FINDS STORIES

ADDRESSING MOBILITY THROUGH PEOPLE & OBJECT BIOGRAPHIES

FINDS STORIES —
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PEOPLE AND OBJECT BIOGRAPHIES

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INTRODUCTION

FINDS STORIES — BIOGRAPHICAL WAYS OF TRACING THE IMPACT OF MOBILITY IN SOUTHEAST EUROPE

Konstantinos P. Trimmis, Ivan Drnić, Kristina Brkić Drnić

The *Finds Stories* project

The southeastern corner of Europe, a region associated with the Balkan countries, is an area of complex history, population movements, border shifts, and cultural differences. Over the millennia, from the Neolithic to the present-day, the Balkan Peninsula has been the scene of human movements and migrations. These movements, sometimes long-distance in the context of migratory events, sometimes short and abrupt in the context of war and displacement, and sometimes occasional and seasonal in the context of economic activities, have long been studied in archaeological, anthropological, and historical discourse.[1] The impact of these mobilities, both on the people who move and on the societies affected by such movements, have been studied either anthropologically or through a sociological lens, focusing on the economic and social impacts of such mobilities.[2] More recently, there have been attempts to look at these migration events from the perspective of material culture approach and to examine their impact using archaeological methods.[3] However, these approaches focus mainly on the material impact of migrations without considering the sociocultural impact of migration events.

In this landscape, a synergy between Europe and the Western Balkans has brought *Finds Stories: Addressing Mobility through People and Object Biographies* to life – a project to explore the multiple impacts of mobilities in an 'epistemic' way. In the discourse of *Finds Stories*, 'epistemic' means summing up the knowledge we have about an event to define the possibility that such an event can be reproduced in the future, and likewise the communication needs of such a possibility. We see epistemics as a way to reflect transdisciplinary approaches, but also as a way to encapsulate existing knowledge that is not related to science, such as knowledge that comes from the people who migrate and creative interpretations of the migration experience. *Finds Stories*, then, is about creating an epistemic methodological framework in order to explore the impact of different mobilities. To achieve this, *Finds Stories* brought together applications from biological anthropology (studying the physical effects on moving people), material culture studies (studying the interaction between objects and people during mobility), landscape anthropology (the impact on the environment), archaeological practise (as a methodological toolbox), and creative art (as a third research paradigm[4] – art as a metanarrative).

To test the methodological applicability of the *Finds Stories*, the project examined six different case studies corresponding to different types of mobility and different periods of human activity in the area. Three of the case studies are from present-day Croatia and three are from Greece. The Croatian case studies range from the Rača Cave on the island of Lastovo to the town of Sisak and the plains of Baranja. The case studies cover a period from the Late Neolithic to Late Antiquity and provide evidence for long- and short-term mobilities. The Greek case studies range from the Ionian island of Kythera to the moving pastorals of Samarina and the contemporary sports mobilities on display at the YMCA Basketball Museum in Thessaloniki.

Studying assemblages of movement

Before examining the impact of mobilities, the actual migration event should be recorded. In *Finds Stories*, we believe that because migration events are not momentarily but have a presence (short or long) through time, they should be recorded through a biographical approach. Writing a biography of a migration event is writing a biography of the event itself, but also of the people who move and those associated with the mobile groups, the objects that people use, make, and interact with, and the taskscapes that the movement creates in a certain environment as it passes through. Any migration event, then, is an assemblage

1 See as examples: Bonifazi, Mamolo 2004; Borić, Douglas Price 2013; Mazower 2000; Pallis 1925; Wace, Thompson 1914; Vermeulen *et al.* 2015.

2 See chapters in Vermeulen *et al.* 2015.

3 See Kourelis (ed.) 2008; Trimmis *et al.* 2021.

4 Trimmis, Kalogirou 2018.

FIGURE. 1. The "konaki" of Aetia – a place for overnight rest during the movement.

of people, objects, and natural environments (plants, animals, rivers, mountains, etc.) that are in constant interaction. But it is not only an assemblage of constant interaction and in constant interaction. It is also an assemblage that evolves as movement continues and the micro-histories of mobilities build layers of experience and change the beginnings of movement. Imagine a daily commute: when someone leaves home to go to work, they change their daily movement in response to traffic, road accidents, weather, or the various work commitments of the day.

Because migration events, whether large or small, transregional or local, unilateral or cyclical, are multi-agent events in constant evolution, in *Finds Stories* we have chosen a theoretical framework for their analysis based on assemblage theory and biographical approaches. Following Delanda's approach to assemblage theory, an assemblage is defined as a collection of heterogeneous elements that come together to achieve a specific outcome or effect.[5] Assemblages are always in a state of becoming, as new elements are added or removed and the relationships between elements change and evolve.

Applying the assemblage theory approach to human mobility allows us to see that the movement of people is shaped by a variety of elements, including physical features/objects (such as roads, airports and train stations, suitcases, boats, etc.), legal and regulatory frameworks (such as immigration laws and border controls), cultural norms and practices (such as the annual migration of the transhumance pastorals), and individual desires and motivations (such as the search for economic opportunity, personal development, or even escape from political persecution). These elements are heterogeneous in nature and interact with each other in complex and unpredictable ways.

Consider, for example, the movement of migrants from the island of Kythera, a case study of *Finds Stories*, from Greece to Australia. The assemblage that shapes this mobility includes a number of factors, such as the physical objects of the boats and planes that transport them, the suitcases, trunks, and memorabilia they carry, the legal and regulatory frameworks that govern transcontinental migration, the cultural norms and practices that shape public attitudes toward migrants, and the individual motivations of the migrants themselves. These elements interact to create a complex and often chaotic system of movement as migrants navigate their way across borders and through different legal and cultural contexts.

Assemblage theory also emphasizes the importance of power and agency in shaping human mobility. Following Delanda's approaches, assemblages are not neutral or objective, but reflect the interests and perspectives of the individuals and groups that contribute to them. In the case of the mobilities of Greek migrants to Australia, for example, the power dynamics between migrants, homeland and host country, as well as changing international migration laws over time, play a crucial role in shaping the movement of people. The agency of migrants themselves is also key, as they navigate and resist the constraints of the assemblage to achieve their desired outcomes.

5 Delanda 2016.

After defining assemblages and presenting their patterns of interaction, a biographical approach is applied to analyse the state of "becoming" of these assemblages and the impact that the movement had on the different agents in the assemblage: the people, the physical objects, and the natural environment. A biographical approach as a research method focuses on the life stories and experiences of people and non-people to understand the cultural and social contexts in which they live. With a biographical approach, we seek to understand how people, as well as objects and landscapes, construct their identities, make sense of their experiences, and navigate social relationships and institutions. In *Finds Stories*, biographical research is focused on all three agents of migration assemblage, the objects, the people, and the landscapes. This involved in-depth interviews with individuals or groups, analysis of personal narratives and life histories, isotopic studies of skeletal collections from the project's archaeological case studies, and examination of other sources of biographical data such as diaries, letters, and photographs. This method allowed for a more nuanced understanding of individual experiences, both historical and contemporary, and how they intersect with larger social, cultural, and historical processes.

As part of the *Finds Stories* discourse and also the project exhibition, various mobility assemblages were examined using a biographical approach that links the biographies of objects with the biographies of the people moving and the corresponding landscapes. The application of a biographical approach to the study of present and past mobility breaks new ground in the study of materiality in migration contexts. It offers the opportunity to examine the interplay between the impact of objects and the ways in which identities are constructed, communicated, and performed in contexts of migration, relocation, or displacement. It thus offers a fresh look at the history of interregional and long-distance mobility, focusing on the ways in which objects and people are embedded in the processes of shaping and expressing identities and social relations across time and space.

