumation⁷⁹. Elle était vidée et renversée, mais la présence de mortier de scellement autour du couvercle inciterait à penser qu'elle a été originellement employée comme urne cinéraire.

La fonction d'urne cinéraire ne pose aucun doute en revanche pour deux autres vases alexandrins ; l'un est le vase à col en trompette présenté plus haut, qui contient encore ses ossements et provient vraisemblablement des sépultures découvertes autour de l'enceinte du

70 GRAEFE ET AL. 2003, pl. 130 (SCA 76 354).

71 Pour les imitations égyptiennes de ces amphores, voir DEFERNEZ – MARCHAND 2006, 68–71 fig. 3.

72 Pour la typologie de ces amphores, voir SAGONA 1982; BETTLES 2003.

73 Elle apparaît avec l'avènement de ce qui a été nommé la «Phase 3» dans les contextes des sites du Consulat britannique et du Cricket Ground, et qui débute aux alentours de 270–260 av. J.-C., voir HARLAUT 2018, 99–112.

74 Le contexte alexandrin le plus tardif dans lequel un fragment de ce groupe a été identifié pour l'instant vient d'un assemblage céramique publié dans HARLAUT – HAYES 2018, 230 pl. 58 vase K15 du dépôt K.

75 Voir BALLET – POŁUDNIKIEWICZ 2012, 101–105 pour les cols d'«hydries» à décor peint n^{os} 398–420 et leurs contextes de découverte : cette forme étant quantitativement la mieux représentée du groupe, elle fournit la plus ample fourchette chronologique.

76 HERBERT – BERLIN 2003, 59, pour la datation de l'assemblage hellénistique H2, «from the early 3rd to the middle 2nd century B.C.»

77 Pour la section de la rue d'Aboukir, voir ADRIANI 1940 a, 82 pl. XXX-4. Pour la section d'Ezbet el-Mahlouf, voir ADRIANI 1940 b, 114 pl. XLVIII-6.

78 Outre les fragments publiés par Adriani, M. Rodziewicz a pu en identifier d'autres provenant de la collection de L. Benaki et conservés tant au Musée gréco-romain d'Alexandrie qu'au Musée Benaki d'Athènes.

79 BRECCIA 1912, 45–47 notice 87 pl. XLV-64.

80 Musée gréco-romain, Inv. 8240. Présenté dans HARLAUT à paraître. Ce vase provient vraisemblablement des fouilles de Botti sur la colline du Sérapéum : Botti n'évoque pas directement ces sépultures, mais la publication des fouilles menées par A. Rowe dans les années 1940 atteste la présence de nombreuses sépultures disséminées sur les pentes de la colline, voir ROWE 1942.

81 EDGAR 1911, 47 pl. XIX CG 26251.

Sérapéum⁸⁰. Le second vase est l'hydrie du Musée du Caire⁸¹ : elle faisait partie du lot d'hydries de Hadra trouvées par le collectionneur alexandrin P. Puglioli dans ses fouilles des nécropoles orientales, et dont il vendit une partie des vases au Musée du Caire en 1888⁸².

Hors d'Alexandrie, le vase à col en trompette et la jarre *Torpedo* retrouvés dans les deux tombes pharaoniques de Thèbes réemployées à l'époque ptolémaïque y ont été déposés comme offrandes⁸³. Il en est probablement de même pour le vase de Kom Abu Radi⁸⁴, bien que sa nature puisse aussi suggérer un emploi lors de la cérémonie funéraire.

5.2. Contextes domestiques (usage domestique et religieux)

Que ce soit à Alexandrie ou à Tebtynis, la présence de ces vases est régulière, mais elle se limite toujours à un ou deux individus par assemblage, très rarement plus. Beaucoup viennent de remblais, ce qui nous renseigne peu sur leur destination, mais suggère qu'ils ont servi pour des activités domestiques.

Sur le site du Cricket Ground à Alexandrie, on a toutefois remarqué une concentration particulière de fragments dans les niveaux d'occupation du portique d'une habitation privée, dans l'angle duquel on a cru reconnaître les restes d'un autel en calcaire⁸⁵. Il y a donc peut-être là l'indice d'une relation entre ces vases et des pratiques liées aux cultes domestiques.

