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The historical ages in the South-Eastern Aegean (800–200 BC): a review

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Abstract. *During the years 800–200 BC, SE Aegean islands manifest a continuous growth and dynamic presence which is sensed both internally on each island as well as externally, within the framework of their intra-insular communication. To this day, archaeological sites bearing durable remains vestiges of inhabitance with and an uninterrupted usage have been identified in the Southeastern Aegean. The multitude of movable findings—a result of systematic and rescue excavations—suggests the use and function of these premises and at the same time attests commercial transactions between the islands and the wider mainland—even with geographically remote areas—which is a component of their undoubtedly developed economic and commercial relations.*

Rezumat. *În perioada 800–200 a.C., insulele din sud-estul Mării Egee cunosc o creștere continuă și manifestă o prezență dinamică atât pe plan intern, cât și pe plan extern, în cadrul relațiilor dintre ele. În prezent au fost identificate mai multe așezări datând din această perioadă, fără întrerupere. Multitudinea descoperirilor, rezultate atât în urma săpăturilor sistematice, cât și a celor de salvare, atestă tranzacții comerciale între insule și chiar într-un spațiu mai larg, ceea ce reprezintă o componentă a dezvoltării relațiilor economice și comerciale.*

Keywords: SE Aegean islands, Rhodes, Kos, historical ages.

1. Introduction

The creation and development of the Digital Repository[2] aiming to the collection of digital material concerning the SE Aegean during the period from 800 up to 200 BC has provided significant evidence on the presence and activity of the islands.

It has been ascertained that already from the end of the prehistoric period, the broader area of the Aegean constituted a fertile ground for the booming and blossoming of a new era, thanks to strong colonization activity and therefore the enrichment of the Aegean area with new elements. Penetration of new influences and sways has been a significant factor towards a continuous evolution of the islands. At the same time, constant development of trade and

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[2] Directory of Open Access Repositories – Archipelago Repository (Online: v2.sherpa.ac.uk/id/repository/3646) / Archipelago, Documentation System for Island (Online: archipelago.aegean.gr).

the quest for new routes and commodity throughput stations has played a catalyst role. Strong financial activity lead to a flourishing of arts and literature. Trailblazer creators in poetry, philosophy, sculpture and architecture have laid the foundations for their advancement.

During the Hellenistic era, SE Aegean islands display a special dynamic, which is expressed in a multi-faceted way, through the architectural remnants and the plethora of movable findings that came as an output of systematic and rescue excavations.

In the framework of the Integrated Programme for Islands Research, which was co-funded by the European Union and the Greek State, the University of the Aegean faced the challenge of establishing a web-based digital repository, able to support research and development tasks in the field of islands[3].

Here we present a review of this historical period through current and ongoing archaeological excavations, the records of which strengthen and witness the aim of present work. This evidence is outlined successively per island below.

2. Islands of the SE Aegean

2.1. Rhodes

The archaeological/historical presence of Rhodes (Map 1) having a prevalent role at multiple levels in the Eastern Mediterranean is testified through a large number of publications concerning the archaeological sites of the island[4].

The foundation of the ancient city of Rhodes in 408/407 BC after the merger of the three towns of the island—Ialysos, Lindos and Kameiros—resulted to the creation of a "new city", a joint political and residential centre which expressed the three strong city-states of the archaic and classical era. Built in compliance with the Hippodameian system and protected with a wall, the town directly blended with the imposing natural landscape and its close contact with the sea. The ultimate zenith period for the city was the 3rd century BC, when with its powerful fleet, Rhodes controlled the largest part of the Eastern Mediterranean; it evolved to a special regional power, thanks to commerce, but also to democratic institutions that remained effective also during the Hellenistic era. Its final form was shaped gradually and was preserved throughout the Middle Ages.

The Hellenistic fortification wall[5] of Rhodes dates back to the beginnings of the 3rd century BC and includes a noticeably larger expanse than the one defined by the first

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[3] VAITIS *et alii* 2017.

[4] KANINIA 1990, 50–57; MAVRAKI-MPALANOU 2007, 288–298; PAPACHRISTODOULOU 2009, 411–426; PALAIOLOGOU 2010, 501–525; MANOUSSOU-NTELLA 2010, 582–613; CHRISTODOULIDES 2010, 480–500; FANTAOUTSAKI 2012, 41–70; CHRISTODOULIDES 2012, 71–90; GIAKOUMAKI & ZERVAKI 2012, 114–144; CALIÒ 2004, 436–459; 2011, 343–356.

fortifying precincts of the town. Constructed consistently with the rectangular isodomic system, compact and tufaceous, the wall bears four towers on its waterside part, while on the side of the southern mainland sector of town it is particularly reinforced with twelve identified towers. In addition, at the biggest part of the south sector, it is accompanied by a robust advanced fortification at least 770 m long, thus qualifying as the largest external defence work of the Hellenistic times to this day. Rainwater was collected in built, external ducts through runoff pipes that were symmetrically shaped on the upper foundation part of the advanced fortification.

On the Acropolis of Rhodes, a set of retaining walls has shaped the area with stepped terraces, on which a multitude of buildings has been constructed. The temple of Athena Polias and Zeus Polieus, the respective one of Pythian Apollo, Artemision, the Nymphaia, the odeion, the stadium, the gymnasium and the library compose a monumental zone, located at the west and uppermost spot of the city that clearly expresses the spirit of Hellenistic architecture during the 3rd and 2nd centuries BC.

The wide range and significance of the island architecture[6] is confirmed today both by the conclusion or revision of studies on identified and visible monuments from the past, as well as through new architectural remainders that were brought to light within the framework of latest excavations.

The recent study on the architectural design of the Temple of Athena Lindia[7] on the Acropolis of Lindos provides us some information about the evolution of the Temple throughout time, with the first findings going back to the 9th century BC. The temple went through two phases during the archaic era, while it was radically renovated after the fire of 329 BC. From the 4th century up to the end of the 3rd century BC inclusive, the monumental arrangement of the complex is concluded (Temple, Propylaia, Stoa). Besides, many testimonies concerning the period of the 3rd and 2nd centuries BC come from the multitude of inscriptions that have been identified.

In addition, the approach of monuments on the Acropolis of Lindos[8]—as far as their construction material (local sandstone), its processing technique, methods of being put up, covering with external coating and jointing are concerned—has proven that all the above elements have influenced the form of buildings, primarily as regards their individual details. Some deviations—such as lack of absolute symmetry in the engraving of the monuments and regularity of their members' dimensions—have been observed; this would suggest that whereas monuments of Hellenistic Rhodes have clearly followed the architectural principles

[5] KONTIS 1964; FILIMONOS-TSOPOTOU 1998.

[6] SHAYA 2005, 423–442; ELEFTHERIOU 2005, 318–331; TSAKANIKA 2008, 577–589; MANOUSSOU-NTELLA 2008, 537–576; FILIMONOS-TSOPOTOU & ELEFTHERIOU 2011; TSAKANIKA 2012, 145–161.

[7] ELEFTHERIOU 2009, 427–438.

[8] ELEFTHERIOU 2005, 318–331.

of that era, at the same time, they also present interesting originalities while respecting their natural environment.

The unveiling of two new settlements in the area of Gadouras[9] River in Rhodes enriches our information concerning inhabitance of the island. On Site 2 on Pitsiloouno hill, a workshop environment, a grape mill system, a rainwater collection duct and a rectangular tank have been brought to light, as well as another 11 rooms being in use from the middle up to the late Hellenistic years comprised. Site 1, "Stavlos tou Kountouri", is a farmhouse complex with constant inhabitance from the Hellenistic years up to the mid-byzantine era. What is of particular interest is the water-supply system facility, with built and clay water collection ducts, as well as bilge wells, for its collection. The aforementioned system was used for the operation of a ceramic furnace and its usage has been placed in the period from the Hellenistic years up to the byzantine habitation of the place, when it is also abolished.

The topography of Archangelos[10] area bears inhabitance vestiges already from the archaic era (Serafi, Syra) up to late antiquity comprised. These are predominantly agricultural, oil-producing settlements, according to the type of the archaeological findings (counterweights and olive press machines). Also typical is the presence of vase production evidence in coastal workshops (furnaces: Tsambika coast, workshop buildings: Laftiras), but also next to port facilities (Stegna, Papakonstantis port, Kakoskali).

Pertaining to residential architecture, the elements concerning the form of a typical Rhodian residence[11] of the Hellenistic years are provided by the study results of a set of roof tiles that were identified within the framework of a rescue excavation in the eastern sector of the ancient town. The usage of both basic tiling systems—i.e. the Corinthian and Laconian types—on the roof was ascertained. The plan of the excavated residence is the same as one of a typical in-between residence with a peristyle court, originating from a regular Rhodian three-house islet. Despite that, typological study of tiles can contribute to the understanding of peculiarities of the buildings concerned, as well as to the restoration of their initial form.

Under the same category, also evidence coming from funerary monuments[12] is included. Funerary architecture[13] in Rhodes during the Hellenistic era encompasses a particular variety and diversity, while constituting at the same time a symbol of social promotion, as it is ascertained by the study of these monuments, the most typical example of which is the necropolis of Rhodes.

The identification and study of tombs nevertheless, contributes to research in a multi-faceted way, by supplementing or confirming historical data. In the case of the burial

[9] MAVRAKI-MPALANOU 2007, 288–298.

[10] GIAKOUMAKI & ZERVAKI 2012, 114–144.

[11] SARANTIDIS 2009, 546–562.

[12] MASTRAPAS 1990, 58–64; PATSIADA 2001.

[13] BELLI PASQUA 2010, 43–58.

complex that came to light in the southeastern sector of the town of Rhodes, in the area of Epta Vagies[14], for instance, the two pit burials containing an equal number of skeletons in a good preservation status, along with offerings dating back to the late 7th century BC and the 1st half of 6th century BC prove the existence of a settlement in the concerned area of the northeastern extremity of the island, before the s*ynoicismos* of 408/407 BC.

The ancient cemetery from the area of Koskinou[15] in Rhodes, where late archaic–early classical tombs with an abundance of findings were brought to light, suggests the existence of an organized necropolis, but does not necessarily prove the existence of a contemporary settlement, about which it is of course theorized that it should be situated in the area occupied by the current one, given the fact that it is a spot suitable for inhabitation. The settlement spot of the inhabitants today—up to and including the eastern coastline of the island, where ancient quarries and three ancient cisterns have been identified—provides information about the professional occupation of the inhabitants of the adjacent ancient town.

What also causes great interest is the new finding from the southeastern necropolis of the town, i.e. an inscribed base (Registration number, Rhodes Museum: E2106) of the late Hellenistic period, between mid-2nd and mid-1st century BC; the finding testifies three sites of Rhodes in the area of Kamirida, where many ancient names have survived up to the modern years, e.g. Atavyrion mountain/ Atavyriou Zeus' Temple. The sites are: *Αγύλεια* or *Αγκύλεια* and *Ιππότεια*, *Σάλακος*, and *Φάνες*. This element substantially contributes to the wider issue of geographical names[16] and their significance on the historical and archaeological research of the Greek territory and Rhodes, more specifically. It is ascertained that many current place names in Rhodes have ancient roots and origin, whereas several others maintain names that are known from ancient literary and epigraphical sources.

Though inversely proportional to its digitized form, pottery[17] remains the largest and best documented category. Tapered base Rhodian amphorae and their extensive dissemination constitute an eloquent testimony of the dynamic production by Rhodian pottery workshops as well as of the strong commercial activity of the Rhodians. In some cases, stamped handles bearing female names provide elements concerning the financial activity of certain women in Hellenistic Rhodes. On the stamped handles[18] in question, among the tapered base Rhodian amphorae "manufacturers" names also four female ones are present: *Διόκλεια*[19], *Καλλιώ*[20], *Νικαγίς*[21], and *Τιμώ*[22].

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[14] TRIANTAFYLLIDIS 2008, 193–220.

[15] FANTAOUTSAKI 2012, 41–70.

[16] PAPACHRISTODOULOU 2009, 411–426.

[17] SEAWRIGHT 1988; SKON-JEDELE 1994; NADIA 2001; LAWALL 2002, 295–324; CHADJINIKOLA 2008, 598–624.

[18] PALAMIDA & SEROGLOU 2009, 501–530.

[19] The name *Διόκλεια* appears 56 times, on rectangular stamps from the 2nd and 3rd quarters of the 2nd century BC.

[20] The 17 amphorae "signed" by *Καλλιώ* are placed in the same period.

A significant group of vases[23] (3rd century BC and beginnings of 2nd century BC) from the Hellenistic town of Rhodes—identified in the place where it was found according to the archaeological and topographical data as part of the pier in the south inlet of the western port of the island—is divided into two categories: the so-called «αλοιφοδοχεία», vessels for the transport of pharmaceutical or cosmetic substances and φαρμακοδοχεία.

On the occasion of this finding and pertaining to the category of pottery, we have the possibility to bring up the production and trade of aromatic and pharmaceutical substances during the Hellenistic era hence examining diverse levels. The practical level provides direct and indirect testimonies about raw materials, the preparation and properties of the substances that are described in the works of scholarly doctors and naturalists of that era, as well as concerning the containers used for merchandizing and transport.

At a symbolic, religious and ritual level, the archaeological hints are valuable for the place where they were found, as well as the rest of the findings, while—finally—at a socio-economic level, information is related to the way products were merchandized.

Also important is the group of burial offerings (sceptre in the form of a bronze mould-casted figurine of a wild goat (*caprea aegagrus*) of oriental provenance, a clay bird-shaped askos with a bull's head, product of a local workshop bearing Cypriot features, part of a clay compact figurine of an ox) from a primary cremation of the 7th century BC at the archaic cemetery on the hill of Dafni Ialysou in Rhodes[24]. Among the latter, the clay askos stands out, characterized by a combination of eastern—mainly Cypriot—features.

It is therefore once again confirmed that during the 7th and 6th centuries BC Rhodes is one of the most significant centres in the Aegean with respect to the production of many clay products having eastern features, like zoomorphic askoi. It is pointed out that the Rhodian workshop is characterized by the simplicity of its outlines and plainness of its ornamental composition that does not alter the naturalistic character of the rendered zoomorphic plastic vases.

Influenced by the relations it had with and the features it used to receive mainly from the East and Cyprus, but also from the continental world, the presence of Rhodes also in arts has been proven to be of special significance. From the archaic era already, it stands out for its Coroplastic and Minor arts. A group of luxury silver vessels[25], dating—according to the excavation data and typological-stylistic analysis of vessels—in the era of the second half of

[21] The name of *Νικαγίς* is present on 74 handles with her rectangular stamps and her activity is estimated in the end of the 3rd century BC, and the 1st quarter or 1st half of the 2nd century BC.

[22] The name *Τιμώ* is attributed to two female manufacturers (*Τιμώ I* and *Τιμώ II*). *Τιμώ I* was most probably active in the last quarter of the 3rd century BC. The name of *Τιμώ II* appears on 50 handles dating back to the 2nd and 3rd quarters of the 2nd century BC.

[23] NIKOLAKOPOULOU 2009, 530–545.

[24] TRIANTAFYLLIDIS 2008, 89–104; 2009, 439–460.

[25] TRIANTAFYLLIDIS 2008, 520–536; 2013, 213–224.

the 7th up to the early 6th century BC inclusive, suggests the commercial contacts of the island with the Eastern Greek territory and the great metalwork centre of Phrygia, without however excluding the possibility of the existence of a silver vessels manufacturing centre on the island.

In the classical times, significant examples of great sculpture[26] appear. It reaches the zenith of plastic art in the 3rd century BC, when it was endorsed as a big artistic centre, clearly influenced by its focal position in the activities of transit trade of the eastern Mediterranean, thus securing economic prosperity. A multitude of sculptures from public and private places attributed to Rhodian sculptors or Rhodian workshop sculptors prove the high-quality local art of sculpture and justify the evolution of Rhodes to a great artistic centre, including bronze sculpture and painting.

Rhodes stands out in yet another sector, since the prehistoric times already, namely in the production of glass[27] objects. Particular flourishing is marked in the 14th and 13th centuries mainly, followed by a gradual decline in the archaic period (7th–6th century BC). Clearly influenced by the Middle East, during the classical and Hellenistic times, the island adopts new techniques and hence glasswork evolves into a new local production, which respectively resulted to the creation of a strong local market. Active production on the island is proven through the study of movable findings, as far as their typology and dating are concerned. Local production starts in the last quarter of the 6th century BC in Ialyssos, Kameiros and Lindos and increases rapidly after the *synoicismos* of these three towns in 408/407 BC. The workshops are settled mainly close to the Temples or in the area of the port, as well as in the SE part of the town of Rhodes.

This new element, in its turn, influenced the broader geographical area of the Aegean. During the Hellenistic period in particular, it developed the method of glass reuse quite intensely, with the practice of glass recycling of workshop waste from glasswork and glass industry as well household waste in the form of broken glass from tradable finished products.

Finally, coinage[28] in Rhodes starts upon the foundation of the city, when silver tetradrachms are minted, the main type being the one with the Head of Helios on the obverse and the rose, the "laloun symbolo" on the reverse, while they bear the inscription "ΡΟΔΙΟΙ"; these were types that were preserved up to the Hellenistic period.

Studies on coinage[29] of the Aegean islands during the late classical and Hellenistic period proves that all the islands—that were divided into three geographical groups: (1) The Doric

[26] LESLIE SHEAR 1920, 313–322; GOODLETT 1991, 669–681; MASTRAPAS 1993, 17–21; MACHAIRA 2003, 205–210; PAPAVASILEIOU-RAPTI 2007, 372–389; MACHAIRA 2012, 22–40.

[27] TRIANTAFYLLIDIS 2000, 30–34; 2001, 76–80; 2003, 131–138; 2010, 460–479.

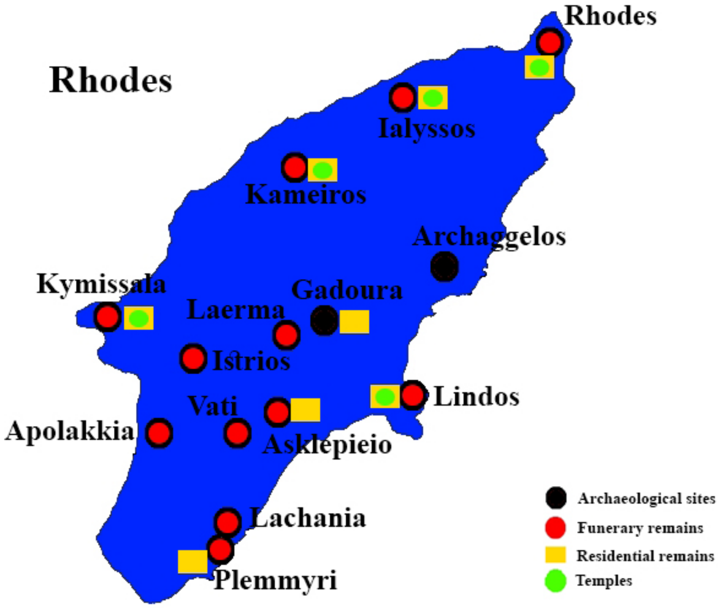
[28] STEFANAKIS & STEFANAKI 2006, 165–190; PAPACHRISTODOULOU & DRELIOSI-IRAKLEIDOU 2010, 421–439; MATTHAIOU 2013, 81–84.

[29] STEFANAKI 2010, 413–446.

islands of the Dodecanese (Chalki, Karpathos, Tilos, Nissyros, Symi, Megisti, Kos, Kalymnos, Astypalaia), (2) the Cyclades, (3) Samos and Lesbos—had adopted the Rhodian weighing unit and the Rhodian monetary types, but also used the Rhodian currency itself during that era.

Particularly interesting is the case of Kymissala in Rhodes, where during the last few years a systematic excavation has been taking place; studies from this site have had a substantial contribution to archaeological issues[30], management issues[31] and cultural development of the broader area. The results of archaeological research from 2006 onwards have brought to light the following: on the hill of Agios Fokas, the temple on top of the acropolis and the robust fortified surrounding wall (peribolos), preserved at a length of about 30m. On the west slope of Agios Fokas hill, traces of an ancient street, going down towards the area of quarries and the necropolis were identified; including mainly tholos tombs, the cemetery had been in use from the archaic up to the late Roman period.

The suggestion of an integrated Sustainable Development program[32] in the area of Kymissala, with the creation of a Park and Outdoor Museum, aiming to enhance the natural and cultural environment, as well as the promotion of Education on Sustainable Development, opens up new perspectives towards a fresh approach of both the past and preserved antiquities themselves.



Map 1. Presentation of the archaeological sites (temples, residential and funerary remnants) as documented in the Digital Repository for the island of Rhodes

[30] STEFANAKIS & PATSIADA 2009, 3–134; 2010; 2013.

[31] STEFANAKIS 2010, 685–702.

[32] VERGOTI 2010.

Within the same framework also lies the effort to bring monuments under restoration, enhancement and management projects[33]. Through these programs, ancient remnants are dealt with from another point of view, namely through works of tidying up the place and cataloguing the scattered material (architectural members, inscribed fragments), as it is in the case of Lindos archaeological site.

2.2. Kos

With its crucial geographical position and thriving commercial activity, Kos (Map 2) has attracted the interest of many researchers[34] of all specializations already from the past. From the hill of Seragia, as well as from other spots of the modern town, we have information about the geometric necropolis that has been identified during rescue excavations. On the same hill, in Seragia, the town Kos-Meropida[35] develops during the archaic era. On that spot, in 366/365 BC, with the merger of the old settlements, the new capital, fortified, constructed in compliance with the Hippodameian system and embracing a multitude of fabulous temples and public buildings is founded. During the Hellenistic period, the island stably maintains its goal to remain autonomous. Kos develops both at economic and cultural level also due to its commercial contacts. The most pertinent indication of this is the Asklepieion; preserved to this day, the temple bears distinct, new imported features of Asia Minor origin mainly.

A typical example is the one of ancient Alasarna[36], given the fact that the site has been excavated and studied systematically for the last 30 years almost. In the area of the ancient municipality of Alasarna, survey was carried out and evidence came out from the late Neolithic era, with a total of seven identified sites. A gap was observed from the Middle and Late Bronze Age, whereas from geometric times, the operation of a cemetery is mentioned on Koutlousi hill. Remarkable archaeological material appears in the area from the 6th century BC, from local and imported clay vessels that certify intense commercial transactions with centres from Athens, Corinth and Asia Minor, as well as the existence of a settlement with no clear boundaries or surface yet. The classical era is testified by identified archaeological sites and few movable findings. The Hellenistic thriving period for Alasarna is signalled by the Temple of Apollo Pythaios or Pythaeos, already in operation from the 3rd century BC, with the most important finding being the temple of Doric order.

Most of the excavation evidence in general is related to the Hellenistic age, when the existence of a significant urban centre during the 2nd century BC is ascertained, with the

[33] KANINIA 1993, 27–29; For Lindos, see also ELEFTHERIOU & PAPADIMITRIOU 1993, 22–26; PAPACHRISTODOULOU *et alii* 2002; TSAKANIKA 2007, 248–262; ELEFTHERIOU 2009, 427–438; 2012, 102–113.

[34] LAURENZI 1931; KOKKOROU-ALEVRAS 2005, 189–203.

[35] KANTZIA 1988, 175–183.

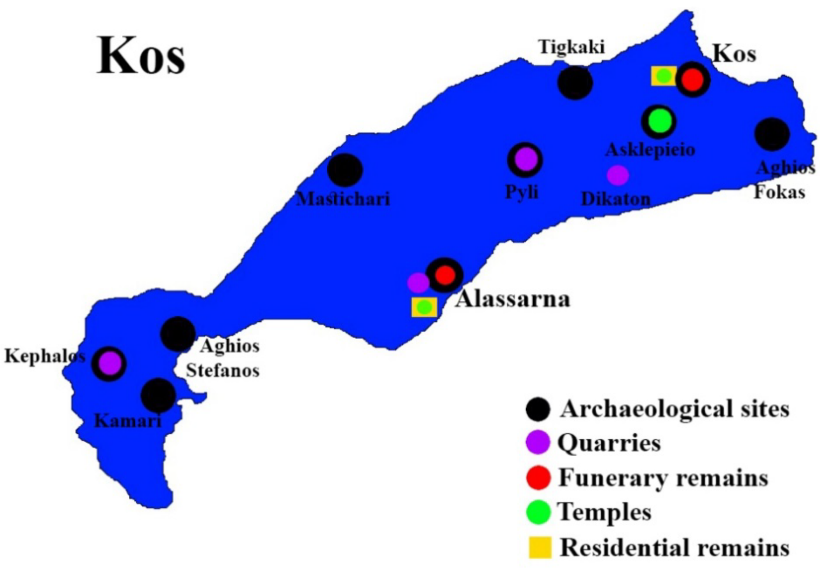
[36] KOKKOROU-ALEVRAS, KALOPISSI-VERTI, PANAGIOTIDI-KESISOGLOU 2006; KOKKOROU-ALEVRAS 2009, 135–155.

disclosure of an ancient theatre, public buildings and a cemetery, as well as pottery workshops, as it can be claimed by the discovery of large quantity of poorly baked clay shards and pottery discards.

The study of fine pottery[37] from the Temple of Apollo in ancient Alasarna on the basis of its typological and chronological analysis with comparative parallel material from the Mediterranean area leads to the distinction of domestic pottery workshops with their individual characteristics and the identification of features they have received from pottery workshops of the Aegean space.

What is of crucial importance is the contribution of studies related to tombs[38]; in fact, the latter are quite a frequent finding during rescue excavations, since—as closed entities—they provide substantial archaeological, historical and anthropological evidence.

A typical example is the five cremations[39] [three from the SW part of the modern town (I. Vassiliou's property) and two from the geometric necropolis of Seragia hill (K. Koutsouradi's property)] that were found in the centre of the current modern town. In this case, it is ascertained that the funerary custom of cremation of the dead was implemented in Kos for the first time in the geometric period. This piece of evidence has resolved a significant historical issue concerning the archaeological confirmation of settlement of Dorian colonists



Map 2. Presentation of the archaeological sites (temples, residential and funerary remnants, quarries) as documented in the Digital Repository for the island of Kos

[37] POTSI 2013.

[38] SKERLOU 2001, 258–284; BOSNAKIS 2001, 223–257; 2004, 151–159; 2013, 247–263.

[39] BOSNAKIS 2001, 223–257.

from Argolida on the island, a subject on which there is a clear testimony by Herodotus. The absence of findings in Kos used to raise questions, since with their settlement—as it is the case in Rhodes, for instance—cremation of the dead appears too.

The group comprising inscribed funerary stelae[40] of the late Hellenistic period found in a land plot in the area of Ano Abavri is related to a "rural cemetery" on the outskirts of the ancient Kos municipality, on the slope of a hill at the eastern side of Asklepieion, with a sea view and provides interesting evidence about the duration and mainly the character of the cemetery.

Quite frequently in burials—as it can also be seen in the example of the black-figure amphora[41] (Archaeological Museum of Kos, finding No: Π4612) that was found in 1994 during a rescue excavation in the zone of the south necropolis of Meropis, in Kos, in the area of Marmaroto[42]—the use of imported vessels is ascertained. In the wider area, on the north, south and west of the land plot concerned, many burials of the archaic period have been identified, including local and imported vessels as offerings. On the basis of stylistic and iconographic analysis, this specific amphora is attributed to the Cycle of the Antimenes Painter.

Also in the case of Kos, studies related to cultural heritage restoration and management works are continuously multiplying thus creating at the same time the prerequisites for a revision of the data though the addition of new evidence. A typical example is the one coming from Ancient Agora[43], where there is an effort to create an archaeological park, taking into consideration the remnants of buildings, with an aim to make the archaeological site comprehensible to visitors.

2.3. Agathonisi

Recent surveys in Agathonisi[44] have revealed a significant number of archaeological sites and movable findings that date from the prehistoric period up to the medieval ages inclusive. Among the most significant monuments of the island, included are: the fortress of the Hellenistic period that was identified at the northern extremity of the island, on the site named Kastraki, in Maistros bay, as well as the imposing monumental complex, possibly dating back to the early byzantine period, situated at the site named Tholoi, at the eastern part of the island.

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[40] BOSNAKIS 2013, 247–263.

[41] BOSNAKIS 2012, 219–225.

[42] Ploumi-Vallianatou's Property.

[43] ELEFTHERIOU & NETTI 2011, 425–438; GIANNIKOURI, SKERLOU, PAPANIKOLAOU 2011, 357–382; ROCCO & LIVADIOTTI 2011, 383–424; ROCCO 2013; FERRANTE *et alii* 2014.

[44] TRIANTAFYLLIDIS 2007, 183–211.

Since 2006, when a systematic excavation started on the island, many archaeological data concerning the past of the island came to light, along with a plethora of findings from the Hellenistic and mainly early roman period that testify the existence of workshop facilities of farming and animal farming type, preponderantly apiculture. The identification of a large number of beehives[45] confirms the existence of a local production.

2.4. Kalymnos

Kalymnos presents great archaeological interest from the Neolithic Age already. From the historical times, the Temple of Delian Apollo—close to the current Chora—stands out, having been the political and religious centre of the island, comprising cult and public buildings. According to the archaeological findings, adorational use of the place starts from the beginning of the 1st millennium up to the early byzantine years inclusive. The Hellenistic era, which is a prosperity period for the island, is characterized by a settlement remnants (houses, workshops, fortifying works[46]).

On the occasion of the creation of the new archaeological museum of Kalymnos[47], in Pothia, Agia Triada, studies on sculptures that are currently exhibited in it were published; hence we learn about significant plastic art works, such as the inscribed, draped kouros[48] dating back to the 3rd quarter of the 6th century BC that was found along with another 32 sculptures in an apothetes at the Temple of Apollo Dalios. Iconographic and stylistic analysis of the kouros, combined with the examination of its votive inscription—through which the dedicator of the artwork himself is recognized in the figure—lead to the hypothesis that it is a piece of art coming from a good local workshop bearing incongruous features, i.e. a combination of the sculptural tradition of Samos and Miletus' workshops.

Respectively, the relief of the funerary stele bearing the rare depiction of a Nursing Mother[49] (Inv. No of Kalymnos Museum 3900) that comes from Kalymnos and dates back to around mid-4th century BC is attributed to a local workshop that reminisces—in a liberal fashion—about the acknowledged iconographic models prevailing all over the Greek territory in the 4th century BC.

A study regarding numismatic circulation in Kos and Kalymnos[50]—on the basis of the excavation and individual numismatic findings, the so-called "Hoards", as well as written sources—shows that although the two islands are adjacent and have close relations, their

[45] TRIANTAFYLLIDIS 2012, 635–653

[46] KOUTELLAS 2003, 189–205.

[47] DRELIOSI 2010, 543–562.

[48] BOSNAKIS 2012, 157–187.

[49] BOSNAKIS 2012, 377–390.

[50] STEFANAKI & GIANNIKOURI 2010, 343–366.

numismatic circulation for the period between the 5th century BC and the end of the 3rd century BC involves noticeable differences.

This fact is explained on the grounds of their political, commercial and cultural role in the area of the Mediterranean, as well as from their relations with the other city-states and kingdoms. It is ascertained that Kalymnos thrives economically before the end of the 3rd century BC that is to say while it still preserves its political independence. From this period of time onwards and later on, when it merges with the Koan municipalities, its political and economic history is affected and shaped by the respective koan; besides, this becomes obvious also from the plethora of koan coinage inside the kalymnian "hoards", but also in the totality of the numismatic material from the archaeological Museum of Kalymnos.

2.5. Astypalaia

Due to its crucial geographical position for maritime trade, Astypalaia stood out in antiquity, from the prehistoric times already. In Arhavli, where vessels, jars, traces of fire and lamps were found, there are also vestiges of Cycladic settlements, while remnants of a Minoan settlement and Tower ruins dominate the entrance of Vathy bay. During the 5th century, being a member of the Delian League, it was structured comprising an Agora, Prytaneion, Stoa and Temples, whereas in the Hellenistic era, it operated as a port/station of the Prolemies and Egypt.

The collection and study of epigraphic testimonies[51] from Astypalaia provides evidence concerning the cults developed on the island, whereas the same research aims to extract information about the society and population of the island. We learn that in the Temples of the island, Asklepeios, Apollo, Dionysus and Zeus were worshiped, along with female deities, such as Athena, Aphrodite, Hera, Kore, and Artemis, but also Hermes and Hercules, Sarapis and Isis, Helios and Rhodos, Atargatis and finally the Nymphae.

2.6. Chalki

The geographical position of Chalki[52], but also its limited territorial surface, has defined its close and continuous relation[53] with Rhodes. Sometimes subject to Kamiros, other times independent, it has been a significant town during the classical and Hellenistic times, as testified by its architectural[54] remnants, often integrated as second-hand material in newer buildings.

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[51] MICHALAKI-KOLLIA 2005, 711–734.

[52] ANTONIOU 2008, 17–36.

[53] PAPACHRISTODOULOU 2008, 37–44.

[54] KALOCHRISTIANAKI 2008, 72–73.

In Chalki[55], findings of the classical era have been identified from the necropolis of Pontamos; 19 tholos tombs have been found (mid-5th century BC–beginnings of 3rd century BC) and 6 cists graves, carved on the sides of an antechamber (mid-4th century BC–beginnings of 3rd century BC), including an abundance of offerings. The presence of vessels of Rhodian, Attic and Thassian origin testify the relations of the island with Rhodes, Athens and Thassos respectively. The main archaeological site is Chorio, with the ancient settlement, as well as two thrones carved on top of the hill, possibly advocate the existence of a small temple. Finally, the inscriptions found suggest the existence of temples dedicated to different deities (Apollo, Asklepeios, Zeus, etc.).

2.7. Telos

The collection of data concerning archaeological research in Telos[56] has contributed substantially to the picture we have about the island to this day. Inhabitation dates back to the Neolithic period (Charkadio cave, Lakkes Site, Kambos tou Megalou Choriou), and continues in the Early Bronze Age up to the Late Bronze Age comprised (Garipa area, south of Megalo Chorio).

In the historical times, the presence of Telos is clearly more noticeable, as it acquires the status of an independent state and—as of the 4th century BC—also a democratic regime. The typical monument of the island is the ancient settlement, the excavation of which has revealed habitation of the hill of Megalo Chorio, from the Mycenaean period already. Retaining walls that were forming a flat terrace, on which a residence with a court was built, date back to the 6th century BC. This is also the typical feature of the settlement, formed by residences on separate terraces, with the existence of underground rainwater collection tanks for household usage. The fortified Acropolis with the temple of Zeus Polieus and Athena Polias, with parts of the ancient Wall and its towers preserved are worth mentioning. The Wall dates back to the Hellenistic period and combines elements of polygonal and pseudo-isodomic trapezoidal masonry for static reasons, clearly influenced—in terms of construction—by Rhodian architecture of the 4th and 3rd centuries BC.

Archaeological evidence also comes from the ancient cemeteries of the classical and Hellenistic period, but also from the numerous inscriptions of the same periods. A multitude of inscriptions and coins constitute the proof of activity of the island at the end of the classical and during the Hellenistic era. Bronze coinage of Telos[57] during the late classical era and the early Hellenistic period is confirmed by the presence of Telian coins in the collections of Greek and foreign Museums. At the same time, literary and epigraphic testimonies

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[55] PALAIOLOGOU 2008, 45–70.

[56] FILIMONOS-TSOPOTOU 2005, 19–37; SCANDALIDIS 2005, 181–200.

[57] STEFANAKI 2009, 472–492.

concerning the political and economic situation of Telos during this period are supplemented by the numismatic data to this day. The close relations and therefore direct influence of the neighbouring islands of Rhodes and Kos also appears on the bronze Telian coins.

2.8. Kassos

Due to its geographical position as a bridge between Crete and the East, Kassos[58] has stood out throughout the Antiquity. In the historical times, the ancient capital developed around the Mycenaean Acropolis, on the solid site of Polin, whereas according to the related pottery, the site seems to have been occupied from the Late Neolithic up to the early-Christian era inclusive. The ancient settlement in Polin—namely on the hill of Kastro—had a fortifying wall, vestiges of which are preserved to this day, while a paved street lead to the ancient port, Emporeios. On the south side of the mound, the ancient necropoleis are identified, with tombs dating back to the classical up to the Hellenistic times comprised. To the latter belong 51 peculiar, inscribed funerary signs (*semata*) (4^{th}–3^{rd} century BC), a burial practice only found in Kassos.

The most significant monument of the island, in use from the prehistoric up to the early-Christian times inclusive, is the cave of Ellinokamara[59] that preserves a fortifying wall of the Hellenistic era at its entrance. Pertaining to Temples, there are some indications for at least two of them. Contact of the island with Rhodes after its submission to the Rhodian state is ascertained through the discovery of Rhodian coins of the 4^{th} century BC, as well as from stamped amphorae found there.