An exhibition as a journey

Assemblage theory recognizes that mobility is not just about individual actors or objects, but rather a complex web of relationships and interactions between them. Object biographies can help reveal the various social, cultural, and historical factors that shape the mobility of objects and how they become entangled in these networks. The *Finds Stories* exhibition and this volume rely heavily on mobile objects from the project's case studies and their biographies.

Drawing heavily on social anthropology and ethnographic studies, object biography is a proven tool for analysing material culture. It builds on the theoretical foundation that material artefacts, in the course of their production, use, and circulation, become imbued with meanings that can be changed and negotiated, making them dynamic agents in social relations. The archaeological application of the biographical approach crystallised in *World Archaeology's The Cultural Biography of Objects* (1999), which remains relevant today. As highlighted in that volume, objects acquire multi-layered histories through various context-specific processes such as exchange, mobility, or performance, play a central role in interactions between people, and influence how people act or perceive themselves and the world around them.

Contributing to the ever-growing object-biographical discourse, the *Finds Stories* exhibition focuses on the intersection between materiality and interregional or long-range human mobility by scrutinising a wide range of elements of material culture. The artefacts analysed for the exhibition were selected to cover a broad spectrum of biographical parameters. For some of them, their formal and technological characteristics are the focus of discussion, relating to the evolution of styles, the *chaîne opératoire*, or the duration and type of use. However, these parameters offer only a partial understanding of the life of the artefacts, since reconstructing the full life of the objects requires, in addition, taking into account the social contexts of their production and use, as well as the meanings attributed to them during their production and throughout their many metaphorical lives and deaths as they enter and leave people's lives.

Tracing the full diachronic scale of relationships between people and artefacts can be complicated by the fragmentary nature of the physical record when archaeological material is involved. The relationships between objects and people also become increasingly unclear the further back into the past the investigation goes. However, this does not prevent one from piecing together a story by using the available data and considering material parallels or related anthropological evidence that might illuminate multiple sides of human-object relationships. On the other hand, the material from the modern transnational case studies covered by *Finds Stories* provides ample room for more coherent and individualised object biographies, as the accompanying contemporary accounts and interviews allow for more comprehensive biographical analyses.

The exhibition thus focuses on presenting and highlighting these objects and their biographies. However, the exhibition and this volume also focus on an 'epistemic' way of examining our 'assemblages', presenting contributions about the environments in which mobilities have taken place and the effects mobilities had on people.

As this is an exhibition that celebrates mobilities and their impact, the entire presentation of case studies in the museum, as well as in this volume, follows an imaginary journey from the island of Lastovo to the YMCA Basketball Museum in Thessaloniki. In the first chapter of the volume, Kristina Brkić Drnić, together with Ivan Drnić, presents the case study of the Rača Cave and its complex mobilities that came to light during the excavations at the island of Lastovo. Using five objects presented here along with the excavation data, the role of Lastovo and Rača in trans-Adriatic mobilities is highlighted. From Lastovo, the reader travels to the continental Croatia and the town of Sisak. In the Iron Age, but also in the time of the Roman Empire, this was an important point of trade and exchange networks along the Kupa River. Anita Dugonjić then takes the reader to eastern Croatia and the plains of Baranja, where semi-nomadic groups were pre-

FIGURE 2. Excavation in the Rača Cave on the island of Lastovo.

dominant in Late Antiquity. The study of the various agents who contributed to the design of the mobility assemblages in Sisak and Baranja is complemented by the object biographies traced by Kristina Brkić Drnić and Anita Dugonjić and the analysis of the skeletal assemblages presented by Christianne Fernée.

Then the journey leaves Croatia behind, and the reader travels south to the modern day Greece. The first stop is the mountains of Greek Western Macedonia and the village of Samarina. Samarina is the most important village of the Vlachs in the region, whose inhabitants still practise transhumance mobilities, following traditions that have been rooted in the region since at least the Byzantine period. Konstantinos Trimmis, together with Melina Perdikopoulou, Christina Marini, and Christianne Fernée, presents the village, its society, and the context of transhumance, while Christina Marini presents a series of object biographies and Christianne Fernée examines the effects of pastoral mobility on the human body. From Samarina, the volume travels to one of Europe's southernmost islands, Kythera, where long-distance migrations shaped the island's society in the 20th century. More than 30,000 Kytherans emigrated to Australia, while the island became home to nearly 1,000 Albanians who moved to Kythera after the collapse of the Hoxha regime. Lita Tzortzopoulou-Gregory joins Christina Marini in presenting Kythera and its migration history, while Christina traces the biographies of objects of both Kytherian-Australians and Albanians who migrated to Kythera. Finally, Eleftheria Theodoroudi presents contemporary sports mobilities from the YMCA Basketball Museum, while Valentina Soumintoub presents object biographies that demonstrate the influence of sports objects in shaping the modern world.

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AN ISLAND IN THE HEART OF THE ADRIATIC SEA — FINDS FROM THE RAČA CAVE ON THE ISLAND OF LASTOVO

Kristina Brkić Drnić, Ivan Drnić

Geographical position and history of the island of Lastovo

The island of Lastovo is located in the eastern, Croatian part of the Adriatic Sea, about 30 nautical miles off the Dalmatian coast. It belongs to the group of southern Dalmatian islands, together with the surrounding islands of Korčula, Mljet, Vis and Sušac. The island area of about 47 km² stretches in the east-west direction. The highest peak of Lastovo is Veli Hum at the altitude of 417 m. The Mediterranean climate with mild, rainy winters and hot, dry summers, with an average annual temperature of 15 °C and an average annual rainfall of 700 mm allows for successful agriculture on the island's fields.[1] Lastovo is one of the most forested islands on the Croatian coast. According to the last population list of 2021, the island has 748 inhabitants.

In the historical sources, the ancient islanders are mentioned as belonging to different historical tribes/communities – while Theopompus of Chios writes that the island was part of Liburnian territory, in the literature there are also mentions of the Illyrian population, more precisely the Ardiei and Plerei. Theopompus of Chios was also the first historian who recorded the earliest ancient name of the island – *Ládesta* in his work Philippica, dating from the 4th century BC. The name *Ládesta* echoed through the centuries before it was mentioned again in the 6th century AD by Stephen of Byzantium, who also referred to the inhabitants of Lastovo as *Ladestanós*.[2] During the reign of the Roman emperor Augustus, the island was given the name *Augusta Insula*. This was not the only Roman name for Lastovo – in the Tabula Peutingeriana the island is mentioned as *[Insula] Ladestris*. In the literary sources of the Middle Ages, the following variants of the ancient island names are mentioned: Augusta, Lagusta and Lagosta. The present name of the island and the settlement of the same name derives from the Emperor Constantine VII Porphyrogenitus, who mentioned the form of the name – Lastobon – in his work *De administrando imperio*, which dates back to the 10th century.[3]

FIGURE 1. Position of the island of Lastovo.