5.3. Contextes culturels

Cette hypothèse pourrait être confortée par le contexte de découverte des vases de Coptos : en effet, les deux hydries et l'oenoché trouvées dans l'enceinte du Temple de Min et d'Isis proviendraient d'un contexte qui était de type domestique, mais qui était tout de même associé aux activités du sanctuaire selon A. Berlin, vraisemblablement dans le cadre de fêtes religieuses qui se seraient déroulées entre le III^e siècle et le milieu du II^e siècle av. J.-C.⁸⁶.

Il reste enfin le cas de la grande pyxide cylindrique du Sérapéum (et probablement d'une seconde pyxide fragmentaire), qui pourrait être, de quelque façon, connectée à des cérémonies religieuses. Elle provient d'un contexte très perturbé sur la pente Est de la colline, et Botti n'a publié aucun plan ni aucun rapport détaillé de ses travaux. Mais l'information majeure que mentionne son mémoire est que cette pyxide fut trouvée associée à des fragments d'autels en calcaire en forme de pyramides et d'obélisques tronqués⁸⁷. L'emploi de ces grandes pyxides cylindriques lors de processions religieuses au Sérapéum ou de cérémonies funéraires dans les nécropoles d'Alexandrie a également été suggéré par M. Rodziewicz, ce que reflèterait selon lui l'image en terre cuite d'une jeune fille portant sur sa tête un objet à l'aspect et aux proportions similaires⁸⁸.

6. Détermination de provenance et localisation de l'atelier

Plusieurs hypothèses ont été proposées sur la provenance des vases de ce groupe. A. Enklaar, qui s'était intéressé aux productions céramiques d'Alexandrie dans le cadre de ses recherches sur les hydries de Hadra, voyait dans la pyxide de Chatby une importation de Daunie, en Italie méridionale⁸⁹. Mais si les productions dauniennes montrent bien des similitudes dans l'organisation,

82 Fouilles qui amenèrent à la découverte de plusieurs hypogées, dont le fameux «Tombeau des Mercenaires». Pour la publication de ces hydries, voir EDGAR 1911, 34–50. La liste des vases acquis par le Musée du Caire figure dans le *Bulletin de l'Institut d'Égypte* de 1888.

83 GRAEFE ET AL. 2003, pl. 130–131 SCA 76 354. SCA76 477.

84 Voir note 59. Aucun détail n'est fourni dans la publication. On sait seulement que ce vase était déposé auprès d'un sarcophage en bois.

85 Voir le plan des maisons fouillées sur le site du Cricket Ground dans SILHOUETTE 2016, 30.

86 HERBERT – BERLIN 2003, 24; BERLIN 2013, 234.

87 BOTTI 1897, 71–72. 75. Botti n'est pas clair sur ce point : d'une part, il spécifie bien que des fragments de vases à décor géométrique ont été trouvés associés à ces autels en calcaire (et les fragments inventoriés au Musée Gréco-romain permettent d'identifier au moins deux vases distincts), mais il ne précise pas s'il s'agit là d'une trouvaille unique, car il semble avoir trouvé de tels autels en plusieurs points du flanc Est de la colline, et il les associe à des tombes.

88 RODZIEWICZ 2020, 17–18 fig. 23.

89 ENKLAAR 1998, 263 note 16.

les motifs et les couleurs du décor peint, leur répertoire de formes en revanche, qui s'illustre surtout dans de gros *askoi* ou des *trozelle*, diffère totalement de celui de notre groupe⁹⁰. Cette hypothèse me semble donc devoir être écartée.

A. Berlin proposait pour l'une des deux hydries de Coptos une provenance rhodienne⁹¹; en effet, la surface crème et la cassure légèrement rosée sont des caractères qu'on observe parfois sur les amphores de transport de Rhodes. Mais les analyses archéométriques qui ont été effectuées au Laboratoire du CEALex indiquent des pourcentages de calcaire supérieurs pour les vases de notre groupe⁹², et n'ont pas fourni de rapprochements convaincants pour l'instant. En outre, le répertoire de formes attesté en Égypte pour ce groupe technique ne trouve pas de parallèles à Rhodes.