2.9. Arkoi, Leipsoi, Leros, Patmos, Levitha, Pserimos, Gyali, Nisyros, Nimos, Symi, Alimia, Karpathos, Saria, Kastelorizo

In the islands of the SE Aegean (Map 3), in the area of Tiganakia, namely in Arkoi, part of the ancient fortress—i.e. the ruins of a tower from the 4^{th} century BC—is preserved. In Leipsoi, remnants of foundations from an ancient fortification (4^{th} century BC) have been identified, as well as necropolis vestiges of the classical times. Minimal evidence from Leros[60] places the ancient town at the port of Agia Marina, whereas tombs and movable findings have been identified. In Patmos, remnants of the geometric and archaic period are preserved from the settlement in Kastelli, which was fortified with a robust wall during the 4^{th}–3^{rd} century BC and up to some height, parts of the fortifying precincts, a gate and towers are preserved. At

[58] GIANNIKOURI & ZERVAKI 2007, 331–354.

[59] SAKELLARAKIS 1985, 34–36.

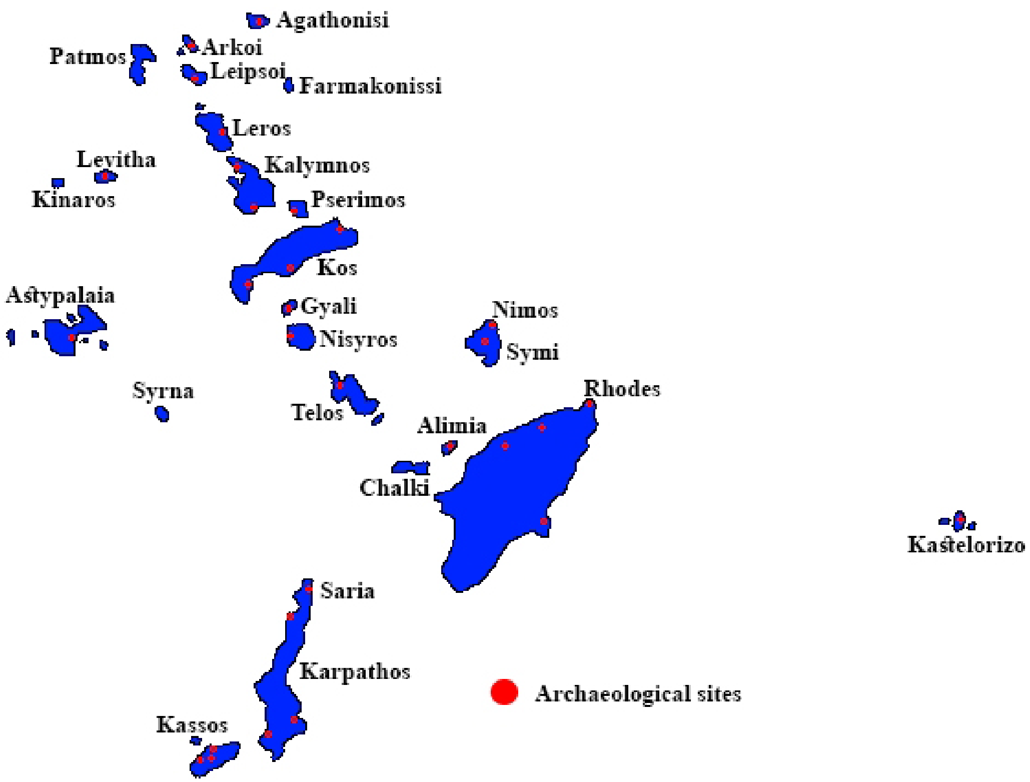
[60] MICHAELIDOU AND DRELIOSI-IRAKLEIDOU 2006.

Pyrgalio site, in Levitha, buildings of a settlement dating back to the historical times are preserved.

From Pserimos, ruins of the ancient settlement are preserved, like scattered architectural members, vessel shards, parts of altars from the Hellenistic era.

Gyali[61] has played a significant role during prehistoric times, with vestiges of a settlement and a cemetery at the southwest part of the island. At the respective northeast part, obsidian quarries were identified, while obsidian blades have been collected at different sites all over the island. Inhabitation continued also during the historical times, with traces of fortification being preserved from the Hellenistic era on the site named Kastro, at the SW part of the island and other vestiges, such as vessel shards and part of a retaining wall at its NE part.

Nisyros reaches its greatest peak during the 4th century BC, when—as an autonomous city-state—it mints its own coin, while it also preserves the wall of the town, named Paleokastro. Nimos preserves vestiges of tower-like constructions of the Hellenistic times, the so-called "*Κάστρα*" ("Castles").



Map 3. Presentation of the archaeological sites on the islands of the SE Aegean

[61] SAMPSON 1988.

Symi preserves evidence from the 5th century BC, with a visible part of fortification on the Acropolis, whereas from the Hellenistic era, the so-called “*Κάστρα*” (“Castles”)—probably used as farmhouses—are preserved.

In Alimia[62], where occupation of the island goes back to Neolithic years—as corroborated by the recent disclosure of an arched building, remnants of the ancient settlement (walls, two tanks and furnaces) have been found in Emporeio—as well as a Hellenistic fortress on the hill of Kastro.

In Karpathos[63], ruins of the Mycenaean civilization clearly stand out, while as of the historical times, the Hellenistic Potidaion—on the Acropolis of which retaining walls are preserved—evolves into a significant centre. Respective walls have been found also on the Acropolis of ancient Arkaseia, which is one of the three towns of the island (Karpathos, Arkaseia and Vrykous). Part of the fortifying precincts of the 4th century BC has been identified in Vrykous, along with tholos tombs.

The acropolis on Castello hill—south of the Palatia bay—is connected with the island of Saria in the historical times; fortification remainders are preserved on the west slope, along with two tholos tombs.

Although remote, Kastelorizo has developed an independent historical presence, constituting a trading post in the transactions between Crete and Cyprus. On Palaiokastro site, remains of fortification from the 4th century BC up to the beginning of the Hellenistic era comprised are preserved. East of the port, rock-cut, is situated a tomb with temple-shaped facade of the Ionic order, dating back to the end of 4th century BC or beginnings of the Hellenistic era.

3. Commercial contacts: influences and sways. The cases of Rhodes and Kos

In the antiquity, the crucial geographical position of the two islands played a significant role both in the political life, as well as in the commercial transactions of the Southern Aegean with the Mediterranean Sea, the mainland, but also the Asia Minor coastline across, as main transit and export trade centers.

As it has been already mentioned, during the archaic era, Rhodes constituted one of the most important production centers of clay artifacts in the Aegean having eastern features, with the most typical ones being the zoomorphic askoi. Plastic vases of the Rhodian workshop are characterized by a naturalistic depiction of figures.

Within the same framework—i.e. exchange of ideas and commodities, influences and sways between the East and the West—did Rhodes’ effect work on the islands around it. The discipline of numismatics is perhaps *the* most indicative example, according to coinage

[62] SIMOSI 2004, 349–354

[63] KARNAVA 2007, 359–371; MELAS 1991.

studies of the Aegean islands and their relation to Rhodes during the late classical and Hellenistic period. The numismatic activity of the Doric islands of the Dodecanese (Chalki, Karpathos, Telos, Nisyros, Symi, Megisti, Kos, Kalymnos, Astypalaia) provides all the information concerning the influence of the Rhodian state on them. The adoption of the Rhodian weighing unit and the Rhodian numismatic types, as well as the use of the Rhodian coinages themselves proves the catalytic significance of Rhodes in this sector.

Respectively, Kos is influenced and influences through its commercial contacts. Its interventional role—in particular from the late classical period onwards—is ascertained through pottery—with the export of Koan amphorae[64]—and numismatics, with the large production and circulation of Koan coins[65].

The intensity of commercial contacts is also confirmed through the presence of foreign coins respectively, covering a geographically wide range of the ancient world, from the Western Mediterranean up to Egypt and from Athens up to the coastline of Asia Minor (Lykia, Troas and Thrace) and constitute an indisputable substantiation of the contact of Kos with other towns within the framework of commercial and economic transactions.

Furthermore, combinational studies[66] concerning Koan amphorae and coins identified all over the ancient world provide information pertaining to the power and expansion of the island through its commercial activity under the prism of novel approaches. The examination of the stamped amphorae of the 4th century BC has shown that the form of the national name (ΚΩΙΟΝ, ΚΩΣ, ΚΩΙΟΣ) and the symbols of the stamps clearly refer to the types of Koan coins, with the stamps following the iconographic types of their contemporary coins. The common features in the two categories of findings aimed to the accuracy of Weights and Measures, as well as to the quality of products. During the Hellenistic era, however, these tactics seem to change and a gradual iconographic differentiation starts between stamps and coins. Respectively, the presence of common names between the two categories is limited; there are only just 57 common names, while we have knowledge of 336 names coming from stamps and 197 coming from coins. The development of comparative studies will be able to enrich our knowledge concerning the stratification of the Koan society, the social and political changes, as well as the social classes that were active in the public and economic life of Kos.

The existence of raw materials[67] gave the island the possibility of self-sufficiency in terms of being able to manufacture objects from these raw materials, as well as being in a position to export them. Ancient quarries[68] have been already identified and so have the related

[64] GEORGOPOULOU 2005 (Ph.D).

[65] TOULANTA-PARISIDI 2005, 363–377; GIANNIKOURI & STEFANAKI 2006, 105–124; TOULANTA-PARISIDI 2007, 321–330; GIANNIKOURI & STEFANAKI 2010, 447–480; STEFANAKI & GIANNIKOURI 2011, 343–366; STEFANAKI 2012.

[66] GIANNIKOURI, STEFANAKI, GEORGOPOULOU 2011, 887–906.

[67] POUPAKI 2004, 165–179; POUPAKI 2011.

[68] POUPAKI & CHADJICONSTANTINOU 2014, 541–555.

artefacts (findings from the Temple of Apollo), such as marble from Dikaion[69] mountain, granite from a site close to Eastern Kardamaina and volcanic rocks from Kefalos. In the village named Pyli[70], a travertine (kind of limestone of lacustrine origin, rare due to its composition) quarry has been found.

With regard to the item of glass, the production of which is particularly intensive in Rhodes, the most prevailing view about Kos is that the island imports products either from Rhodes or from another big glass workshop from the broader area of the Aegean. The view is based on the study[71] of a group of shards from glass vessels (late 2nd century BC up to the 3rd quarter of the 1st century BC) that were found during the rescue excavation of a late Hellenistic apothetes around the ancient wall of the town of Kos.

4. Conclusions

Looking at the SE Aegean islands and their activity during the period from 800 up to 200 BC we can easily see their continuous growth and their dynamic presence in the broader area of the Aegean. All these islands as a whole and each island individually has played a major role in the enrichment of the Aegean area with the introduction of new elements. The archaeological evidence, through architectural remains and movable findings as a result of systematic and rescue excavations, attests to their special dynamic and the commercial transactions between them and the wider mainland.

The large number of publications concerning firstly the archaeological sites of Rhodes and Kos and secondly all the other islands of the SE Aegean affirms the close relationship of the islands—through trade routes—with neighbouring civilizations of the Near East, mainly Iran and Caucasia during the early 1st millennium BC and in particular during the late 8th and 7th centuries BC. The maritime communication route from the Eastern Mediterranean to Cyprus, the Aegean and continental Greece makes commercial contacts with the East and the West particularly frequent. Apart from the imported artefacts themselves, the import of new stylistic features is observed; subsequently, these features are assimilated and hence transformed in local workshops, resulting in the creation of new compositions.

Evidently this study presents only an overview of the SE Aegean islands during the Historical Ages (800–200 BC) but it provides significant evidence on the presence and activity of the islands. Recent scientific studies and publications, in combination with management projects which aim to enhance the natural and cultural environment by creating Archaeological Parks and Outdoor Museums, enlarge the present framework and offer new fields of study.

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[69] CHADJICONSTANTINOU & POUPAKI 2009, 61–67.

[70] POUPAKI & CHADJICONSTANTINOU 2004, 111–124.

[71] TRIANTAFYLLIDIS 2006, 145–161.

Table 1. Summary presentation of the archaeological remains
on the islands of the SE Aegean per periods

SE Aegean Islands	Geometric period	Archaic period	Classical period	Hellenistic period
Agathonissi				●
Arkoi			●	
Leipsoi			●	
Patmos	●	●	●	
Kalymnos			●	●
Pserimos				●
Kos	●	●	●	●
Astypalaia			●	
Gyali				●
Nisyros			●	●
Nimos				●
Symi			●	●
Telos			●	
Alimia				●
Chalki			●	●
Karpathos			●	
Kassos				●
Rhodes	●	●	●	●
Kastelorizo			●	●

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Characterisation and analyses of museum objects using pXRF: An application from the Delphi Museum, Greece

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Abstract. *Twenty-six objects from the Delphi archaeological Museum, including nearby museum premises, have been analysed by portable XRF. The aim was their characterization, provenance and archaeological interpretations. Twenty-one miniature Corinthian ceramic vases, a bronze and a ceramic pyxis bearing powder, four pigments on ceramics and six elegant glass vases, were non-destructively measured in situ. The ceramic analysis seems to form one cluster with similar chemical traits. The clay is calcareous with relatively high iron and titanium contents. Slip painted surface was due to increased MgO and Fe_2O_3. Four elegant glass vases were statistically compared to about 270 published data of similar period for provenance study and investigating the mineral agents for colouring glass. In fact the clustering analysis forms one of the major analytical groups containing the Delphi samples and also samples from Rhodes and Satricum. Of the major findings is the highly toxic mercury as cinnabar (HgS), a red pigment very commonly used since antiquity, mixed with PbO white lead in face powders. Particular elemental variations in all groups are discussed. Multiple statistical analysis was used, such as, various hierarchical cluster versions, PCA, bi-plots. The case study provides a practical aid to archaeological interpretation and emphasizes the valuable use of portable XRF in museum studies on material culture ranging from various types and periods.*

Rezumat. *Un număr de 26 obiecte din patrimoniul Muzeului Arheologic din Delphi au fost analizate prin XRF portabil, în vederea caracterizării, stabilirii locului de proveniență și interpretării arheologice. 21 vase miniaturale corintice, un pyxis din ceramică și bronz conținând pulbere, patru pigmenți pe ceramică și șase vase elegante din sticlă au fost analizate in situ printr-o metodă non-destructivă. Patru vase elegante din sticlă au fost comparate cu 270 de obiecte similare datând din aceeași perioadă, investigându-se agenții minerali de colorare a sticlei. Acest studiu de caz constituie un element auxiliar practic acordat interpretării arheologice și pune în evidență valoarea folosirii XRF portabil în studiile muzeale asupra culturii materiale de diferite tipuri și datând din perioade diverse.*

Keywords: glass, ceramic, pyxis, powder, pXRF, glass, chemical elements, analysis, cluster.

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1. Introduction

The non-destructive capabilities of XRF are indeed particularly suited to research in art and archaeology, where the sample is unique, or its integrity has significant technical or aesthetic value. This is perhaps best exemplified in the examination of works of art, where the forensic aspects of the measurement may provide historical insight[5]. However, for each experimental situation, the choice of one approach over the other depends on the type and intrinsic value of the object, the aim of the investigation, the instruments available, and, last but not least, the scientist's or conservator's personal assessment of the acceptable damage.

Portable XRF (pXRF) analysers have shown during the last 30 years that they are ideal tools to aid in a variety of applications in cultural heritage, archaeology/geoarchaeology, and in archaeometry research in general[6], including:

a) On-site material characterization of lithic tools, ceramics. For example, ceramics for the examination of decorated shards, provenance of clay and trade[7];

b) Identification of mineral pigments in modern art[8] and binding media and varnishes used in medieval paintings and manuscripts[9];

c) Sediments from drilling boreholes based on the resulted quantitative data, distinguishing of the fluvial or the marine character of the successively deposited sediments in all studied cores became feasible[10];

d) In museum analysis pXRF can identify components of pigments in paintings and glazes, metal alloy content, provide the characterization of objects such as jewellery, silverware and weaponry, thereby assisting conservators in the preservation and restoration of artefacts, as well as aiding in constructing databases from analytical data for the scientific community;

e) Provenance studies based on the identified elements and their concentrations and by comparing sources and artefacts[11];

g) Glass[12]; eighteenth century Polish, Brandenburg and Saxon glassware[13], as well as EDXRF of Celtic glasses[14] and porcelain[15].

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[5] LONGONI *et alii*, 1998; SPOTO *et alii* 2000.

[6] CESAREO *et alii* 1972; HALL *et alii* 1973; CESAREO *et alii*, 1996, 1999; LONGONI *et alii* 1998; LANGHOFF *et alii*, 1999.

[7] PAPAGEORGIOU & LIRITZIS 2007; PAPADOPOULOU *et alii*, 2007; JAVANSHAH ZEINAB 2018.

[8] VANDENABEELE *et alii* 2000a; LIRITZIS & POLYCHRONIADOU 2007.

[9] VANDENABEELE *et alii*, 2000b.

[10] ZACHARIAS *et alii* 2009.

[11] E.g, LIRITZIS & ZACHARIAS, 2010.

[12] ZACHARIAS *et alii*, 2008.

[13] KUNICKI-GOLDFINGER *et alii* 2000.

[14] WOBRAUSCHEK *et alii*, 2000.

[15] WU *et alii*, 2000.

In general, direct and *in situ* material characterization is a triggering task, and conclusive answers may come to light only with the use of a combination of calibrated portable sets that perform within an interdisciplinary environment of material scientists, museum object studies and geo-archaeologists.

Here we present a first non-destructive method of characterization employing the portable XRF devices for some characteristic archaeological objects from Delphi Museum: little votive vases from a sanctuary of archaic period, some extremely elegant glass vases and an unknown origin powder from a tomb of 5th c. BC.

The detected major, minor and trace elements are discussed from the characterization and technology/provenance point of view, in comparison to other similar objects and weigh the potential of these results in the frame of practical application, extraction of significant data and archaeological interpretation.

2. Materials and methods

The objects analysed in the present work correspond to a variety of different materials, including ceramics, glass, and powder contents of vessels. More specifically, the following objects were analysed:

1. Four glass vessels, used for storing perfume oils. They come from tombs of the 5th c. BC in Delphi. The glass vessels were made using the core technique, which originally appeared in Mycenaean times and reappeared at the end of the 7th–beginning of 6th c. BC. Three of the vessels have dark blue bodies with white and yellow zig-zag decorative patterns, whereas one (sample 1672) is opaque white. The variety of the shapes of the vessels (*amphoriskos*, *oinochoe* and *alabastron*) and their decoration demonstrate the inspiration and virtuosity of ancient glassmakers (Figure 1). One glass (inventory no 7871) from Delphi is not grouped with the remaining 3 glasses from Delphi. The remaining 3 glasses from Delphi (7870, 8802 and 7869) form a clear compact group: 1 clay perfume inv. 8742, 2 colourful blue glass perfume inv. 8802, 3 colourful glass perfume container, 4 alabastron, inv. 7872; 5 and 6 pointed amphorae inv. 7869 blue, inv. 7870 yellowish white.

2. Twenty miniature fine grained ceramic vases. Thousands of miniature votive vases found in the sanctuary of Kirra, miniature cups, *oinohoae* (wine vase), *kantharoi*, water jar, baskets, boxes, plates etc. The 6th–4th c. BC Corinthian *kotyliskes* or *skyfidia* are in fact part of the amount of terracotta dedications accumulated in a pit in front of the building attached to the temple of the sanctuary found at Kirra during excavations of the French Archaeological School of 1936 to 1938. The sanctuary seems to serve the needs of residents of Kirra and pilgrims of the Pan-Hellenic sanctuary of Delphi and tributes are dated from the late 6th c. BC

until the third quarter of the 4^{th} c. BC[16]. Representative examples of the ceramic vases are shown in Figure 2.

3. In one ceramic cylindrical pyxis with lid a light pink fine powder (psimythio) was found in the interior and was analysed in order to identify the original content of the vessel (Figure 3). The object comes from the so-called tomb of "theater actress" excavated at Delphi and dated to 400–350 BC.[17]

Non-destructive X-Ray Fluorescence (p-XRF) analysis was applied on all artefacts and samples since the technique allows fast and in situ, non-invasive analytical characterization of archaeological material[18]. The set up used was a portable Bruker Tracer III SD, with a rhodium X-ray tube and Si-Pin diode detector. The beam diameter is approximately 3 mm[19]. The set-up is calibrated against metal alloys and clays with the use of standards and quantification is made using the S1PXRF software and based on FP routine[20]. For the glass objects, data quantification was made using S1PXRF software and a custom-built calibration curve, created in collaboration with the scientific personnel of Bruker; a detailed description of the calibration curve and the accuracy and precision achieved for the analysis of glass is provided elsewhere[21].

In order to optimise the analytical range, two settings were used for the analysis of the ceramics and glass samples: (1) an unfiltered low-energy excitation mode (high voltage set at 15 kV and current of 24 μA, analyses carried out under vacuum) was used for the analysis of major and minor elements (with an atomic number, Z, between 11 and 26 for ceramics and between 11 and 29 for glass); and (2) an Al/Ti filtered (0.012 inches Al plus 0.001 inches Ti) high-energy excitation mode (high voltage set at 40 kV and current of 12 μA) was used for the analysis of minor and trace elements with a high atomic number ($Z>29$ for ceramics, and $Z>26$ for glass). The collection time of each measurement was 120 sec. The samples were not cleaned prior to the analysis, however care was taken to select areas with no signs of past restoration treatment and free of corrosion products.

3. Glass analysis

The corrosion layers present on the samples, in addition to the well-known analytical limitations of XRF for the lighter elements, lead to a significant underestimation of the

[16] PARIENTE 1991.

[17] PERDRIZET 1908.

[18] LIRITZIS & ZACHARIAS 2010.

[19] MOROPOULOU *et alii* 2016.

[20] SOKARAS *et alii*, 2009.

[21] PALAMARA *et alii*, 2016.

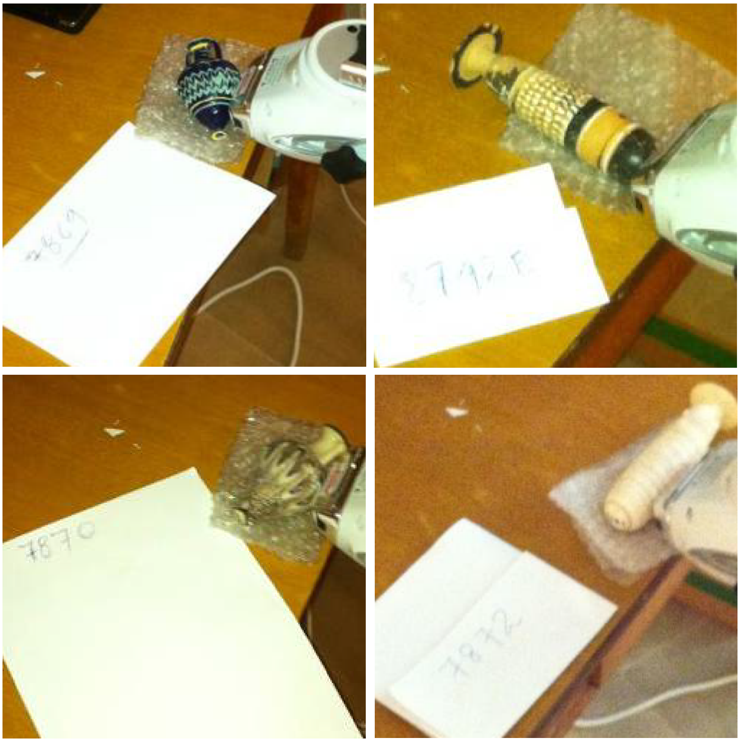

Figure 1. Images of the glass vessels from Delphi, during the in situ XRF analysis

Figure 2. Representative examples of the miniature ceramic vases found at Kirra

Figure 3. Image of the ceramic vessel with its content (pink powder)

Table 1. XRF compositional analysis of the glass vessels (major oxides in weight %, minor elements in ppm, normalised to 100%, "nd": not detected). A mean Na_2O (20.4 wt %) and MgO value (0.7 wt%) was estimated based on bibliographic data

Sample	Na_2O	MgO	Al_2O_3	SiO_2	SO_3	K_2O	CaO	Fe_2O_3	P	Ti	Mn	Co	Cu
1672	20.4	0.7	3.33	67.62	0.81	0.17	6.23	0.74	498	nd	188	nd	nd
1673	20.4	0.7	2.38	70.39	0.54	0.27	5.32	nd	28	nd	143	642	330
1674	20.4	0.7	3.80	67.43	1.01	0.29	6.20	0.16	375	33	167	389	257
1675	20.4	0.7	3.08	65.02	1.56	0.49	7.49	1.26	524	260	159	137	302

sodium content. To overcome this problem, Zacharias *et alii* (2008) suggest the replacement of the sodium and magnesium value by a value calculated by a different technique, or by using an estimate value from published data of similar glasses with those under study. The remaining percentage is then distributed to all remaining components on the basis of their relative XRF values. A mean value of the Na_2O and MgO concentration (20.4 and 0.7 wt%, respectively) was estimated based on the composition of contemporary and stylistically similar core-formed glass vessels from Thebes[22]. The XRF values that occurred for the major and minor elements of each sample, after re-normalizing to 100%wt, are presented in Table 1. It must be noted that the calibration curve of the trace elements is currently underway; therefore the available data correspond only to the light and mid-range elements of glass.

The data of the four Delphi vessels were compared against bibliographic data from contemporary sites in the Mediterranean region. Figure 4 presents Al_2O_3 versus CaO concentrations for the samples of the present assemblage along with recently published data from the following assemblages, in an effort to characterize its base glass. The published data consist by:

– 70 samples, primarily beads, from Rhodes, Greece. The samples date to approximately 640–600 BC[23];

– 29 glass beads from Thebes, Greece. The majority of the samples date to the archaic period (6^{th} c. BC), but a few classical and Hellenistic samples (5^{th}–3^{rd} c. BC) are also present[24];

– 8 core-formed vessel fragments from Thebes, Greece. The samples date to the classical period (5^{th}–4^{th} c. BC)[25];

– 56 samples from Satricum, Italy, including 53 fragments of core-formed vessels and three fragments of beads. The samples date to the 4^{th}–3^{rd} c. BC[26];

[22] OIKONOMOU *et alii* 2012.
[23] OIKONOMOU *et alii* 2012.
[24] OIKONOMOU *et alii* 2012.
[25] ZACHARIAS *et alii* 2012.
[26] OIKONOMOU *et alii* 2016.

– 16 core-formed vessel fragments from the Pichvnari necropolis in Georgia. The samples date to the 5th c. BC[27];

– 59 vessel fragments or primarily monochrome bowls from Jebel Khalid, Syria. The samples date between the late 2nd and early 1st c. BC[28];

– 30 objects, including beads, jars and gaming pieces, from Pydna amd Methoni, Pieria municipality, Greece. The samples date between the 8th and 4th c. BC[29].

According to this biplot the samples from Rhodes have distinctively lower alumina concentration compared to all other assemblages. The samples from Thebes show a wide distribution; however, a subset of the Theban samples, demonstrating high alumina and relatively low calcium concentration[30], shares similar chemical traits with the four samples from Delphi, suggesting a similar technological tradition.

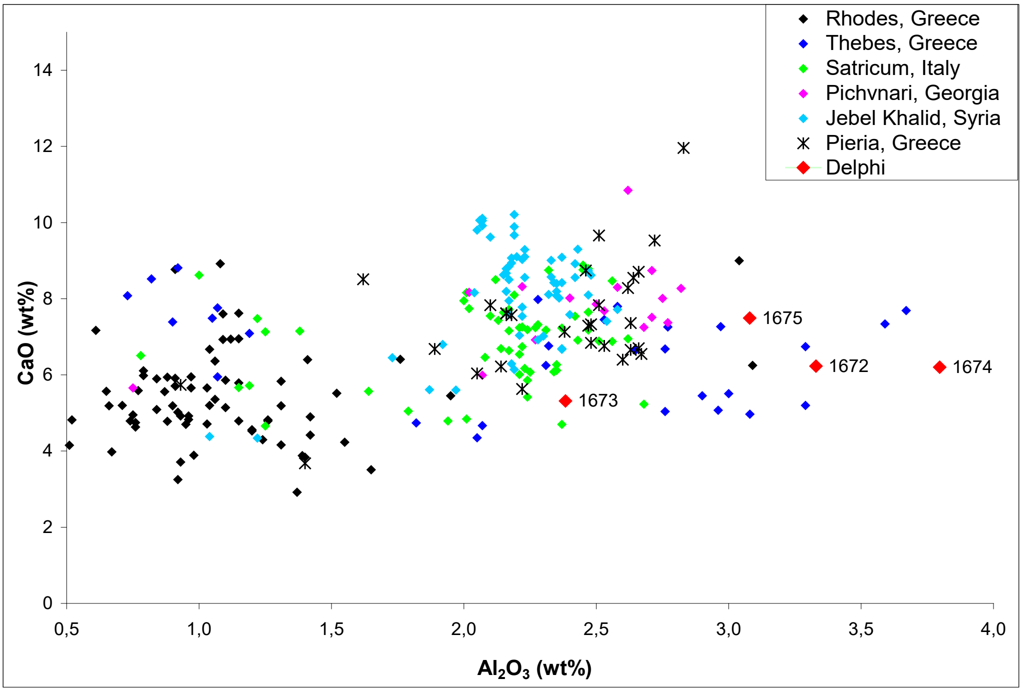

Figure 4. Al_2O_3 versus CaO concentrations for the glass samples of Delphi along with published data from Rhodes and Thebes, Greece (Oikonomou *et alii* 2012), Satricum, Italy (Oikonomou *et alii* 2016), Pichvnari, Georgia (Shortland & Schroeder 2009), Jebel Khalid, Syria (Reade & Privat 2016) and Pieria, Greece (Blomme *et alii* 2017)

[27] SHORTLAND & SCHROEDER 2009.

[28] READE & PRIVAT 2016.

[29] BLOMME *et alii* 2017.

[30] BELTSIOS *et alii*, 2012.

The same samples were further examined using Cluster Analysis based on all major oxides (with the exception of Na_2O and MgO, the values of which were not measured with satisfactory accuracy for the four samples from Delphi). The scope of the analysis is to reveal any relation of the four under study samples from Delphi with samples from the broad area of Mediterranean region. The clustering methods used for the analysis include hierarchical cluster analysis[31], and model-based cluster analysis[32] a framework which allows statistical testing for the number of existing groups in data. Various transformations of the data variables have been explored and principal component analysis (PCA) is used for plotting the results and evaluating the results of grouping.

Removing some clear outliers from the data set of total 285 observations, three main groups are initially formed. Figure 5 is a graphical representation of the resulting grouping on the first three PCs. One group consists of the observations from Rhodes, a second group labelled as group B with the distinctive feature of high value of Fe and group A which consists of all remaining, at this stage, observations. One of the four samples from Delphi, namely sample with label '1675' belongs to group B with high value of Fe. However, taking into consideration the fact that the results correspond to surface analyses on corroded samples, the observed differences of sample 1675 are most probably related to analytical problems, and not to the use of different raw materials. Figure 6, is plotted using the labels of the four samples from Delphi to gain information about their relative position.

At the next stage of the cluster analysis, focus is made in the majority of samples, labelled as group A, since the two other groups are distinctly different. Four groups are formed within group A and Figure 7 shows the resulting grouping in the first two principal components. The result is attained using model based cluster and the best model with respect to covariance matrices of the groups was the diagonal with varying volume and shape. The software used in 'mclust' package in R. Group 1 exhibits a wide spread and consists mainly of samples from Thebes and a subgroup of Satricum. The remaining three samples from Delphi belong to this group. Group 2 consists of samples from Syria and group 3 and 4 correspond to samples from Satricum, Italy. Appendix A (at the end) provides each group in detail. Figure 7/b shows the position of the three under study samples from Delphi with respect to the resulting groups.

In total, based on the above statistical approach, the Delphi samples belong to one of the major analytical groups containing the Delphi samples and also samples from Rhodes and Satricum.

[31] See for example EVERITT *et alii*, 2011.

[32] See BANFIELD & RAFTERY 1993.

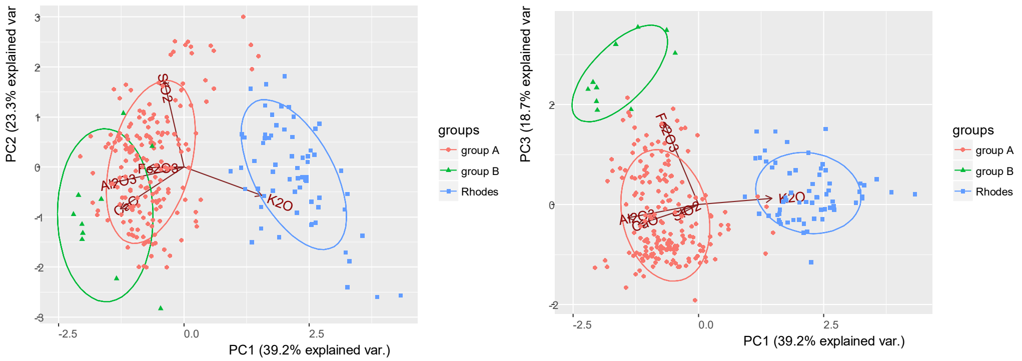

Figure 5. Clustering result using the first three PCs. The number in parenthesis in label axes is the proportion of the total variability that each component explains

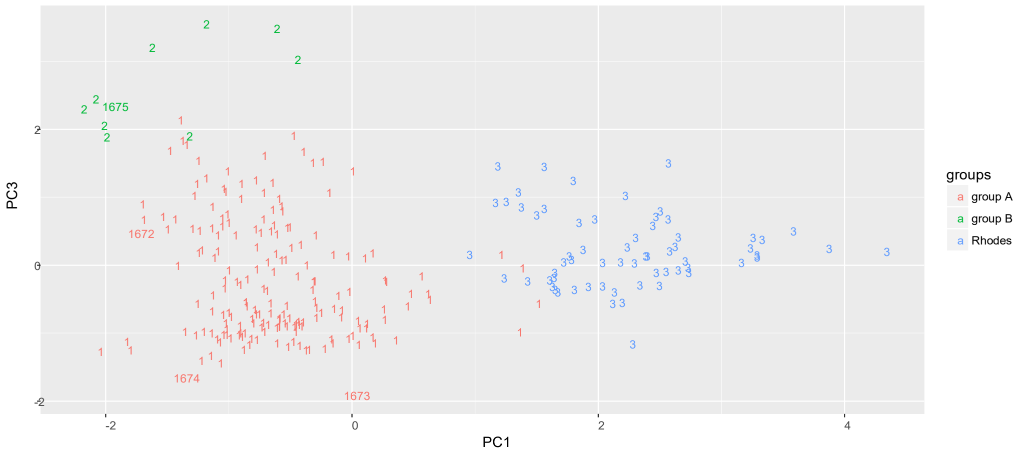

Figure 6. The clustering result on the first and third PCs using as labels the cluster membership with exception. The actual label names have been used for the four samples from Delphi

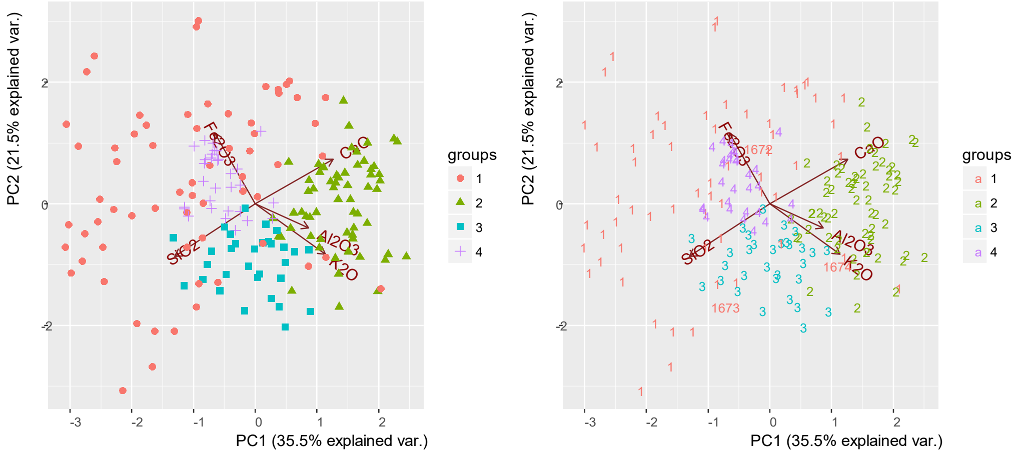

Figure 7. Cluster Analysis result presented in PCA components

4. Ceramics analysis

The analysis targeted to characterize the clay surface of the assemblage aiming towards the technological fingerprinting of their production technology. The chemical composition of the major and trace elements of the ceramic vessels are presented in Tables 2 and 3 respectively. Based on the major elements, the vast majority of the samples seem to form one cluster with similar chemical traits (Figure 8). The clay is calcareous with relatively high iron and titanium contents. The increased MgO and Fe_2O_3 values of samples 27023 and 27037 should be attributed to the accidental presence of slip within the area of analysis, and not to a chemically diverse fabric. The observed differences are likely associated with a coarser fabric; however, based on the major oxides, all samples seem to originate from the same clay source (Figure 8). The only sample which demonstrates different composition is sample 26835, which is characterised by high calcium and iron contents.