Of course, the history of the island's population is much older than that recorded in written sources. Interestingly, the oldest traces of human activity were found not on Lastovo, but on the small island of Sušac, 20 kilometres to the west, which is considered part of the Lastovo archipelago. There, numerous finds of pottery sherds with Impresso decoration characteristic of the Early Neolithic period were found, as well as hundreds of products made of Gargano chert from the western shores of the Adriatic.[4] The oldest traces of Lastovo's settlement were found in the Rača Cave in the southeast of the island, which is described in more detail below. The earliest layers are from the later phase of the Neolithic period with pottery finds of the Hvar culture. Traces of the cave use from the Copper, Bronze and finally the

1 Della Casa *et al.* 2009, 1.

2 Migotti 1987, 134.

3 Jurica 2001, 45; Della Casa *et al.* 2009, 113.

4 Bass 1998; 2004; Radić, Bass, Della Casa 1998; 2000.

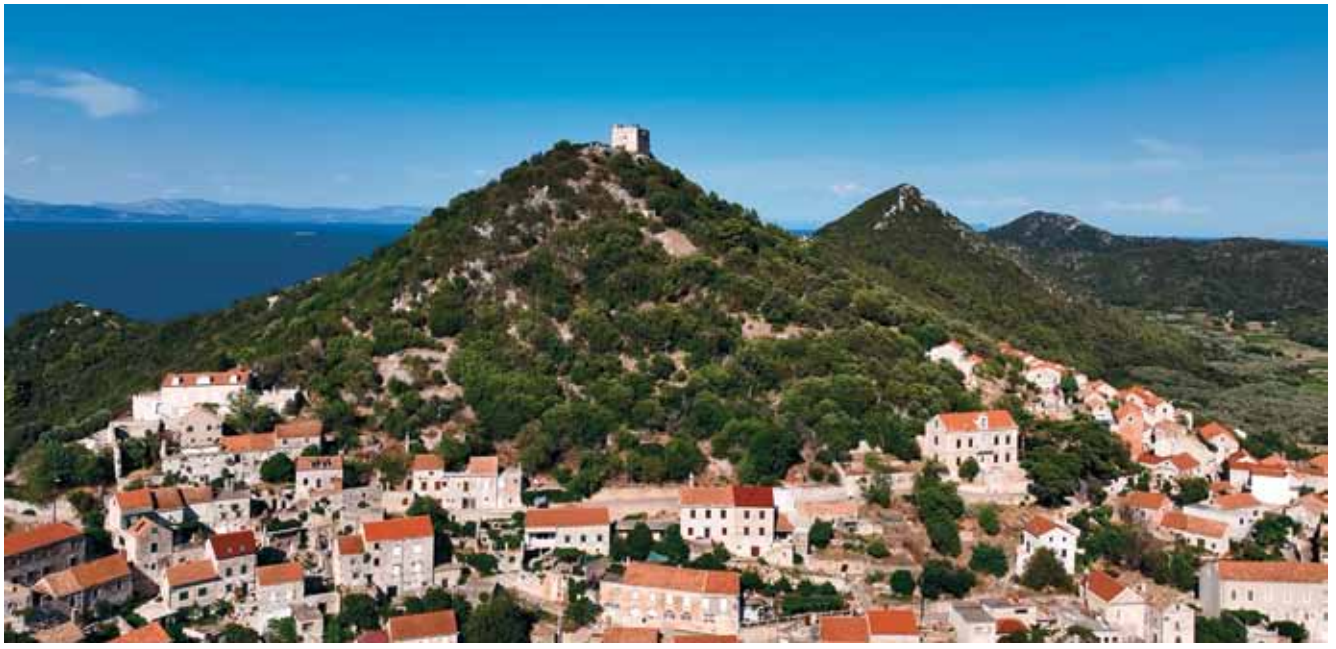


FIGURE 2. The town of Lastovo and the Glavica hill.

Iron Age follow, with numerous Hellenistic and Late Republican imports in the later phase. Rare finds confirm the use of the cave during the Roman period and the Early Modern Period as well.

Traces of settlements from prehistoric times have also been found elsewhere on the island. Surface finds of prehistoric sherds and stone artefacts come from several fields in Lastovo: Vino polje, Duboke and Velja Lokva.[5] The dominant hillfort from the Late Bronze Age was located on the Sozanj hill on the northern coast of the island. This position allowed good control over the sea route between the islands of Lastovo and Korčula.[6] Although sherds of Greek and Hellenistic wares have been found in several places on the island, including red-figure pottery, Gnathia, Hellenistic Black and Red Slipped Wares, no archaeological traces of permanent or temporary settlements of the Greek colonists, apart from the local ones, have been discovered so far. The only proven Iron Age hilltop settlement was located on the hill Glavica above the present town of Lastovo. Finds from archaeological research at the site, as well as from private collections created by collecting surface finds, include pottery and metal finds of local provenance, as well as Greek or Hellenistic imports. Several objects have been found at this site that prove the contacts of the inhabitants of the hillfort with the Roman Republic from the 2nd century BC. The earliest Roman finds, such as Lamboglia 2 amphorae, Almgren 65 fibula and a bronze coin from the middle of the 1st century BC, found in the same context with archaeological material of local production, are indicators of the island's participation in the Romanization of the eastern Adriatic coast. In addition, the presence of bronze hobnails characteristic of Roman military footwear (*caligae*) may also indicate the presence of the Roman army on Lastovo.[7] However, the current state of research is not sufficient to draw any conclusions in this regard. Certain activities during the Iron Age were also detected in the Lučica Bay, located just below the fortress Kašćel on the Glavica hill.[8]

The only Roman settlement found so far on the island of Lastovo is located in the present-day settlement of Ubli, in the western part of the island. During archaeological excavations carried out by the Italian archaeologist Pietro Marconi in 1933, remains of ancient residential architecture were discovered, including luxurious buildings with mosaic floors and frescoes, economic buildings related to oil and wine production, as well as numerous various small finds.[9] The early Christian horizon is represented by the church (*basilica*) of St. Peter and objects of daily use, such as oil lamps with Christian symbols. After a long break, new archaeological excavations took place in Ubli from 1978 to 1983, carried out by the Conservation Department in Split. Besides this Roman settlement of agricultural character, remains of several *villae rusticae* and *villae maritimae* are scattered all over the island, for example in the bay Skrivena luka.[10]

5 Della Casa *et al.* 2009, 132–134.

6 Della Casa *et al.* 2009, 127–130.

7 Della Casa *et al.* 2009, 121–127.

8 Della Casa *et al.* 2009, 117–121.

9 Marconi 1936.

10 Jeličić-Radonić 2001, 197; Della Casa *et al.* 2009, 130, 132.

FIGURE 3. Map of the Rača Cave.

Moreover, archaeological excavations have proved the continuity of life in the settlement until the Early Middle Ages. Indeed, before the construction of the sardine factory and the associated workers' settlement during the Italian administration in the 1930s, there was also a pre-Romanesque church of the same name in the bay of St. Peter which was demolished during the construction works.[11] Another important early medieval monument is the church of St. Luke from the 11th century. It is located on the old road from Lastovo to Pasadur in the central part of the island.

Rača Cave

Rača Cave is located in the southeastern part of the island, above the valley of Radaž dol. It is located on the Rača glava hill, 140 m above sea level, overlooking the Skrivena luka bay and the famous Struga lighthouse. The cave is about 70 m long and divided into five chambers. The entrance to the cave, located in its southwestern part and surrounded by dense vegetation, is quite narrow and short.