P. Ballet, quant à elle, avait suggéré depuis le début, et je crois avec raison, qu'il s'agit d'un atelier égyptien; ce groupe ne lui semblait pas produit au Fayoum⁹³, et elle le situait plutôt, à titre d'hypothèse, dans la région d'Alexandrie, se fondant sur les similitudes entre le répertoire décoratif des vases à col en trompette de Tebtynis et celui des hydries de Hadra⁹⁴. Cependant, les nombreux échantillons d'argiles calcaires qui ont pu être collectés sur les sites de production le long des berges du Lac Maréotis par le CEALex⁹⁵, ne montrent pas, même à l'œil nu, une consistance, des inclusions et une coloration comparables à celles des vases de notre groupe. Des analyses archéométriques ont été programmées, afin d'apporter une réponse définitive, mais on doit probablement s'attendre à ce qu'elles réfutent une origine alexandrine plutôt que de la confirmer.

La question reste donc ouverte pour l'instant, puisque des gisements d'argiles calcaires étaient connus ailleurs qu'à Alexandrie et en Basse-Égypte, et déjà largement exploités pour la production céramique durant l'époque pharaonique⁹⁶.

Plusieurs éléments, dans l'examen du répertoire formel et décoratif et de la distribution de ce groupe de vases peuvent fournir des indices sur la localisation possible de son atelier, et surtout sur le type de marché et de consommateurs auxquels il s'adressait.

La totalité des vases recensés jusqu'à présent s'élève à environ 200 individus. C'est là un nombre très restreint, même si l'on peut s'attendre à ce que d'autres vases soient identifiés à l'avenir. En l'état actuel des données, on a donc affaire à un atelier dont la production était semble-t-il très limitée, et dont la diffusion s'est concentrée essentiellement sur Alexandrie (env. 150 individus)⁹⁷, dans une moindre mesure au Fayoum (env. 40 individus), peut-être dans le Delta et très sporadiquement ailleurs; la petitesse des zones explorées au centre-ville d'Alexandrie⁹⁸ comparée à l'ampleur des fouilles pratiquées depuis vingt-cinq ans à Tebtynis⁹⁹, rend plus évidente encore la concentration de ces produits dans la capitale.

En conséquence, si l'on doit situer cet atelier ailleurs qu'à Alexandrie – comme je le crois – pour des raisons géologiques et archéométriques, il ne devrait pas cependant en être très éloigné

90 Pour un aperçu de ces céramiques, voir YNTEMA 1985, 381–382. La seule forme de notre groupe qui pourrait être rapprochée du répertoire des céramiques dau-niennes est le *thymiatérion* à pied haut, mais les trois pièces qui pourraient s'y rattacher sont d'identification encore trop incertaine pour pouvoir en tirer des conclusions.

91 HERBERT – BERLIN 2003, 69 notice H2.35.

92 Rapport interne du Laboratoire de Caractérisation des Matériaux, CEALex.

93 Voir BALLET – POUDNIKIEWICZ 2012, 101.

94 BALLET – POUDNIKIEWICZ 2012, 102.

95 Échantillons collectés et analysés pour certains d'entre eux dans le cadre des prospections menées en vue d'établir la carte archéologique de la Maréotide (CEALex).

96 Voir par exemple les fabriques calcaires référencées dans le système de Vienne pour l'époque pharaonique, dans NORDSTRÖM – BOURRIAU 1993.

97 Sur ces 150 individus, une quarantaine d'entre eux a été identifiée par la fabrique et le décor, mais n'étant attestée que par des fragments de panse, elle n'a pu être rattachée à des formes précises.

98 Voir HARLAUT 2018, 15 plan 3, pour les parcelles fouillées par le CEALex en centre-ville.

99 Voir le plan des fouilles du site avec l'indication des surfaces fouillées sur: <<https://www.ifao.egnet.net/uploads/images/sites/tebtynis/tebtynis-plan-hr.jpg>> (août 2021).

pour des raisons commerciales et culturelles, comme il ne devrait pas être non plus trop éloigné du Fayoum.