Table 2. XRF compositional analysis of the major oxides of the ceramic vessels (in weight%, normalised to 100%)

Sample	Na_2O	MgO	Al_2O_3	SiO_2	SO_3	K_2O	CaO	TiO_2	MnO	Fe_2O_3
26835	1.94	1.47	8.04	35.38	1.66	3.05	23.91	1.90	0.19	22.47
26850	1.56	1.44	11.04	40.26	3.67	0.99	19.94	1.12	0.08	19.89
27007	1.49	1.02	14.80	41.89	0.30	2.99	17.01	1.42	0.14	18.95
27008	1.05	1.35	14.52	47.05	2.86	1.12	17.64	1.15	0.08	13.18
27023	1.33	7.66	6.56	38.40	0.67	1.19	15.64	1.25	0.11	27.19
27024	1.55	1.05	9.74	40.65	5.38	1.70	18.66	1.32	0.09	19.85
27025	1.39	0.70	13.28	42.40	3.51	1.86	18.61	1.29	0.08	16.87
27035	0.91	1.86	15.96	48.96	1.50	1.57	16.24	1.05	0.08	11.88
27036	1.23	0.72	16.53	47.08	0.28	2.13	16.34	1.09	0.08	14.54
27037	1.55	3.80	8.86	40.76	0.59	2.39	13.70	1.46	0.10	26.78
27039	1.42	0.79	14.07	41.82	3.04	1.93	18.28	1.13	0.09	17.43
27040	1.46	1.10	13.37	45.43	1.21	2.08	15.20	1.28	0.10	18.76
27041	1.48	1.81	11.47	52.19	0.46	2.80	10.05	1.50	0.11	18.13
27044	1.37	1.08	13.34	47.78	2.34	1.96	13.16	1.28	0.08	17.60
27050	1.53	1.23	10.30	42.64	3.55	1.80	18.62	1.40	0.10	18.83
27082	1.34	1.02	13.69	51.26	1.03	2.47	11.71	1.35	0.10	16.03
27085	1.34	0.72	14.33	47.88	1.16	2.26	14.81	1.45	0.10	15.94
27089	1.49	2.07	10.68	45.57	3.37	1.89	15.07	1.37	0.08	18.42
8495	1.25	0.89	12.98	45.73	2.50	1.23	19.88	1.30	0.10	14.16
8497	1.19	0.82	14.85	46.14	1.06	1.87	18.13	1.15	0.11	14.68

Cluster Analysis, both hierarchical and model-based, was further undertaken for the 20 ceramic samples, using the values of both major and trace elements: Na_2O, MgO, Al_2O_3, K_2O, CaO, TiO_2, Ti (in ppm), MnO, Fe_2O_3, Cr, Co, Ni, Cu, Zn, Pb, Rb, Sr, and Zr.

All different clustering methods and various linkages within the hierarchical cluster analysis suggest that sample 26835 is different compared to others. The same result is confirmed with various data transformations, such as standardization. Figure 9 is a representation of the data in the first two principal components which account for the 51% of the total variation of the data. The variables with high impact in the first principal component are Na_2O, Al_2O_3, K_2O, TiO_2, Ti (in ppm), MnO, Fe_2O_3, Cu, and Sr.

Table 3. XRF compositional analysis of the minor and trace elements (in ppm, “nd”: not detected)

Sample	P	Ba	V	Cr	Co	Ni	Cu	Zn	As	Pb	Th	Rb	U	Sr	Y	Zr	Nb	Mo	Sn	Sb
26835	nd	1023	109	110	32	195	510	nd	16	17	8	76	nd	269	24	97	7	16	4	49
26850	nd	169	nd	96	31	224	256	11	35	22	9	90	nd	481	27	96	8	nd	3	22
27007	nd	864	32	93	33	239	147	112	13	16	8	88	3	366	25	119	9	nd	3	22
27008	176	1769	11	105	33	248	162	115	15	16	9	99	nd	375	29	112	9	nd	3	14
27023	nd	nd	nd	61	30	226	119	74	12	17	8	82	1	348	26	120	9	2	3	25
27024	nd	833	5	94	34	280	126	70	11	16	9	85	nd	272	27	124	9	nd	3	20
27025	105	865	7	101	33	246	258	25	23	20	9	94	3	334	26	112	9	nd	3	20
27035	347	1646	9	111	32	264	142	64	23	20	10	103	2	410	27	119	10	nd	3	14
27036	125	716	17	104	30	230	144	55	10	16	9	104	2	380	27	115	10	nd	3	20
27037	nd	nd	nd	84	38	280	257	97	37	22	10	116	3	262	26	121	10	nd	3	24
27039	38	848	nd	94	34	263	135	111	77	29	10	80	nd	413	33	111	9	nd	3	17
27040	nd	522	7	95	36	276	146	79	59	26	10	96	nd	336	31	116	9	nd	3	14
27041	nd	575	nd	73	28	197	102	124	34	22	11	121	1	319	27	125	11	2	3	28
27044	nd	581	nd	84	32	201	137	81	20	19	10	111	7	397	25	122	11	nd	3	22
27050	nd	877	14	86	34	250	139	89	18	18	10	115	7	335	24	118	11	nd	3	19
27082	nd	528	3	113	32	257	279	44	147	36	11	100	1	299	28	115	9	nd	3	19
27085	nd	863	28	96	31	194	119	103	12	16	11	123	nd	305	27	122	10	nd	3	18
27089	nd	126	nd	82	29	170	200	63	24	20	11	115	2	338	27	129	10	nd	3	18
8495	379	1607	38	92	28	183	197	294	627	63	12	81	nd	343	27	93	8	10	4	34
8497	nd	1836	28	92	34	244	140	205	29	20	10	114	9	446	22	114	10	nd	3	22

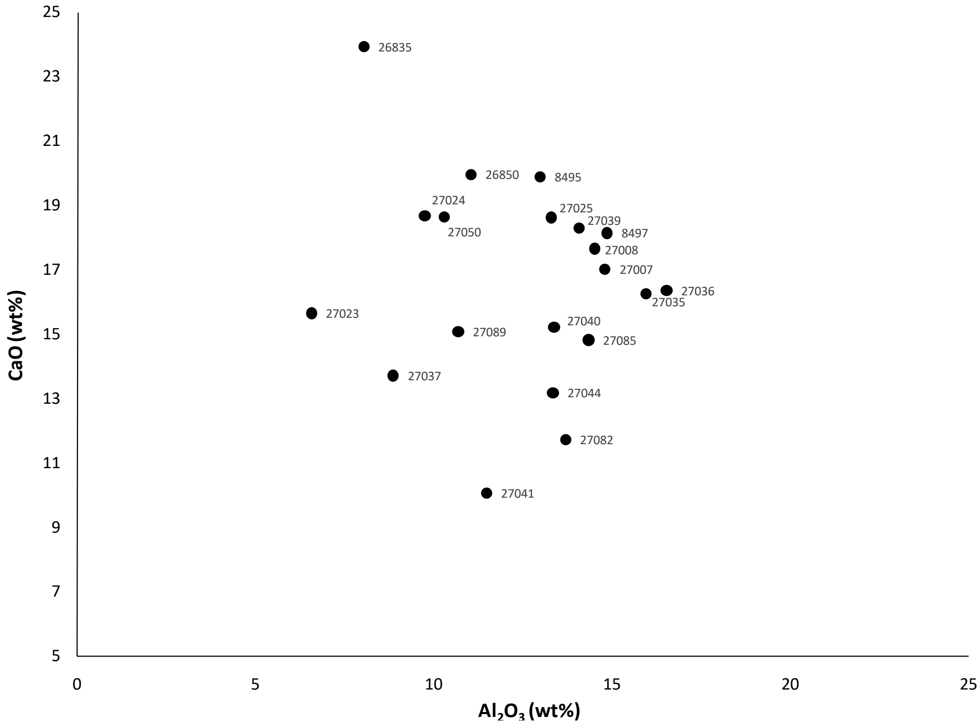

Figure 8. Al_2O_3 versus CaO concentrations for the ceramic samples of Delphi

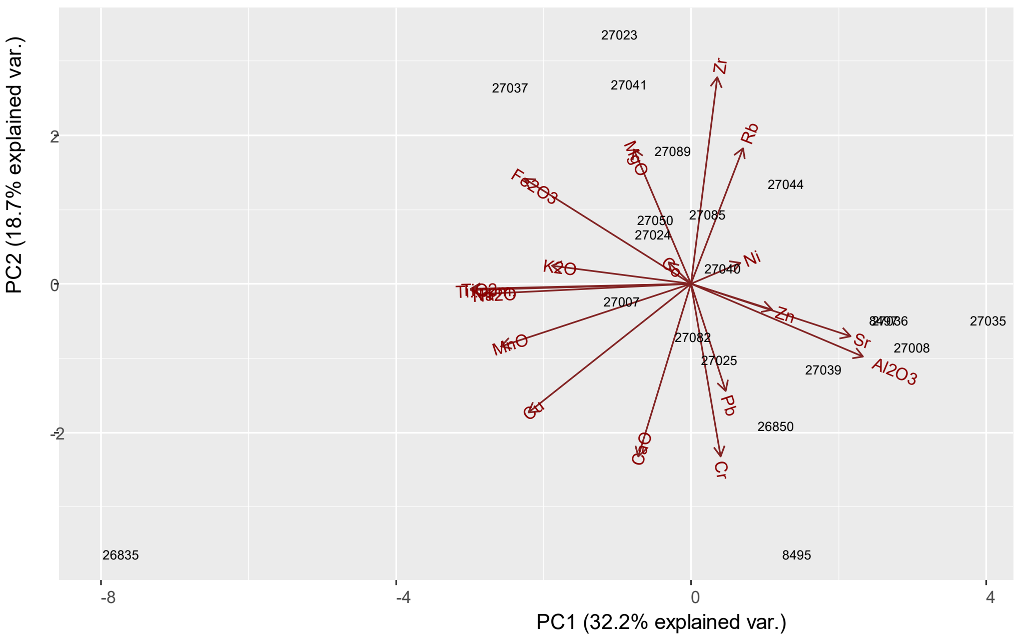

Figure 9. Biplot of Principal Component Analysis on Standardized data

Removing sample 26835 and after repeating the procedure two subgroups are more apparent. Figure 10 shows the dendrograms of the remaining data when complete and average linkage techniques, the two most widely used linkages in hierarchical clustering, are implemented. Analytically, the two sub-groups, noted as 1 and 2 respectively, consist of the samples:

Group 1	27023 27008 27035 8497 26850 8495 27025 27039
Group 2	27099 27024 27050 27044 27082 27085 27007 27037 27041

Figure 11 is the biplot of the principal component analysis with the data points to be labelled according to their group membership. Conclusions drawn from the biplot are that group 1 to the right side of the graph contains samples which are mainly characterized from their high value of Al_2O_3, Cr, Sr, CaO, Pb, Cu, and Ni and small value to all remaining elements. The exact opposite situation holds for samples in group 2. They indicate low measurement values in those elements and high to all remaining. A small exception may be noted for sample 27023, which exhibits the same profile with samples in group 1 with a higher value, relative to the remaining group, in MnO.

Overall, the ceramic samples under study show similar chemical fingerprinting and within the observed, relative, homogeneity two subgroups can be seen reflecting the possibility of either the existence of two different workshops or of differentiating production series, operating within the same geographical area.

5. Powders analysis

a) The XRF analysis of the pink powder, found in one of the ceramic vessels lead to the determination of the original content. This powder from a ceramic pyxis originates from tomb AMΔ 4321. It is a clay cylindrical pyxis with lid and it retains its light pink powder content (psimythio). It comes from the so-called tomb of a “theatre actress” excavated at Delphi and dated in 400–350 BC[33]. The identification of Sulphur (S) and Mercury (Hg) but Pb as well clearly identifies the powder as cinnabar, that is HgS a red pigment very commonly used since antiquity, mixed with PbO white lead (Figure 12). The 4th c. BC Greek author Theophrastus mentioned three different sources of cinnabar: from Spain, from Colchis in present-day Georgia, and in Ephesus in Asia Minor[34]. The parallel presence of lead (Pb) can either be attributed to impurities in the cinnabar ore or to the mixing of a lead-based pigment with cinnabar[35]. The most striking property of cinnabar is its red colour. Its bright colour

[33] PERDRIZET 1908.

[34] EASTAUGH *et alii* 2004.

[35] NÖLLER 2015.

makes it easy to spot in the field and is a fascination for those who discover it. It has a Mohs hardness of 2 to 2.5 and is very easily ground into a very fine powder. It has a specific gravity of 8.1, which is extremely high for a nonmetallic mineral. Cinnabar has also been used in powdered form for ritual blessings and burials. Powdered cinnabar was used as a cosmetic in many parts of the world for thousands of years. Eventually it was discovered that cinnabar is

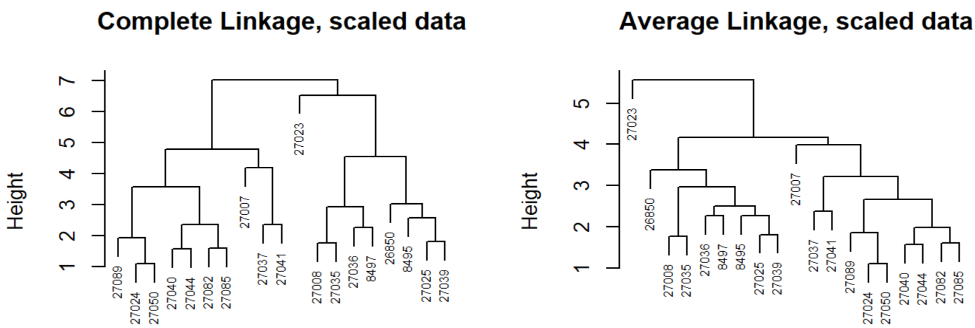

Figure 10. Hierarchical cluster analysis with average and Ward linkage methods

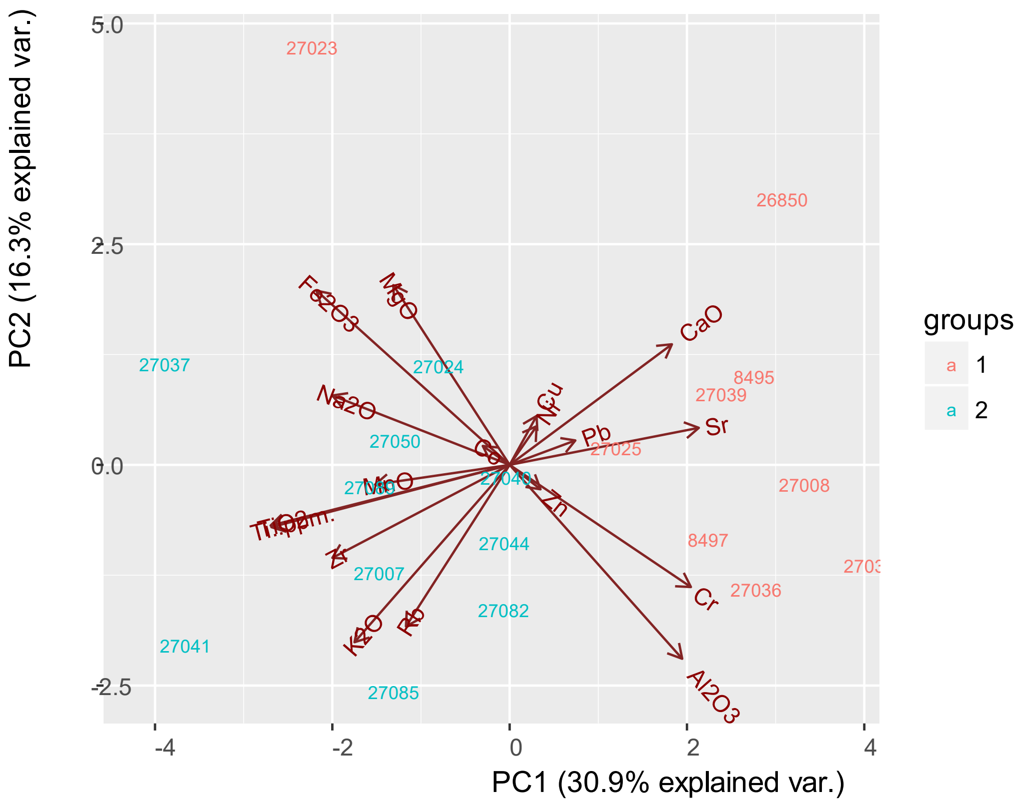

Figure 11. The cluster analysis result plotted in biplot of PCA

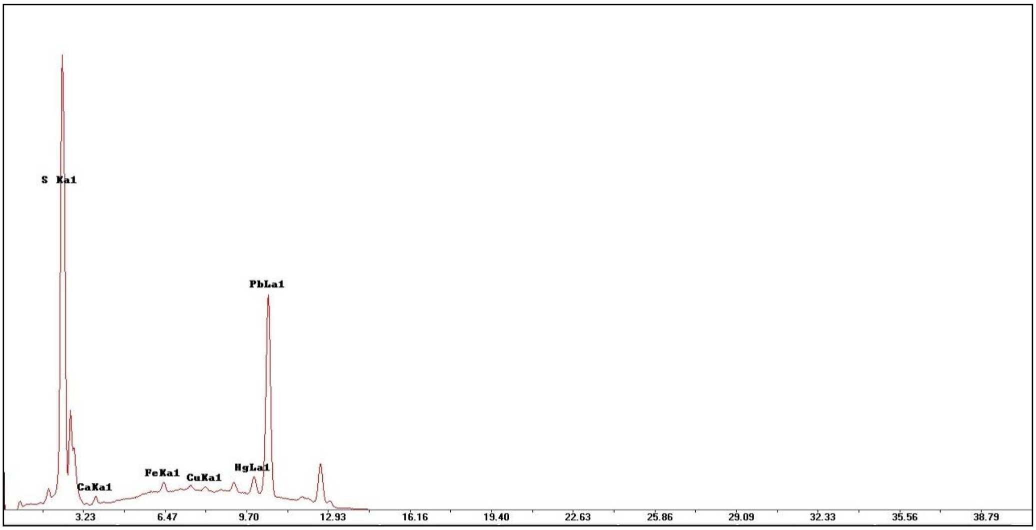

Figure 12. Representative XRF spectrum of the pink powder
found inside a ceramic vessel showing Hg, Pb, S, Ca, Fe

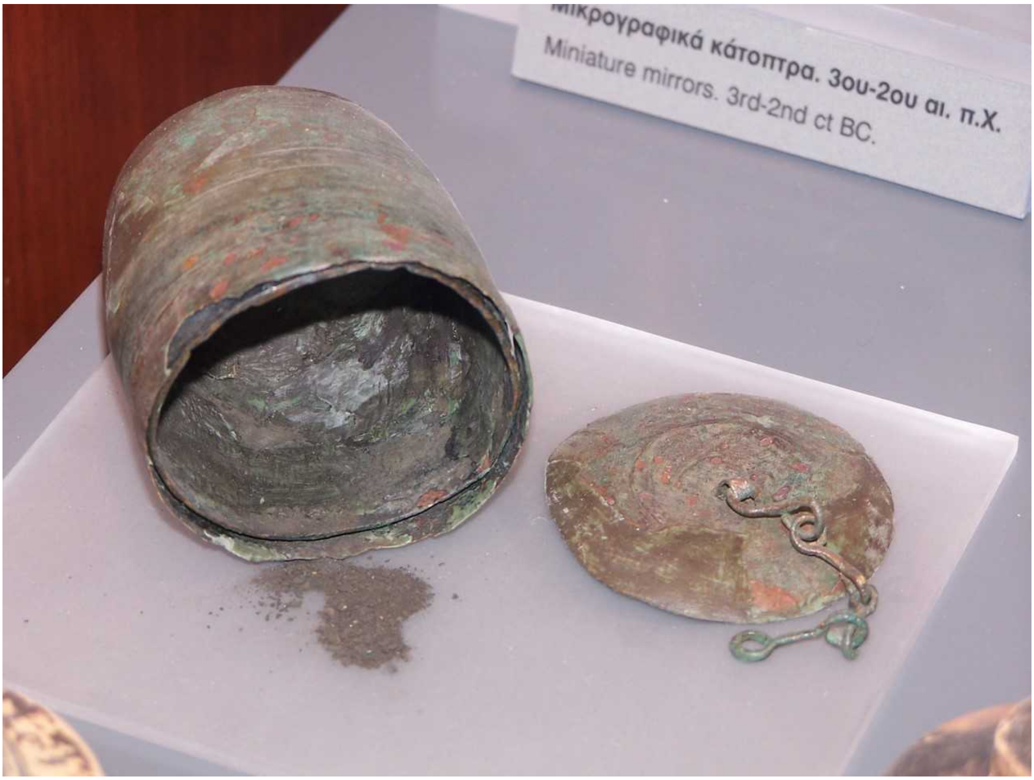

Figure 13. Bronze cylindrical compass with lid and powder inside

toxic, and its use in pigments, paints, and cosmetics began to decline. In oil paintings, Pierre Renoir (1919) often used cinnabar mixed with lead white to create a rose coloration, mainly for skin. Together with calcined crystal glass (30% Pb), this coloration is very stable. Leonardo da Vinci (1519) mixed 99% lead white with 1% HgS to create a special brightness in the brownish layers of Mona Lisa's face[36]. It is striking the use of face colouring in the Middle Ages, after almost 2000 years since its use in ancient Greece. Inhalation from vapours of dust causes health problems in lungs and nervous system.

b) The Bronze cylindrical compass AMA 3692 with lid was derived from a cist grave that was discovered in 2001 about two kilometres off the Amfissa, in the opening work of the road[37] (Figure 13). This metal find (3692) was found to be bronze (*oreichalcus*) Cu-Zn (81.8%-14.6%) with some Pb (1.06%) and Sn (1.68%). Powder within this metal vase was Cu with lower content in Zn, Ca and Fe, indicating corrosion.

All above analysis and discussion per se help archaeological interpretation and conservation purposes employing a portable non-evasive and quite accurate technique compared to other desktop instrumentation[38].

6. Conclusion

The use of non-destructive XRF on Museum materials in Delphi has given important information regarding manufacturing, characterization and provenance of production. Glass, ceramic vases, powders and metal by products are analysed and robust statistical techniques were applied. Differentiating between clay or glass or powder was based on detailed statistical clustering and biplots, and the results were useful to archaeologists in Delphi Museum.

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[36] ELIAS & COTTE 2008.

[37] KOLONIA & TSAROUCHA, 2004.

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Appendix A. The groups represented in Figure 7 and their consistent samples

Group 1		Group 2		Group 3	Group 4
MAN01	Sa.22	2-Py945/T25a	JK25	JK03	JK26
MAN02	Sa.23	4-Py133	JK29	JK18	JK46
MAN03	Sa.32	6-Py3543	JK32	JK24b	Sa.2
MAN04	Sa.43	10-Py519/521b	JK33	JK31	Sa.3
MAN05	SAT.3	14-Py6267a	JK34	JK38b	Sa.7
MAN06	SAT.6	21-Py6435	JK35	JK42	Sa.8
MAN07	SAT.7	22-Py6436	JK38a	JK50	Sa.9
MAN08	SAT.8	27-Py8372	JK39	Sa.25	Sa.10
1672	SAT.9	28-Py8372	JK40	Sa.29	Sa.11
1673	SAT.11	39-Py872	JK41	Sa.30	Sa.12
1674	Pic16b	54-Mth1309	JK43	Sa.41	Sa.13
5-Py3543B	Pic21b	62-Mth824	JK44	Sa.42	Sa.14
7-Py369b	Pic37	JK01	JK45	Sa.44	Sa.15
15-Py6273	R.8	JK02	JK47	Pic30b	Sa.18
18-Py6299	R.11	JK04	JK48	Pic27b	Sa.20
29-Py8382	R.15	JK05	JK49	Pic40	Sa.24
37-Py8483	R.23	JK06	JK51	Pic41	Sa.26
55-Mth2898	R.29	JK07	JK53	Pic47a	Sa.27
60-Mth338	R.33	JK08	JK54	Pic47c	Sa.31
61-Mth822	R.53	JK09	JK55	T.3	Sa.33
JK28	R.69	JK10	JK56	T.4	Sa.34
JK30	T.1	JK11	JK57	T.5	Sa.36
Sa.4	T.2	JK12	JK58	T.11	Sa.37
Sa.5	T.6	JK13	JK60	T.12	Sa.38
Sa.16	T.9	JK14	Sa.28	T.13	Sa.39
Sa.21	T.19	JK15	SAT.10	T.17	SAT.2
Sa.35	T.21	JK16	Pic21a	T.18	Pic16a

Sa.40 SAT.5 Sa.1 Sa.6 Sa.17 Sa.19	T.23 T.25 T.26 T.27 T.29	JK19 JK21 JK22 JK23 JK24a	Pic28c Tsi4a Pic46b Pic47b	T.20 T.22 T.24 T.28	Tsi4b Pic46a T.10

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Materiales mágicos. Conjuros, fantasmas, necromancia y otros dispositivos de economía antropológica en el pensamiento griego

Claudia MÁRSICO[1]

Abstract. *The studies on ancient philosophy have a long tradition of analysis about the Greek views on anthropology. The beliefs developed in Greece from the archaic to the Hellenistic times offer a wide range of variants different from the opposition between soul and body that became traditional in the classical period, with continuities and contrasts regarding later thought. However, some important elements go often unnoticed and this compromises the quality of the reconstruction of the ancient epoch. In this work, we will study three points related to magic: the spells, the ghosts and necromancy, in order to infer from these materials the underlying anthropological structure.*

Resumen. *Los estudios sobre filosofía antigua son pródigos en estudios sobre las concepciones en torno de la estructura antropológica. Las creencias desarrolladas en Grecia desde la época arcaica hasta el período helenístico ofrece un panorama amplio de variantes distintas de la oposición entre alma y cuerpo que devino tradicional en la época clásica. Algunos elementos relevantes, sin embargo, suelen quedar desdibujados y eso atenta contra la calidad de la reconstrucción del imaginario antiguo. En este trabajo consideraremos tres ámbitos asociados con las prácticas mágicas: el terreno de los conjuros, la figura de los fantasmas y la necromancia, con el propósito de inferir a partir de estos datos la estructura antropológica subyacente.*

Rezumat. *Studiile asupra filosofiei antice au o tradiție îndelungată în ceea ce privește analiza viziunii grecești despre antropologie. Credințele dezvoltate în Grecia din perioada arhaică până în cea elenistică oferă o multitudine de variante privind mai ales opoziția trup–suflet care devine tradițională în epoca clasică. Totuși, câteva elemente importante au rămas neobservate, compromițând calitatea reconstruirii acestor timpuri. În această lucrare autoarea se va concentra pe trei aspecte legate de magie: blestemele, spiritele și necromanția.*

Keywords: anthropology, magic, ghosts, spells, necromancy.

Las reflexiones señeras del clima decimonónico eran receptivas a las relaciones entre la magia y el modo en que se concebía el ser humano. Los trabajos decimonónicos y de inicios del s. XX están atravesados de fantasmas y sortilegios que revelan los resquicios por los cuales

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puede inferirse el modo en que el hombre griego se pensaba a sí mismo.[2] Poco de estas criaturas y fenómenos encontramos en trabajos más recientes, salvo que se trate de estudios sobre religión, no siempre presentes en primer plano entre las preocupaciones de los historiadores de la filosofía salvo de modo colateral. En el estudio de la estructura antropológica se repite este esquema. Sin embargo, las perspectivas se enriquecen si se incorporan a este horizonte fenómenos silenciados.[3]

En lo que sigue vamos a detenernos en algunos casos cuya comprensión requiere prestar atención a elementos que iluminan las concepciones antropológicas que subyacen en prácticas mágicas orientadas a operar sobre otros. El modo en que funciona esta influencia da indicios de cómo se comprende lo humano y cuáles son sus dimensiones. Este material, primariamente extra-teórico, es sin embargo de fundamental importancia para evaluar los dispositivos desplegados en las conceptualizaciones filosóficas. Por esta vía podemos vislumbrar los distintos aspectos que debían encontrar una explicación en los planteos teóricos y resulta posible entonces sopesar la amplitud de variantes que convivían en las creencias antiguas sobre este punto. Para ello, por un lado, consideraremos tres ámbitos asociados con las prácticas mágicas: el terreno de los conjuros, la figura de los fantasmas y los procedimientos necrománticos, a los efectos de inferir a partir de estos datos la estructura antropológica subyacente.

1. La antropología de los conjuros y el experimento de Clearco

Desde fines del s. XIX hubo una importante línea de trabajos poco atendida por los estudiosos de la antigüedad griega, pero que en las últimas décadas fue cobrando importancia. Especialmente desde la década de 1940 y a partir de la edición del texto hitita *Dominio del cielo* y los paralelos que presenta la historia de Kumarbi con la de Cronos, así como la *Canción de Ullikumi* que remeda la victoria de Zeus sobre Tifón,[4] se intensificó la importancia del estudio de los diálogos con oriente. Conocidos son los contactos entre el *Enuma Elish* y la creación del

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[2] Sobre el animismo de la escuela inglesa que está en la base del desarrollo de las discusiones sobre dispositivos antropológicos contemporáneos previos al trabajo de SNELL 1946, véase TAYLOR 1871, FRAZER 1890, y las críticas principales en ROHDE, en su influyente *Psyche* (1903), LEVY-BRUHL 1927 y OTTO 1956. Para una sinopsis crítica de este desarrollo, véase EGGERS LAN 1990.

[3] En este terreno sobresalen por su dimensión y peso teórico las filosofías socráticas, donde son numerosas, por ejemplo, las propuestas materialistas, incluyendo las que, como en el caso cirenaico, ni siquiera contienen una función para la *psyché* y resumen todo en el cuerpo (TSOUNA 1998 e INVERSO 2012, 29–41), o las que se internan en estructuraciones muy variables sobre la lógica de articulación entre niveles psíquicos y somáticos, como en las líneas de Fedón de Elis y Esquines (BOYS-STONES 2004, 1–23, KAHN 1998 y MÁRSICO 2014, 79–100), con esquemas lejanos al que finalmente se impuso en la tradición, todo lo cual invita a reevaluar los esquemas tradicionales a la luz de un escenario más complejo. Véase además MÁRSICO (2013a; 2013b; 2013c; 2014).

[4] H. Güterbock llevó a cabo la primera edición de *Dominio del cielo* en 1946 durante su estancia en Turquía (GÜTERBOCK 1946) y seis años más tarde, ya en Chicago, la del *Cantar de Ullikumi* (GÜTERBOCK 1952).

mundo en la *Teogonía*,[5] pero también con alusiones homéricas, como la charla de Aquiles con Patroclo muerto y la de Gilgamesh con Enkidu,[6] o la mención a la enemistad entre Océano y Tetis,[7] entre muchos otros elementos similares de contenido y composición.

En este marco, las disidencias sobre el tipo de influencia y sus inicios son altamente variables, con quienes se dedican a los estudios orientales enfatizando su fuerza y carácter temprano,[8] y los helenistas tendiendo a menospreciar su peso y señalar sus rasgos intermitentes y más bien tardíos.[9] Los puntos de acuerdo señalan que una serie de "artesanos de lo sagrado" migraron en los s. VIII y VII a.C. hacia Occidente con saberes purificatorios y adivinatorios que influyeron en el acervo mitológico y los saberes sedimentados que una generación transmitía a las siguientes. A partir de este entorno en que se mezclaban videntes y curanderos, carpinteros y cantores, se entendieron la extipicina, la lecanomancia y diversas prácticas mágicas que se volvieron cotidianas en la vida griega.[10]

Desde esta fecha, entonces, se produjo una creciente atención a este ámbito, pero constituye una confusión inferir de estos datos la conclusión de que toda referencia a las prácticas mágicas en Grecia es tardía. Por el contrario, es cierto que entre las importaciones de oriente del s. VIII a.C. se constata una impronta de saberes ligados con la hechicería que apuntan a la manipulación del entorno, pero este movimiento no implica una introducción. Estrictamente, desde el yacimiento de Lefkandi, en Eubea, que data del s. X a.C., pueden identificarse rasgos de utilización de magia. En este caso, un centauro de terracota partido a la mitad, con cada una de las partes colocado en tumbas distintas, se ha interpretado como el más antiguo caso de muñecos vudú, probablemente utilizado para controlar un espíritu a la manera de un conjuro de impedimento como los que analizaremos en el apartado siguiente.[11] Esta práctica, que se volvió muy usual para muy distintos usos en época clásica y helenística, podría ser bien antigua. Es cierto que no tenemos manera de establecer su sentido con seguridad, ni mucho menos develar los presupuestos sobre la estructura antropológica que subyacían a esta práctica, pero no debe olvidarse que el texto homérico dedica una especial atención al famoso rito de necromancia de Odiseo, lo cual sugiere un horizonte de creencias vinculadas con la magia que el auditorio reconocía como parte de su imaginario en épocas bien antiguas.[12]

Tal vez convenga notar que estas discusiones se enmarcan en la disputa más general sobre la relación entre mito y rito y la posibilidad de establecer algún patrón general

[5] Sobre este punto, véase: WALCOT 1966; PENGLASE 1994; LÓPEZ RUIZ 2012, 30–48.

[6] Se trata de los pasajes Il, XXIII. Sobre este punto, véase BURKERT 2000, 12–20 y MORRIS 1997, 599–623.

[7] BURKERT 1992, 91 ss., DIHLE 1970, 83–92.

[8] Véase, por ejemplo, BURSTEIN 1996, NAVEH 1973, REDFORD 1992, TALON 2001.

[9] BURKERT 1992 y 2004 y SCHEID 2004.

[10] LUCK 2006, 82, 132.

[11] Sobre el centauro de Lefkandi, véase FARAONE 1991.

[12] *Od.*, XI.94 ss.

intercultural. Como rasgo general que aquí sólo mencionamos marginalmente, no es menor que suela reconocerse que la función del mito con anclaje en el rito es típica de Oriente, mientras el mismo material en terreno griego tendía a priorizar el relato sin aspectos de operación sobre el mundo.[13] Esto no es llamativo. La relación entre lenguaje y plexo ontológico es en general en Grecia objeto de una tensión problemática y su conexión está lejos de ser un presupuesto en el que puede confiarse. Esto no implica, de nuevo, que las prácticas de hechicería y adivinación fueran obliteradas y su origen sólo pueda deberse a una importación, sino, por el contrario, que tales relaciones se despliegan en un terreno árido que impulsa el desarrollo de complementos teóricos para explicar precisamente el fundamento de su efectividad. No hubo, entonces, en Grecia pura importación oriental, sino un entramado complejo en el que se desarrollaban prácticas mágicas con características propias.

Detengámonos primero en el caso de la hechicería. Las prácticas mágicas ciertamente ofrecen datos relevantes para inferir el modo en que los antiguos griegos encaraban la economía antropológica a través del caso de los κατάδεσμοι, conjuros orientados a controlar la voluntad a través del impedimento.[14] Se conservan en cantidad numerosa desde el s.VI a.C. Es usual que se trate de escrituras en cuero anudadas o planchuelas de plomo, muchas veces con diseños de escritura circular o acompañada de dibujos, especialmente en los más tardíos. Estos conjuros comportan maldiciones que reflejan en todos los casos la idea de dominio sobre el otro.[15]

Algunos son simples, vendidos en tiendas con el espacio para completar con el nombre requerido, en una especie de "producción mágica proto-industrial en serie" o "conjuro *ready-made*", mientras otros muestran argucias complejas. Su efectividad requiere a menudo de la invocación a muertos o poderes transmundanos, por lo cual suelen enterrarse en cementerios, cursos de agua y templos subterráneos, o esconderse en la casa o el trabajo de los aludidos. Platón testimonia en *Leyes*, 933b la actitud de quienes encuentran con estos objetos "en las puertas, encrucijadas o tumbas de sus antepasados" y el Gran papiro mágico (PMG IV, 305 ss.) incluye en el procedimiento enterrar el maleficio en la tumba de alguien muerto prematuramente, un ἄωρος, mientras se pronuncia "demon de muerto, quienquiera que seas, entrégame a de quien se trate para que no haga tal cosa".

En un caso que por cierto no es aislado[16] el conjuro está dirigido a un tal Pasianax, cuyo nombre significa literalmente "señor de todo", y parece ser invocado como espectro poderoso, pero el conjuro apela a "cuando leas esto", para agregar inmediatamente que en efecto no puede hacerlo, porque está muerto, y que similar a esa incapacidad se espera que

[13] Véase: ELIADE 1963; 1967; BURKERT 1979.

[14] Sobre las características y modalidades de este tipo de conjuros, véase: JOHNSTON 1999, 71 ss.; CURBERA, JORDAN 2007, 1347–1354; MAGGIDIS 2000, 83–100; CARASTRO 2010; GAGER 2006, 69–87; GIORDANO 2011, 191–208.

[15] Véase OGDEN 2002, 16 y 210 ss.