The first archaeological excavation in the Rača Cave was carried out in 1942 during the Second World War by Antonio Mario Radmilli. The results of his excavations were published in several publications.[12] One of the participants in Radmilli's excavations, Marinko Gjivoje, published an article describing the cave and the archaeological campaign in 1951.[13] Only a decade after the first archaeological excavation, Grga Novak conducted a new excavation in 1953, which resulted in a short publication.[14] Both authors produced the general stratigraphy of their excavations with finds from the Neolithic, Bronze and Iron Age, including Hellenistic and Roman imports. Since Rača Cave is also a protected geomorphological natural monument with beautiful speleothems, it has also attracted the attention of speleologists. Although the first descriptions of the cave date back to the 19th century, the first accurate plan of the Rača Cave together with the accompanying text was published in 1956 by Slavko Marjanac.[15] An important contribution to the archaeology of the Rača Cave was made by Branka Migotti, who in 1987 published Hellenistic and Roman pottery finds collected during the excavations of Grga Novak.[16]

Many years have passed before new archaeological excavations have taken place. The extraordinary archaeological potential of the Rača Cave and the island of Lastovo itself was recognised by the Archaeological Museum in Zagreb. Therefore, as part of the Erasmus+ project *Finds Stories: Addressing Mobility through People and Object Biographies*, a systematic archaeological excavation was started in 2021 in collaboration between the Archaeological Museum in Zagreb and the Department of Anthropology and Archaeology of the University of Bristol, UK. The

11 Jeličić-Radonić 2001, 216; Karač, Jakšić, Palinić 2009, 95–96.

12 Radmilli 1955; 1958; 1969; 1970.

13 Gjivoje 1951.

14 Novak 1955.

15 Marjanac 1956.

16 Migotti 1987.

FIGURE 4.
Trench 1 in the Rača Cave.

Department of Archaeology of the University of Pula joined the research in 2022 and the Department of Archaeology of the University of Ljubljana in 2023.

The diachronic use of the Rača Cave

From prehistoric times to the present, people have used caves for a variety of purposes. Caves have been used for everyday activities, as shelters, pens, or storage areas, but because of their secret and secluded nature, they have also been used as places for rituals or even as cemeteries. Sometimes this distinction is clear to modern scholars, but in some cases the line between sacred and profane is difficult to discern in archaeological records. Most of these activities can be traced in the layers of the Rača Cave.

Until the middle of the 20th century, the economy of the inhabitants of Lastovo was based mainly on agriculture with typical Mediterranean crops – olives, grapes, figs, vegetables and wheat. Livestock breeding, especially of sheep and goats, also played an important role. This activity is still attested in the Rača Cave, where a massive dry wall structure is documented in the northern part of the first chamber, which had the function of a pen. This is chronologically the youngest structure in the cave and was probably built in post-mediaeval/early modern times. The sherds of yellow and ochre glazed pottery, called *lionata*, found next to the structure and made in one of the northern Italian workshops in the 16th century, belong to this period.[17] Numerous graffiti on the walls of the cave, the oldest of which is dated to 1673, testify to generations of visitors who came to Rača to admire the beauty of the cave or to enjoy its seclusion. Unfortunately, destroyed speleothems and disturbed cave sediment testify to the dishonest attention of some visitors.

The only surface find belonging to the Late Roman period and dated to the 3rd and 4th centuries AD, is the rim fragment of a jug, attributed to African Red Slip Ware C of North Tunisian origin. It is a very interesting piece, as there are no known analogies for this type of jug on the eastern Adriatic coast. Another group of pottery finds also comes from the Far East – Eastern Sigillata A pottery of Syro-Palestinian provenance, dated to the 1st century BC. Fragments of Eastern Sigillata B were also found.[18]

The Hellenistic horizon of the cave is characterised by Hellenistic Black and Red Slipped Wares and Gnathia of the Late Canosan Group. The imported pottery also includes Campanian and Megarian Wares.[19] In addition to table wares of various provenances and dates, sherds of transport pottery were also found. Most of the amphorae belong to Lamboglia 2 type, while one specimen can probably be assigned to Dressel 1 Pascual 1 type.

The excavations in Trench 1, located in the first cave chamber, revealed a more complex stratigraphy than described in previous publications by Radmilli and Novak, proving diachronic activities in the cave. Trench 1 was located on both sides of the dry wall structure. The youngest horizon noted during the excavation can be dated to the Late Iron Age/Hellenistic period, with locally produced pottery predominating, but with some Hellenistic imports as well. Locally produced pottery is represented by larger vessels, mostly coarse pots, but also by smaller vessels, such as cups with high handles. Various other ceramic objects, such as fragments of sieves, portable hearths, and baking lids, as

17 The typological analysis of the pottery was carried out by Dr. Karla Gusar.

18 Migotti 1987.

FIGURE 5.
Excavation of Trench 1 (Rača Cave).

well as weights and spinning whorls, indicate that members of the Late Iron Age community of Lastovo occasionally used the Rača Cave as a shelter, probably even as a stable for their animals, and engaged there in everyday activities such as cooking, food storage, and spinning. We further hypothesise that the cave may have also served as a site of ritual at some point during the Late Iron Age, as the largest number of imported Hellenistic vessels were found in stratigraphic unit 13, along with local pottery, including miniature drinking vessels. This phenomenon is well attested at two other cave sites in southern Dalmatia with traces of Illyrian shrines – Spila near Nakovana on the Pelješac peninsula and Vilina pećina in the Dubrovnik area.[20]

Local inhabitants also visited the cave in the Early Iron Age. This is evidenced by rare finds of Daunian pottery and one fragment of an interesting 7th/6th century BC Corinthian miniature skyphos. This unique find may be related to ritual activities in the cave, as similar specimens have been found in Greek sanctuaries.[21]

The use of the cave in the Middle and Late Bronze Age is attested by the layers containing typical pottery, especially with characteristic handles, e.g. a massive horizontal handle with two perforations, known from numerous sites on the Apennine Peninsula and on the eastern Adriatic coast and its hinterland.[22] The closest analogy comes from the Caričina špilja on the neighbouring island of Vis. Horizontal and crescent handles are also typical in the pottery assemblage characteristic of this period.[23] The importance of the Rača Cave in the Late Bronze Age is confirmed by two bronze objects – a spearhead and a razor – found during the excavations of Radmilli in 1942.[24]

The Early Bronze Age occupation of the cave is attested by the finding of a Cetina pottery strap handle, with curved sides that gradually converge to a narrowest point near its centre, the so-called 'constricted handle'. The Cetina style pottery, characteristic of the eastern Adriatic coast, is dated to the second half of the 3rd millennium BC.[25] This was the period of intense trans-Adriatic connections and the emergence of elites engaged in various maritime activities. One of the best evidence of these activities is the accumulation of pottery, especially drinking vessels, from the island of Palagruža, located on the route from the Gargano peninsula via the Tremiti islands to Sušac, Korčula and other central and southern Dalmatian islands.[26] Lastovo was undoubtedly a part of this sea route. The hierarchy of the Adriatic communities in this period is reflected in the monumentalization of the landscape with numerous burial mounds and hillforts with massive fortifications.

This horizon is preceded by the Ljubljana-Adriatic pottery style, characterised by geometric decorations executed by a combination of incisions, impressions and incrustations, of which only a few sherds were found in the Rača layers.[27]

19 Migotti 1987.
20 Forenbaher, Kaiser 2001; 2003; 2012; Perkić 2022.
21 Barfoed 2015.
22 Hellmuth Kramberger 2017, 249–254.
23 Barbarić 2012.
24 Radmilli 1969.
25 Forenbaher 2018.
26 Forenbaher 2018a.
27 Forenbaher 2018.
28 Forenbaher 2000; Čečuk, Radić 2005, 233–244.