C'est peut-être dans les environs de Memphis qu'il faut envisager sa localisation, bien que cette hypothèse doive être proposée avec beaucoup de prudence puisqu'elle n'est démontrée par aucune évidence archéologique ou archéométrique pour l'instant. Memphis était la capitale historique de l'Égypte avant la création d'Alexandrie et fut le lieu de résidence des communautés caro-memphite et helléno-memphite¹⁰⁰. Elle fut aussi, par les liens étroits que son clergé entretenait avec la dynastie lagide au début de l'époque hellénistique, un lieu privilégié de rencontres et d'échanges entre les cultures grecque et égyptienne. Memphis fut enfin, par sa prospérité économique, le centre très actif de plusieurs artisanats, et à ce titre, il est utile de souligner les similitudes qu'on peut observer entre certaines formes et certains décors des vases de notre atelier et celui de plusieurs produits en faïence, qui suggéreraient des contacts assez étroits entre potiers et faïenciers : or, c'est précisément à Memphis que l'on situe l'un des centres majeurs de la production de faïence à l'époque hellénistique¹⁰¹. Elle semble donc un lieu particulièrement propice à la création d'un répertoire mêlant diverses influences comme l'est celui de notre atelier.

Que le principal débouché commercial de cet atelier ait été la capitale lagide, et les consommateurs qu'il visait une population hellénique et plus largement hellénisée, est aussi suggéré par le nombre des formes de tradition grecque au sein de son répertoire formel : les hydries, *oenochoi*, cratères, pyxides cylindriques, alabastres, assiettes, (et peut-être *thymiatéria*) dominant en nombre les formes d'inspiration plus orientale ou achéménide comme les vases à col en trompette, les gobelets ou la jarre *Torpedo*.

Mais s'il s'agit bien dans l'ensemble d'une clientèle de culture grecque, son hellénisme se mesure à des degrés divers : si les consommateurs alexandrins apprécient davantage des formes purement grecques plutôt que des vases à col en trompette, dans l'oasis du Fayoum en revanche, où la culture matérielle, bien qu'hellénisée, est plus perméable aux traditions indigènes, on observe alors le phénomène inverse : parmi les consommateurs de Tebtynis, c'est le vase à col en trompette qui est de loin le plus populaire, avec environ 25 individus répertoriés (contre une douzaine à Alexandrie) et on y apprécie également, à côté des cratères et des alabastres de type grec, des formes comme les bols évasés ou les gobelets cylindriques¹⁰², qui sont eux totalement absents des contextes alexandrins.

Les produits que cet atelier propose à ses consommateurs se limitent à un répertoire d'une dizaine de formes ou guère plus. C'est là un point important, qui distingue notre groupe de la production céramique de masse en Basse-Égypte à cette époque, puisqu'à Alexandrie comme dans le reste du pays, la plupart des ateliers de potiers fournissaient aussi bien le vaisselier de table que la batterie de cuisine et l'équipement domestique¹⁰³. Cette spécialisation du répertoire qu'adopte notre atelier est donc probablement à mettre en relation avec une destination spécifique de ses produits, bien qu'il soit difficile de cerner avec précision la fonction de ces vases. Les renseignements que nous fournissent les contextes de découverte suggèrent tout de même une certaine proximité avec la sphère religieuse, qu'elle soit publique, privée ou funéraire. À ce titre, on rap-

100 THOMPSON 1988, 93–97.

101 Voir NICHOLSON 2013.

102 L'intégralité du matériel céramique de Tebtynis n'est pas encore publiée et on peut ajouter que ces formes y sont attestées aussi dans d'autres fabriques.

103 Voir HARLAUT 2001; ÉLAIGNE 2012; BALLET – POLUDNIKIEWICZ 2012; HARLAUT 2018 pour un aperçu des diverses catégories céramiques sur les sites de consommation.

104 Les motifs floraux sont visibles sur l'épaule de l'hydrie du marché de l'art, sur le couvercle de la pyxide de Chatby et sur le plat provenant du site du Consulat britannique (voir plus haut). Pour les représentations de plantes dans l'iconographie de l'Égypte ancienne et leur symbolisme, voir MANNICHE 1989, notamment 117–119, 121–122, 126–127 pour les plantes telles que le lotus, la mandragore ou encore le percea. Pour leur symbolisme, voir aussi DERCHAIN 1975.

pellera la présence, particulièrement intéressante sur nos vases, d'éléments floraux traité de façon typiquement égyptienne, tels que les fleurs et les boutons de lotus (et peut-être de mandragore)¹⁰⁴, ou encore des motifs animaliers tels que les canards¹⁰⁵. Il est difficile de dire si ces éléments égyptiens n'ont eu qu'un rôle purement décoratif, en apportant une touche d'exotisme nilotique, ou si la forte portée symbolique de ces motifs, associés dans la religion égyptienne aux concepts de fertilité, et par là-même de renaissance et d'éternité, pouvait être perçue par les consommateurs de la capitale. Il n'en demeure pas moins que nos vases illustrent, parallèlement à la faïence et malgré leur modeste qualité esthétique, l'un des premiers contacts entre le monde alexandrin, et le milieu qui l'entourait.