[16] VOUTIRAS 1998, 65–66; OGDEN 2002, 211.

sea la de los enemigos: "como tú, Pasianax, yaces aquí inactivo, así también quede Neófanes inefectivo y en nada". Se trata de una curiosa mixtura de invocación al poder de la impotencia de un espíritu con nombre poderoso que, como el Hermógenes del *Crátilo*, no encuentra cumplimentación en su conducta.[17] En algún sentido, la apelación al muerto establece una relación entre éste y la inactividad deseada en la víctima.[18]

Los conjuros abarcan ámbitos muy distintos ligados con lo legal, erótico, deportivo, artístico y comercial, campos todos donde la tensión interpersonal puede llevar a desear la inacción o inefectividad del otro.[19] Pueden dirigirse contra una persona o varias que forman un grupo, como la maldición que se dirige contra Teágenes y todos los coreógrafos y directores que trabajan con él, seguramente para que fracase su proyecto artístico (DTA 34), o a listados donde el vínculo no se expresa, como en DTA, 29, o se infiere de referencias, como en "el tabernero y la tabernera" en DTA, 30. Se pueden maldecir lugares, usualmente las posesiones o lugares relacionados con alguien, como tabernas, almacenes, burdeles (DTA, 75). En el caso de los conjuros judiciales a veces se dirigen consignas genéricas como "que les sea todo nulo (πάντα ἄκυρα)" (DTA, 35) o se avanza en precisiones diciendo que se pretende "atar" una parte específica del contrincante. Este punto nos interesa especialmente porque puede echar luz sobre las concepciones acerca de las dimensiones que componen lo humano.

Conservamos varios maleficios del Ática con variantes de lo que se ata. En uno se "ata con un conjuro" a Astífilo de Hales y se agrega lo mismo para Fanias anotando al dorso "la lengua y el alma (τὴν γλῶτταν καὶ τὴν ψυχήν)" (DTA, 49). En otro conjuro es "alma, mente y ánimo (ψυχὴν καὶ νοῦν θυμόν)" (DTA, 51), otro ata "lengua, negocio, manos, el ánimo de Mnesitides (γλῶτταν ἐργασίαν χεῖρας)" (DTA, 52), otro "familia y obras, lengua (οἶκον καὶ ἔργα γλῶτταν) (...), ánimo, obras, lengua (θυμὸν ἔργα γλῶτταν), (...) vida de Dion (βίον)" (DTA, 53). Se encuentra también en un mismo texto la combinación de ataduras específicas: para algunos "sus obras y palabras (ἔργα καὶ ἔπη)", para otro "lengua y alma (γλῶτταν καὶ ψυχήν)", para otros "las obras (πράξεις)" (DTA, 56).

Conservamos un conjuro que une "la lengua y a él mismo (γλῶτταν καὶ αὐτόν)" (DTA, 57), con la posibilidad de una epexégesis que asociaría el lenguaje con la sede de la identidad, y luego "mente, entrañas y pies (μέλλεον καὶ φρένας καὶ πόδας)" (DTA, 80), mientras en otro se ata "su lengua la mala y su espíritu el malo y su alma la mala y su burdel (...) y a sus hijos (τὴν γλῶτταν τὴν κακὴν καὶ τὴν θυμὸν τὸν κακὸν καὶ τὴν ψυχὴν τὴν κακὴν καὶ τὸ ἐργαστήριον ... καὶ τοὺς παίδας)" (DTA, 84), y en otro "su negocio y su mente; alma, manos, lenguas, pies, mente (ἐργασίαν καὶ νοῦν. ψυχὴν χεῖρας γλῶτταν πόδας νοῦν)" (DTA, 87).

Los conjuros pueden apelar a la mediación de muertos, como en los casos que vimos, o directamente a Hermes Retenedor, figura del dios que oficia los impedimentos directamente.

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[17] *Crátilo*, 385c.

[18] Sobre este conjuro véase además: GAGER 1992, 131n; VOUTIRAS 1999, 78; EIDINOW 2007, 50; COLLINS 2008, 73.

[19] Véase: LÓPEZ JIMENO 1991, 3; OGDEN 2002, 211.

El tipo de ataduras es igualmente amplio, como en el caso de la maldición donde se menciona en el mismo texto una lista contra Frínico: “sus extremidades, los pies, las manos, alma, órganos sexuales, el año, la cabeza, el estómago, la grasa (τὰ ἀκρωτήρια αὐτοῦ τοὺς πόδας τὰς χεῖρας ψυχὴν φύσιν τὴν πυγὴν τὴν κεφαλὴν τὴν γαστέρα τὴν πιμελῆς)”, otra contra Quito “sus extremidades, el alma, las cejas, el alma (ἀκρωτήρια τὴν ψυχὴν καὶ τοὺς ὀφρῦς καὶ τὴν ψυχήν)” y una tercera contra Querila “manos, intelecto, alma, cabeza, negocio, corazón, οὐσία y lengua (τὰς χεῖρας τὸν νοῦ, ψυχῆς τὴν[20] κεφαλῆς τὴν ἐργασίαν τὴν καρδίαν τὴν οὐσίαν τὴν γλῶτταν)”. El penúltimo elemento de la atadura contra Querila es referida, en efecto, como οὐσία, término caro a la filosofía que refiere lo real, como es esperable por su filiación con el verbo εἶναι. En estos contextos se entiende que se trata de una “sustancia mágica” o esencia que permite la acción paranormal, en general una muestra de cabellos, uñas o un objeto perteneciente a la víctima (DTA, 89).

En otro conjuro se atan “manos, miembros, pies, la posición de la lengua (χεῖρα μέρη πόδα στάσις γλώσσης)” (DTA, 60) y en una tumba de Atenas, “la lengua de Apolodoro, su voz, su vista, su memoria” y al dorso “lo que realice, lo que proyecte” (DTA, 61). Hay casos donde, por las dudas, realizan además contra-conjuros por si el contrincante lleva adelante también un maleficio, como sucede en un caso de inicios del s. IV a.C. cerca de Atenas donde se dice que “si alguien me lanza un maleficio (εἴ τις κατέδεσεν), ... le lanzo un maleficio en contra a todos mis enemigos (ἀντικαταδεσμεύω τοὺς ἐχθρὸς ἅπαντας)”.[21]

Estas muestras revelan un conjunto de al menos cuatro categorías: en primer lugar y más habitualmente partes del cuerpo, donde predominan la lengua, las manos y los pies; en segundo lugar, elementos anímicos, donde la mayor parte menciona la ψυχή seguida de νοῦς y θυμός; en tercer lugar el ámbito de agencia abstracta del sujeto aludida en términos como ἔργα y πράξεις y, finalmente, sus posesiones concretas donde pueden coincidir su familia, su negocio o sus hijos. Las cuatro categorías no están claramente divididas, como sucede con casos como φρένες, “entrañas”, que ya desde época homérica cumplían también una función que asociamos con lo anímico, como sucedía también con νοῦς y θυμός, lo cual impide una división tajante. Incluso γλῶττα, el término corporal más mencionado, aparece, según vimos, en unión con αὐτός, en referencia a la identidad personal y su asociación con el lenguaje abre una dimensión que excede al órgano. Por otra parte, los textos presentan las referencias siempre mezcladas y en fórmulas distintas, lo cual implica un horizonte de dispersión donde no asoma ninguna homogeneidad que indique una división clara entre lo anímico, lo corporal y sus dominios. La cuaternidad que encontramos está en todo caso en germen y no en acto en los testimonios que conservamos sobre esta cuestión.

[20] La alteración de algunas desinencias casuales es común en la ortografía de estos materiales, pero en todos los casos se trata de acusativos dependientes del verbo 'atar'.

[21] Véase: JORDAN 1999, 1; OGDEN 2002, 211.

Emparentados con este grupo están los conjuros eróticos, divididos en conjuros de separación y de atracción. Estos últimos fueron considerados tardíos, pero los hallazgos recientes permiten constatar su presencia en época clásica. [22] Por su peculiar naturaleza, muchas veces la división que suele utilizarse se vuelve compleja: en la tableta sobre Aristócides, del s. IV a.C. se lo liga con su actual pareja y se anula su relación con otro: "que nunca se acueste con otra mujer ni con un muchacho (μήποτ᾽αὐτὸν γῆμαι ἄλλην γυναῖκα μηδὲ παῖδα)" (DTA, 78), en lo que sería un conjuro de fidelidad.

La pregunta en este caso es qué se detiene y qué se atrae. Como hemos visto, el mismo procedimiento está orientado unas veces a afectar el cuerpo, ya sea la lengua o los miembros que se espera que fallen, o el placer físico que desaparece en muchos conjuros de separación, pero también se encuentran alusiones a la transformación anímica, dado que se busca eliminar o producir amor u odio en los conjurados. Un caso del s. III a.C., como en el de Pasianax, compara con el cadáver de Teonasto lo que quiere que suceda con Zoilo frente a Antira, i.e. que ambos pierdan deseo sexual cuando están juntos y queden igual que el muerto al que se alude con "manos, pies, cuerpo (χειρῶν ποδῶν σώματος)" (DT, 85).

Este caso es de especial relevancia porque, contra lo que sucede en general, utiliza el término σώμα, lo cual podría suponer una función unificadora del plano corporal. Cabe notar que esta noción está llamativamente ausente en los κατάδεσμοι. Sin embargo, por un lado, el término aparece en una serie sin indicaciones de que su aparición implique una operación de síntesis respecto de las partes nombradas antes, es decir que no parece englobar la mención a manos y pies. Por otro lado, la lista se aplica primariamente a lo que tiene inactivo Teonasto, el muerto a cuya tumba se acude, de modo que puede estar operando el antiguo sentido de cadáver, especialmente cuando se trata de enfatizar la inactividad.

La mención de elementos con carga antropológica es todavía más amplia. De Antira se pretende afectar "cuerpo, tacto, besos y sexo" para que estén alejados de él comportando un daño general a "su trabajo, su organización, su amor y todo lo demás" (DT, 95). Mayor es el detalle en el conjuro dirigido a Zois, la esposa de Cabeira, para afectar "su comida, su bebida, su sueño, su risa, su "intercambio", su tañer de lira, su "entrada", su placer, sus tetas pequeñas, su mente, sus ojos (τά βρώματα αὐτῆς τὸν ποτᾶ τὸν ὕπνον αὐτῆς τὸν γέλωτα τὴν συνουσίην τὸ κιθ.φε.άρισμα αὐτῆς κὴ τὴν πάροδον αὐτῆς τὴν ἡδονήν τὸ πθγίον τὸ φρόνημα ὀφθαλμούς)" y luego "sus palabras, sus acciones, su maligna charla (μοχθηρν ἔπεα ργα ῥήματα κακά)" (DT, 86).[23]

Teón liga a Eufemia en su "cerebro, manos, vientre, vulva y corazón" a la vez que promete paz a los δαίμονες que yacen en la tumba y les pide que provoquen en ella "un amor loco, afecto y sexo (ἔρωτα μανιώδη καὶ στοργὶν καὶ συνουσὶαν)" a la vez que odio a cualquier otro y hacia él "amor, deseo, afecto, sexo y un loco amor (ἔρωτι καὶ πόθῳ καὶ στοργῇ καὶ συνουσίᾳ)"

[22] Véase FARAONE 1996.

[23] Sobre el léxico de esta cinta, véase SOLEZ 2015.

(Suppl. Mag. 45). En el conjuro de Amonio a Teodotis, ya tardío, sobran los términos para referirse a modalidades sexuales y sus partes incluyendo imágenes (Suppl. Mag. 38). Estas menciones sobre el cuerpo suelen ser de partes específicas, con mucho mayor detalle que en los conjuros de impedimento. Las alusiones a la lengua y la mente aminoran frente a los términos asociados con la sensualidad.

Esto coincide con las teorías acerca de los presupuestos arcaicos y su carencia de una noción unificada de cuerpo y de mente, cuya continuidad en época clásica podría ser abonada por el material de los conjuros. Estos textos reflejan un estado que invita a inferir, como vimos, el carácter primario de la dispersión antes que algún tipo de sustrato unificado. En efecto, ψυχή y σῶμα eran en las sagas términos de una antropología tanática que señala lo que se pierde al morir y el cadáver, respectivamente, de modo que no se aplicaban al hombre vivo. El organismo vivo, por su parte, era referido a partir de sus miembros, μέλεα o γυῖα, de modo tal que resulta unificado sólo en el momento de su desaparición.[24] Para comprender la conducta humana había que apelar al concierto de nociones que mientan distintas pasiones, como χόλος, πένθος, órganos, como φρένες, κραδίη y ἦτωρ, o procesos en el pecho, como θυμός, μένος y νοῦς.[25]

Todos estos elementos tenían sede corporal y operaban el control del comportamiento, por lo cual se las suele llamar “almas del cuerpo” o “almas del ego” y su destrucción en el momento de la muerte explica la ausencia de la creencia en la conservación de la conciencia en el trasmundo, que sólo puede ser activada momentáneamente, como en la κατάβασις de *Odisea*, XI.[26] Si lo que controlaba la conducta se desvanece, lo que permanece, la ψυχή tanática que escapa al morir, no tiene información personal sobre la vida más que como una esencia abstracta. Este escenario, que se asocia a tiempos arcaicos, pervive en cierta medida en prácticas de época clásica y helenística y constituye, por tanto, un indicio de la amplitud e inestabilidad de las perspectivas de sentido común respecto de la estructura antropológica.

En efecto, si comparamos el imaginario antropológico de las sagas con el material de los conjuros encontramos similitud en la nomenclatura de partes y una dispersión similar que permite afirmar que los conjuros están organizados como dispositivos locales de afección de estas partes. Las pocas referencias a la persona íntegra conviven entonces, por un lado, con menciones de partes corporales y anímicas con límites indefinidos y, por otro, con alusiones

[24] Véase SNELL (1946, 5–23), que menciona el papel de términos como χρώς y δέμας respecto de lo corporal. HERTER (1957) y RENEHAN (1979) objetaron algunos aspectos de la interpretación de Snell que fueron luego sostenidos por CLARKE (1999, 315 ss.). Los argumentos referidos a la toma de decisión, como los aducidos por GASKIN (1990), PELLICIA (1995) y WILLIAMS (1993, 21–49) no afectan el modelo antropológico que opera en la base de las acciones.

[25] Contra la idea de dos sentidos diferentes de ψυχή, véase EGGERS LAN 1990, 86 ss.. Véase además MÁRSICO 2018.

[26] Véase BREMMER 1983, 41–61.

a sus dominios y propiedades, de un modo que recuerda el pasaje antropológico del *Alcibíades I* platónico.[27]

Un caso diferente que parece operar sobre una noción unificada de ψυχή está constituido por el experimento de Clearco de Solos. Cabe notar, sin embargo, que no se trata de una historia desprovista de compromiso teórico explícito con una línea filosófica comprometida con una antropología psico-somática dualista. En efecto, en un fragmento del tratado *Sobre el sueño* de Clearco, este peripatético se jacta de haber convencido a Aristóteles de la posibilidad de que el alma salga y vuelva al cuerpo.[28] Este ejemplo nos lleva de los conjuros a la magia en la que mediante una vara aplicada sobre un chico dormido se le extraía el alma, de modo que el cuerpo quedaba inmóvil y sin sensación, pero cuando se reintroducía el alma el chico despertaba y podía recordar todo. Esta suerte de acto de hipnosis se usaba como prueba experimental de una tradición que se remonta al chamanismo, como nota el mismo Clearco cuando asocia esa práctica con Aristeas, Hermótimo de Clazomene y Epiménides.

¿Cómo convive este testimonio con el imaginario de los conjuros? En rigor, se ha sugerido que el concierto de fenómenos asociados con el chamanismo fue el germen del proceso de asociación de la ψυχή con la vida y de su vínculo con identidad personal en tanto podía separarse—y por tanto se diferenciaba—del cuerpo comprendido también de modo unificado. Sin entrar en estas discusiones sobre la pertinencia de aplicar la categoría del chamanismo a Grecia y su aplicabilidad a la hermenéutica de procesos antropológicos, este caso da cuenta de líneas donde la oposición que luego resultó prevalente resultaba funcional para determinadas prácticas mágicas que necesitaban soportes de materialidad disminuida desvinculados de lo corporal. Ninguna de las almas del cuerpo servía en este caso y la ψυχή, por el contrario, en su antigua función de doble, podía ajustarse a estos requerimientos.

Al mismo tiempo, el ejemplo de Clearco llama la atención sobre otro dato significativo que asocia conjuros y antropología. La experimentación con niños forma parte de una práctica más amplia. Los pocos estudios que refieren a este pasaje se apuran en explicar que la justificación es que en la infancia hay menos asociación del alma con el cuerpo y por tanto más posibilidades de separación. Sin embargo, si volvemos sobre el material de las sagas y los conjuros la dispersión antropológica conspira contra una explicación tan lineal. Si la oposición alma-cuerpo no está sedimentada, no hay una unidad establecida que requiera un momento seminal de mayor debilidad.

Es posible, en todo caso, que se supusiera en los niños una plasticidad general que permitía activar independientemente un factor dejando el resto a un lado sin que sea necesario inferir una estructura dualista. Al mismo tiempo, si lo que se desprendía era la ψυχή, no está claro cuál era su sentido y funciones, es decir si se operaba con una noción

[27] Sobre la antropología del *Alcibíades I,* véase GOLDIN 1993, 5–19; DE LANDAZURI 2015, 123–140; MÁRSICO 2017, 54–64.

[28] Apolonio, *Historias maravillosas*, 3.

desprendida de la entidad tanática homérica capaz de observar "desde afuera", o constituía un elemento anímico que pudo haber sido progresivamente interpretado como una unidad y propiciado el proceso de unificación de las funciones anímicas en relación con la identidad personal.

El experimento de Clearco contiene un aspecto adicional. Muchos rituales implicaban la utilización de niños, hasta el punto de que numerosas fuentes refieren el sacrificio infantil para cumplimentar ritos de adivinación.[29] Esto nos permite establecer un paralelo importante con un pasaje canónico de la filosofía platónica que comparte con este experimento puntos llamativos. En efecto, con efectos mucho menos nefastos, este caso se puede parangonar con el experimento platónico del *Menón*, 84d ss. También allí, sin varas y sólo mediante argumentos, con la guía propia de un maestro, Sócrates conduce a un joven a través de los pasos de un cálculo matemático que permite concluir que, dado que nunca fue instruido en estos temas, este saber debe acompañarlo desde algún momento previo al nacimiento y por tanto conocer es recordar.[30] En algún sentido también se llega a la conclusión de que la ψυχή tiene una existencia independiente y separable respecto del cuerpo, lo cual liga este pasaje con el relato de preexistencia del alma de un modo mucho más marcado que si sólo se atiende al alcance de la inferencia geométrica.[31] No en vano en *Menón*, 80b se dice que Sócrates se comporta como un brujo y en otra ciudad podría ser procesado por ello. Que luego lo fuera por el cargo de ἀσέβεια que solía utilizarse contra la hechicería sólo refuerza el clima que liga el experimento socrático con las operaciones de separación del alma y el cuerpo.

2. Fantasmas, necromancia y la antropología de la invocación

Consideremos ahora el ámbito de las nociones referidas a la comunicación con el trasmundo a partir de los casos de fantasmas y las prácticas de necromancia. La estructura antropológica que suponen ambos fenómenos es problemática y su análisis provee datos interesantes para evaluar las creencias griegas a este respecto. Si bien hay una tendencia a enfatizar que en el material de las sagas homéricas la ψυχή, como vimos, es una entidad de materialidad disminuida que se escapa con la muerte y permanece sin conciencia en el Hades, otros elementos sugieren una actividad más amplia, al menos entre los muertos que no han completado la transición, como sucede en el caso de la aparición de Patroclo.[32]

En cualquier caso, mientras nos acercamos a la época clásica la presencia de entidades fantasmáticas se multiplica. Para mencionar sólo un ejemplo, basta pensar en las Antesterias, fiesta de tres días, entre el 11 y el 13 de Antesterion (febrero-marzo), realizada en

[29] Véase HUGHES 1991.

[30] Véase: BELFIORE 1980, 128–137; WEISS 1991; TOFIGHIAN 2016, 55–89.

[31] Véase OGDEN 2002, 171.

[32] Véase *Ilíada*, XXIII.4 ss. y GARLAND 1981, 43–60.

honor de Dioniso en el primer día y dedicada a los muertos en los otros dos con el propósito de aplacarlos y evitar males. En *Pithoigia*, el día de apertura de la jarra, se ofrecía vino nuevo a Dioniso; en el segundo, *Choes*, el día de las jarras, había procesiones y sacrificios con fiestas a la tarde donde los invitados llevaban vino—al revés de los simposios usuales—, y se creía que los fantasmas rondaban la ciudad hasta que el ritual de cierre de la fiesta se los llevaba.[33]

Era un día infausto que podía crear polución, de manera que los templos no abrían sus puertas y en general los habitantes permanecían en sus casas tras pintar las puertas con alquitrán para atrapar a los espíritus y esparcir hojas de espino que los mantenían alejados. En el último día, *Chytrai*, el de las Vasijas, las familias hacían ofrendas a los muertos cocinando granos en una olla ofrecida a Hermes. Con la caída del sol el jefe de familia recorría todas las habitaciones de la casa gritando "afuera, Antesteria se terminó", para expulsar a los fantasmas. La festividad funcionaba como una suerte de fiesta de difuntos o Halloween, con la misma idea de la ofrenda de comida para evitar efectos negativos, usual como elemento de aplacamiento del espíritu iracundo.[34]

Los griegos convivían con fantasmas y debían velar por los mecanismos que los mantenían a raya, dado que había una serie de situaciones que los producían habitualmente. Se volvían fantasmas los ἄωροι, muertos antes de tiempo, especialmente bebes y niños,[35] los βιαιοθάνατοι, muertos con violencia, especialmente soldados y criminales ejecutados, a veces también víctimas y suicidas, los ἄγαμοι, muertos antes del matrimonio, donde resalta el caso de las mujeres, y, el caso más conocido, los ἄταφοι, muertos sin sepultura con los ritos específicos.[36] En todos estos casos un estado determinado o una situación traumática particular producían el surgimiento del fantasma y era preciso actuar frente a esto dado que producían polución y males peligrosos para la ciudad.[37]

Se trata de un aspecto que lejos de ser marginal, estaba instalado en la cultura cotidiana del mundo griego. Cabe notar a este respecto el testimonio de la ley sacra de Selinunte, de mediados del s. V a.C. En esta plancha de plomo la primera columna está referida a sacrificios y sus fechas y ritos específicos, y la segunda trata sobre purificaciones.[38] Así, se plantea que ante los ἐλάστεροι, espíritus vengadores que atacan a sus asesinos o a terceros, es preciso

[33] Véase: PÁEZ CASADIEGOS 2008; MARKALE 2001; VALDÉS GUÍA 2015, 125–148; HAMILTON 1992; HAM 1999, 201 ss.; VAN HOORN 1951; FELTON 2007, 86–99.

[34] La fiesta incluía una ofrenda a Erígone, una muchacha que se colgó después de la muerte de su padre Icario, porque Dioniso le dio vino a sus pastores y en estado de embriaguez lo mataron. Erígone se suicidó sobre la tumba de Icario y Dioniso en represalia contra los atenienses hizo que las vírgenes se suicidaran igual que Erígone. Se la asocia con la constelación de Virgo.

[35] Véase JOHNSTON 1999, 78.

[36] Sobre esta tipología, véase: BERNAND 1991, 131–55, 363–79; DELCOURT 1939; JOHNSTON 1999; STRUBBE 1991, 33–50; VRUGT-LENTZ 1960; WIDE 1909.

[37] Véase FARAONE 1991.

[38] Véase la edición de Jameson, Jordan y Kotansky, así como CORDANO 1993, CURTI, VAN BREMEN 1999 y CLINTON 1996.

primero realizar una serie de ritos preparatorios que incluyen una comida simbólica compartida y la realización de círculos que preparan las condiciones para la invocación y el sacrificio de un animal con derramamiento de sangre sobre la tierra que sella la purificación.[39] Se trata de prescripciones generales para toda la comunidad instaladas en el ámbito de lo público e institucional, del mismo tipo de las directivas de Cirene, de fines del s. IV a.C., donde se lista el modo de invocar al espíritu atacante, o tal vez al hechicero que lo envió, y de deshacerse del espectro.[40]

Si contemplamos otros testimonios representativos, los fantasmas se multiplican. Cabe mencionar las apariciones de los muertos en Maratón que menciona Pausanias en I.32.4, donde cuenta que, incluso después de tanto tiempo transcurrido, en la zona de la batalla por la noche se escuchaban ruidos de batalla y lamentos, y era posible ver a los fantasmas. La situación de la muerte indica su carácter de ἄωροι en la categoría de βιαιοθάνατοι, lo que explica su conexión con el plano de los vivos y su capacidad de materializarse hasta el punto de resultar peligrosos. Estas apariciones tienen un compromiso similar a los fantasmas de *Fedón*, 81c-d de Platón con la corporeidad con agencia en el mundo de los vivos, pero tienen la peculiaridad de una cierta actividad noética que les permite diferenciar entre quienes se los topan por casualidad y quienes van por curiosidad y pueden por eso ser aniquilados. Quien repetía este relato suponía que los fantasmas eran efectos de actos traumáticos y quedaban unidos al momento de muerte, atrapados en una escena infinitamente reactualizada, como Sísifos de una dimensión límbica.

Esta agencia es precisamente la que habilita la serie de testimonios donde la necromancia no se limita a conseguir información del trasmundo, sino que hace del mundo de los muertos un reservorio de mano de obra para cometer ilícitos, como relatan a menudo los testimonios.[41] De este modo, la necromancia se orienta al dominio de los muertos que va desde la consulta hasta la puesta al servicio para acciones en general criminales. Los agentes de la práctica necromántica son llamados a veces ψυχαγωγοί, precisamente con la idea de que conducen y orientan la conducta de las almas, a veces γοηταί, haciendo hincapié en su carácter de hechiceros, y a veces son chamanes, sujetos que dominan prácticas mágicas diversas entre las que se cuenta la capacidad de separar alma y cuerpo en ellos mismos.[42]

La cuestión de los fantasmas presenta, entonces, un ámbito que es preciso integrar con el análisis de la estructura antropológica, ya que permite revisar aspectos como la materialidad y el *status* de aquello que subsiste tras la muerte y por tanto puede ser invocado. La tradición posterior erigida sobre el dualismo invita a resolver con cierta premura la cuestión postulando que tras la desaparición del cuerpo el alma guarda algún tipo de subsistencia,

[39] JOHNSTON 1999, 48–49.

[40] *SEG* IX 72 = *LSS* 115. Véase PARKER 1983, 333.

[41] Véase, por ejemplo, el caso del asesinato del molinero en Apuleyo, *Metamorfosis*, IX.29 ss.

[42] Véase ELIADE 1957, BURKERT 1962.

aunque cabe notar que la multiplicidad de casos no permite una reducción rápida. Por un lado, existe una serie de casos donde la muerte no es completa y hay persistencias terrenas. El caso de los ἄωροι sugiere que en ciertos casos la desaparición del cuerpo no termina con la persona, que sin embargo no conserva siempre los rasgos de conciencia e identidad que tenía mientras estaba viva.[43]

Ya en el caso antiguo del acto de necromancia de Odiseo el rito implica conferir no sólo visibilidad sino también al parecer conciencia a los habitantes del inframundo.[44] Este aspecto convive, sin embargo, con el dato de la información que proveen los personajes del inframundo en referencia con ciertas dinámicas que no implican una total ausencia de actividad noética. Los relatos posteriores acerca de premios y castigos transmundanos, más allá de las importaciones religiosas de la época arcaica asociadas con el surgimiento de cultos mistéricos que apuntan precisamente a la pervivencia del alma, podrían tener un antecedente en este aspecto o al menos no riñen con este punto.[45] No faltan quienes remontan a la época micénica algún tipo de persistencia de la vida *post mortem*, a partir de la alusión a las Erinias.[46]

Por su condición de pertenencia al grupo de los βιαιοθάνατοι, el fantasma de Patroclo en *Il.* 23.62 se las arregla para presentarse solo. Igual de familiar nos resulta la alusión platónica de *Fedón*, 81 a los fantasmas que rondan las tumbas en los cementerios y, según hemos dicho, se encuadra en el tipo de los fantasmas de Maratón. En ese contexto, el personaje Sócrates trae a cuento el dato para ofrecer una interpretación que refuerza el núcleo doctrinal del diálogo, asociado con un dualismo alma inteligible-cuerpo material. Cabe notar, sin embargo, que los interlocutores de Sócrates no reciben la explicación como algo obvio, de modo que podemos suponer que estas afirmaciones no expresan sin más las creencias usuales.

Tampoco lo hace la separación anímico-corpórea primaria, que se vería luego obstaculizada por la contaminación del alma con lo corpóreo hasta el punto de que no sólo se resiste a la separación y ronda el cuerpo muerto, sino que es ella misma de una cierta corporeidad que hace que resulte visible y que quede asociada con los deseos ligados con la materialidad. El *status* de una ψυχή así es difícilmente desentrañable y en algún sentido contrasta con el intento posterior de trasladar al cuerpo todos los deseos disruptores para erigir una asociación lo más directa posible del alma con el plano eidético.

La práctica del cenotafio, donde ante la imposibilidad de enterramiento se convoca mediante la pronunciación del nombre tres veces ante la tumba vacía, presenta también el problema de una invocación al alma que crea una lógica de relación con el cuerpo distinta de la causalidad por la cual el reposo dependía de ritos específicos.[47] En algún sentido, parece

[43] VERNANT 1991, 50–74; BREMMER 1983, 89–108; JOHNSTON 1999, 127 ss..

[44] En este contexto Tiresias es el único que conserva el *noûs*. Véase LUCK 2006, 9.

[45] Sobre cultos mistéricos, véase: BURKERT 1987; JIM 2017, 255–282.

[46] NILSSON 1932.

[47] *Od.*, 1.290–292 y E. *Hel*, 1050–1068.

indicar que lo prioritario es el rito y no la disposición del cuerpo en tanto instancia material, con lo cual, en última instancia, el pasaje es mágico y no una consecuencia de la estructura antropológica, de modo que si lo mágico opera sobre la materia trastornando su lógica el sustrato físico se vuelve una variante secundaria y no implicaría un dato duro sobre el que podamos apoyarnos para reconstruir supuestos sobre el modo en que se comprende la naturaleza humana.

La variedad de historias sobre fantasmas dificulta el establecimiento de patrones. Hay fantasmas de apariencia inmaterial, como los de Homero, pero también hay otros que no se distinguen de los vivos, o, más complejo aún, parecen poder acceder a ambos estados. Esto sucede en el caso especialmente problemático de la historia de Apuleyo, que parece a primera vista tratarse de un caso de resucitados, donde resulta ser el cuerpo mismo del muerto el que reaparece por obra de un conjuro de hechicería.[48] El relato apunta a la utilización de cadáveres para llevar adelante acciones criminales, en este caso un asesinato para el cual el cuerpo muerto de una mujer es enviado a buscar a un hombre al cual atrae a un cuarto cerrado con insinuaciones sexuales. Para que tal fin pueda ser cumplimentado hace falta que el cadáver, al que se describe como bastante macilento, no esté en estado de descomposición.

Lo cierto es que luego de encerrarse en el cuarto cerrado, cuando pasado un tiempo los empleados del hombre quieren encontrarlo fuerzan la puerta y sólo encuentran su cuerpo asesinado y sin rastros de la mujer. De este modo, no puede tratarse tanto de un cuerpo resucitado sino más bien de un espectro invocado con capacidad para materializarse y desmaterializarse. Si esto es así, suponiendo que lo invocado es la ψυχή, ésta no resulta de naturaleza puramente inmaterial, sino, por el contrario, tendría una suerte de posibilidad de proyección corpórea, lo cual recuerda la mención platónica de los espectros de los cementerios de *Fedón*, 81, y la idea de almas afectadas de corporalidad.

Hay otros casos donde la vuelta es claramente de la persona completa. En la historia de Flegón de Trales acerca de Filinea,[49] que se remonta a un informe oficial macedónico durante el reinado de Filipo II, esta muchacha joven muere antes de su matrimonio, con lo cual entraría en la categoría de los ἄγαμοι. Se presentaba por la noche ante el huésped de sus padres de modo reiterado, hasta que al ser descubierta por sus padres muere por segunda vez y en su tumba se encontraban regalos hechos por el muchacho, que muere también poco después. En tren de comparaciones con la iconografía sobrenatural contemporánea, Filinea se acerca más a un vampiro, figura con la que se la parangonado a partir de las similitudes con la historia que narra Filóstrato en la *Vida de Apolonio de Tiana*, donde la novia del discípulo de Apolonio resulta ser una ἔμπουσα, una suerte de vampiro que absorbe la vida del muchacho y tiene poder para crear ilusiones visuales.[50]

[48] Apuleyo, *Metamorfosis*, IX.29 ss.

[49] Flegón de Trales, *Mirabilia*, 1.

[50] Filóstrato, *Vida de Apolonio*, 4.25.

Ambos hombres terminan muertos, y si bien no se puede inferir con claridad los móviles de cada una, y por cierto Filinea parece mucho más benéfica que la novia de Corinto, de quien por otra parte nunca se dice que sea un espectro, en ninguna de ambas hay un actor detrás que determine sus acciones como en el cadáver seductor de Apuleyo. En este caso hay resucitación del cuerpo pero tiene además un accionar que está asociado con deseos de Filinea relacionados con experiencias coartadas, lo cual implica elementos anímicos que persisten en la resucitada y que quedan bien retratados en la encendida queja que descerraja contra sus padres cuando interrumpen su romance.[51]

El caso de la limpieza de una casa embrujada por parte de Arignoto el Pitagórico que narra Luciano en el *Filopseudes*,[52] y cuentan también Plauto[53] y Plinio el Joven[54], refiriendo a orígenes griegos, también presenta un fantasma de apariencia humana desmejorada, materialidad difusa y capacidad de transformación en animales. Esto marca una diferencia clara con el cadáver asesino de Apuleyo, que semeja más bien la actitud de un zombi. En este sentido, la descripción del cuerpo macilento cumpliendo una misión ajena nos pone frente a un caso de necromancia donde lo invocado es el cuerpo—o una dimensión corpo-material—sin conciencia, pero no el alma o los elementos del plano anímico que reglan la conducta. Tal vez se asemeje al pasaje de Empédocles, en el DK 111, cuyo final declara que puede invocar a un hombre muerto probablemente para ponerlo a su servicio.

El modelo necromántico más simple invoca el alma, con corporalidad disminuida, como sucede en el episodio de *Odisea*, XI, donde la ψυχή de la madre de Odiseo se evapora cuando trata de tocarla.[55] De este mismo tipo es el relato de Heródoto acerca del caso de Periandro y Melisa, que incluye la referencia al oráculo de los muertos νεκυιομαντείον.[56] Este tipo de fantasmas insustanciales pierden su corporalidad en la pira funeraria, lo cual habilita una vinculación entre fantasmas, necromancia y sueños muy propio de esta categoría fantasmagórica. Es lo que sucede en el relato del amigo en la posada de Cicerón, *De divinatione* 1.57, donde se narra el caso de un hombre al que se le aparece en sueños la imagen de un amigo pidiendo auxilio ante peligro y, dado que quien recibe el sueño lo desoye y se comete el asesinato temido, vuelve a aparecerle de nuevo en sueños la imagen—espectral—del amigo ya muerto para pedir venganza y sepultura.

Como es claro, los casos de necromancia implican dimensiones antropológicas que exceden la división cuerpo-alma. Apelemos a un caso tardío pero claro, que se si bien está

[51] Dice: "¡Madre! ¡Padre! No es justo que me arruinen estos tres días con el invitado en la casa de mi padre. Yo no le causo problemas a nadie. Ahora, por su intromisión, van a tener que hacer de nuevo todo el duelo y yo voy a tener que volver a mi lugar inicial. No vine sin la voluntad de los dioses" (Flegón de Trales, *Mirabilia*, 1).

[52] Luciano, *Philopseudes*, 30.

[53] Plauto, *Mostellaria*, 446–531.

[54] *Cartas*, 7.27.5–11.

[55] *Od.*, XI.84 ss.

[56] Heródoto, V.92.

relatado en latín refiere a Tesalia, territorio muy ligado en el imaginario a la brujería. Nos referimos al relato sobre Ericto, que necesita revivir un cadáver muerto recientemente para que le brinde la información que requiere Pompeyo.[57] Después de prepararlo y aplicar la serie de elementos mágicos necesarios, ante la invocación a los dioses infernales a quienes amenaza, vuelven al cuerpo a la vez un fantasma (*umbra*) y el alma (*anima*), lo cual implicaría una estructura tripartita que ha sido interpretada como una alusión a la presencia de un demonio interior del estilo del mencionado en el mito de Er con que Platón cierra *República*.[58]

Este punto no debe ser pasado por alto y complejiza mucho el panorama general, ya que este tipo de entidades fantasmáticas son colocadas a veces bajo la caracterización genérica de ψυχαί, pero a veces también bajo la de δαίμονες. Así adviene una noción genérica de fantasma como demonio, que convive con una más restringida e incluso inconmensurable con ésta. Los demonios cumplen una función importante en la antropología estoica.[59] Es preciso recordar que, según vimos, el material de los conjuros revela casos en que se invoca a los muertos como δαίμονες, suponiendo entonces que es una categoría apropiada para el tipo de entidad intermedia a la que permanecen los ἄωροι.