The thickest prehistoric horizon from Trench 1 is dated to the second half of the 4th millennium BC by the characteristic pottery of the Nakovana style.[28] Numerous fragments of typical pottery forms were found: conical bowls with rounded shoulders, cylindrical necks and slightly everted rims decorated at the shoulder by vertical channelling, and similar bowls with low, angular shoulders and slightly conically converging necks decorated with short vertical channelling or grooving along the shoulder and plastic ribs running radially across the lower conical part of the vessel. In addition, numerous pieces of lithic material were found, including blades, flakes and possibly a core, predominantly made of Gargano chert, confirming the previously mentioned connections of the Copper Age community of Lastovo with the western Adriatic coast. Of particular importance are two arrowheads, one of which is almost completely preserved and made of the same raw material.[29]

The oldest excavated layer in Trench 1 belongs to the Neolithic Hvar culture containing fragments of pottery decorated with painted, incised, burnished and incrusted decoration. Almost identical pottery was found in Vela Spila on Korčula, the first island south of Lastovo. It could be dated to the 5th millennium BC.[30] This is the period when agriculture and animal husbandry became firmly established among the Adriatic population.

Excavation in Trench 2, which was located in Chamber 3, revealed a simple stratigraphy of a brownish-red cave sediment. Here, only a few potsherds, animal bones and shells were found, but interestingly, some human bones as well. Although there are only a few bones, they can be assigned to an infant and an adult. These bones were absolutely dated to the beginning of the 3rd millennium BC.[31]

Conclusion

Although the historical development of the communities that inhabited Lastovo and its archipelago in prehistoric times is still insufficiently researched, the available data confirm that the islanders were involved in all the relevant cultural flows that have affected the Adriatic basin since the beginning of the 6th millennium BC and the transition from the hunter-gatherer economy to agriculture and animal husbandry.

Settlement traces from the initial phase of the Neolithic, when the "Neolithic package" spread mainly by sea, were not found on the island of Lastovo, but on the small island of Sušac. In the late Neolithic, agriculture and animal husbandry were deeply rooted on the island, as testified by the layers of the Rača Cave containing pottery finds with features of the Hvar pottery style and possibly also some surface finds from some fertile fields on Lastovo.

The thickest horizon examined so far in Trench 1 in the Rača Cave dates to the Copper Age with a large number of pottery sherds belonging to the Nakovana pottery style known from several sites on the eastern Adriatic coast. In addition, this horizon also contained the largest collection of stone artefacts, including arrowheads, mostly made of the aforementioned Gargano chert, indicating the trans-Adriatic connections of the inhabitants of Lastovo during the 4th millennium BC.

One small object perhaps best reflects Lastovo's position in the network of contacts during the Late Bronze Age, namely an amber bead. This exotic raw material, originating from the Baltic region, reflects the complexity of the communication networks that, since the Middle Bronze Age, extended over most of the European continent and that, in addition to amber, circulated other raw materials such as copper and tin, as well as finished products, people, technologies and ideas.[32]

The connectivity of the community of Lastovo not only to the Adriatic communication network, but also to the Mediterranean, is confirmed by Greek and Hellenistic pottery imports related to the Iron Age of the island. These objects were found in the hillfort Kašćel and in the Rača Cave. A fragment of a Corinthian miniature skyphos dated to the 7th/6th century BC indicates early contacts with Greek traders or colonists, which continued until the 2nd century BC when the eastern Adriatic coast entered the sphere of interest of the growing Roman Republic. The finds of Lamboglia 2 amphorae and early *terra sigillata* from Rača and Kašćel confirm the contacts of the Late Iron Age community in Lastovo also during this dynamic period. During the Roman period, the inhabitants of Lastovo lived the typical life of a small rural provincial community with the central settlement in present-day Ubli and several villas scattered around the island. However, numerous shipwrecks around Lastovo prove that the island was involved in maritime trade.

Although the island of Lastovo is still distant and isolated for the average visitor, the presented historical development and the objects of material culture testify to the fact that since the early periods of prehistory the inhabitants of the island established contacts with neighbouring and possibly distant regions. As illustrated, raw and finished products circulated through these contact networks, as did ideas, styles, and, of course, people.

29 The preliminary macroscopic analysis was performed by Dr. Zlatko Perhoč.

30 Forenbaher, Kaiser 1999; Čečuk, Radić 2005, 147–222.

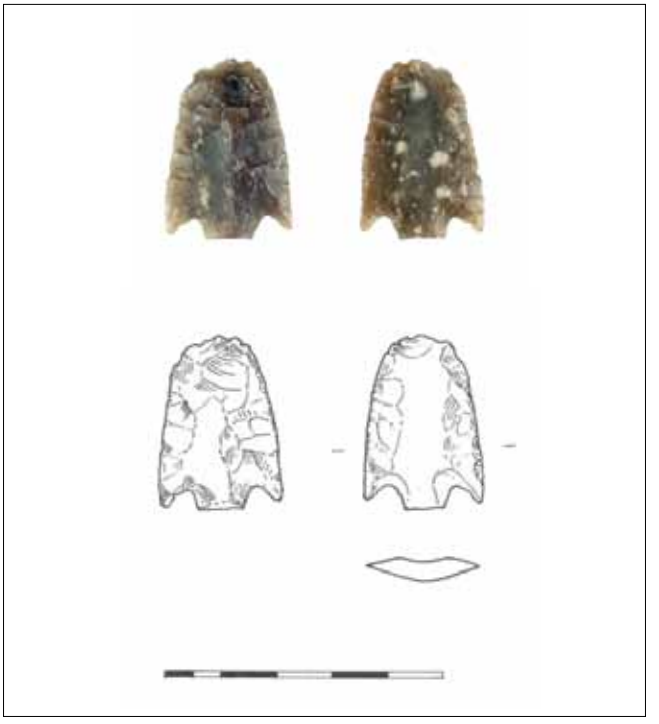
31 University of Bristol, sample number 6335 – 2857calBC; sample number 6336 – 2857calBC.

32 Cwaliński 2014; 2016; 2020.

Kristina Brkić Drnić

Bifacial point

A bifacial point of imported raw material, dated to the second half of the 4th millennium BC, found in Trench 1 during the archaeological excavation of the Rača Cave on the island of Lastovo in 2022.



The point is mostly preserved, with the tang possibly broken. It is relatively short (3.2 cm) and wide (2.3 cm), and weights 4.12 g. It has a narrow tang with parallel lateral edges located at the proximal end. The barbs, shorter than the tang, have angular terminations. The length of the tang, which is narrower than the shoulders, measures less than the width of the point. The point has convex lateral edges with bifacial retouch.