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¹⁰⁵ Les motifs animaliers se rencontrent exclusivement sur des vases à col en trompette, à Alexandrie comme à Tebtynis, et sont bien attestés aussi sur les vases en faïence. Sur le motif du canard, voir CHERPION 1994, 89–90; RAC 5 (1962) col. 433–436 s.v. Ente (A. Hermann). La pré-

sence du coq est peut-être à considérer comme une sorte de double grec du canard égyptien, comme le suggère M.-D. Nenna pour la représentation de ce motif sur les vases en faïence, voir NENNA – SEIF EL-DIN 2000, 94.

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A Delian / Cycladic Cookware Production?

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Abstract

The question of a Cycladic production of cookware is connected to the thematic of the manufacturers and their workshops, but also to the thematic of the Aegean networks, of the regional economies and of the definition of a market. The chosen problematic begins with a macroscopic observation of the clay of several cook pots – lopades, chytrai and their lids – belonging to a Delian domestic assemblage from the 1st century BC. In the specialized bibliography, cook pots found in Delos are considered as “Aegean cookware”. First, we would like to define more precisely this appellation: what is this “Aegean cookware, which seems to be widely distributed in the Oriental Mediterranean Area from the Hellenistic period? And can we affirm that all the cook pots found in Delos belong to this production? Our preliminary hypothesis is that the cookware from Delos belongs to several productions, not only one, and that one of these productions could be Cycladic. Some of the lopades and chytrai from Delos seems to be made in the same clay as the “Delian lamps”: are these cook pots and lamps made by the same manufacturers? Are these manufacturers located in the Cycladic islands? Based on the Delian example, on new and complementary macroscopic observations of clays, and on an analysis of the morphological types, our investigation will include Cycladic and Aegean published material and, maybe, will allow us to answer the question of a local/regional production of cookware.

This investigation, focusing on cooking pottery found in contexts of late Hellenistic Delos, started with the combination of two elements.

On the one hand, the clay of the so-called “Delian” lamps¹, on macroscopic observation, looks like the clay of numerous chytrai and lopades found on Delos (fig. 1). In his study of the Athenian Agora material, R. Howland² used the expression “Delian lamps” for these small, turned, unglazed and made of coarse and gritty clay lamps, because of the large amount of them found on Delos: 1238 lamps according to Ph. Bruneau³. About their origin, Howland proposed a local production: “Delos may have been their centre of manufacture”⁴. No further research was made on these lamps so far and their precise origin is still unknown today. However, plans are made to study them soon by archaeometrical analyses⁵: hopefully, this will provide new food for thought on the subject. In the meantime, if we consider these lamps as Delian, and if some cookpots look like the lamps, the cookpots could also be Delian.

On the other hand, the existence of a local pottery production, on Delos and/or on Rheneia, its closest neighbour, is an idea that comes again and again in the archaeological literature⁶ despite the fact that a huge amount of the pottery – tableware, common ware, cooking ware, etc. – found on the island was imported⁷.

¹ MARTZ 2019.

² HOWLAND 1958, 122–123 type 38. There are only 3 examples of this type in Howland’s monograph.

³ BRUNEAU 1965, 29–30.

⁴ Bruneau did not refute this idea but is more cautious: “Aucun fait ne peut encore prouver l’exactitude de cette opinion qui est seulement vraisemblable: on remarquera que les lampes déliennes forment environ le quart des lampes trouvées à Délos et que chaque nouvelle fouille ou chaque nouveau nettoyage accroissent toujours sensible-

ment le lot, mais toutefois qu’on n’a pas recueilli de résidus de fabrication attestant l’existence d’ateliers locaux”. Bruneau is a little bit more affirmative about a production of these lamps on Delos in the «Aristonos lamps» section of his monograph (BRUNEAU 1965, 45 note 3).

⁵ See *infra*, note 64.

⁶ E. g. DEONNA 1948, 68.

⁷ About imported pottery on Delos, see GROS 2013; PEIGNARD-GIROS 2013; PEIGNARD-GIROS 2014a.