Como una vuelta al problema de la ψυχή homérica, cabe preguntarse por el *status* demónico del hombre vivo, si forma parte de un compuesto que excede, por tanto, el dualismo, o es un producto tanático que se produce al morir por un cambio de estado de un componente anímico. En cualquier caso, los ejemplos de fantasmas y las prácticas necrománticas, como sucede con los conjuros, sugieren la pervivencia de esquemas antropológicos difusos imposibles de reconciliar con estructuras psico-somáticas claras. Esta línea se gestó y desplegó, hasta ser adoptada y reforzada mucho después por el cristianismo, sobre un terreno de dispersión que permitía asociaciones disímiles con perspectivas bien distintas sobre lo humano y su naturaleza en vida y tras la muerte.

3. Corolarios

El acercamiento a los orígenes de la tradición requiere un dispositivo que atienda al surgimiento de las posiciones teóricas, sus mecanismos de instauración y legitimación de problemas, así como la interacción entre los distintos actores que proponen entramados explicativos para dar cuenta de ellos.[60] Esta multiplicidad requiere inquirir además sobre el entramado en el que se anclan los desarrollos teóricos, es decir, sobre las creencias que enmarcaban esta variedad. En este sentido, la determinación de los marcos culturales es el primer trazado topológico que oficia de suelo al entramado de zonas de tensión dialógica. En

[57] Lucano, *Farsalia*, 6.413–587.

[58] Véase OGDEN 2001, 219–230.

[59] Sobre ese punto, véase ALGRA 2009 y MÁRSICO 2014.

[60] Sobre el enfoque por zonas de tensión dialógica (ZTD), véase MÁRSICO 2010 y 2013.

la tarea de desentrañar los modelos antropológicos desplegados en la antigüedad y los complejos orígenes que precedieron a la estructura psico-somática adoptada por la tradición posterior, es preciso estudiar junto con las propuestas filosóficas también las creencias acerca de la estructura antropológica. La hechicería y su práctica de conjuros, las creencias sobre fantasmas y las prácticas de necromancia revelan, como hemos visto, datos relevantes que complementan el testimonio de otras fuentes y merecen, por tanto, ser incorporados en las discusiones sobre este terreno.

El recorrido que planteamos muestra que la dispersión categorial antropológica, lejos de limitarse a los tiempos arcaicos, está presente en las creencias populares de cimentan las explicaciones teórico-filosóficas. Los fantasmas del *Fedón* y los hombres asustados ante los maleficios de *Leyes* forman parte de un mismo imaginario y la sedimentación de la oposición psico-somática se dio a partir de un estado de creencias que no la tenían como única opción. Los materiales mágicos señalan la necesidad de estudiar la emergencia de teorías psicológicas en el marco de las zonas de tensión dialógica que las amparan y que comprenden también, como horizonte, las creencias de la cultura en las cual estas teorías están arraigadas. Comprender ideas filosóficas implica también entender el entramado que las sustenta y en este caso invita a transitar el mundo de los hechizos, la necromancia y los fantasmas.

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La administración subalterna en *Raetia* durante el Imperio Romano

Juan Manuel BERMÚDEZ LORENZO[1]

Abstract. *This study deals with the positions and people of the subordinate administration of the province of Raetia since its creation, at the end of the 1st century BC, until the first half of the 3rd century AD. The data that we know of all of them is offered to obtain an overview of this administrative area that has often been forgotten.*

Resumen. *El presente estudio trata los cargos y personajes de la administración subalterna de la provincia de Raetia desde su creación, a finales del s. I a. C., hasta la primera mitad del s. III. Se ofrecen los datos que conocemos de todos ellos para obtener una visión general de este ámbito administrativo que a menudo ha sido olvidado.*

Rezumat. *Acest studiu tratează pozițiile ocupate de persoanele aflate în administrația provinciei Raetia începând cu formarea acesteia, de la sfârșitul secolului I a.Chr. până în prima jumătate a secolului III p.Chr. Datele obținute sunt utilizate pentru a obține o privire generală asupra acestei regiuni administrative.*

Keywords: subordinate provincial administration, Raetia, limes, prosopography.

Administración subalterna. Estado de la cuestión

La falta de documentos en Historia Antigua es el principal impedimento para desarrollar un análisis completo de la administración subalterna de la provincia de Raetia. En otros trabajos hemos tratado estamentos superiores de la administración provincial[2]. La base de esa cúspide, pese a haber sido supuestamente mucho más numerosa, tiene una representación epigráfica mucho menor, por lo que el número de inscripciones que han llegado a nuestro conocimiento también es menor. Esa base estaba formada por funcionarios que llevaban a cabo las tareas del día a día de la administración. El volumen de este grupo es tema central

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[2] Verán la luz próximamente trabajos sobre los *procuratores* y los *legati*, gobernadores en diferentes momentos de esta provincia.

para una discusión aún no resuelta. Pablo Ozcáriz ha resumido recientemente el estado de la cuestión en aplicación a su provincia de estudio, la *Hispania citerior*[3]. Las cifras del número de funcionarios varían según las hipótesis de los estudiosos. Una corriente cifra en 20.000 el número de funcionarios de todos los niveles en todo el Imperio Romano[4]. Es una cifra que nos parece aparentemente insuficiente dada la extensión y la complejidad que muestra Roma en otros aspectos, como bien puede ser el ejército o el derecho romano[5]. Es indudable y extraordinariamente arriesgado hacer extrapolaciones numéricas a partir de los vestigios epigráficos que nos han llegado.

De igual modo que con otros temas, la administración subalterna también varía sus características y necesidades dependiendo del *status* de la provincia. Es probable que una provincia procuratoria (como es *Raetia* hasta las Guerras Marcomanas) tuviera un número de personal funcionario menor al de una provincia de mayores dimensiones, donde las cargas administrativas se distribuyesen en un territorio mayor, y donde parte de esa administración fuese llevada a cabo por personal adscrito a las legiones. Por ello, el cambio de estatus de provincia procuratoria a imperial gobernada por un *legatus* habría acarreado cambios también en la administración inferior, principalmente por la introducción de una legión en la provincia. Otro tema interesante a mencionar es la división y diferenciación de la administración civil y militar. Las funciones administrativas desempeñadas no se habrían diferenciado claramente, especialmente en estas provincias, porque las unidades militares en ella apostadas dependen directamente del gobernador de turno. Tareas de vigilancia de caminos y tareas de policía, construcción de infraestructuras como calzadas, administración de justicia, así como el control del abastecimiento de la provincia eran actividades teóricamente de la administración civil que eran llevadas a cabo por las unidades militares apostadas en las provincias y bajo la dirección del gobernador de la provincia. No disponemos de bibliografía específica precedente a propósito de esta temática en *Raetia*. Sólo el estudio de Winkler menciona los cargos subalternos de la *legio III*, por lo que, en principio, desconocemos casi todo de la administración civil subalterna de *Raetia*. La fuente principal de la que nos vamos a servir para obtener información es la epigrafía. Mostraremos una visión teórica de lo

[3] OZCÁRIZ 2013a, 215–216.

[4] ESPINOSA 2006, 22.

[5] Esto no parece así a parte de la crítica, especialmente anglosajona, que habla de administración imperial rudimentaria. Algunos incluso afirman que el Imperio Romano no tenía gobierno en el sentido de que no había gente que fuera elegida para tomar decisiones con responsabilidad. *Vide* MILLAR 196, 52 y GARNSEY, SALLER 1987, 20–21, respectivamente. Nos unimos a la idea de Ozcáriz de crítica a estas ideas por la que dice: "El administrar de forma correcta cualquier ámbito con el menor número de efectivos es siempre un signo de eficacia en la dinámica esfuerzo/resultado. Si aplicásemos esta valoración al mundo de la Empresa, el Imperio romano sería un modelo de eficacia a seguir, por conseguir los mejores resultados con una mínima inversión en personal." Añade, finalmente, que la visión de una administración rudimentaria se debe "exclusivamente a la soberbia de la sociedad moderna, y serían muy poco razonables para un indígena hispano que sólo conocía el modelo de sociedad prerromana".

que debió de ser esta administración subalterna para identificar en los casos que podamos, los personajes que hubiera en la provincia. Organizaremos la exposición de cargos a partir de su naturaleza senatorial, ecuestre y de administración militar con prerrogativas civiles. Dentro de cada uno de estos apartados También mencionaremos la administración de la que disponemos en época de la *Notitia Dignitatum*.

Cargos senatoriales

Para el período procuratorio de *Raetia* no disponemos de cargos senatoriales, excepto en el momento en el que, por ejemplo, una legión se apostase temporalmente en la provincia, por lo que, al menos, habría un *legatus* y *tribuni legionis*. Es lo que supuestamente ocurre en el período inmediatamente anterior a las Guerras Marcomanas, con sus preparativos. Para el período posterior a las Guerras Marcomanas conocemos precisamente los casos en relación con la *Legio III Italica*. Entre los cargos senatoriales en una provincia también se encontraba como elemento principal el círculo de amistades que aconsejaba al gobernador, de los que no nos queda aparente rastro epigráfico.

Cargos ecuestres

Analizando la pirámide en sentido invertido vemos que obviamente se amplía el número de cargos asociados a la administración provincial. Podríamos decir que los cargos que llevan a cabo los personajes del *ordo equester* se relacionan con tareas del día a día, sobre todo asuntos de gestión económica, de infraestructura de la provincia y seguridad civil y militar.

Advocatus Fisci

Conocemos a un *advocatus fisci*[6] *Raetici*, *Flavius Vettius Titus*, por una inscripción funeraria encontrada en Friedberg[7], Alemania. Era el encargado de defender al estado en los juicios en los temas fiscales. Es destacable que hubiera un *advocatus fisci* para un territorio pequeño y *a priori* con una actividad económica limitada, ya que, por ejemplo, en *Hispania* este cargo se encargaba de las tres provincias de la Península[8]. Desempeñaba su función en contacto con los *procuratores* financieros, y es de suponer que en una provincia procuratoria, como es *Raetia* hasta las Guerras Marcomanas, su trabajo estuviera directamente ligado con la figura del *procurator provinciae* gobernador. La inscripción no está datada, aunque se debe encuadrar cronológicamente a partir de Adriano y probablemente antes de las Guerras Marcomanas.

[6] IBR 176; PFLAUM 1950, 50.

[7] IBR 176; tab. 24, 176

[8] OZCÁRIZ 2013a, 218.

Procurator familiae gladiatoriae

El personaje es bastante conocido y tratado por la crítica moderna[9]. Se trata de un *procurator* encargado de administrar las *familiae gladiatoriae*. *Lucius Didius Marinus* se ocupaba de las provincias de *Gallia*, *Britannia*, las *Hispaniae* y las *Germaniae* y *Raetia* y era de tipo sexagenario[10]. Se encuadra cronológicamente en época de Septimio Severo. Como menciona Ozcáriz, más tarde llevaría a cabo el cargo de *procurator* financiero en *Hispania citerior*[11]. Entendemos, dada la amplitud geográfica de la que era encargado, que dispondría de personal dependiente que ejecutase su administración.

Administración militar con prerrogativas civiles

El personaje administrativo civil, como recuerda Ozcáriz, no era el mismo en todas las provincias. Como hemos visto, es necesario tener en cuenta el *status* de la provincia para conocer las necesidades de la provincia y del territorio en sí mismo, sin olvidar por supuesto, los recursos naturales de los que dispusiera y que deberían ser bien controlados por el Estado romano. A menudo estas tareas de control y seguridad eran llevadas a cabo por personal militar, y revisadas por administradores militares. El *officium* provincial es dependiente del gobernador directamente. Obras como la de Nélis-Clément[12] y Rankov[13] ilustran perfectamente el funcionamiento interno de un *officium* provincial, por lo que no nos extenderemos en este sentido. Nos remitimos a esas obras para una mejor comprensión del funcionamiento y la naturaleza de los cargos en sí. Huelga mencionar que faltan estudios a propósito del ejército apostado en *Raetia* comparables a los que se han dado para otras provincias con más peso en el desarrollo provincial, como *Hispania*[14]. Sin duda, el papel del ejército en *Raetia* provincia está ligado a su posición geoestratégica como territorio liminal de primera línea. Esto se acentúa especialmente después de las Guerras Marcomanas cuando se aposta en *Castra Regina* una legión, la *III Italica*. Esto hace que el peso militar de la provincia aumente, y con él, la importancia política que se le supone en relación con el Imperio Romano, integrada dentro del sistema defensivo a lo largo del *limes* de *Germania*, *Noricum* hasta *Pannonia*. Obviamente deberíamos diversificar entre Alto y Bajo Imperio, e incluso dentro de estos períodos acotar más.

[9] Fuentes relativas al cargo: CIL III, 249 = CIL III, 6753 = ILS 1396 = AE 1962: 62. Bibliografía: PIR II D, n. 71; pflaum 1950, 77; PFLAUM 1961, n. 295; NONY 1970, 195–201; DEVIJVER 1977: pme d 8; DEVIJVER supp. i e ii; HAENSCH 1997, 170 e 178; OJEDA 1993 n. 59, ALFÖLDY 2000: 65–66; OZCÁRIZ 2013: 220.

[10] OZCÁRIZ 2013b, 85

[11] OZCÁRIZ 2013a, 262.

[12] NÉLIS-CLEMENT 2000.

[13] RANKOV 1999, 15–34.

[14] LE ROUX 1986.

Aquí sólo trataremos los cargos militares que hayan desempeñado algún empleo en la administración civil o que estén en contacto con el *officium* del gobernador. En *Raetia* la mayoría de inscripciones de personajes subalternos militares provienen de la *Legio III Italica*, por lo que, al menos se deberían datar a partir de la segunda mitad del siglo II d. C.

Legati legionis

Sus cometidos no se limitan obviamente al ámbito militar, sino que atienden a necesidades de administración civil que probablemente se dieron también de una forma puntual y en colaboración con el gobernador provincial, como hemos ya señalado.

Caius Vettius Sabinianus Iulius Hospes fue *legatus* de la *Legio III Italica* en época de Marco Aurelio, es decir, cuando la legión se apostó en *Raetia*, específicamente en *Castra Regina* (actual Regensburg)[15]. Es conocido por una inscripción funeraria encontrada en *Africa Proconsularis*.

Para *Raetia* también conocemos a *Appius Claudius Lateranus*[16]. Sabemos que colaboró con Septimio Severo en sus guerras contra los árabes y los partos en el 195 d. C. Fue cónsul en el 197 d. C. La inscripción honorífica fue encontrada en Augsburg.

Además de la cúspide militar provincial que representa el *legatus legionis* encontramos otros cargos que se rigen por una jerarquización típica del ámbito militar aunque con propósitos usualmente concretos, y sin continuidad en el tiempo[17].

Beneficiarii

Dependían directamente del gobernador y se encargaban de varias funciones[18], entre las cuales podemos destacar de control comercial, en especial en lo que se refiere al abastecimiento de la tropa[19]. En *Raetia* disponemos de cuatro testimonios del cargo[20]:

– *Iulius Macrianus*[21]: inscripción funeraria encontrada en *Augusta Vindelicorum*, sin datación. Los dedicantes son su mujer, *Secundia Servata*, y sus hijos *Alpina* y *Alpinus*. Pese a no mencionar el término *Raetia* o la *Legio III Italica*, debemos asignarlo a ésta, por lo que deberíamos datarlo a partir de la segunda mitad del s. II. d. C.

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[15] Fuentes relativas al cargo: AE 1920: 45. Bibliografía: PIR V 339; BARBIERI 1952, 121; DOBÓ 1968, 46; 111; WINKLER 1971, 92; DIETZ, WEBER 1982, 433; HAENSCH 1997, 726.

[16] CIL III, 5793 = IBR 104 = ILS 3203 = AE 2001, 1560.

[17] OZCÁRIZ 2013ª, 86: Estos cargos eran útiles además para "ascender en el escalafón del ejército".

[18] NÉLIS-CLÉMENT 2000; RANKOV 1999, 15–34; HAENSCH 1997, 721; PETRACCIA 2012, 79–82; OZCÁRIZ 2013a, 226.

[19] CARRERAS 1997, 151–176.

[20] WINKLER 1971, 93. Sólo como apunte, confróntese con el caso de *Hispania Tarraconense*, donde se conocen 30 *beneficiarii*. *Vide* OZCÁRIZ 2013a, 226 y ss.

[21] CIL III, 5815 = IBR 126.

– *Severius Severianus*[22]: inscripción encontrada en *Brigantium* y dedicada a Mercurio. Se puede datar entre el 238 y el 244 d. C.

– *Iulius Candidius*[23]: inscripción funeraria encontrada en *Castra Regina* y sin datación. Había sido también *praefectus castrorum*. En la inscripción se menciona a un *librarius*, *Iulius Aelianus*, seguramente familiar suyo.

– (anónimo)[24]: inscripción honorífica incompleta encontrada en Augsburg.

Frumentarii

Los *frumentarii* eran los encargados de llevar a cabo faenas de vigilancia y rastreo de criminales[25]:

- *(Marcus?) Aurelius Silvinus*[26]: inscripción votiva encontrada en Roma[27]. Sólo disponemos de un ejemplo de *frumentarius* para la provincia, que además se debe relacionar probablemente con el *Marcus Aurelius Silvinus* mencionado en un diploma militar procedente del mercado incontrolado de materiales arqueológicos y conservado en el Museo de Almería. Este diploma fue dado a conocer por el profesor Caballos en 2009[28]. Este *Marcus Aurelius Silvinus* originario de *Augusta Vindelicorum* es un soldado pretoriano de servicio en la *cohors III pretoria Alexandriana pia vindex*. El propio Caballos propone que sea el mismo personaje de la inscripción encontrada en *Raetia* y dice que el propio *Marcus Aurelius Silvinus* "debió habérselo llevado (el diploma) a su patria, *Augusta Vindelicorum*"[29]. Menciona la posible relación con otros *Aurelii* de *Raetia*, aunque con la cautela por la gran cantidad de *Aurelii* en las provincias danubianas debido a la aplicación de la *Constitutio Antoniniana*: por ejemplo, *Aurelius Mucianus*, *praeses provinciae Raetiae*. En cualquier caso, si bien no se trata del mismo personaje, tiene muy probablemente una relación próxima. Es también inevitable la mención de una inscripción encontrada en *Dalmatia* con un *Aurelius Silvinus*[30]. No obstante, no podemos asegurar la relación de ésta con nuestro personaje.

- *Titus Claudius Severus*[31]: inscripción votiva encontrada en *Summus Poeninus*, en la *Vallis Poenina*, datada en la segunda mitad del siglo II d. C.

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[22] CIL III, 5768 = IBR 74.

[23] CIL III, 5953.

[24] CIL III, 5823 = IBR 134.

[25] *Vide* PASCHOUD 1983, 215 y ss; CLAUSS 1973, 82; HAENSCH 1997, 722; PETRACCIA 2012, 68–72.

[26] AE 1991, 266.

[27] RANKOV 1990, 176–182; RANKOV 2007, 1169–1172.

[28] CABALLOS 2009,78–84.

[29] CABALLOS 2009, 82.

[30] CIL III, 8924.

[31] CIL V, 6869.

Commentarienses o a commentariis

No hay prueba epigráfica de su existencia en *Raetia*, aunque tuvo que haber. Su función primordial era la redacción de los *commentarii*, los diarios oficiales. Ozcáriz propone que pese a encargarse de documentos esencialmente militares, también llevaban a cabo administración civil[32]. Haensch propone que fueran dos los *commentarienses* que simultáneamente llevaran a cabo el cargo en una provincia imperial[33].

Quaestionarii

Tampoco disponemos de ejemplos en *Raetia*. Se dedicaban principalmente a torturar y ejecutar reos[34].

Librarii

Desempeñaba funciones de copista y preparaba las actas, esencialmente[35]. Le Bohec dice que se encargan específicamente de la contabilidad, así como de los servicios postales[36]. Conservamos dos inscripciones de personajes que desempeñaron este cargo en *Raetia*:

– *Titus Iulius Aelianus*[37]: inscripción funeraria encontrada en *Castra Regina*, sin datación.

– *Iulius Amandus*[38]: inscripción funeraria encontrada en *Augusta Vindelicorum*. Fallecido a los 30 años, la inscripción fue mandada hacer por su madre, *Iulia Paterna*. Nótese la posible relación con el *beneficiarius*, *Iulius Candidus*.

Exacti

Según Cagnat el *exactus* era el encargado de redactar las *acta militaria* y no debemos confundirlo con un *actarius* o un *librarius*, encargados de la redacción de temas del día a día de la tropa como pueda ser la distribución de alimentos[39].

– *Titus Flavius Clemens*[40]: inscripción funeraria encontrada en *Augusta Vindelicorum*. La inscripción está dedicada por su hermano *Titus Flavius Martialis* a *Clemens*, y a sus padres: *Titus Flavius Primanus* y *Traianiae Clementinae*.

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32 HAENSCH 1997, 722; OZCÁRIZ 2013a, 233.

33 HAENSCH 1997, 715.

34 OZCÁRIZ 2013a, 237.

35 HAENSCH 1997, 722.

36 LE BOHEC 2013, 73.

37 CIL III, 5953 = IBR 386.

38 CIL III, 5814 = IBR 125.

39 DAREMBERG, SAGLIO 1877-1919, 873; HAENSCH 1997, 722; LE BOHEC 2013, 73.

Singulares

Se trataba de militares escogidos que estaban bajo el mando del gobernador provincial[41]. Speidel recuerda que tenían derecho a *singulares* los *procuratores provinciae* y los *legati Augusti provinciae*[42]

– *Publius Afinius*[43]: inscripción funeraria encontrada en *Abusina*, sin datación.

– *Marcus Virius Marcellus*[44]: inscripción votiva encontrada en Untersaal, Alemania. Decurión del *Ala I Flaviae Singularium Alexandrianae* en el momento de la factura de la inscripción, anteriormente había sido *singularis consularis* y *praepositus kastris*. Se data en el 231 d. C. Speidel da esta inscripción como prueba de que la capitalidad de la provincia se desplaza hacia Regensburg, cerca de donde fue encontrada[45].

– *Victorinus Longinus*[46]: había servido en el *ala II Flavia* en *Aquileia* (actual Heidenheim) o en Aalen. Speidel la sitúa entorno al cambio de siglo II-III d. C.[47].

Cornicularii

Según Le Bohec, este cargo se encargaba de organizar y administrar el *officium* provincial en los aspectos más cotidianos. Haensch propone que tuvieran también funciones jurídicas y de ordenación y escritura en los archivos[48]. Disponemos de tres inscripciones referentes a este cargo, que se ocupaba de las funciones administrativas y jurisdiccionales en la cancillería del gobernador[49]:

– *Marcus Aurelius Amandus*[50] : inscripción funeraria encontrada en Pfaffenmünster bei Straubing, Alemania. No disponemos de una datación clara.

– *Sulanius Albucius*[51] : inscripción votiva dedicada a Marte y Victoria encontrada en *Castra Regina,* datada en el 28 de junio de 211 d. C.

– (anónimo)[52]: inscripción votiva dedicada a Júpiter y a Juno encontrada en *Castra Regina* y datada entre el 218 y el 221 d. C.

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[40] CIL III, 5812 = IBR 123.

[41] DAREMBERG, SAGLIO 1877-1919: 1346; PAVKOVIC 1994, 223–228; HAENSCH 1997, 724.

[42] SPEIDEL 1978, 17–18.

[43] WAGNER 1956/57, 96

[44] CIL III, 5938 = CIL III, 11943 = IBR 354.

[45] SPEIDEL 2000, 80.

[46] CIL III, 5822 = ILS 2526 = IBR 133.

[47] SPEIDEL 2000, 78.

[48] HAENSCH 1997, 721; OZCÁRIZ 2013a, 234.

[49] OZCÁRIZ 2013a, 234; HAENSCH 1997a, 715.

[50] CIL III, 5974 = CIL III, 11977 = IBR 426.

[51] CIL III, 14370 = IBR 359.

[52] AE 2004: 1062.

Beneficiarius praefecti castrorum

Este cargo, sólo atestiguado por el siguiente personaje, debió de depender del *praefectus castrorum*:

– *Iulius Candidius*[53]: inscripción encontrada en *Castra Regina*, que posiblemente debamos relacionar con la *legio III Italica*, y por lo tanto, deba ser datada a partir de la segunda mitad del s. II d. C.

Adlectus ad annonae

Se trata de un cargo, también sólo atestiguado por el siguiente personaje, que debió de desempeñar faenas de abastecimiento a la *legio III Italica*. Su cargo dependería directamente de la praefectura annonae y su vinculación parece clara:

– *Caius Valerius Marianus*[54]: inscripción honorífica encontrada en *Tridentum* y datada entre el 171 y el 200 d. C.

Administración subalterna en época de la *Notitia Dignitatum*

Como hemos dicho anteriormente, disponemos de un documento esencial para conocer la administración provincial romana: la parte de la *Notitia Dignitatum* en la que se habla de *Raetia*. Pese a ser una mera lista sin más explicación de cada uno de los cargos, y sin personajes concretos asociados, nos permite ver dos grupos diferenciados a cargo del *dux*: los jefes de las unidades militares apostadas en *Raetia* y el personal administrativo de su gabinete personal.

> *Officium autem habet idem uir spectabilis dux hoc modo:*
> *Principem ex officiis magistrorum militum praesentalium alternis annis.*
> *Numerarios duos, ex utrisque officiis praesentalibus singulos.*
> *Commentariensem ex utrisque officiis alternis annis.*
> *Adiutorem.*
> *Subadiuuam.*
> *Regrendarium.*
> *Exceptores.*
> *Singulares et reliquos officiales.*

[53] CIL III, 5953 = IBR 386.

[54] CIL V, 5036 = CIL XIV, *228 = ILS 5016.

Consideraciones finales

Lamentablemente no disponemos de testimonios epigráficos de los cargos a los que hace referencia la *Notitia Dignitatum* para *Raetia*. Como se ha podido observar, la cantidad de testimonios de personal subalterno que tenemos en una pequeña provincia como *Raetia* es reducida. Quizás el tamaño de la provincia se une a la posición geoestratégica de la misma, en el *limes* norte, para justificar una administración originariamente más militarizada. El factor bélico de la provincia altera la propia naturaleza de la provincia en varias ocasiones de su historia: en el inicio, cuando el territorio aún no era provincia, de la que nos faltan fuentes. La dependencia epigráfica del estudio de la administración romana hace necesario especialmente el hallazgo constante de nuevas inscripciones que faciliten la comprensión de unos estamentos administrativos que no comprendemos en su totalidad. La variabilidad de cargos y matices en cada uno de ellos hace que sea difícil establecer las diferencias y vinculaciones entre ellos. No obstante, la falta de datos hace difícil vislumbrar más uniones. Quizá un futuro camino para profundizar en el significado y las funciones de estos cargos pasa por la interrelación de cargos mediante el estudio de varias provincias con un mismo estatus.

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Roman pottery in the countryside of Dobruja. Topolog as case study

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Abstract. *This paper presents a pottery assemblage discovered at Topolog (Tulcea County) in 2010, at approximatively 500 m northwest of the village, in two refused pits severely affected by the extraction of clay by the locals. In the same area a rectangular kiln for the production of bricks and tiles was investigated. The pottery assemblage consists of transport amphorae for wine and salt fish (Shelov C and Zeest 84/85), fine ware (Pontic sigillata), drinking and cooking ware, and a number of hand-made pottery of La Tène tradition. These forms date back to the 2nd century AD and reflect the trade relations of a rural community from the periphery of the Empire with the north and south-eastern Pontic regions.*

Rezumat. *Acest articol prezintă un lot de ceramică descoperit la Topolog (jud. Tulcea) în anul 2010, la cca. 500 m nord-vest de localitate, în două gropi grav afectate de extragerea lutului de către localnici. În aceeași zonă a fost cercetat un cuptor rectangular pentru producția țiglelor și olanelor. Ceramica constă în amfore pentru transportul vinului și al peștelui sărat (Shelov C și Zeest 84/85), ceramică fină (Pontic sigillata), ceramică de băut, ceramică de bucătărie și un important lot de ceramică lucrată cu mâna de tradiție La Tène. Aceste forme sunt datate în secolul II p.Chr. și reflectă legăturile unei comunități rurale de la periferia Imperiului cu regiunile nord și sud-est pontice.*

Keywords: Moesia Inferior, Topolog, amphorae Shelov C, Zeest 84/85, Pontic sigillata, hand-made pottery, 2nd century AD.

Premises

Topolog village is situated in the south-western region of Tulcea county (Dobruja, SE Romania) on the central area of the Babadag plateau, in an area surrounded by forested hills (Figure 1). The Topolog and Valea Roștilor river valleys constituted since Antiquity areas suitable for living, as evidenced by numerous archaeological discoveries known to date[3]. Prior to 2010, when the field research was carried out and the results are presented in this paper, a series of archaeological materials from different periods, including epigraphic

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[3] For an overview see NUȚU, MIHAILESCU-BÎRLIBA 2017, 169–172.

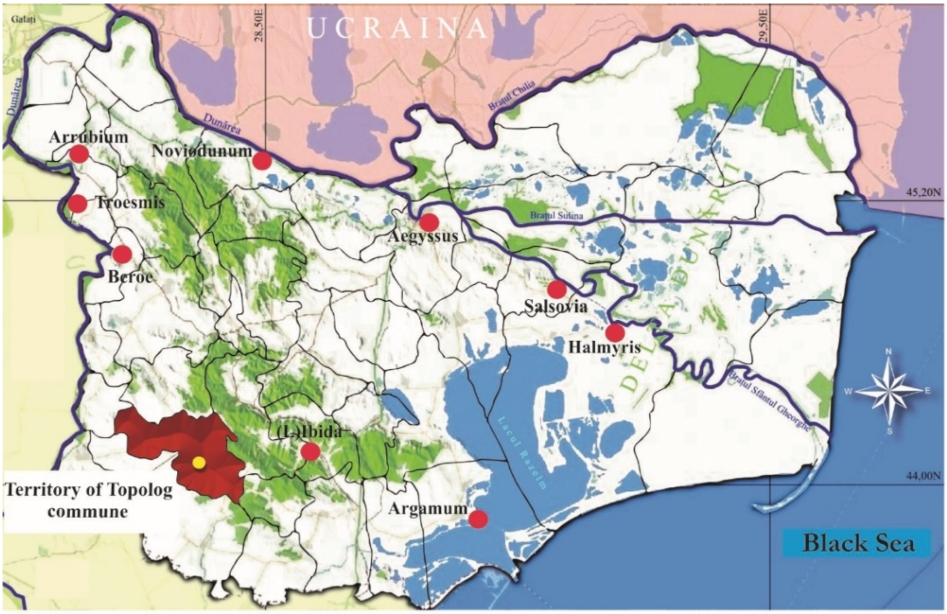


Figure 1. The geographic location of Topolog

Figure 2. Details of the area under survey (marked with a red circle on the map)

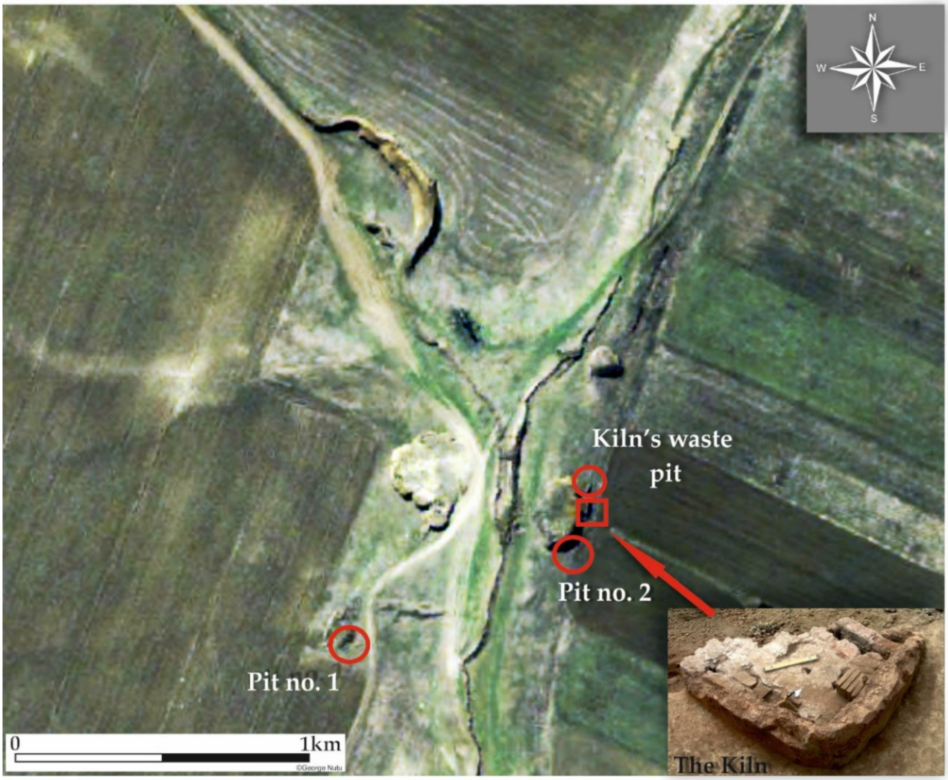


Figure 3. Details of the area under survey ('Stejarul lui Dobrică'/'Dobrică's oak'):
the two pits, the kiln and the kiln's waste pit

documents, were known on the Topolog territory[4]. The documents showed the existence of a heterogeneous population, including landowners originating in Asia Minor or Romanized Thracians (*veterani*).

In 2010, large-scale public works were carried out in Topolog village and we conducted a series of surveys approximatively 500 meters northwest of the locality (Figure 2). On this occasion, a kiln for bricks and tiles was investigated together with the waste pit and two other pits situated not far from the kiln (Figure 3). The pottery discovered in the two pits is the subject of this paper. The pits, together with the kiln, seem to delineate to the east the boundary of an early Roman settlement. Its surface is today in the agricultural network, and to the west a wind farm developed. It is probably one of the many *vici* or *villae* situated in this fertile area.

During these researches, a quantity of Roman and hand-made pottery was recovered. Brief observations have been made of two pits severely affected by clay extraction by locals. Pit 2 was observed at approximatively 15 m south of the kiln and was cut by erosion and clay extraction. It has a maximum diameter of 3.15 m and a maximum depth of 1.45 m (Figure 4); filling consists of layers of ash and adobe. Amphorae shards, hand-made pottery and cookingware were recovered from its base. The pit no. 1 is about 100 m from the pit no. 2 and is cut by a natural ravine for the discharge of the waters on the plateau. Because of this, it could not be fully investigated. Most numerous materials presented in this paper were recovered from this area.

From the same area, a series of Roman tiles, including one with the hoof of a donkey (?), and a series of clay projectiles have been recovered (Figure 4). The small village's museum has in his collections a series of pottery shards datable from the Neolithic to the late Roman period. They were discovered at various locations in the commune. Additionally, a small coin collection together with a 'Zwiebelknopffibel' Keller/Pröttel 3/4D is kept in the collection of Mr. Trofin that organized the local museum.

From the production areas point of view, the pottery from Topolog (Graphic 1) can be divided into imported **transport amphorae** from the south-eastern Black Sea region ('light clay narrow-necked' amphorae of Shelov C type) and the north-Pontic area (Zeest 84/85), fine ware (Pontic *sigillata*), small cups and cooking ware from the workshops of Moesia Inferior (**regional pottery**) and hand-made pottery of La Tène tradition (**local**). If the latter categories reflect purely functional types, the wine and salt fish transported in the aforementioned amphorae prove the economic vitality of this rural area and the trade relations with distant regions.

[4] BAUMANN 1971, 597; ARICESCU 1973, 105–110; MIHAILESCU-BÎRLIBA 2014, 303–307; 2015, 439–445; RUBEL 2015, 447–448.