This archaeological find has a biography which is as interesting as it is complex. The first phase of its incredible journey starts with collecting and mining of its raw material at the Gargano Peninsula. The Gargano Peninsula is built by sedimentary rocks of the Apulian carbonate platform margin. It dates to the Upper Jurassic until the Eocene Epoch and was formed in the western part of Tethys. The next step after collecting was the processing of the raw material into semi-finished products. In that form, cherts were transported by sea to different locations on the Eastern Adriatic coast. This transportation route stretched from island to island, starting from Gargano Peninsula and the Tremiti islands towards Palagruža and Sušac, and afterwards to other Dalmatian islands and sites on the coast.[33] Keeping in mind that the majority of lithic artefacts from Dalmatian archaeological sites from the same region, including Sušac, Nakovana Cave, Vilina Cave, Vela Cave on Korčula etc., are made of Gargano cherts, the same origin of the raw material of the bifacial point is not surprising.[34] There are two possible mechanisms of obtaining raw material: 1. trade with the Western Adriatic communities, which collected, processed and transported the raw material across the Adriatic, or 2. overseas expeditions, conducted by Lastovo's inhabitants, to the Gargano Peninsula. Furthermore, it is impossible to reconstruct how the exchange took place, and what was the counter value for semi-finished chert products. However, we can assume that this process resulted in establishing social connections between inhabitants of both Adriatic coasts.[35]

After coming into the possession of a certain member of Lastovo's Eneolithic population, a semi-finished piece of chert gained its final shape and purpose. Bifacial points were made using pressure flaking technique. This technique was based on thinning a flake or a blade segment of appropriate size, which would have been used as a blank. Thinning was achieved by removing

33 Forenbaher, Perhoč 2015.

34 Forenbaher 2018a; Forenbaher, Perhoč 2015.

35 Forenbaher 2018a.

thin chips on both faces and all edges, resulting in the entire surface being completely covered with shallow flake scars. Strongly pressing an antler tine to the edge of the point at specific angles and points was used to remove thinning chips. Finally, the point gained its final look by shaping by retouch.[36]

The bifacial point from the Rača Cave belongs to type 5 of Stašo Forenbaher's bifacial points typology. Specimens of this type are described as tanged and barbed points. Their wide distribution across Europe, including territories of Italy, France, Spain, Netherlands, England and Scotland, is connected with the spread of the Bell Beaker Culture. Tanged and barbed points, found at eastern Adriatic sites, are related to Ljubljana or Cetina style pottery, Danilo-Vlaška style pottery and the Nakovana Culture. Their shape, size and weight point to the fact that they probably served as arrow points.[37] It is difficult to determine how long the point was in use, and what species of Lastovo's fauna were hunted by its owner.

The bifacial point was found during the excavation of stratigraphic unit 36 in Trench 1, which was abundant in pottery fragments, animal bones and shells. Also, it contained lithic material and three special finds: the bifacial point, a pintadera and a ceramic spindle whorl. Based on diagnostic potsherds, the stratigraphic unit was attributed to the Nakovana Culture. The Nakovana Culture or Nakovana pottery style is a characteristic phenomenon on the Eastern Adriatic coast, where it was widespread from Istria (Zambratia) in the north to its eponymous site in the south (Spila near Nakovana on the Pelješac peninsula). A series of radiocarbon dates date the Nakovana Culture to the second half of the 4th millennium BC.[38] In chronological terms, it appears after the Late Neolithic Hvar Culture, as confirmed by stratigraphy of Trench 1 in the case of the Rača Cave. The Nakovana pottery style is characterized by two distinctive vessel types that is, two kinds of bowls, respectively: conical bowls with rounded shoulders, cylindrical necks and slightly everted rims, decorated at the shoulder by vertical channelling, and similar bowls with low, angular shoulders and slightly conically converging necks, decorated by short vertical channelling or grooving along the shoulder and plastic ribs that run radially down the lower conical part of the vessel.[39]

The point's final chapter, which took place when it was no longer in use, remains a mystery. It lay hidden beneath the cave sediment for millennia, before it was unearthed and given an opportunity to tell its story. The story about sailing, boldness, social contacts, craftsmanship and everyday life of a small island Eneolithic community. Now, after being macroscopically analysed, photographed and drawn, it waits for its moment to be represented to academic and wider audiences. And today, that moment has come.

Amber bead

An amber bead, made of material imported from the Baltic to the island of Lastovo, dated between 1700 and 900 BC, found during excavations in the Rača Cave in 2022.

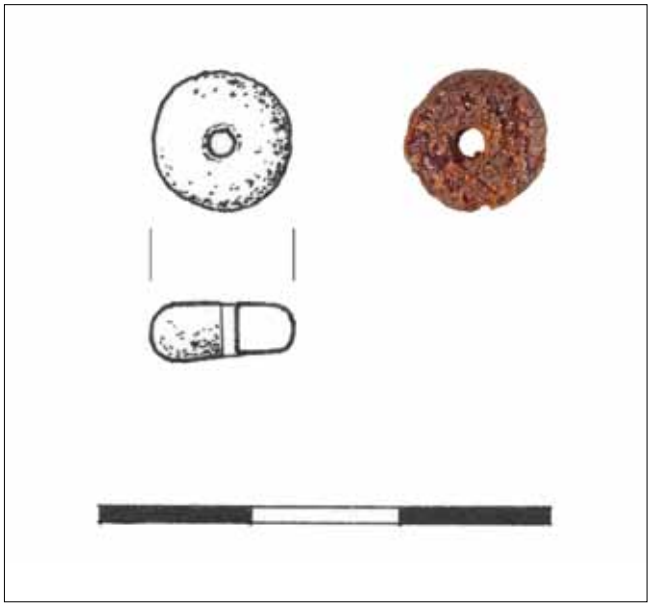
The completely preserved amber bead has the shape of a disc with a round hole in the center and was used for stringing beads. It was probably part of a necklace. The bead has a diameter of 1 cm, a diameter of the hole of 0.2 cm and weighs 0.28 g. According to the typology of A. Palavestra, the small disc-shaped amber bead from the Rača Cave belongs to type 8a.[40] Because of the simplicity of the shape, this type is not chronologically identifiable. These beads have been found at archaeological sites in Italy and the Eastern Adriatic. They were found in Istria and Kvarner in the north, in northern Dalmatia and on the island of Brač, where two specimens were recorded at the Žaganj Dolac site. The Eastern Adriatic finds of type 8a beads come from the Middle and Late Bronze Age (Vrčin, Baška, Vrsi), Early (Nin, Dragišič, Žaganj Dolac) and Late Iron Age (Kastav).[41]

This rare, luxurious piece of jewellery is the only archaeological amber find found so far on the island of Lastovo. It was found in stratigraphic unit 34, dated to the Early Copper Age by Nakovana style pottery, but it is obvious that it does not belong to this period. The structure of the layers from Trench 1 with many stones, as well as the small dimensions of the bead, allowed its descent from the upper layers. The characteristic pottery, especially the handles (massive horizontal handle with two holes, crescent-shaped handle, etc.), dates these upper layers to the Middle/Late Bronze Age, i.e. to the period when amber was introduced into the Adriatic Sea.

Amber has come a long way from the distant Baltic Sea to this small, remote island in southern Dalmatia. Amber as an exotic raw material probably reached the Mediterranean area, i.e. the Appenine Peninsula, from the Baltic Sea as early as the Early Bronze Age (2300–1700 BC). In this initial period, amber was introduced in the form of single and rare specimens together with objects made of local resins. From the Middle Bronze Age (1700–1300 BC) the quantity of amber in the area increased. The oldest specimens from the eastern Adriatic coast, found on the Istrian peninsula, date from this period. In a burial mound on the position Žamnjak, near the village Sošići, 12 km east of Rovinj, in joint grave of three deceased people were found pieces of clothing and grave goods, including two amber beads. The grave dates from the Br A2/B1 period.[42]

The use of amber objects increased in the Late Bronze and Iron Ages. Much has been written recently about the mechanisms and routes of amber transport from the north to central Europe and southwards to the Mediterranean. While early interpreta-

36 Forenbaher 2018a.
37 Forenbaher 2006; 2018a.
38 Forenbaher, Kaiser 2000.
39 Forenbaher, Kaiser 2000.
40 Palavestra 1993.
41 Palavestra 1993.
42 Cwaliński 2014; 2020; Blečić Kavur 2009.



tions tended toward simplistic explanations that focused on the transport of raw material via the Amber Road, more recent authors point to a much more complex network of contacts involving numerous communities that participated in amber transfer through various trade and exchange mechanisms. It is important to emphasize that amber was not the only raw material that circulated through these networks – they were also used to transport copper, tin, and finished products. The circulation of ideas, technologies, and cultural patterns also occurred within the same networks.[43] Literature states that the amber reached the Adriatic and Balkan regions from three directions, and these routes varied in different periods: 1. the western one (along the western end of the Carpathian Basin, through Dolenjska and Bela Krajina to the Kvarner region); 2. the central one, which branched off from the western one and reached the western Balkans through the Danube valley; 3. through the eastern part of the Carpathian Basin. Through the Alpine passes, amber also reached the area of northern Italy, where important production centres were established since the Late Bronze Age.[44] Moreover, since the Late Bronze Age there was an efficient trans-Adriatic contact network through which both objects and raw materials, including amber and artefacts made of this precious resin, circulated. Thus, Mateusz Cwaliński concludes that during the Late Bronze Age, the coastal-sea route along the eastern Adriatic coast became more intense for the amber traffic as the centres in the Po Valley became more important.[45] In this newly formed network, regions such as Kvarner and northern Dalmatia may have become regional redistribution centres for amber trade and exchange further south and inland.