This paper is the first step of an investigation that will be hopefully deeply explored in the future⁸: the hypotheses presented here are nothing else but preliminary. Also, it is important to insist on the fact that this paper is not an archaeometrical study: the macroscopic observations on the clays evoked here will not be used as definitive clues.

The cooking pottery on Delos

Previous studies

The Hellenistic cooking pottery found on Delos was previously explored by recent studies. A. Peignard-Giros published two articles⁹ on the social signification of the pottery shapes within the multicultural society of Delos, where influences from all over the Antique world meet and meld¹⁰. More recently, in order to understand the cooking pottery importations on Delos¹¹, she compared the Delian material with the Athenian Agora material¹². P. Hatzidakis¹³ worked on the comparison between the cooking pottery and the literary sources that mention the kitchen *instrumentum*. Finally, I conducted a recent study about the patinae found on the island¹⁴. This shape is not a part of the traditional Greek cooking kitchen set and the examples found on Delos are probably, at least some of it, imported from Italy¹⁵. I will not get further on this subject here as I will focus on lopades and chytrai, which are considered as the traditional Greek cooking pottery shapes¹⁶.

Archaeological contexts

The cooking pottery already published comes mostly from domestic contexts: from the insula of the House of the Comedians¹⁷, the House of the Seals¹⁸, the House of Fourni¹⁹. All these houses were partly or totally destroyed by the successive attacks that ruined the island, in 88 or 69 B. C., and the material was found in quite clear destruction / abandonment levels.

But the chronology of the pottery found on Delos also needs a new investigation as the terminus of 88/69 B. C. obliterates the reflection, yet it is necessary. We know very little about the Hellenistic material prior to these destruction / abandonment levels. The stratigraphy is often very limited on the island, due to the rocky nature of the Delian soil, or the levels are mixed because of the permanent occupation of the site and it is almost impossible to distinguish them. On the other hand, we know very little about the pottery assemblages after the terminus of 88/69 B. C. The two attacks on the island put a definitive brake to the Delian economic status, but Delos still remained inhabited during the whole Roman period. Recent work²⁰ was made on this question, and the recent publication of the assemblage found in the well of the Prytaneum²¹, with a terminus established at the end of the 3rd–beginning of the 4th cent. A.D., led to a better knowledge of the *instrumentum* used by the Delians after the terminus of 88/69 B. C. Although there is much more to do on this question, the Delian pottery chronology will not be the object of this paper. I will assume that the majority of the pieces presented here are linked to the latest

⁸ In the frame of the *ArchCook – Archeology of Cooking in Ancient Greece: spaces, objects, recipes* project, conducted by Cl. Pagnoux (French School of Athens) and the author.

⁹ PEIGNARD-GIROS 2000; PEIGNARD-GIROS 2007.

¹⁰ About the cosmopolite nature of Delos during the Hellenistic period, see BRUNEAU ET AL. 1996.

¹¹ PEIGNARD-GIROS 2012.

¹² Studied by S. Rotroff, see ROTROFF 2006.

¹³ HATZIDAKIS 2004.

¹⁴ MARTZ 2017. With these Italian plates, some ollae also appear in the Delian houses (PEIGNARD-GIROS 1993, pl. 7 no. 87e17).

¹⁵ Italians strongly impacted the island since the beginning of the 2nd cent. B. C. after the Roman senate decided in 166 B. C. that Delos was a port free of taxes under

Athenian administration (BRUNEAU – DUCAT 2005, 41, with bibliographical references).

¹⁶ The elaboration of these shapes will not be discussed here, as many authors have produced very good ideas on these questions (e. g. BATS 1988). The numerous lids found with the lopades and chytrai on Delos will not be presented in this paper: they probably belong to the same productions.

¹⁷ BRUNEAU 1970.

¹⁸ PEIGNARD-GIROS 1993; PEIGNARD-GIROS 2000; PEIGNARD-GIROS 2014a; PEIGNARD-GIROS 2014b; PEIGNARD-GIROS 2007; PEIGNARD-GIROS 2012.

¹⁹ MARTZ 2018.

²⁰ About Roman Imperial pottery found on Delos, see PEIGNARD-GIROS 2014b.

²¹ LE QUÉRE 2018.



Fig. 1: House of Fourni: “Delian” lamps and various types of chytrai. Photos by A.-S. Martz.