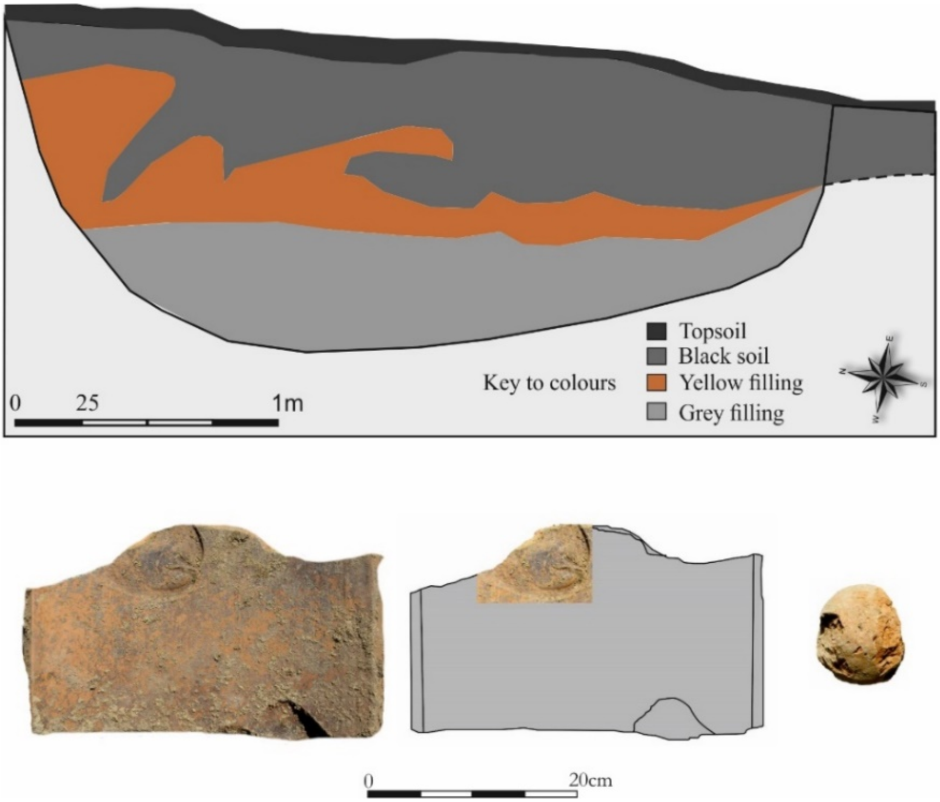
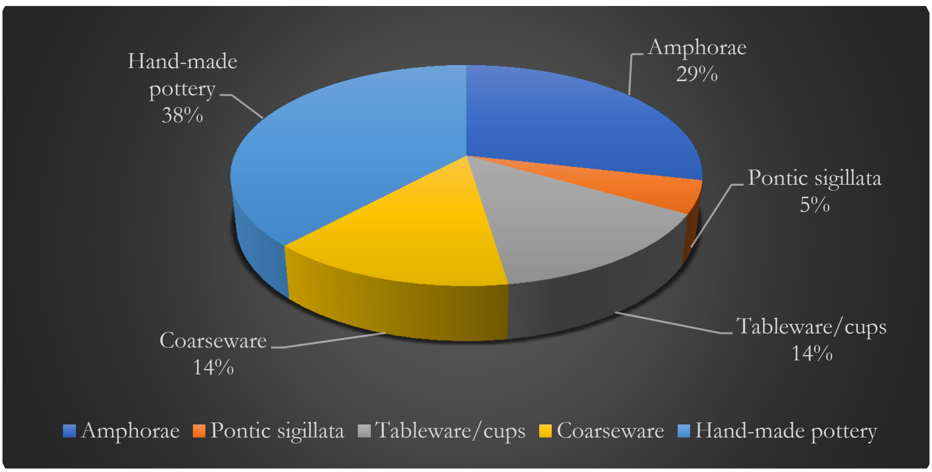


Figure 4. The pit no. 1 – photo and drawing of the cross-section;
tile with a hoof (donkey?) print and a clay projectile from the same area



Graphic 1. The percentage of pottery discovered at Topolog

1. Amphorae

1.1. Zeest 94 / Shelov C / Vnukov SIN IV/C / Dyczeck type 28 / Paraschiv 3B

Amphorae of this type (Figure 5) are one of the most common in early Roman settlements from Dobruja and they have a regional diffusion mostly at the Pontic Basin[5]. Outside this area, they occur in small number and have been regarded as evidence for long-distance trade relations. The flourishing trade with Heraclean wine is also mirrored by the diffusion of Shelov C amphorae in the Black Sea basin, but also in the Mediterranean, being discovered even in small quantities at Ostia in Terme del Nuotatore[6] and in the Athenian Agora[7]. In the east-Carpathians light clay narrow-necked amphorae clustered on the Siret Valley with only minor other occurrences farther north[8]. One of the few workshops that produced light clay narrow-necked amphorae was researched at Alapli, 12 kilometers south of Ereğli (Heracleea Pontica), where A-B and D-E variants were certified[9], but the absence of the C variant was probably due to limited research. The production areas were certainly more numerous, but the origin of such amphorae must be sought on the south-eastern coast of the Black Sea. Sinope and its hinterland could be the starting point of this type based on petrographic analyses, but probably its origin must be sought in Heraclean and Sinopean workshops.

Starting with I.B. Zeest[10], many scholars from the Pontic region analysed this type. D.B. Shelov set for these 'light clay narrow-necked amphorae' six variants. Apart from some morphological considerations, the author dates back these amphorae based on archaeological context from the north-Pontic region, generally in the 2nd century AD[11].

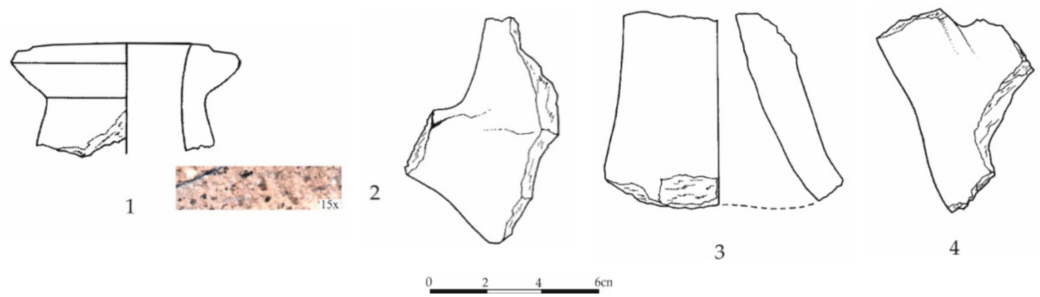


Figure 5. Light-clay narrow-necked amphorae shards

[5] On the general distribution of this amphorae type, see DYCZEK 2001, 215.

[6] RIZZO 2014, 562–563, fig. 6.1–2.

[7] OPAIȚ 2006, 111, figs. 3a–c.

[8] OPAIȚ 2017, 214.

[9] ARSEN'EVA, KASSAB TEZGÖR, NAUMENKO 1997, 187–198.

[10] ZEEST 1960, 118, pl. 38/94.

[11] ŠELOV 1986, 397, fig. 1/c.

D. Paraschiv analysed the diffusion area of this variant and showed that they were discovered in both, rural and urban milieus of Dobruja[12]. Prior to this analysis, the author proposed a broad chronology for this type (2nd to 3rd centuries)[13]. The latter proposed dating is too high because on the basis of the well-dated Moesian contexts, variant Shelov C is dated between the 2nd century and the first half of the 3rd century[14]. Any extension of use of this type later in the 4th century AD is questionable. Recently, Vnukov set for the variant Shelov C two subtypes (C IV C1-C2) and dated back from AD 125 to AD 150[15].

The percentage of these amphorae in the Dobruja's sites varies greatly. Two examples are relevant in this respect. At *villa rustica* from Niculițel-Tei Com, Shelov C type occupy the first place among transport amphorae with 81 finds. First place among the amphorae assemblage is occupied by the so-called table amphorae which are important for the dynamics of the local economy. Not incidentally, a calculation of the total quantity of wine based on amphorae finds from this villa reveals that wine imported from the south of the Black Sea is two times larger than wine imported from the Aegean[16]. On the other hand, at Argamum the amphorae of this variant occupy only 8.9% of the amphorae assemblage[17], but in this case, the archaeological context is uncertain.

It is obvious that any statistical evaluation of the number of Shelov C in the Moesian settlements is useless if we take into account the findings from underwater research. This variant was known in the shallow waters off Dobruja since the '80s of the 20th century when two such amphorae were brought to the Tulcea Museum[18]. The first of these was recovered from the Sfântu Gheorghe area by local fishermen[19]. Second comes from Gura Portiței[20], a region where Greek and Roman pottery was recovered during the bygone decades in great number. In the last three years, underwater research in shallow water off Gura Portiței led to the discovery of extremely well-preserved 2nd century AD shipwreck with a cargo estimated of over 1000 amphorae of Shelov C type[21]. During 2017 campaign it became clear that the cargo was set on at least five rows and that the number initial estimation of the cargo should be increased. Amphorae found during underwater surveys in the Black Sea are not

[12] PARASCHIV 2006a, 21–22; OPAIŢ, IONESCU 2016, 59, pl. 2/7–8.
[13] PARASCHIV 2013, 214.
[14] DYCZEK 2001, 204, 220.
[15] VNUKOV 2016, 42, fig. 4/1–10.
[16] NUȚU, STANC, PARASCHIV 2014, 56–58, table 4.
[17] PARASCHIV 2006b, 336, table 5.
[18] PARASCHIV 2006a, 43, no. 12, pl. 2; PARASCHIV 2013, 213, fig. 1/2a–b.
[19] The southernmost branch of the Danube is particularly known for the proofs of navigation during the Ottoman period of Dobruja as a fragment of a ship of this period was recovered a few years ago.
[20] PARASCHIV 2006a, 44, no. 13, pl. 2; 2013, 214.
[21] NUȚU *et al.* 2017, 56–58.

uncommon[22], as the primary cargo consists of them, but 'Portița A' is the first ship that carries this variant. Together with the similar amphorae from Sulina[23], Sfântu Gheorghe, Portița, Periboina-Edighiol[24] and farther south (Odessos, Mesembria) are important testimonies of an intense seaborne during the second half of the 2nd century AD and the beginning of the 3rd century. And the 'light clay narrow-necked' amphorae were a pan-Roman type, the most popular container in early Roman period in the Pontic basin[25].

Shelov C amphorae were traded along the seaborne routes and reach the city-harbours of the Black Sea coast. From these hubs, they were (re)distributed inland along the terrestrial routes, but were also shipped on the Danube (Figure 6). As for the content of this type of type amphorae, it was mainly wine[26]. P. Dyczeck mentioned an amphora discovered in the Black Sea near Nessebar, containing wood tar used mainly for preserving the hull of ancient ships[27].

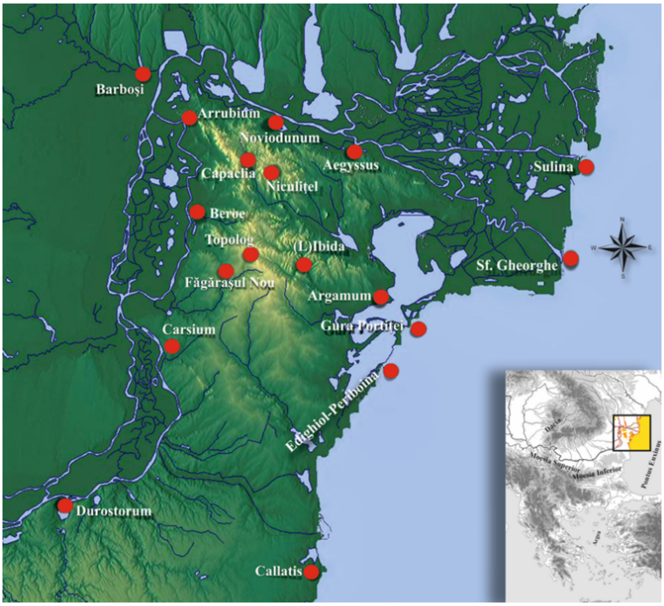


Figure 6. Distribution of the light-clay narrow-necked amphorae (*Shelov C*) in Dobruja

[22] Generally, for underwater research see A.J. PARKER (1992) seminal book; for underwater surveys in the Black Sea see, in generally, WARD 1999, 4–6; BALLARD *et al.* 2001, 607–623; WARD, BALLARD 2004, 2–13; HORLINGS 2005; WARD 2010, 189–198, 541–542; BRENNAN *et al.* 2011, 179–188; DAVIS *et al.* 2018, 57–80.

[23] These amphorae shards were retrieved off the Black Sea south of Sulina branch of the Danube and their publication forthcoming.

[24] Unpublished finds in private collections.

[25] VNUKOV 2004, 415.

[26] Another amphora shard, probably of Zeest 72 type (also for wine transport, see PARASCHIV 2006a, 26) is kept in the collection of the small museum of the Topolog village, together with some shards of the ubiquitous late Roman and early Byzantine types LR 1 and LR 2.

[27] DYCZEK 2001, 219

1) TOP2010.pit 2 (Figure 5/1) – Amphora mouth, light pink fabric (7.5YR/8.4) with limestone granules and pyroxene in composition, surface whitish, medium rough (7.5YR/8.4). D[28] – 6.5 cm.

2) TOP2010.pit 2 (Figure 5/2) – Amphora fragment, probably related to 'light clay narrow-necked' amphorae Shelov C, pink fabric (7.5YR/8.4) with limestone granules and pyroxene in composition, surface pinkish, medium rough (7.5YR/8.4). Hp – 7.5 cm.

3) TOP2010.pit 1 (Figure 5/3) – Amphora neck, probably related to 'light clay narrow-necked' amphorae Shelov C, pink fabric (7.5YR/8.4) with limestone granules and pyroxene in composition, surface light grey engobe (7.5YR/8.4). Hp – 6 cm.

4) TOP2010.pit 1 (Figure 5/4) – Amphora fragment, fragmentary handle (only the starting point is preserved), related to 'light clay narrow-necked' (?), light pink fabric (7.5YR/8.4) with limestone granules and pyroxene in composition, grey surface (7.5YR/8.4). Hp – 5.8 cm.

1.2. Zeest 84-85

The shards nos. 5-6 (Figure 7) belongs to Pontic 'fish amphorae', large containers intended for trade in fish products with high capacity up to 80 litres. Just like the previous type, they are widely distributed in Moesia Inferior, where probably they were also produced, apart from the north-Pontic regions[29]. In the rural settlements near the mouth of the Danube they were attested at Telița, Revărsarea, Sarichioi-Sărătura, Isaccea-Suhat[30] and in the territory of Argamum[31]. Archaeological contexts suggest that they are datable in 2nd-3rd centuries AD.

5) TOP2010.pit 1 (Figure 7/5) – Fragment of amphora rim, related to Zeest 69 type; dark reddish-brown fabric (2.5YR/7.3), uneven burning, lime and mica in composition, surface dull reddish (10R/7.6). Hp – 4 cm.

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[28] Abbreviations used in the catalogue are as follows: Hp – preserved height; D – diametre.

[29] PARASCHIV 2006a, 25–26.

[30] PARASCHIV 2006a, 25.

[31] MUȘAT-STREINU 2017, 284–285, fig. 5/1.

6) TOP2010.pit 2 (Figure 7/6) – Amphora mouth, related to Zeest 69 type; dark reddish-brown fabric (2.5YR/7.3), uneven burning, lime and mica flakes in composition, light red engobe (10R/7.6). Hp – 7.2 cm; D – 18 cm.

2. Tableware

2.1. Pontic sigillata

This pottery (Figure 8/7) is specific to Pontic area. Examples belonging to this form replicate the Italic wares and have a typical decoration *in solea*. H. Dragendorff identified for the first time this type based on some finds from Art Museum from Bonn[32]. J.W. Hayes made a review of this form in Atlante II[33]. Latest approach belongs to D. Žhuravlev (Form 1.3.1). In the north-Pontic region fairly close parallels for the dish found at Topolog dates back in the second half of the 1st century AD[34]. In Dobruja, this form was discovered at Sarichioi-Sărătura (North plateau) in a context (G20) dated to the middle of the 2nd century AD[35], together with hand-made pottery. Other finds were discovered in the Getian settlement from Hîrșova-La Moară[36], at Histria[37] and in the workshops from the territory of Nicopolis ad Istrum[38].

7) TOP2010.pit 1 (Figure 8/7) – Dish, upper side and fragmentary base decorated with wheel cog; dull reddish fabric, homogeneous (5YR/7.6) with small limestone flakes, reddish orange surface (10R/7.8). D – 20 cm; Hp – 2.8 cm.

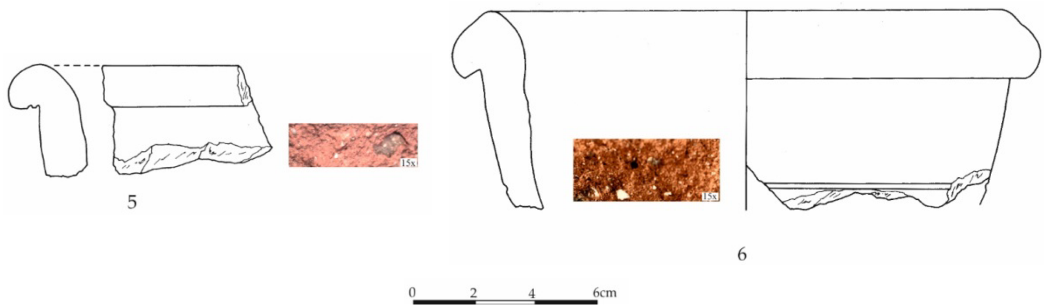

Figure 7. Zeest 84/85 amphorae

[32] DRAGENDORFF 1980, 19–22.

[33] HAYES 1985, 93, pl. 22/7.

[34] ZHURAVLEV 2010, 42, pl. 12/68.

[35] BAUMANN 1995, 183, 214, pl. 14/2.

[36] BOUNEGRU, HAȘOTTI, MURAT 1989, 287, fig. 7/11.

[37] SUCEVEANU 2000, 62–69, pl. 23.

[38] SULTOV 1985, 62, pl. 26/1

2.2. Cups

The two rims and a flat base (Figure 8/8-10) belong to small cups frequent in all archaeological contexts in Moesia Inferior. All known finds have globular body, short rim, and thin walls. The Dacian and the contexts from Moesia Inferior suggest a time frame in 2nd century AD[39]. The examples found at Topolog have a brown-reddish fabric with slip of the same colour. They are rather crude and different from other examples from Dobruja and might have been of a local production, probably a workshop in the region which copy and multiply a well-known provincial form.

8) TOP2010.pit 1 (Figure 8/8) – Upper side of a cup; yellow reddish fabric, homogeneous (5YR/7.8) with rare limestone granules, yellow red surface (2.5YR/6.8). D – 6.6 cm; Hp – 4.2 cm.

9) TOP2010.pit 2 (Figure 8/9) –Upper side of a cup; yellow reddish fabric, homogeneous (5YR/7.8) with rare limestone granules, yellow red engobe (2.5YR/7.8); slightly overfired. D – 6.5 cm; Hp – 2.5 cm.

10) TOP2010.pit 1 (Figure 8/10) – Base of a cup; yellow reddish fabric, homogeneous (5YR/7.8) with rare limestone granules, yellow red surface (2.5YR/7.8); Annular base with concave centre. D – 6.5 cm; Hp – 2.5 cm.

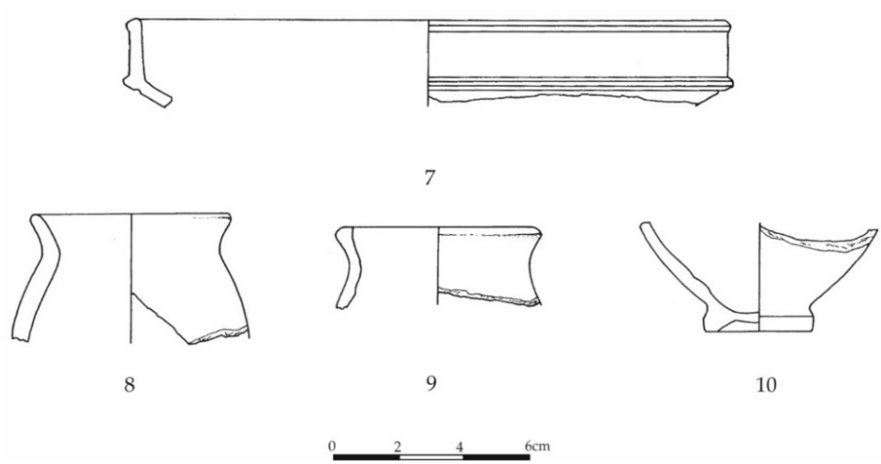

Figure 8. Pontic *sigillata* (no. 7); cups (nos. 8-10)

[39] OPAIȚ 1980, 336, pl. 8/7; BOUNEGRU, HAȘOTTI, MURAT 1989, 289, fig. 9/7; HONCU 2014, 85, nos. 195–196, pl. 25.

3. Coarseware

Three pots (Figure 9) were recovered and are made of beige fabric, homogeneous, with lime and sand inclusions. The exterior presents traces of secondary burning. The shape is common in early Roman Dobruja settlement.

The first pot (no. 11) has an oblique rim with rounded edge and a globular body. It is obviously well-made compared with the next type. The handles are lamellar in cross-section. The jars (nos. 12-13) are frequently encountered in Dobruja. The rim is concave to interior, and it has massive rounded edge to exterior. The rim was set to receive a lid, and the concave-shaped interior was designed to maintain a constant temperature. Although the handles are similar with the previous type, one can notice the oval-shaped cross-section and greater width. Both types are typical for the early Roman period and they are of a local (Moesian) origin. Similar wares found at Niculițel-Tei Com, Durostorum, (L)Ibida[40] or Aegyssus[41] were dated in the 2^{nd}-3^{rd} centuries but the finds from Topolog fall in the 2^{nd} century AD, although the cooking ware will not experience drastic changes of form over the next four centuries, except for diversification in dietary habits of the population[42].

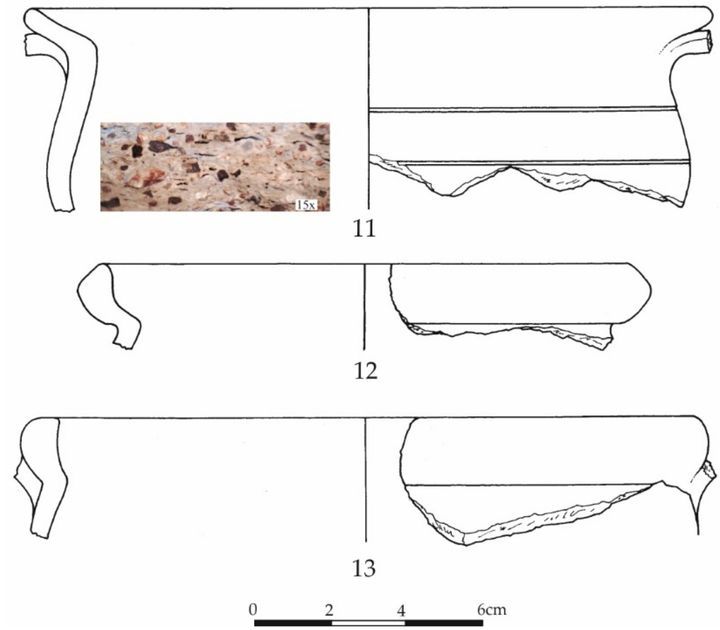

Figure 9. Coarseware

[40] HONCU 2017, 44–50, nos. 1–28, pls. 1–3.

[41] NUȚU, STANC 2017, 616, fig. 2/1–2.

[42] NUȚU, STANC 2017, 621.

11) TOP2010.pit 1 (Figure 9/11) – Mouth and body of a pot; crude beige fabric [2.5YR/8.6], with numerous mica flakes and sand; heavily secondary burning on the exterior, beneath the handle and on the rim; the body is decorated with two pairs of incisions. D – 19 cm; Hp – 5.5 cm.

12) TOP2010.pit 1 (Figure 9/12) – Fragmentary rim of a pot; beige fabric [2.5YR/4.7], with numerous mica flakes and sand; heavily secondary burning on the exterior, beneath the handle and on the rim. D – 19 cm; Hp – 3.5 cm.

13) TOP2010.pit 1 (Figure 9/13) – Fragmentary rim of a pot; beige fabric [2.5YR/8.6], with inclusions of mica and sand; slightly secondary burning. D – 16 cm; Hp – 2.5 cm.

4. Hand-made pottery

Hand-made pottery of local La Téne tradition is not uncommon in Roman contexts in the early Roman Dobruja. Analysis of many rural settlements near the mouth of the Danube showed that the proportion of hand-made pottery varies from site to site[43]. At Niculițel, at a *villa rustica*, the percentage of hand-made jars is of 23% of the total of kitchenware discovered on the site. Chronologically, they flourished from the 1st century BC to 3rd century AD and gradually disappeared in the 4th century AD[44].

Not coincidentally, a higher percentage of hand-made pottery is discovered in 1st – 2nd AD rural settlements and was regarded as a cohabitation between the Romans and the autochthonous or as an evolution of the Romanisation process. One such example comes from the southern shore of the Lake Tașaul (Năvodari, Constanța district), where inside an early Roman rural settlement the hand-made pottery occupies 20% percent of the total[45]. In this case, we have the same association as in the case of Topolog of hand-made and Roman pottery including similar forms as for example Getian cups and Pontic *sigillata*[46].

Another interesting situation is met in the case of rural settlement from Sarichioi – Sărătura where Roman pottery was found in many cases associated with hand-made jars, cups, and bowls. Refused pit no. 20 (G20) delivered a number of dishes, bowls, and kitchenware, including a fairly close analogy[47] for dish no. 7 discovered at Topolog. Refused

[43] For the distribution of this type in the region see BAUMANN 1995, 188.
[44] HONCU 2014, 99.
[45] ȘOVA 2015, 130.
[46] MATEI 1985, 133–136, pl. 4/1–5.
[47] BAUMANN 1995, 214, pl. 14/2.

pit no. 16 (G16) delivered a large assemblage of hand-made pottery associated with Roman forms[48].

The two contexts discussed previously offered Roman or hand-made pottery and the two types were associated. Same situation is met in the case of houses L-1, L-2, but the percentage inside the assemblage is between 8%-36% The smaller ratio found at Sarichioi-Sărătura is almost similar with the average ratio of the hand-made pottery inside the assemblage of pottery from Fântânele, where the percentage of this type does not exceed 8%[49]. Highest percentage (40%) may be seen in the case of the Getian settlement from Hîrșova-La Moară (Table 1).

Table 1. Percentage of hand-made pottery on selected sites from Dobruja

<table>
<tr><th colspan="2">Place</th><th colspan="6">Percentage of the hand-made pottery</th><th colspan="2">Literature</th></tr>
<tr><td colspan="2">Niculițel — Roman villa</td><td colspan="6">23%</td><td colspan="2">HONCU 2014, 99</td></tr>
<tr><td colspan="2">Năvodari/Tașaul–'Limba oii'</td><td colspan="6">20%</td><td colspan="2">ȘOVA 2015, 130 based on data published by MATEI 1985, 133-136, pl. 4/1-5</td></tr>
<tr><td colspan="2">Sarichioi–Sărătura[50]: House L1</td><td colspan="6">8%</td><td colspan="2">BAUMANN 1995, 218, pl. 18</td></tr>
<tr><td colspan="2">Sarichioi–Sărătura: House L2</td><td colspan="6">36%</td><td colspan="2">BAUMANN 1995, 219, pl. 19</td></tr>
<tr><td colspan="2">Sarichioi–Sărătura: dump pit no. 16</td><td colspan="6">35%</td><td colspan="2">BAUMANN 1995, 212-213, pl. 12/12-17; pl. 13.</td></tr>
<tr><td rowspan="4">Fântânele</td><td rowspan="2">North habitation core</td><td colspan="3">1st habitation level (1st-2nd cent.)</td><td colspan="3">2nd habitation level (3rd cent.)</td><td rowspan="4">Total/settlement
12%</td><td rowspan="4">ANGELESCU 1998, 217-234.</td></tr>
<tr><td colspan="3">17%</td><td colspan="3">21%</td></tr>
<tr><td rowspan="2">South habitation core</td><td colspan="2">1st habitation level (1st-3rd cent.)</td><td colspan="2">2nd habitation level (2nd – 3rd cent.)</td><td colspan="2">3rd habitation level (4th – 5th cent.)</td></tr>
<tr><td colspan="2">6%</td><td colspan="2">8%</td><td colspan="2">8%</td></tr>
<tr><td colspan="2">Hîrşova–La Moară</td><td colspan="6">40%</td><td colspan="2">BOUNEGRU, HAȘOTTI, MURAT 1989, 275</td></tr>
<tr><td colspan="2">Topolog–Stejarul lui Dobrică</td><td colspan="6">38%</td><td colspan="2">Present article</td></tr>
</table>

[48] BAUMANN 1995, 212, pl. 12/12–17.

[49] ANGELESCU 1998, 217–234.

[50] Based on finds illustrated by V.H. BAUMANN (1995).

For other settlements from Dobruja, the information is to vague or the publication of the material was focused on either on Roman or hand-made pottery, separately. Unfortunately, we can not establish, even relative, the place occupied by hand-made pottery within the assemblage. One such example is the rural settlement between the villages Straja and Cumpana (Constanta county) researched during the works on the Danube-Black Sea Maritime Channel. The pottery assemblage is extremely rich, but no statistic is given and any estimation based on illustration is useless[51]. However, we can find a series of parallels for the hand-made pottery from Topolog[52]. The second example is the Getian settlement from Hîrșova-La Moară where rescue excavations delivered a large assemblage of pottery, but the hand-made percentage is smaller than Roman provincial[53]. The first scholars which published the excavation state that the hand-made pottery occupies a 40% of all assemblage[54]. However, other 73 finds were published later[55] and we have no clear data about the actual ratio between the two types (i.e. hand-made vs. Roman provincial pottery). This situation is similar in the case of the settlement from Bugeac-Valea lui Marinciu[56].

Recently, Honcu suggested that militaries used hand-made wares as a result of some shortage of pottery[57]. It is obvious that at some point, during crisis, the *officinae* located within the *cannabae* could not cover the military demand, but this happened occasionally. Presumably, the high frequency of finding hand-made pottery in various sites across the Roman provinces is due to ease of production and of the low price comparing with the Roman pottery. Last but not least, let's do not forget that these ware intended for cooking the food did not have a long life. Thus, their frequent replacement requires cheap products.

Parallels for the hand-made pottery from Topolog (Figures 10 and 11) occurs frequently in Moesian settlements, as at Niculițel, Argamum, (L)Ibida, Histria, Troesmis[58], just to mention a few. Garlands on the shoulders and less often impressions with fingers on the rim are common. At Sarichioi-Sărătura large jars decorated with garlands on the shoulder occur in the same context with 2nd century AD Roman pottery[59]. Their rim is simple, without decoration. For the cup no. 21 some parallels were found in rural settlements (Sarichioi-Sărătura)[60]. Other similar forms come from Hîrșova-La Moară[61]. The chronology for these

[51] TZONY 1979, 193–196.
[52] TZONY 1979, fig. 1/8.
[53] BOUNEGRU, HAȘOTTI, MURAT 1989, 282.
[54] BOUNEGRU, HAȘOTTI, MURAT 1989, 275.
[55] NICOLAE 2009, 133–175.
[56] SCORPAN 1969, 43–79; SCORPAN 1970, 140–143.
[57] HONCU 2017, 158–159, 178.
[58] HONCU 2017, pls. 10–11/95–110.
[59] BAUMANN 1995, 221, pl. 11/10–11.
[60] BAUMANN 1995, 212, pl. 12/12–13.
[61] NICOLAE 2009, 137–138, pl. 1/6–8.

parallels are framed between 1st-3rd centuries AD, but in the case of the pottery from Topolog we can propose the 2nd century AD.

14) TOP2010.pit 2 (Figure 10/14) – Fragmentary jar; crude fabric, yellowish [7.5YR/6.8], with numerous inclusions of limestone, pebble and organic (?) materials; the rim edge is decorated with 'notches', and the shoulder with buttons; very rough. D – 21 cm; Hp – 13 cm.

15) TOP2010.pit 1 (Figure 10/15) – Fragmentary jar; crude fabric, yellowish brown [[10YR/5.3], with numerous inclusions of limestone and pebble; the rim edge is decorated with 'notches'. D – 26 cm; Hp – 11 cm.

16) TOP2010.pit 1 (Figure 10/16) – Fragmentary jar; crude fabric, yellowish brown [10YR/5.3], with numerous inclusions of limestone and pebble; the rim edge is decorated with 'notches'. Hp – 6.4 cm.

17) TOP2010.pit 1 (Figure 10/17) – Fragmentary rim of a jar; crude fabric, strong brown [7.5/4.6], with numerous inclusions of limestone and pebble. The rim edge is plain. Hp – 4 cm.

18) TOP2010.pit 1 (Figure 10/18) – Fragmentary rim of a jar; crude fabric, yellowish brown [10YR/5.3], with numerous inclusions of limestone and pebble; the rim edge is decorated with 'notches'. Hp – 8 cm.

19) TOP2010.pit 2 (Figure 10/19) – Fragmentary rim of a jar; crude fabric, strong brown [7.5/4.6], with numerous inclusions of limestone and pebble. The rim edge is plain. Hp – 4.3 cm.

20) TOP2010.pit 1 (Figure 10/20) – Fragmentary jar; crude fabric, yellowish brown [10YR/5.3], with numerous inclusions of limestone and pebble; the rim edge is decorated with 'notches'. D – 23 cm; Hp – 8 cm.

21) TOP2010.pit 1 (Figure 10/21) – Fragmentary cup; crude fabric, strong brown [7.5YR/5.8], with numerous inclusions of limestone and pebble; self-slip of reddish yellow hue (7.5YR/7.8). The shape is typical for cups and was probably developed under the influence of so-called Getian cup. D – 21 cm; Hp – 6 cm.

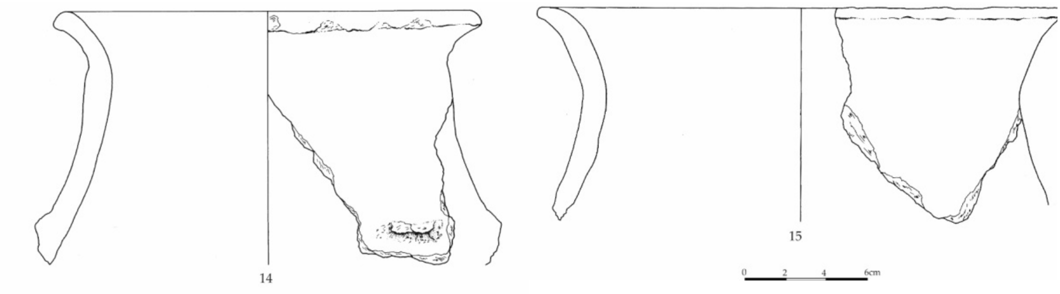

Figure 10. Hand-made pottery (jars)

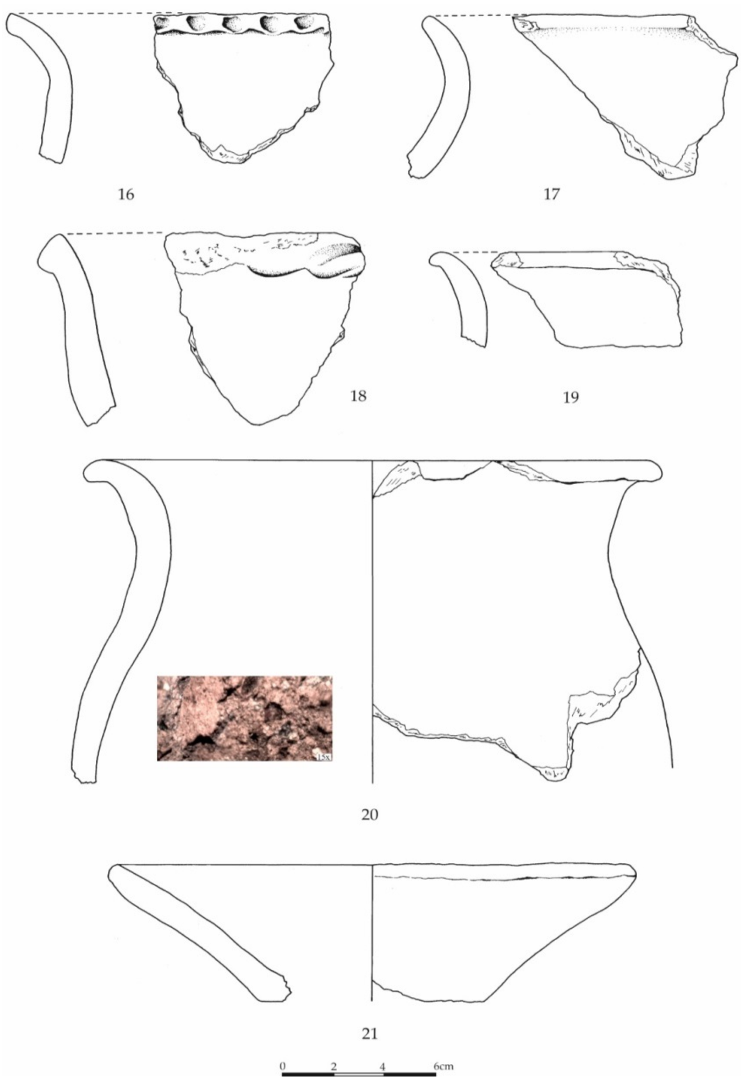

Figure 11. Hand-made pottery (jars)

Conclusive remarks

The small pottery assemblage from Topolog allow us to draw a few remarks on the local society in the 2nd century AD. Local traditions are illustrated by the discovery of hand-made pottery, a continuation of La Tène ware at the beginning of the Roman period. In addition to this, there are imports of fine ware (Pontic *sigillata*) from the provincial workshops. Although Pontic *sigillata* is considered of north-Pontic origin, it must have been produced in the south-Moesian workshops as well. Two other fragmentary cups, also belonging to the Pontic *sigillata* category were found, one in the fill of the kiln and the other in the waste pit. Another chronologically and economically important clue is the fragments of the transport amphorae discovered. Shelov C amphora type is the container with the highest frequency of discoveries during this period at the mouth of the Danube and was mainly destined for the transport of south-eastern Pontic wine. The Zeest 84/85 high capacity amphorae were designed for the transport of salt fish (*salsamenta*). Both products, the wine and salt fish, prove long-distance trade connections and the economic vitality of a Moesian rural community. The preservation of the La Tène traditions reflected in hand-made pottery and a series of epigraphic documents indicate the existence of a veteran's community in this area in the 2nd century AD.