The exact mechanism and context of the bead's arrival at Lastovo are unknown. Trade and exchange are the most likely possibilities. For the members of the prehistoric populations, which included the inhabitants of the island of Lastovo, these two methods of obtaining the needed goods were more complex than it may seem at first glance. Exchange was more than a simple act of give and take – it was also a social process that enabled the exchange of information, the transfer of technological knowledge, and the forging of alliances. On the other hand, these non-economic components are less significant in the trade process. In the case of the amber trade, it was undoubtedly an organised, large-scale, and long-distance process. However, there is another, less likely but interesting possibility. In addition to trade and barter, amber could have been obtained by raiding thriving settlements or trading centres.[46] In the case of the Adriatic, piracy should also be considered. It is not known to whom the amber bead belonged, but it was probably a member of the local population, who probably had a higher social status. It is also impossible to say how long it was used. Since it was so luxurious and rare, there is a possibility that it was an heirloom.

Since ancient times, amber has been used not only for its beauty, but also for its alleged apotropaic and healing powers. One story that sometimes hides behind the surface of amber is probably the most mysterious of all – a story about the evolution of life. Valuable fossils encased in amber date Baltic amber to the Tertiary (Eocene-Oligocene).[47] Even if this is not the case with the amber bead from the Rača Cave, it has interesting and important stories to tell – the bead narrates about connections and influences in ancient prehistory, travel, trade and exchange. After all, it proves that the small island of Lastovo was not as isolated and remote as we perceive it today.

Miniature jug

An Iron Age miniature jug of local manufacture, dated to the 4th and the 3rd century BC, found in Trench 1 during archaeological excavation of the Rača cave on the island of Lastovo in 2021.

This miniature vessel is not completely preserved. It was restored from five joining fragments. The jug was handmade and inhomogenously fired. It has a slightly everted rim, a short concave neck, globular body and flat base. The handle is oval, irregular in cross-section, projecting from the vessel rim overtopping it, and ending at the mid-point of the body. The height of the fragment is 7.7 cm, the rim diameter is 5.1 cm, the bottom diameter is 4.8 cm, and it weighs 83 grams. The colour of the exterior and interior surface are similar to Munsell 7.5 YR 4/1 dark grey. The fabric is coarse and rich in limestone inclusions. Many inclusions are missing, while their imprints are still visible on both exterior and interior surfaces.

43 Cwaliński 2016.

44 Cwaliński 2014; 2020.

45 Cwaliński 2020.

46 Cwaliński 2016.

47 Bakarić, Križ, Šoufek 2006.

Although the object biography of the miniature jug consists of only two main phases, the complexity and importance of them makes this ceramic vessel one of the most crucial finds for interpretation and understanding of the use of the Rača Cave in one period of time. It also provides a valuable insight into one aspect of life of the indigenous community. The first phase of this jug's life cycle is its production by a local potter. Numerous potsherds of local origin, including this miniature jug, found in the Rača Cave, are indicators of a continuous pottery production from the Neolithic period to the Roman era. It is impossible to determine whether the potter was the jug's owner as well, or it came into its owner's possession by trade, exchange or bestowal. It is also unknown whether the jug had been used in everyday life before it became a part of a ritual activity and, therefore, the existence of a shift from utilitarian to ritual function remains uncertain. Similar miniature vessels have been interpreted as children's toys, drinking vessels, containers for salt, herbs, spices or cosmetics, ladles, children's vessels for drinks or food and children's products.[48] The next part of this object's biography is its use in a ritual, probably as a votive offering. The presence of miniature vessels at archaeological sites dates from the Neolithic period, and although they appear in various archaeological contexts – everyday, funerary and religious – they are in most cases connected to cult activities. This interpretation transcends the importance of contexts of this type of archaeological finds – their existence inside settlements can be interpreted as children toys, but it also points to a presence of minor shrines, while miniature vessels in funerary contexts could have been used as grave goods or votive offerings as well.[49] Similar miniature vessels, also interpreted as votive offerings in indigenous shrines, have been found in two caves located in the same region as the Rača Cave: Nakovana Cave and Vilina Cave.[50]

The last stages of the jug's biography are the last ones to discuss. This object was found during the archaeological excavation carried out by the Archaeological Museum in Zagreb in the Rača Cave in 2021. It was discovered in the northern part of Trench 1, in the context of stratigraphic unit 13 – a greyish layer of soil containing a lot of pottery and animal bones. Besides this miniature jug, at least three more miniature vessels originate from the same context – two miniature jugs and one miniature bowl. Although the majority of potsherds are of local origin, this stratigraphic unit contains 48,78% of all imported pottery. Furthermore, stratigraphic unit 13 also contained at least three *lekythoi* and potsherds of imported drinking vessels, including a Gnathia *skyphos* of Late Canosan group and a Hellenistic Black Slipped *skyphos*. Since all these finds derive from the same archaeological context, they suggest the presence of ritual activities at the site and the use of the cave as a shrine. From the same regional context there are two possible analogies – Vilina Cave and Nakovana Cave, both with similar archaeological finds, including miniature vessels and imported pottery, which have been interpreted as indigenous shrines.[51]

After the archaeological excavation in 2021, all finds, including the miniature jug, were transported to the Archaeological Museum in Zagreb. The vessel was restored with plaster from five joining fragments. Its measurements were taken and the jug was drawn and photographed. Furthermore, typological and chronological research was carried out. Yet, its biography does not end here, hidden in a box on a shelf in a museum depot. Together with some other interesting objects from the Rača Cave, it has been chosen as one of the objects to be included in Erasmus+ project *Finds Stories: Addressing Mobility through People and Object Biographies*, and will be further discussed and mentioned. After all, this miniature vessel is one of the most important archaeological finds of local production, whose presence in the cave indicates the existence of an indigenous shrine.

48 Osborne 2004; Perkić 2022.

49 Osborne 2004; Perkić 2022.

50 Forenbaher 2021; Forenbaher, Jones 2011; Forenbaher, Kaiser 2001; 2003; 2012; Perkić 2021; 2022.

51 Perkić 2021; 2022; Forenbaher 2021; Forenbaher, Jones 2011; Forenbaher, Kaiser 2001; 2003; 2012.

Hellenistic *skyphos* (Gnathia)

A Hellenistic *skyphos* (cup), a product of Canosan manufacture and attributed to the Late Canosan Group of Gnathia pottery, dated to the first quarter of the 3rd century BC, found during archaeological excavations in the Rača Cave on the island of Lastovo in 2021.