For the dimensions of this rural community, the epigraphic record is significant[62]. An inscription on a funerary altar mentions a person coming from Asia Minor, more precisely Amorium–*Aufidius Helius*[63]. Not far from Topolog, in the village of Cerbu, a stela attests two members of a citizens family, *(A)elius Aulusenus* and his son, *(A)elius Marcus*. The texts is dating about the half of 2nd century AD[64]. *Aulusenus* (also in the form *Aulusenis*) is a Thracian name having two occurrences in the epigraphic records, in two military diplomas, where the beneficiaries have the ethnonym *Bessus.* One is called *Aulusenis Densatralis filius*[65], the other *Aulusenus*[66]. *Aulusenus* from Topolog is a Thracian who was granted the citizenship; his son has already a Roman name. It is not the only Thracian being mentioned in the proximity. At Mihai Bravu, *Tarsa*, a former *tesserarius* in the fleet of Ravenna, is coming home after he was discharged in AD 71[67]. At (L)Ibida, *Durisses Bithi*[68], *Othis Seuti*, *Bithidia Biti*, *Lupussis* (?) are also mentioned in the inscriptions[69]. One can say that there was a quite strong *Bessi* community living in the rural milieu of the northern side of the province; they were colonized by

[62] ARICESCU 1973, 105, footnote 3.

[63] BAUMANN 1971, 597; BAUMANN 1984, 228–229, no. 16, 626, fig. 69; ARICESCU 1973, 105. On *Aufidii*, see also MIHAILESCU-BÎRLIBA, DUMITRACHE 2012, 63–64. On *Helius*, see also MIHAILESCU-BÎRLIBA 2015, 443.

[64] BAUMANN (1984, 229–230, no. 18, 625, fig. 67) read *Aulusemius*, but on the stone we can see d'*Aulusenus.*

[65] ECK, PANGERL 2008, 326.

[66] RMD V, 348.

[67] CHIRIAC, MIHAILESCU-BÎRLIBA, MATEI 2004, 265–269 ; PETOLESCU, POPESCU 2007, 147–152.

[68] *ISM* V, 229; see also MIHAILESCU-BÎRLIBA 2011, 108–109.

[69] *ISM* V, 228; see also MIHAILESCU-BÎRLIBA 2011, 107–108.

economic reasons (agriculture and surface mining)[70]. From the village of Sâmbăta Nouă (after the information of the locals), an altar consecrated to Jupiter and Junon was erected by a certain *Lae(...) Comicus*, very probably at the half of 2nd century AD[71]. The dedications to Jupiter and Juno are frequent in the countryside of Moesia Inferior[72].

Despite the scarcity of systematical archaeological researches, the epigraphic and archaeological records prove the existence of at least a *vicus* and many *villas* in this area. It seems that some inhabitants were veterans' descendants, if not veterans themselves, like *Aufidius Helius*, from Asia Minor. Himself or one of his ancestors was recruited during Trajan's Parthian wars or during Hadrian's Judaea war. His family was quite wealthy; he was, without doubt, a rural landlord in this region of Moesia Inferior. Another group of inhabitants was constituted by Roman citizens whose origin were unknown (like *P. Lae(...) Comicus*) and by Thracians (*peregrini*, like*Tarsa*, *Othis Seuti* et *Durisses Bithi*, or citizens, like *(A)elius Aulusenus*). The process of names 'romanisation' is visible (*Aulusenus'* son has the surname *Marcus*).

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[70] See MIHAILESCU-BÎRLIBA 2011, 118; 2015, 441.

[71] MIHAILESCU-BÎRLIBA 2014, 303–307; see also MIHAILESCU-BÎRLIBA 2015, 439–445.

[72] See *CIL* III 7466; *ISM* I, 324–332 (MIHAILESCU-BÎRLIBA 2012, 93–98), 344, 346, 347, 368 (BÂLTÂC 2011, 252–253), 378 (BĂRBULESCU, BUZOIANU 2013, 183–184); *ISM* II, 141 (BOUNEGRU 2011, 238, BÂLTÂC 2011, 264); *ISM* V, 13–15, 17–18, 123, 62–64, 69, 129 (BÂLTÂC 2011, 239–240); ILB 235.

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CIL = Corpus Inscriptionum Latinarum. Berlin

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ILB = Inscriptiones latinae in Bulgaria repertae, Serdicae

ISM = Inscriptiones Scythiae Minoris. Bucharest

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The population of Colonia Sarmizegetusa

Imola BODA[1]

Abstract. *This paper presents the population of Colonia Sarmizegetusa, the first city of the province of Dacia. This is a case study within the project Romans 1 by 1 (www.romans1by1.com), a database which aims to comprise the population of Dacia, Moesia Superior, and Moesia Inferior. This study presents a micro-result of the entire project, providing information to researchers not only on the people who lived in the Dacian metropolis but also on those individuals transiting through Colonia Sarmizegetusa, who got involved in the social, religious and political life of the city by erecting monuments or being dedicated to. Until this point, by compiling all existing sources, the database has recorded 495 inscriptions (the inscription records are numbered starting with 00001DS) and 706 people (each with a personal record, with a unique ID) from Colonia Sarmizegetusa. The paper's conclusions present four results in the form of statistics, consisting of: (1) the analysis of the 495 epigraphic monuments; (2) identifying and implicitly analysing all the individuals attested on the inscriptions discovered at Colonia Sarmizegetusa; (3) population mobility, and (4) various types of relationships mentioned by epigraphic sources.*

Rezumat. *În lucrarea de față prezentăm populația Coloniei Sarmizegetusa, primul oraș al provinciei Dacia. Acesta constituie un studiu de caz din cadrul proiectului Romans 1 by 1 (www.romans1by1.com), bază de date care are în vedere înregistrarea populației din Dacia, Moesia Superior și Moesia Inferior. Lucrarea constituie un micro-rezultat al întregului proiect ce va oferi informații pentru cercetători nu doar asupra oamenilor care au trăit în metropola Daciei, ci și asupra acelor persoane care erau doar în trecere în Colonia Sarmizegetusa, dar care s-au manifestat în viața social-religioasă-politică a orașului, ridicând sau ordonând înălțarea unor monumente în orașul studiat. Până în momentul de față, prin adunarea tuturor surselor existente, baza de date a înregistrat 495 de inscripții (fișele de inscripții fiind numerotate începând de la 00001DS) și 706 de persoane (fiecare având o fișă personală, un ID unic) din Colonia Sarmizegetusa. Concluziile lucrării vor avea patru rezultate—acestea vor fi prezentate sub formă de statistici—ce au în vedere: (1) analizarea celor 495 de monumente epigrafice; (2) identificarea și implicit analizarea tuturor persoanelor care apar menționate în inscripții descoperite în Colonia Sarmizegetusa; (3) mobilitatea persoanelor și (4) diferite tipuri de relații menționate în sursele epigrafice.*

Keywords: database, epigraphy, population, Roman period, Colonia Sarmizegetusa.

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This paper will present the population of Colonia Sarmizegetusa, the first city of the province of Dacia[2]. This is a micro-result of the *Romans 1 by 1* project (www.romans1by1.com), begun in autumn 2015. A database was initiated for the purpose, in the initial phase, to record the population of Dacia, Moesia Superior, and Moesia Inferior[3].

During autumn 2017, the team[4] succeeded in achieving the project's intended goal[5] but also began expanding the database to include Pannonia Superior and Pannonia Inferior.

Each team member focused on introducing the records for a province into the database. The author's responsibility was primarily Dacia Superior, including Sarmizegetusa's population. This city was primarily chosen due to its status as Roman Dacia's first city, though the author's accumulated experience in studying this metropolis played a significant part in the decision.

The database records, as the web platform shows[6], consist of three major parts. The first part summarizes the analysis of the inscriptions themselves; the second deals with the people attested on the inscriptions and the third part focuses on the relationship between individuals. Following this process, we will begin by presenting the first part of the database, namely the analysis.

As of now, by adding all existing sources, the database has recorded 495 epigraphic monuments — the inscriptions are numbered starting with 00001DS. To avoid any confusion, we must mention that, firstly, the figure presents the current state of research, and secondly that only the inscriptions that mention the people who lived in or transited through Colonia Sarmizegetusa were introduced[7]. The monuments mentioning only emperors and/or consuls (for example, honorary inscriptions made by the entire *colonia* in the emperor's honour) were not considered for the database.

The inscription records are first assigned a code within the database, consisting of five digits and letters. This methodology was chosen to allow simultaneous work on the records of

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[2] Here we wish to mention that studies about the population of Sarmizegetusa have been made before (prior to the year 2000): PAKI 1988a, 355–368; 1988b, 149–163; PISO 1993, 315–337. Regardless, we considered that a new study was needed to not only update existing data with information uncovered during the last decades, but to also contribute with new data in the form of the project's micro-results.

[3] Several studies on the *Romans 1 by 1* database: VARGA 2017 *online*; 2017, 333–341.

[4] www.romans1by1.com/pages/pproject.

[5] A relevant study, in the form of a macro-study for the entire project, is already in print: VARGA, PÁZSINT, BODA, DEAC 2018 *under press*.

[6] www.romans1by1.com/pages/phome.

[7] We have several inscriptions we cannot say for certain originate from Sarmizegetusa, as their place of discovery is not necessarily around the city, such as the cases of 00145DS (the inscription comes from Doștat), 00502DS (the inscription comes from Călan) etc. By carefully analyzing the inscriptions introduced in the database, we notice that some of them were found in different areas – this is due to the fact that starting with the Middle Ages, inscriptions were brought from other places and often reused in the construction of new buildings. For more detail, see: KIRÁLY 1891; 1894; KUUN, TORMA, TÉGLÁS 1902; BAJUSZ 2005; 2006, 323–339; BODA 2014, 307–351; 2015a, 281–306.

all assigned provinces, each team members using codes starting with 00001. The letters in the code, as our case shows, represents the analysed province, so DS stands for Dacia Superior[8].

After assigning the record's unique code, the following fields are completed: *Type of inscription*, *Language*, *Material*, *Relevant expressions*, *Stylistic details*, *Province*, *Place of discovery*, *Place of provenience*, *Ancient name provenience*, *Timestamp/Timeframe*, *Observations* and *External links*.

Presenting all 495 inscriptions in a single article is both impossible and irrelevant, as they are available *online* and *open access* to all interested parties. Instead, we deemed it necessary to summarize these epigraphic monuments in the form of statistics and tables.

	Votive	Funerary	Plaque	Constructions	Bench	Honorific	Album	Statue	Instrumentum
Marble	208	74	15	9	2	76	2	2	
Limestone	6	15			2				
Sandstone	3	5							
Gritstone	1	2		1					
Bronze	1								
Clay									48

Figure 1. The table shows the relation between Type of inscription and Material

Regarding the 495 epigraphic monuments from Colonia Sarmizegetusa, we can mention the variety of sources, of which votive monuments are unquestionably dominant — this is interesting because votive inscriptions are the majority type of monuments for the entire Dacian province[9]. With regard to *Instrumentum* from *Type of inscription*, mortarium (6), amphora (4) and tegula (38) were observed in Sarmizegetusa.

The purpose of the above table was to convincingly show the close relation between *Type of inscription* and *Material*. The table and statistics indicate that the preferred material of Sarmizegetusa's population was marble, especially from Bucova. This preference should not be related to Sarmizegetusa's wealth in comparison with other important cities such as Apulum (headquarters of the first legion, *Legio XIII Gemina*, the only one stationed in Dacia from the beginning until its abandonment, as well as the governor's seat after 168 AD), but due to the Bucova quarry's proximity to the *metropolis* and the local craftsmen obviously specialized in working with marble[10]. This explains why most of the monuments from Apulum (as wealthy and as important as Sarmizegetusa) are made of limestone, as the city

[8] Other examples from the database: DP – Dacia Porolissensis, DI – Dacia Inferior, MI – Moesia Inferior, MS – Moesia Superior.

[9] VARGA *et alii* 2018.

[10] MÜLLER *et alii* 2012; BARBU 2014.

lacked a nearby a marble quarry and transportation costs were quite high during Antiquity, therefore the local craftsmen specialized in available materials, in this case, limestone[11].

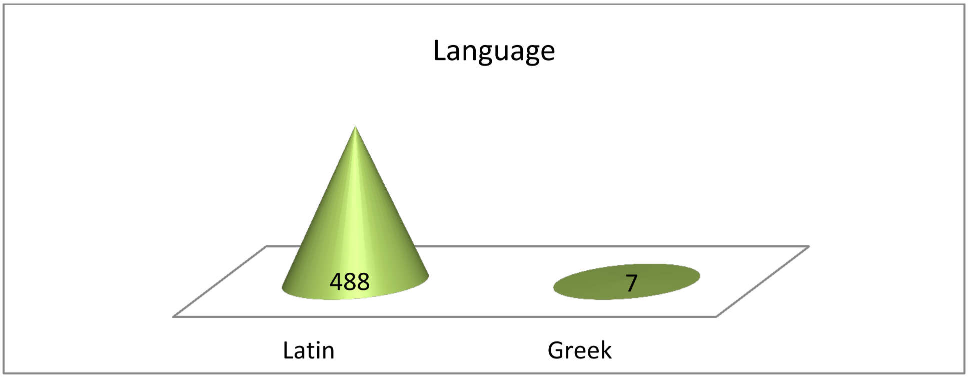

Figure 2. Language of the monuments

Regarding the language used in the inscriptions recorded in the database, the vast majority are written in Latin, with Greek only used in 7 cases. Three of these monuments were votive, and one each was funeral, *album*, plaque, and *instrumentum* (*mortarium*). Except for the *mortarium*, all 6 monuments were made of marble. We would like to again make a comparison with Apulum, where 9 out of 710 inscriptions were written in Greek (all votive) and 3 bilingual Greek-Latin (1 votive and 2 *instrumenta*). For the whole of Dacia we have the following statistics: 43 epigraphs were written in Greek (mainly votive, but also funerary and *instrumenta*, especially on *amphorae*) and 8 are bilingual: 5 written in Greek and Latin and 3 in Palmyrene and Latin (these three were funerary inscriptions discovered at Tibiscum)[12].

It is interesting to note that, to date, no inscription written in Palmyrene have been discovered at Sarmizegetusa and Porolissum, although this population is known to have been present there.

Inscription records also contain other information not included in the statistics because they were supplemented with more in-depth research (where possible) over the years, such as discovery circumstances or monument stylistic details, etc.

In the following lines, we will move to the database's second category, namely the analysis of individuals appearing on epigraphic documents. As for the inscriptions, the 706 people will not be presented in detail, already available for study to those interested with *open access*, but we will try to present a statistical summary.

Before the actual statistics, we would like to point out how a record sheet actually looks like in the database. First of all, each individual has a unique ID (same as inscriptions), after

[11] epdb.romans1by1.com/rinscriptions: searching *Apulum* at *Ancient name provenience*.

[12] VARGA *et alii* 2018.

which all available information appearing on the inscriptions is recorded. The record has a section called *Observations* for information that does not necessarily appear on the inscriptions, but available if more in-depth research was done on the individual. At the same time, each record sheet contains the inscription (or inscriptions — an individual can appear on several of them) code, and accessing it brings up the inscription/s corresponding to the individual.

Concluding the mentioned statistics, we first want to draw attention to the sex of those making, or mentioned on, the inscriptions — as we can clearly see for Colonia Sarmizegetusa, men form the majority of individuals present on epigraphs. This is the case for the whole province; by comparison, in Moesia Superior women are much more numerous on epigraphic documents. There is a *gender* category called *unknown* which for Sarmizegetusa (but also in general) signifies that the inscription is very fragmented, with a few letters surviving from names or information, but unfortunately far too incomplete to clearly indicate whether the individual's gender. The team considered the inclusion of these inscriptions necessary, as they can provide data about the age at which the individuals died, or indicate their origin, which deities they prayed to, etc.

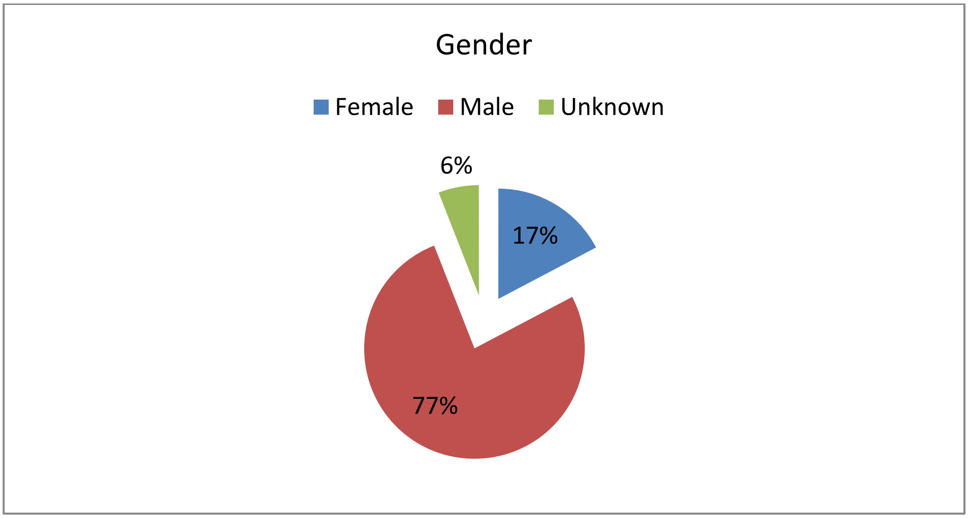

Figure 3. Gender

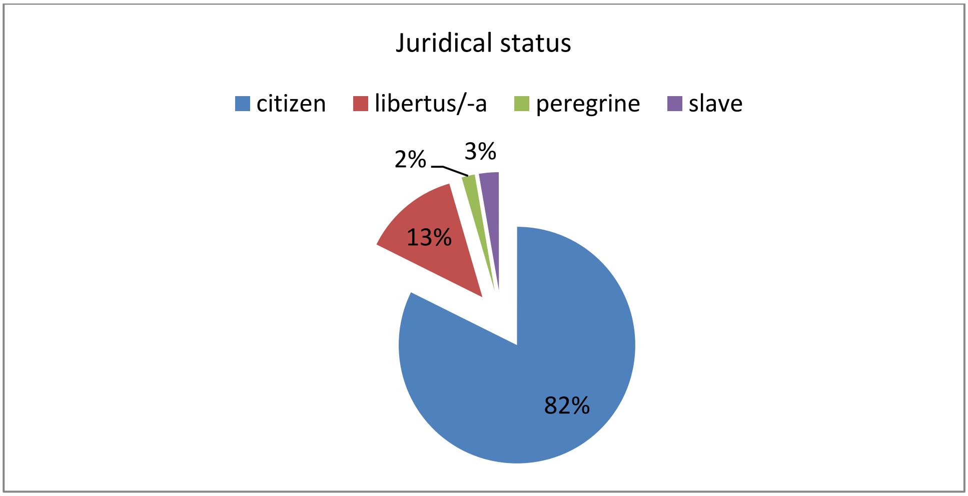

Figure 4. The juridical status of persons

Regarding the legal status of the 706 individuals, the vast majority was Roman citizens, but we obviously also have peregrines, slaves, and freedmen. Considering the small number of women appearing on the inscriptions, we found it interesting to analyse their legal status separately. The statistic indicates the structure was roughly the same: most of them were citizens, followed by freedwomen and much fewer peregrine or slaves. In approximately 90% of cases, these women appear on inscriptions alongside a man (husband, patron, son), which leads us to conclude that their work relates mainly to domestic activities[13].

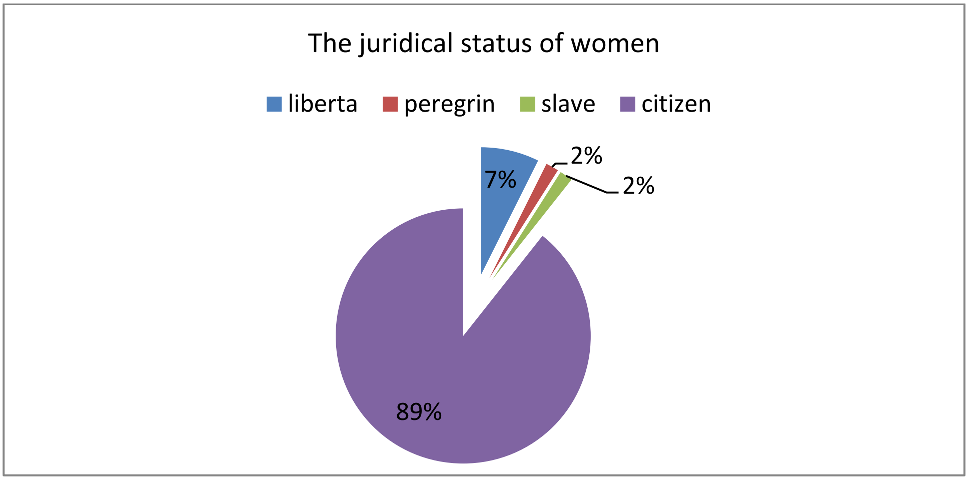

Figure 5. The juridical status of women

[13] JUCAN 2007, 198–206; 2009; CARBÓ GARCÍA 2012, 245–279.

The database for Colonia Sarmizegetusa shows information for 26 individuals (all men) with the professional status registered. These people are citizens, slaves, freedmen or imperial slaves or freedmen[14]. If we search the database by craft (ticked box) and area of interests (in this case Sarmizegetusa) we get all the occupations documented for that area[15] along with known individuals practicing a craft. Returning to occupations, we have the following: 9 individuals are mentioned as *adiutor tabularii*, 3 were *negotians*, 2 were *nummularius* and one of each for *librarius*, *scriba colonia*, *dispensatoris vikarius*, *tabularius*, *defensor*, *vilikus*, *dispensator*, *pecumarius*, *sculptor*, and *actor*.

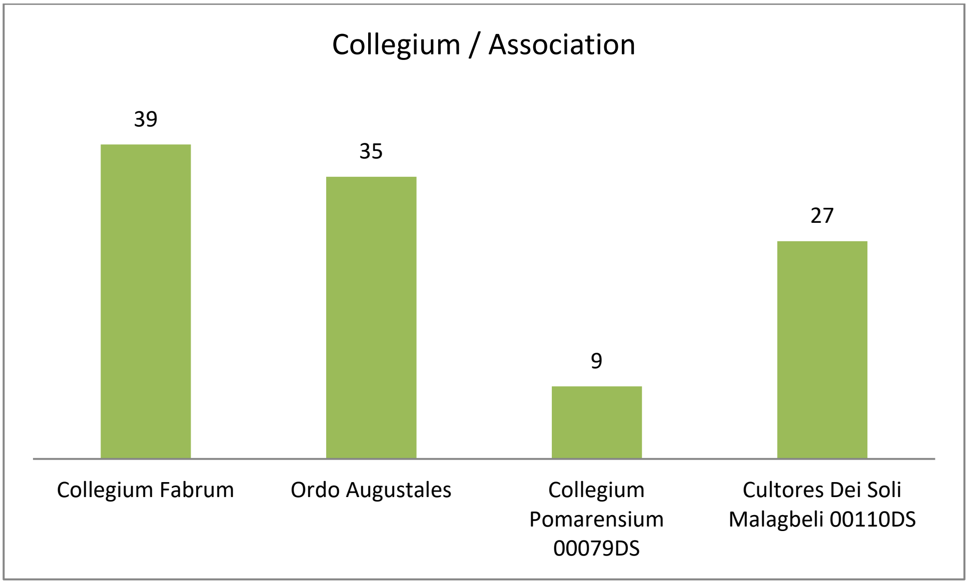

Figure 6. Collegium/Association types from Sarmizegetusa

To date, 110 collegia/association members from Sarmizegetusa were recorded[16]. Four collegia types from the city are known: *collegium fabrum* (39 individuals), *ordo Augustales* (35 individuals), *collegium Pomarensium / cultores Iovis* (9 individuals) and *Cultores Dei Soli Malagbeli* (27 individuals). Here we would like to point out that only a single inscription mentions the

[14] www.romans1by1.com/rpeople: searching for *Occupation true*, at *Inscriptions* type *DS*, and at *Insc. provenience place* type: *Sarmizegetusa* and the database shows 26 records.

[15] Searching can be done by specific area, an entire province, however by leaving these boxes unchecked and checking only *Occupation true* has the database show all individuals recorded up to this moment by the project's team members.

[16] www.romans1by1.com/rpeople: searching for *Collegium true*, at *Inscriptions* type *DS*, and at *Insc. provenience place* type: *Sarmizegetusa* and the database shows 110 records.

collegium Pomarensium (00079DS) and the collegia of Malagbel's followers (00110DS). We mentioned above that very few women are present on epigraphs. Also reflecting this is the fact that of the 110 members of some associations we know only one woman: Flavia Crescentina, *mater* of the *collegium Pomarensium*[17].

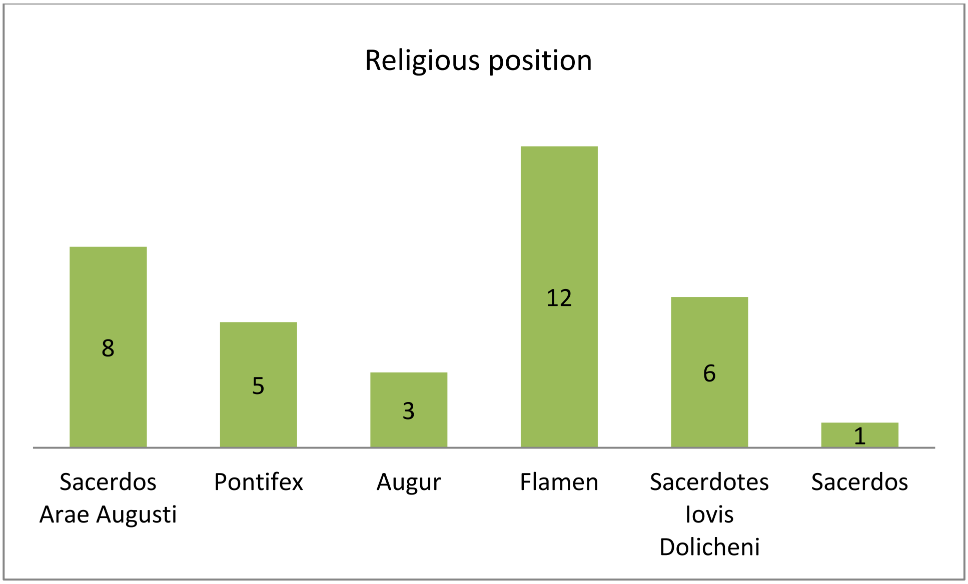

Figure 7. Religious position in Sarmizegetusa

From Sarmizegetusa, 35 people are known to have performed one or two priestly duties. First of all, outranking a mere municipal priest, the *sacerdos provincia* / *sacerdos Dacia* / *sacerdos Arae Augusti* / *sacerdos Arae Augusti nostri coronatus Daciarum III* was of provincial rank. The title changed over the years, though the responsibility remained the same throughout the Roman period such as, among other things, to tend to the altar in Sarmizegetusa dedicated to the reigning emperor[18]. We also have at the municipal level: *pontifex*, *augur*, *flamen* who were exercising their duties inside or around the Capitolio, or sanctifying new sacred buildings, the founding of new cities, etc.[19]. Apart from these duties, one inscription mentions 6 *sacerdotes Iovis Dolicheni* who met on the inauguration of the Dolichenian sanctuary built in the

[17] www.romans1by1.com/rpeople/669

[18] DAICOVICIU 1966, 153–171; PISO 1972, 463–471; SZABÓ 2004, 83–119.

[19] For Roman Dacia priests see: SZABÓ 2007. For a detailed analysis of Colonia Sarmizegetusa priests see: BODA 2015b, 233–265.

southwestern corner of the enclosure (00093DS)[20]. An inscription in the database (found in the temple of the Palmyrene gods) mentions a *sacerdos* of the god Malagbel (00083DS)[21].

Moving on to another sub-topic, for those who study decurions, these can be searched in the database, which holds records for 92 individuals[22] (of which 40 held one, two or more local offices). Of the 92, 11 individuals were decurions in several cities: C. Valerius Valerianus (Sarmizegetusa and Apulum)[23], T. Varenius Pudens (Sarmizegetusa and Apulum)[24], P. Aelius Strenuus (Sarmizegetusa and Drobeta)[25], C. Iulius Diocletianus (Apulum and Sarmizegetusa)[26], P. Aelius Fabianus (Sarmizegetusa, Napoca and Apulum)[27], C. Iulius Metrobianus (Apulum and Sarmizegetusa)[28], T. Flavius Longinus (Napoca, Apulum and Sarmizegetusa)[29], C. Cervonius Sabinus (Apulum and Sarmizegetusa)[30], T. Varenius Sabinianus (Apulum and Sarmizegetusa)[31], P. Aelius Maximus (Napoca and Sarmizegetusa)[32] along another individual, whose name is unknown due to the monument's poor state, who we know was a decurion in two cities [33].

When talking about Colonia Sarmizegetusa's population, it is necessary to distinguish between the stable population and various imperial officials who only temporarily reside in the city. The latter, although having a great influence, do not actually belong to the local population. Soldiers also belong to this category, as they were noted to be in the city by their epigraphic monuments, but they only transit through Dacia's *metropolis*. Those interested in this topic can search the database for procurators[34], governors[35] or soldiers[36].

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[20] BODA 2015a, 281–306.

[21] PISO, ȚENTEA 2011, 111–121.

[22] www.romans1by1.com/rpeople: searching for *Decurion*, at *Inscriptions* type *DS*, and at *Insc. provenience place* type: *Sarmizegetusa* and the database shows 92 records.

[23] www.romans1by1.com/rpeople/2069

[24] www.romans1by1.com/rpeople/2076

[25] www.romans1by1.com/rpeople/2091

[26] www.romans1by1.com/rpeople/8984

[27] www.romans1by1.com/rpeople/5647

[28] www.romans1by1.com/rpeople/8945

[29] www.romans1by1.com/rpeople/9747

[30] www.romans1by1.com/rpeople/11093

[31] www.romans1by1.com/rpeople/11464

[32] www.romans1by1.com/rpeople/15299

[33] www.romans1by1.com/rpeople/2165

[34] www.romans1by1.com/rpeople: searching for *Procurator yes*, at *Inscriptions* type *DS*, and at *Insc. provenience place* scris: *Sarmizegetusa*.

[35] www.romans1by1.com/rpeople: searching for *Provincial governor*, at *Inscriptions* type *DS*, and at *Insc. provenience place* scris: *Sarmizegetusa*.

[36] www.romans1by1.com/rpeople: searching for *Military personnel*, at *Inscriptions* type *DS*, and at *Insc. provenience place* scris: *Sarmizegetusa*.

We would like to mention that following the itinerary of population mobility cannot be accomplished in the database by ticking a box and then receiving a list of individuals attested in several cities. It was mentioned at the beginning of the study that each person can appear on several epigraphic monuments. Each team member introduces the records of a single with a unique code. If the individual on an inscription is already in the database, no new form will be created, but the code of the new inscription will be entered in the existing record sheet. As such, unfortunately, we cannot search for a specific individual that we know appears in other areas (for example, governors). Another possibility is to analyse a city's population so we can cross reference which people appear in multiple cities.

Studying Sarmizegetusa's population reveals that, in terms of mobility, we have two subcategories: inter-provincial and extra-provincial mobility. In the subcategory of inter-provisory mobility, we mention P. Furius Saturninus[37], Tib. Iulius Flaccinus[38], Q. Marcius Turbo[39], C. Sempronius Urbanus[40], M. Opellius Adiutor[41], and Hermadio[42], whose presence was recorded in Sarmizegetusa as well as in other cities of Roman Dacia.

The extra-provincial mobility subcategory contains people that transit towards other provinces. Thus, we have people who come to Sarmizegetusa from Beneventum[43], Pergamon[44], Viminacium[45], Khara[46], Arretio[47] and two individuals from Palmyra[48]. They specifically mention their origin on epigraphic monuments. Obviously, for more people, we can suggest other corners of the Empire as their origin. An example is the case of procurator Αἴλιος Ἀπολλινάριος[49] and his wife Μάζιμα[50] (probably from one of the Empire's Greek regions) or another well-known case, that of P. Aelius Theimes[51] from Palmyra. Even if we are certain Theimes originates from the desert city, the database did not record it as such if he did not mention it on the inscription. Obviously, this certainty can be mentioned in the *observations* box, along with the rationale behind it.

[37] www.romans1by1.com/rpeople/1746
[38] www.romans1by1.com/rpeople/1747
[39] www.romans1by1.com/rpeople/1748
[40] www.romans1by1.com/rpeople/536
[41] www.romans1by1.com/rpeople/1844
[42] www.romans1by1.com/rpeople/6966
[43] www.romans1by1.com/rpeople/1364
[44] www.romans1by1.com/rpeople/1157
[45] www.romans1by1.com/rpeople/1258
[46] www.romans1by1.com/rpeople/1027
[47] www.romans1by1.com/rpeople/2726
[48] www.romans1by1.com/rpeople/1025; www.romans1by1.com/rpeople/1118
[49] www.romans1by1.com/rpeople/1013
[50] www.romans1by1.com/rpeople/1014
[51] www.romans1by1.com/rpeople/482

Also included in the subcategory of extra-provincial mobility are M. Claudius Fronto[52], M. Statius Priscus[53], and M. Sedatius Severianus[54] , who appear in several provinces according to already registered epigraphic documents.

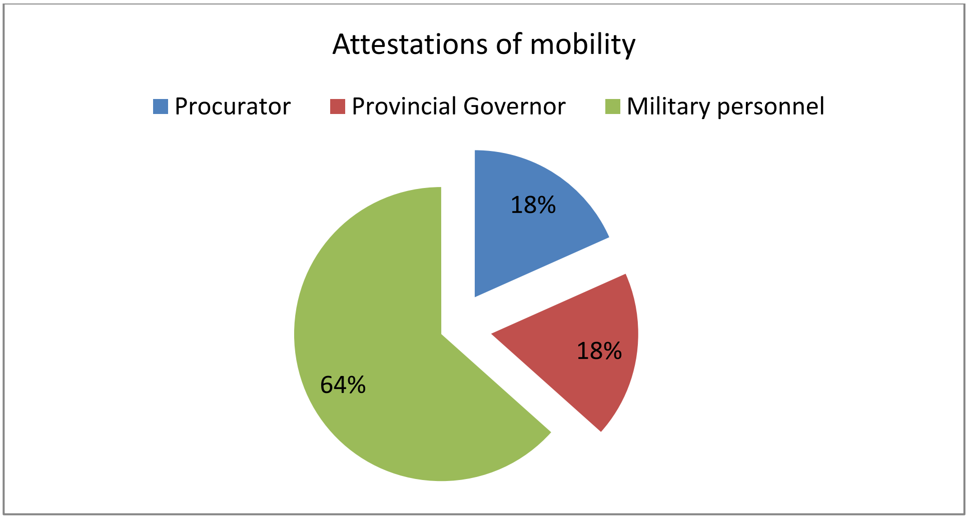

Figure 8. Attestations of mobility

Finally, we want to present the relationships between individuals. Relationships, on a case-by-case basis, appear on each individual's inscription record. By accessing *Personal Relations* on the database, various searches can be conducted according to relationship types, such as neighbour, employer, estate executor, tutor, cousin, etc. Thus, after filling in the *Relation* field, the database will show all cases (from the province records already accessible *online*). Obviously, as more province records are made available on the database, more and more relationship types become available or clarify existing ones.

By analysing epigraphs from Sarmizegetusa, we notice that most monuments were dedicated by family members or people sharing the same dwelling: spouse (with or without children), freedmen or slaves dedicating inscriptions to their patron, etc.

These are, essentially, the results of this study, which also serves as a micro-result of the *Romans 1 by 1* project. Further details on inscriptions and individuals in Sarmizegetusa, but also the whole of Dacia, Moesia Superior or Moesia Inferior can be found in the database through *open access*.

[52] www.romans1by1.com/rpeople/1742

[53] www.romans1by1.com/rpeople/596

[54] www.romans1by1.com/rpeople/1769

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The Bioarchaeology of Humans in Italy: development and issues of a discipline

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Chiara ROSSETTI[1], Silvia IORIO[2]

Abstract. *In Italy, the "Archaeology of Emergency" influences the work of physical anthropologists. In fact, most archaeological excavations are not completely investigated because of the lack of funds destined to cultural heritage and the archaeological competences intervene especially when building works bump accidentally into archaeological findings. Emergency excavations cannot pull any whole osteoarchaeological sample, thus the anthropological study is never exhaustive. In addition to this, in Italy there are still problems related to a lack of job perspective because there is not an adequate professional recognition of the bioarchaeologist. Perhaps the issues should be discussed at the root, namely that there is no clear university education that prepares for this type of profession. Today, only a postgraduate education (PhD or Master) can determine the acquisition of specific skills in the several specialties of Bioarcheology. In an era of cultural crisis, as ours is nowadays, it is a struggle to think of a right recognition of any professionalism employed in the field of cultural heritage, but we must insist for this to happen.*

Rezumat. *În Italia, arheologia preventivă influențează lucrările antropologilor. De fapt, cele mai multe săpături nu sunt efectuate exhaustiv din cauza lipsei finanțării destinate patrimoniului cultural, iar competențele arheologice sunt utilizate atunci când în cadrul unor lucrări de construcție au loc întâmplător descoperiri arheologice. Săpăturile de salvare nu oferă eșantioane antropologice complete, de aceea studiul antropologic nu este niciodată exhaustiv. În plus, Italia se confruntă cu o lipsă a perspectivei unor posturi, întrucât nu există o recunoaștere profesională adecvată a bioarheologului. Aceste chestiuni își au originea în faptul că nu există un cursus universitar specializat în această direcție. Putem vorbi de o astfel de pregătire doar de la nivelul de master în sus. Într-o vreme caracterizată printr-o criză culturală precum cea din zilele noastre, o recunoaștere a unor competențe profesionale reprezintă o luptă, dar aceasta trebuie continuată.*

Keywords: bioarcheology, archaeology, emergence, physical anthropology, paleopathology.

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Introduction. Sciences in Archaeology: The first technological approaches to antiquarian investigations

The 19th century already saw the flourishing of cultures converging on the objective of investigating ancient biological remains, and along this line much of the archaeology of the 20th century was affirmed. Despite this direction, the traditional system has had to adapt to the progress and trimming of specializations that no longer allows for pseudo-encyclopedic culture. In the second half of the 20th century, people dealing with archaeology, perhaps without realising it, have passed through one world to the other and these same people today may be puzzled by trying to enumerate the stages of evolution up to the present time, influenced by the power of new research tools and forms of scientific communication. If the archaeologist can still be recognized in a generalist vision, with the exception of the specialty guidelines already traditionally configured, this does not happen with those who temporarily were defined within subsidiary sciences. "Further contributions are also the result of analyses carried out by studying biological sciences (bio-archaeology). Biological evidence and data allow for an ecological and historical background of the investigated sites"[3]. We owe a great deal to applied research (radiocarbon archaeomagnetic dating, thermoluminescence), including those dedicated to the environment (e.g. plants, pollens, animals) and especially those that have opened new unexpected visions to anthropological studies (microscopy, radiology, etc.) (Figure 1). Moreover, international literature was enriched and enhanced by new studies that were not ignored in Italy: "Archaeological studies are now increasingly dependent upon a variety of scientific disciplines for valuable information"[4]. However, this report did not lead to immediate awareness within the scientific community. Furthermore, many articles published in scientific journals by archaeologists were not easily accessible in normal libraries. In this way, the complex panorama of reciprocal relations was slightly obscured. The contact points were not absent or lacking, yet generally we only found simple notes or scientific appendices to archaeological reports. Therefore, fifty years ago, the scientific community was well aware of the importance of this constant communication between the humanities and biological and technological research, offering a prediction as well: "there is no doubt that archaeo-scientific work will eventually mature into a discipline of its own"[5]. As a matter of fact, the next development, along with these studies, went precisely in the desired direction, and today we can appreciate the consolidated relationship among archaeology, science and technology.

About forty years ago, Sabatino Moscati, an important Italian archaeologist, recalled the entry of the updated tools of science and technology in archaeological research. He presented

[3] GALLO 2014.

[4] BROTHWELL, HIGGS, CLARK 1963.

[5] BROTHWELL, HIGGS, CLARK 1963.

the new convergence between two areas—humanistic and scientific—now in working alliance. The assistance of these experts was summed up initially in the definition as a "subsidiary sciences", which would have meant a sort of subordination of a field relative to others. In reality, it is not about subsidiaries or lower levels, but rather components with equal dignity on the research front. The traditional archaeologist could find working alliance with the scientific expertise of other professionals not outside, but in the same field of research. Moscati dedicated a few lines of his thoughts on the use of updated scientific methods, regarding new possibilities during the investigation of human remains, taking also into consideration those problems regarding the conservation of finds[6].

Since its debut at the beginning of the 1950, *Sibrium Journal*, published by the Centre of Prehistoric and Archaeological Studies in Varese, Italy, has satisfied the need for a broader vision, offering a place for pioneering contributions of technology applied to archaeological research. Today, outlining their priorities is quite challenging. We would be a bit embarrassed

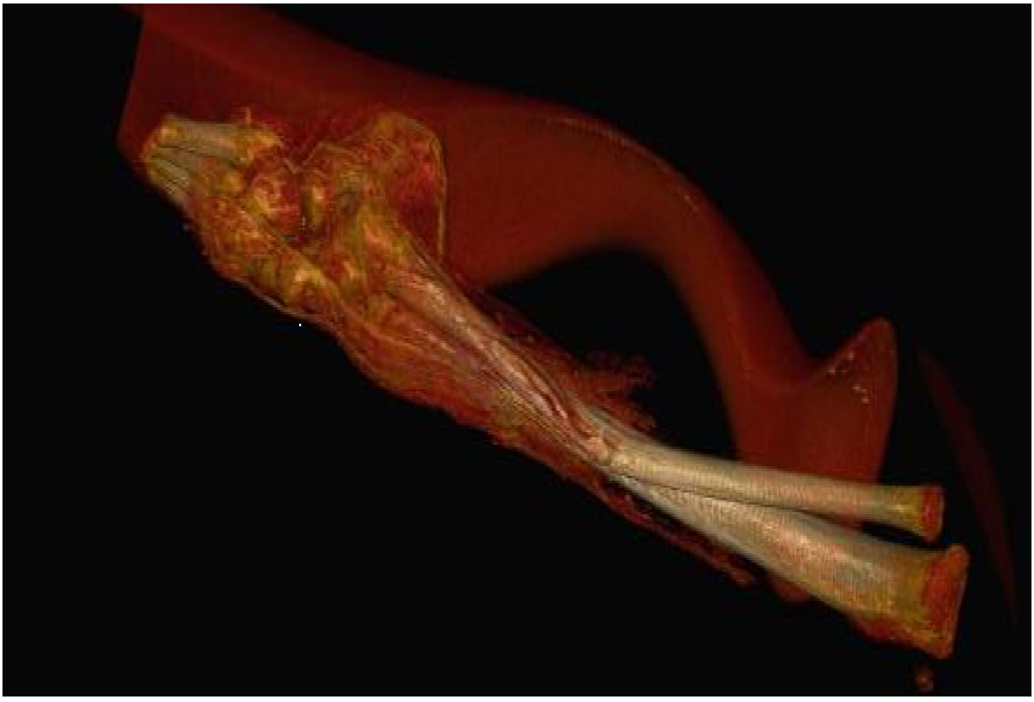

Figure 1. CT of a post medieval mummified lower limb from the Center of Osteoarchaeological and Paleopathological Research of Insubria University. From radiological investigation it was possible to proceed with the anthropological analysis to observe the ossification nuclei and establish the age at death at around 4–6 years, and to diagnose the fibulae fracture

[6] MOSCATI 1975, 219–222.

to state that initiatives originated from the interests of humanists rather than by representatives of different sciences. These are questions we will not address, and one glance back shows how first cooperation attempts were remote and distant. In an effort to avoid excessive references to the past, we can cite many examples already found in 19th century literature, when the transformations of basic sciences, chemistry, physics and biology were also attractive for sciences that focused on antiquity.

In this paper, we will concentrate on the issues of the physical anthropological studies. In particular, we will analyse the scientific progresses of the discipline (especially focusing in Osteoarchaeology and Paleopathology) and we will discuss the problems related to the recognition of a specific professional role for people working in this field.

Bioarchaeology, Osteoarchaeology and Paleopathology: the anthropological studies on human remains

Within the great discipline of Bioarchaeology, there are Osteoarchaeology and Paleopathology. Both disciplines represent an investigative tool for studying ancient human remains. On the one hand, Osteoarchaeology poses as the primary objective the reconstruction of the biological profile of people with the aim of rebuilding the ancient demographic dynamics. On the other hand, Paleopathology, investigating the presence of pathologies, can reconstruct the ancient epidemiological frameworks. It is evident that, Archaeology receives an important contribution from the anthropological investigations of ancient human remains. They may provide information useful for the paleodemographic reconstruction of an area, revealing new elements in order to investigate epidemiological history, and helping us to discover new aspects of ancient life[7]. Archaeologists of the past seemed generally disinterested in analysing ancient human remains found in excavations. Today however, scientific methods and specifically those of biomedical research are able to enrich the osteoarchaeological research. Skeletons, as biological archives, are examined in the complexity of an entire sample in order to define the demographic dynamics of a site. From bone investigations, we are able to reconstruct the anthropological reality and the nutritional and working features of populations[8]. Paleodemography is accompanied by Paleopathology, an area of study that investigates the epidemiological history of a place and identifies the concept of pathocenosis, used to recognise the presence of disease patterns in the historical development and geographical distribution[9]. Human remains with signs of trauma can also inform us of certain degrees of violence within a group or regarding risks in

[7] BUIKSTRA, BECK 2006; BUIKSTRA, 1977, 67–84; MILNER, WOOD, BOLDSEN 2008, 561–600.

[8] KROGMAN, IŞCAN 1986; BUIKSTRA, BECK 2006.

[9] GOODMAN, MARTIN 2002, 61–93.

the workplace[10]. In some cases, the study of ancient human remains and their funeral rites represent a fundamental way of understanding symbolic and ritual pathways, while also developing approaches to the mortuary cult practices. During the 23rd International Congress of History of Medicine which took place in London in 1972[11], terms such as "Bioarchaeology", "Archaeology of Death", but also "New Archaeology" defined a new line of research. No longer these subjects were the result of random circumstances — rather, they had become new scientific disciplines. Since that moment, this new discipline grew independently from the combination of physical anthropology and archaeology elements[12]. It can be said that now a continuous and organised collaboration between the various biomedical disciplines, anthropological and historical archaeologists is quite consolidated: "Further contributions are also the result of analyses carried out by studying biological sciences (bio-archaeology). Biological evidence and data allow for an ecological and historical background of the investigated sites"[13].

Therefore, emerging issues developed with regard to various professionals and experts called upon to cooperate. Should we prefer a single expert with vast competence and experience, or would it be better to have groups of experts with different skills and expertise working together? And another question: what means of publication for these studies should be used? What will be the future of archaeology journals? Today, in the international field, there are many new landmarks in literature that show the level of development reached by these studies. By simply mentioning the titles of the *Journal of Archaeological Science*, the *International Journal of Osteoarchaeology*, or the *International Journal of Paleopathology*, we can demonstrate the important growth of new disciplines and areas of study that have arisen at the crossroads of archaeology and other sciences. These fundamental points of intersection are the result of the development of skills and expertise pushed and studied in institutions and university departments in which experts from different disciplines have found hospitality as well as the opportunity to work together. A substantial portion of medical historians, and especially those concerned with the investigation of ancient human remains, has long been oriented in this direction. However, these authors and their lines of research are often welcome in traditional publications on prehistoric archaeology, be it classical or medieval. Therefore, fields that seemed and may still seem quite different, finally meet along increasingly blurred and permeable boundaries due to the fact that the overall research must be based on knowledge and expertise that come from every direction. Yet here another issue arises regarding an aspect we have already mentioned, that of the skills of those who carry

[10] KLAUS 2012, 29–62; GOSMAN, STOUT, LARSEN 2011, 86–98.

[11] MOLLER-CHRISTENSEN 1973, 411–418.

[12] STOJANOWSKI 2005, 417–431.

[13] GALLO 2014.

out this research. This is certainly not a new issue but rather an old question that remerges within the global change that we have experienced and that we are currently experiencing. However, closer to us there have been—as we shall see—the examples of archaeologists who, with pioneering spirit, offering their expertise as anthropologists and physicians in order to give a full explanation of skeletal or cremated materials that emerged from excavations and burial sites. In 1987, the Italian Society for the History of Medicine held its national congress on the theme *Archaeology and Medicine*, demonstrating that the path towards a new discipline had been started, with the definition of *Paleopathology*, interested in the study of human remains from archaeological excavations. The scene was greatly enriched thanks to the initiatives of other areas of research. Following the example of what has long been successful in other countries, even in Italy the creation of specialised research centres reveal the interest to see growth in this sector and these areas of study. For this reason, we would begin to more clearly outline specific expertise that can assist the work of the archaeologist in the field, at the intersection between historical-humanistic and medical-scientific areas, including biological or experimental approaches.

Bioarchaeologist, Anthropologist and Paleopathologist: training requirements and professional recognition

More and more frequently, biological expertise is called upon alongside those of the archaeologist when human remains emerge from excavation sites. Based on the previously mentioned, there is a clear need for a continuous and organised collaboration between the various disciplines and areas of study involved in research and studies on ancient biological remains, namely those of natural, biomedical, anthropological and archaeological science, each enriching the perspectives of the others. Therefore, within this desirable climate of growth, in conjunction and with the distinctive characteristics of these specialised fields, there is a specific necessity for us to make distinctions for each area of study, and at the same time find the points of contact between the various fields of expertise — those of physical anthropology, paleopathology, as well as the new frontiers of archaeology and forensic anthropology, which are of fundamental aid with regard to the investigative methods applied to criminal investigations, where it is necessary to proceed with the identification of human remains. Nowadays, in the field of investigations and studies of human remains, the number of specialisations has multiplied and diversified considerably, to the point that the needs of archaeology require quite fragmented skills and expertise, with electron microscopy techniques, and molecular genetics, with training courses and dedicated research sites. The main skills seen in this area of research are those of the mortuary archaeologist, the physical anthropologist, the paleopathologists, and we should note that in Italy we have seen the new need—namely the recognition of this area of study—for a specific professional identity. Here we find ourselves facing an emerging issue. Could we outline a bio-archaeology as a discipline in itself? And could we view osteoarchaeology as an additional specialisation? We can offer partial answers to these questions by looking at what is already outlined in literature, and that which is well represented in some research institutions. From all over the world, we receive influential journals that are perfect testimony of a field of study with its own scientific autonomy: archaeological, osteoarchaeological, and paleopathological journals, compulsory reading for all academics of human antiquity. Typically these are scientific journals to which the authors have access by demonstrating skills of tools and methods of the natural, biological and biomedical sciences, but also expressing interests that coincide with those of the traditional humanities (historical and archaeological). In some countries, particularly in Anglo-Saxon universities and centres of excellence, the role of the bioarchaeologist seems to be already established. Is it therefore possible to imagine the possibility of individual and specialized bioarchaeological training in our academic courses? It is comforting to see that in Italy, some universities are already facing the problem of organizing Master's courses and PhDs in paleopathology and bioarchaeology. In particular, we want to remember the master of Bioarchaeology, Paleopathology and Forensic Anthropology of the University of Pisa, Milan and Bologna. However, this, in our opinion, is not enough. There are times when we must have a specialist who is able to immediately grasp all relevant information with regard to a site. And here we encounter different issues. A role or expert with all of these skills is not always available and in order to solve the problem of this shortage, universities—with their departments, be it traditional archaeology or scientific-biological, anthropological and paleopathological fields—should feel the need to promote education in this direction, proposing a more widespread activation of anthropology teachings and paleopathology, for medical degree courses, humanities, and science. Could we even think of a specific degree program? It is necessary to think of archaeology as an intersection with physical anthropology and other sciences, in particular biomedicine, which can investigate the state of health and the different diseases that occur in a population. We are therefore present in the field, yet we need to consider some issues. An overview of the anthropological and paleopathological studies in Italy have convinced us of the need to identify the points where we can concentrate the skills and expertise that are currently budding in universities, museums and even in the archaeological cooperatives. We are hoping and striving for a tried and true network, as well as the definition of qualified sites distributed on the basis of the greater or lesser wealth of geographical areas. This would allow for a true assessment of specialised studies and the identification of premises addressed to bioarchaeological research. Such a desirable distribution of expertise would also help where we intend to resume the study of materials of interest that still lie in storage by local and government authorities. As mentioned above, Moscati deems that the meeting place between a more traditional archaeology and subsidiary sciences should not represent a hierarchy of competence or expertise, because it is actually the components that have the same dignity in research. The humanistic experts and those who base their operations on the multiple scientific skills and expertise in the field are truly all within the same world.

With regards to the recognition of the anthropological profession, we believe that there is still much to do[14]. The Gazzetta Ufficiale n. 183 of August 8, 2014 published the law of July 22, 2014, n. 110 on Modification of Cultural and Landscape Heritage, as referred in Legislative Decree n. 42 of January 22, 2004, on cultural heritage professionals and the establishment of national lists of such professionals. With the introduction of the article 9, concerning the competent professionals of cultural heritage, the operational measures of protection and conservation of cultural heritage as well as those relating to the enhancement and enjoyment of the same goods are explicated. They must been entrusted with the responsibility of professionals according to their respective competences, of archaeologists, physical anthropologists, demoethnoantropologists, etc. However, the lists do not exclude in any way the possibility of practicing the profession for those who are not included and especially that they don't represent a professional register.

The "Archaeology of Emergences": the daily life of the site

We should consider the fact that today, in Italy, the view of necropolis and burial site excavations is almost entirely that of "Archaeology of Emergences", intervening in the construction sites when the project encounters ancient burial sites (Figure 2).

Typically, the investigation and studies come to a halt due to limits of available funding, to the point where we have excavations that are left unfinished, and consequently, the anthropological research is also left incomplete. Over the years, a market for services and archaeological excavations supported by the clients of construction sites and public works has formed, where the excavation and digs have been entrusted to companies, cooperatives or private professionals, usually based on the size of the job and the geographical area in question. Therefore, a continuing problem stems from the fact that archaeological investigations today, for the most part, are carried out as rescue operations, where construction work unexpectedly uncover historical finds or sites to be protected, or where action is taken in areas recognised at risk by the local government and superintendents. We are dealing with excavations that almost never assume the value of systematic operations targeted towards the diachronic reconstruction of a site, but rather those of periodic inquiries and dictated by contingencies. These excavations represent almost all the actions taken by the superintendents and authorities. However, we should not complain. Even "emergency" archaeology, considering how there is a lack of organised research campaigns,

[14] LICATA *et alii* 2016, 1569–1570.

offers information and enriches the world's knowledge of antiquity. It is often limited to the remediation and repair of the places affected by construction work, leaving unexplored the other parts of the area that could give an overview of the site and—to the extent of our interest—the osteological material to be examined. Moreover, we should not limit ourselves to simply repeating that we should have a more active participation of all the entities and authorities that could be involved, from private owners to the institutions involved in the preservation of historical sites, in order to support the operational possibilities of the city or superintendent. This is a problem based on clear chronicity to which we must adapt and something with which archaeology studies and even anthropology laboratories must live and coexist. In our own experience, the majority of bone samples entrusted to us for study and research are related to random or casual discoveries. We all think that it would be very desirable to have new operational guidelines that should be extended to archaeological investigations and studies, beyond those of unplanned excavations. These limitations affect the completeness of historical research. Moreover, when cemeteries or single burial sites are found, even within churches, in many cases there we are faced with the choices of either recovering the grave or leaving the site intact, as often happens and exactly what happened in finds in our area. We will see, in the description of the sites from our osteological material, just how different the result would be if we had been able to carry out our studies and

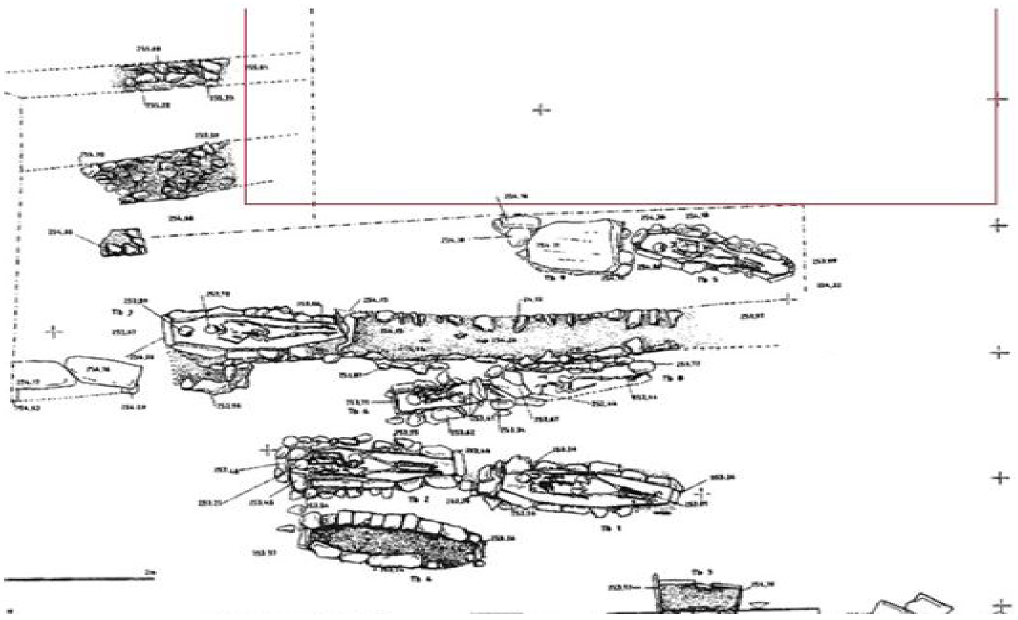

Figure 2. The medieval necropolis of Caravate. The archaeological excavation conducted in 2002 brought to light only the side near the church. The next investigations will focus on the unexplored area (red)

research in the spaces that are yet to be explored in some of necropolises, however unfortunately we are often interrupted before reaching the goals for recovery requested by the client, even when we feel the need for more information in order to outline the ancient demographics of an area. Furthermore, if we plan to globally study the osteological material with a chronological viewpoint, we should consider other issues and address other investigations and research work. We know that the city government and superintendent has osteological samples of old excavations in storage, yet unfortunately we know that past archaeological investigations, albeit not too remote, had almost always neglected skeletal material. Only recently have we seen confirmation of the need to pay attention to the restoration and preservation of human remains with scientific methods, in particular those of biomedicine, competing to enrich and enhance the research of archaeologists. There is no doubt that, complying with this new awareness, we could study the biological history of ancient peoples and obtain information relating to demographics, lifestyle factors and health status. In many cases, a partial remedy of the deficiencies that we have mentioned could be found in the thorough review data from the literature. We will see that it is a difficult task, also due to the fact that the passing of time has led to changes in many skills and our abilities with regard to technical and scientific investigation, to such a point that we are left unsatisfied with the data and results of the observations from those who had preceded us on these roads. And here is yet another emerging issue with no irrelevant arguments. Precisely because of what we are saying here, we recognise the validity and importance of the arguments of those who are convinced of the need to preserve human remains from the excavations, despite the problems of emerging ethical values, with regard to every other ancient artefact and finding. If we still had the material studied in the past, instead of the generally weak and limited reports that we find in literature, it is clear that we could re-examine it with more satisfying results and therefore support those who suggest not returning the human remains to burial sites. Unfortunately, many past reports and papers were left uncompleted by the anthropologist, and it is therefore even more difficult to obtain succinct osteological and skeletal descriptions from the archaeologist who carried out this work, as well as data that could be useful to our updated research. It is primarily a task that belongs to the universities and the superintendences to promote the research in strategic areas from the archaeological and anthropological point of view[15]. Nevertheless, it is also important to study and to preserve the existent collections of human remains, placed in museums or in other conservative spaces.

[15] BONFIGLIOLI, BRASILI, BLECASTRO 2003, 36–56; GIUFFRA, FORNACIARI 2017.

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Salinae in Justinian's *Digest*

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Abstract. *This paper explores the references on the term salinae from Justinian' Digest. Our approach is a semantic analysis of this term in various juridic contexts, such as: allowing permission by the state to constitute corporations for saltworks; the interdiction to alienate a saltpan from a pupillus; collecting the tax on salt-works; establishing the usufruct of inherited saltpans; the recognition of saltworks owners as publicani; the imposition of serving in saltworks as a punishment for a crime; exploring gender issues (the appliance of the same type of penalty to men and women convicted to saltworks labour); the obligation to acknowledge for the census the saltpans; the recognition of the tax on saltworks as a "public" one.*

Rezumat. *Acest articol explorează referinţele privind termenul salinae din Digestele lui Iustinian. Abordarea noastră este o analiză semantică a acestui termen în diferite contexte juridice, precum: permisiunea acordată de stat pentru a fonda corporaţii pentru ocne; interdicţia de a înstrăina exploatările de sare ale unui pupillus; impunerea unei taxe pe ocne; stabilirea uzufructului pentru exploatările de sare moştenite; recunoaşterea proprietarilor exploatărilor de sare ca publicani; impunerea muncii în ocne drept pedeapsă pentru o infracţiune; explorarea problemelor de gen (aplicarea aceluiaşi tip de pedeapsă bărbaţilor şi femeilor condamnaţi la muncă silnică în ocne); obligaţia de a recunoaşte fiscal exploatările de sare; recunoașterea statutului de taxă "publică" asupra exploatărilor de sare.*

Keywords: salinae, Justinian's Digest, semantic analysis.

State of the art

The starting point of this research consists in the idea that even if we do not have archaeological traces of salt mining exploitation in Dacia, "La Dacie est la seule province où il y a des mentions sur les *conductores salinarum* ou *conductores pascui et salinarum*"[2]. The term salinae, reflected in various contexts of literary and epigraphical Latin sources, drawn the attention of specialists from different perspectives, such as: the geographical position of salinae in coastal and inland areas, extraction, exploitation, production techniques,

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[2] BÎRLIBA 2016, 56.

administrative personal, taxation, administrative control, etc.[3] As far as the juridic sources, we must underline the importance of the salinae in the Roman law, since we have from 1743 a book with a chapter entitled *De iure salinarum apud Romanos*[4]. The researches conducted on salt from an anthropological perspective have revealed important linguistic reflexes on different levels (vocabulary, anthroponimy, toponimy, etc.), and lead us to a more detailed investigations. Our paper intends to discuss the semantic field of the term *salinae*, by underlying the variety of lexemes in the framework of this semantic field, with a strong Mediterranean mark. The issue raised by our research concerns the degree in which the semantics of the term *salinae* can be imagined in different juridic aspects in Roman Empire. The ambiguity of this term has only been suggested in the exegesis, without further examination of contexts: "non e facile definire la pertinenza semantica di termini come *salinae, salarii,* o *salinatores.* Per le prime, infatti, non e sempre facile capire se si trattasse di saline vere e proprie, miniere di sale o depositi...saline publiche (che potevano però anche essere miniere di salgemma"[5].

Etymology and derivatives of sal

The Latin term *sal* is a derivative from the Proto-Indo-European root **sal-*: *sēh$_2$-l-s [nom.], *sh$_2$-él-m [acc.], *sh$_2$-l-ós; *sh$_2$-l-d- / *sh$_2$el-d- / *seh$_2$l-d- = 'salt'. It is emphasised in many languages, e.g. Greek: *ἅλς;* Welsh: *halen;* Latvian: *sȁls;* = 'salt'; Old Church Slavonic *solĭ*; Russian: *sol*; German: *Salz;* Serbian-Croatian: *so;* Lithuanian: Žem. *Sólymas* = 'saltpan'[6], etc. The Latin term *sal, -is*[7] has developed a various lexical arborescence[8], among which the terms salinae, -arum: 'salt-pans, salterns salt-works; a district of Rome by the porta Trigemina'; salifodina, -ae: 'a salt pit'.

[3] BATTAGLINI 2005; BELTRÁN COSTA 2007, 899–922; CARUSI 2007, 325–342; 2008, 353–364; GARCÍA VARGAS, MARTÍNEZ MAGANTO 2006, 253–274; GIOVANNINI 1985, 373–386; LAGÓSTENA BARRIOS 2007, 301–323; MEIGGS 1973; MOINIER 1985, 73–103; MORELLI , OLCESE, ZEVI 2005, 43–55; MORÈRE 2008, 365–380; 2010, 1465–1473; 2011, 155–161; NAPOLI 2007, 157–161; TRAINA 1992, 364.

[4] JUNG 1743.

[5] TRAINA 1992, 373–374.

[6] DE VAAN 2008, 535; PORUCIUC 2011, 215.

[7] 'common salt (sodium chloride), pl. lumps of salt, as symbol of hospitality; salt water, brine; poetic (the sea); a sort of flaw in precious stones; a quality which gives 'life' or 'character' to a person or thing; (of speech) wit; pl. examples of wit jokes witticisms'.

[8] E. g. *salacitas, -atis; salarium, -ii; salarius, -a, -um; salarius, -ii; via salaria; salax, -acis; salacia, -ae; salgama, -orum; salgamarius, -ii; salillum, -i; salinator, -oris; salinum, -i; sal(l)itura, -ae; saliunca, -ae; saliva, -ae; salivarium, -ii; salivarius, -a, -um; salivatum, -i; salivo, -are, -avi, -atum; salivosus, -a, -um; salmacides, -ae; salmacidus , -a, -um; salmacis, -idis; sal(l)io, -ire, -ivi, -tum; sallo, -ere, -sum; salsamentarius, -a, -um; salsamentum, -i; salsarius, -a, -um; salsilago, -inis; salsipotens, -ntis; salsitudo, -inis; salsugo, -inis; salsura, -ae; salsus, -a, -um*.

Juridic evidences[9]

Neque societas neque collegium neque huiusmodi corpus passim omnibus habere conceditur: nam et legibus et senatus consultis et principalibus constitutionibus ea res coercetur. paucis admodum in causis concessa sunt huiusmodi corpora: ut ecce vectigalium publicorum sociis permissum est corpus habere vel aurifodinarum vel argentifodinarum et salinarum[10].

[Associations and guilds and similar corporations are not allowed to be formed by all persons without discrimination; this is a thing which is kept within certain limits by statutes and decrees of the senate and imperial enactments. It is only in very few kinds of cases that such corporate bodies are allowed; for example, the power of constituting a corporation is permitted to partners in government vectigalia, as well as in gold mines, silver mines and salt mines.][11]

*

Sed et si salinas habeat pupillus, idem erit dicendum[12].

[And the same applies and the pupillus owns a salt pans].[13]

*

Si quis ita heredem instituerit: "Titius qua ex parte mihi socius est in vectigali salinarum, pro ea parte mihi heres esto", quidam putant, si asse descripto id adiectum sit, ut maxime socius fuerit titius, non esse heredem, sed si qua pars vacua relicta fuerit, ex ea heredem esse. quod totum et ineptum et vitiosum est: quid enim vetat asse descripto utiliter titium ex parte fore quarta, ex qua socius erat, heredem institutum esse?[14]

[If a person instituted an heir as follows. "let Titius be heir to me in same share as that in which he is partner with me in collecting the tax on salt-works," some authorities think that if this has been added after twelve shares in the inheritance have been set out, however much Titius was a partner, he is not heir, but if any share [of the inheritance] has been left unfilled, he is heir in respect of that. This is wholly inept

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[9] For a recent analytic insight into the *Digest*—the compendium of 50 books of juridical texts—, see HONORÉ 2010. This book addresses a set of issues related to the character and the compilation of Justinian' Digest, the methodology and scope, the organisation of the work itself and the editing, examines the Appendix and the controversy linked to the paternity of Ulpian's texts.

[10] *Dig. 3.4.1.pr.-1 (Gaius 3 ad ed. provinc.).*

[11] LIU 2009, 104. The importance of *salinae* is emphasized by the allowance of *corpus habere*, “that is, the legal capacity to hold common property and a common treasury, to be represented by an agent (an *actor* or *syndicus*), and to sue and to be sued as a collective entity”.

[12] *Dig. 27.9.5.1 (Ulpianus 35 ad ed.).*

[13] CARUSI 2007, 337. The Roman authorities had the monopole on the salt exploitation in Rome, but not in all the provinces of the Empire, where the Roman law stipulates different juridic regulations.

[14] *Dig. 28.5.60.1 (Celsus 16 Dig.).*

and unsound; for what is there to prevent Titius from being effectually instituted heir for, say, the quarter share which he had as partner after twelve shares in the inheritance have been set out?]

*

Uxori usum fructum domuum et omnium rerum, quae in his domibus erant, excepto argento legaverat, item usum fructum fundorum et salinarum: quaesitum est, an lanae cuiusque coloris mercis causa paratae, item purpurae, quae in domibus erat, usus fructus ei deberetur. respondit excepto argento et his, quae mercis causa comparata sunt, ceterorum omnium usum fructum legatariam habere. Idem quaesiit, cum in salinis, quarum usus fructus legatus esset, salis inventus sit non minimus modus, an ad uxorem ex causa fideicommissi usus fructus pertineat. respondit de his legandis, quae venalia ibi essent, non sensisse testatorem[15].

[A man had legated to his wife the usufruct of houses and of all the things that were in those houses except the silver, likewise, the usufruct of farms and salt-pans. It was asked whether the usufruct of wool of various colors intended for sale. likewise, of purple which was in the houses, was owed to her. He replied that with the exception of the silver and those things which were intended for sale, the legatee had the usufruct of everything else. The same man asked, when a considerable amount of salt was found in the saltpans of which the usufruct had been legated, whether the usufruct of it belonged to the wife by the terms of the fideicommissum. He replied that the testator had not intended to legate those things which were there to be sold].[16]

*

Sed et hi, qui Salinas et cretifodinas et metalla habent, publicanorum loco sunt[17].

[However, people who have saltworks, chalk-pits, and mines also count as publicani.][18]

*

In ministerium metallicorum feminae in perpetuum vel ad tempus damnari solent. simili modo et in salinas. et si quidem in perpetuum fuerint damnatae, quasi servae poenae constituuntur: si vero ad tempus damnantur, retinent civitatem[19].

[Women are usually sentenced to the service of those working in the mines, for life or for a term, just as is the case with reference to the salt-pits. Where they are sentenced for life, they are considered penal slaves; but if they are sentenced for a prescribed term, they retain their civil rights.]

[15] *Dig. 33.2.32.2–3 (Scaevola 15 Dig.).*

[16] On the usufructuary in case of a coal mine and not a salt-pans, see FRIER & MCGINN, 2004, 398.

[17] *Dig. 39.4.13pr. (Gaius 13 ad ed. provinc.).*

[18] About the complex significance of the term *publicanus,* see FLECKNER 2010, 157; FERNÁNDEZ BAQUERO 2012, 172–173.

[19] *Dig. 48.19.8.8 (Ulpianus 9 de off. procons.).*

Mulier in opus salinarum ob maleficium data et deinde a latrunculis exterae gentis capta et iure commercii vendita ac redempta in causam suam reccidit. Cocceio autem Firmo centurioni pretium ex fisco reddendum est[20].

[A woman, condemned to the saltworks for a crime, was subsequently captured by petty brigands of a foreign nation and sold under the rules of trade. She was ransomed and reverted to her proper condition. The price paid was to be restored to Cocceius Firmus, a centurion, from the imperial treasury].[21]

*

Salinae si ^ sie^ quae sunt in praediis, et ipsae in censum deferendae sunt[22].

[If estates possess saltpans, they too must be declared for the census.]

*

"Publica" vectigalia intellegere debemus, ex quibus vectigal fiscus capit: quale est vectigal portus vel venalium rerum, item salinarum et metallorum et picariarum[23].

[We must also regard as "public" those taxes from which the imperial treasury derives revenue, such as a harbor tax or a tax on saltworks, mines, and pitch factories.]

Conclusion

The analysis of these juridic sources shows a series of contexts in which the term salinae, a polisemantic word (salt-pan or saltwork), appears in the Digestae in the following contexts: *allowing permission by the state to constitute corporations for saltworks; the interdiction to alienate a saltpan from a* pupillus*; collecting the tax on salt-works; establishing the usufruct of inherited saltpans; the recognition of saltworks owners as* publicani*; the imposition of serving in saltworks as a punishment for a crime; exploring gender issues (the appliance of the same type of penalty to men and women convicted to saltworks labour); the obligation to acknowledge for the census the saltpans; the recognition of the tax on saltworks as a "public" one.*

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[20] *Dig. 49.15.6 (Pomponius 1 ex var. lect.).*

[21] TRIMBLE 2011, 316 — on gender issues, see the discussion about the intentioned use of the word *mulier*, attributed usually to *humiliores*.

[22] *Dig. 50.15.4.7 (Ulpianus 3 de cens.).*

[23] *Dig. 50.16.17.1 (Ulpianus 10 ad ed.).*

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