The *skyphos* is partially preserved and was restored from six connected fragments of the rim, upper body and horizontal loop handle. It was wheel-made and homogenously fired. The height of the fragment is 3.9 cm, the rim diameter is 7 cm, and the handle diameter is 0.5 cm. It has a short vertical rim with a horizontal loop handle placed high, just below the rim. The dark brown glaze is better preserved on the outer surface. The colour of the outer and inner surface is similar. The outer surface of the *skyphos* is decorated with painted horizontal white and red lines, short horizontal and narrow lines and dots. The fabric is fine and characteristic of the Late Canosan group.

The biography of the *skyphos* can be viewed from many different angles, starting with its manufacture by the potter, the journey from the place of manufacture to its owner on the island of Lastovo, followed by the most interesting part of its life – its use as tableware or in a ritual. The other part of the biography of this vessel began with its discovery during the archaeological excavations and continued with the post-excavation procedures, its presentation at archaeological conferences and its inclusion in the exhibition layout and catalogue.

The discussion of the life history of this object begins with the *skyphos*' manufacture. This beautiful piece of Hellenistic pottery was made in a manufactory with high craftsmanship specialization. The manufactory was located in northern Apulia, in Canusium. The *skyphos* from the Rača Cave belongs to the Late Canosan group.[52] The next phase of its life cycle was the trans-Adriatic journey, which it undertook as part of a shipload. The exact itinerary is not yet known, but it is interesting to note that the sherds of Daunian pottery found during the excavations in the Rača Cave, dated to the 7th and 6th centuries BC, arrived from the same region. Thus, there is a possibility that ancient seafarers and merchants used the same routes for centuries. The more the history of the *skyphos* continued, the more ambiguities emerged.

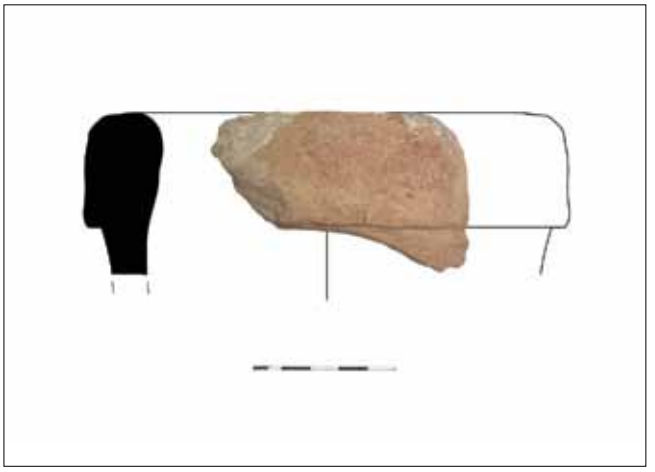
It is not possible to determine the identity of the owner or how long the vessel was used, but the person in question was undoubtedly prominent and wealthy enough to afford imported pottery of such quality and beauty. It is known, however, that *skyphoi* of this size were used for drinking.[53]

The object's biography sheds important light on how it might have been used in an indigenous shrine. Findings of Gnathia pottery have been reported in settlements, cemeteries, and sanctuaries along the western Adriatic coast; the latter are only represented by a few archaeological sites.[54] Archaeological finds from the Rača Cave, located in stratigraphic unit 13 of Trench 1, suggest that a shrine may have existed. This greyish layer of sediment was significant since 48,78% of all imported pottery discovered during the excavations in 2021 and 2022 was found there. Similar finds of imported Hellenistic pottery, as well as miniature vessels of local origin, have been recorded at the Vilina Cave and the Nakovana Cave, located in the same region of the southern Dalmatia as the Rača Cave.[55] All vessels were used for drinking purposes, according to their type. In the Diomedes sanctuary on the island of Palagruža, potsherds of the same group, manufacture, provenience, and date have been found.[56] The sanctuary on Palagruža was dedicated to Diomedes and frequented by sailors from the western and eastern Adriatic shores, unlike the shrine in the Rača Cave, which is thought to be an indigenous shrine of an unknown dedication or data regarding ritual activities.

Following the excavation, the *skyphos* was given a new home in the building of the Archaeological Museum in Zagreb. The vessel's original form was entirely reconstructed to reflect its former beauty. It was introduced to the academic community during two archaeological conferences because of its significance in relation to the Gnathia ceramic findings on the eastern Adriatic coast. Unlike the Gnathia *skyphoi* from Palagruža, we still do not know what kind of ceremonies this *skyphos* was utilized in or in whose honour they were performed – whether it was a hero like Diomedes or an unidentified indigenous divinity. The story of this object does not finish with this exhibition; there are still many questions to be answered and more pages of its biography to be written. After all, it has only just started a new chapter of its life.

52 Miše 2010.
53 Miše 2010.
54 Miše 2010.
55 Perkić 2021; Forenbaher 2021; Forenbaher, Kaiser 2001; 2003.
56 Miše 2017.

Lamboglia 2 amphora



A Late-Republican Lamboglia 2 amphora of Adriatic manufacture, dating from the 2nd to the last third of the 1st century BC, found as a surface find during the archaeological excavation of the Rača Cave on the island of Lastovo in 2021.

This archaeological find is only partially preserved. The fragment consists of a rim and the beginning of a neck. It was wheel-made and homogenously fired. The height of the fragment is 5.7 cm, the rim diameter is 17 cm, and it weighs 141.25 grams. It has a thickened rim with a slight overhang and a triangular profile that continues into cylindrical neck. The colour of the exterior and interior surface is similar to Munsell 5YR 6/4 light reddish brown. Its fabric is characterized by semi-fine, micaceous clay, rich in organic inclusions and frequent grey and red rounded inclusions.

The biography of this vessel can be divided into the following phases: manufacture in a certain pottery workshop, travel by sea from the place of origin to the island of Lastovo, purchase by the owner, use as a storage ware for some period of time and, finally, its discardment in the cave. Yet, this amphora's biography does not end with the darkness of the cave, its journey continues with its discovery during the archaeological excavation. This event was the beginning of the next episode of its biography, which includes travel to the Archaeological Museum in Zagreb, post-excavation procedures and inclusion of the amphora in Erasmus+ project *Finds Stories: Addressing Mobility through People and Object Biographies*.

All ceramic vessels share a mutual beginning of their circle of life, a moment when a piece of clay turns into an object. That event, the production of this Lamboglia 2 amphora, happened at some point from the 2nd to the last third of the 1st century BC.[57] While the time frame of its manufacture can be dated precisely, this potsherd's place of origin is more difficult to determine. It was first thought that Lamboglia 2 amphorae were produced on the western Adriatic coast, while their appearance in Dalmatia was exclusively a result of trade. Further archaeological excavations, conducted on the eastern Adriatic coast, have revealed a huge amount of Lamboglia 2 potsherds on land and below the sea, which has resulted in their status as the most popular amphora type that circulated within the Adriatic in the 2nd and 1st centuries BC. Furthermore, the large number of Lamboglia 2 amphorae from the eastern Adriatic coast has led to a hypothesis for local, Dalmatian production.[58] This hypothesis was recently confirmed at an archaeological site located in the vicinity of the island of Lastovo – the famous Greek colony Issa on the island of Vis. Lamboglia 2 amphorae of Isseian production have been found on the following archaeological sites and shipwrecks: Pharos, Issa/Vela Svitnja, Resnik/Siculi, Nakovana Cave, Polačišće and Supetar-Cavtat.[59] Since the island of Lastovo is located in the same region as the sites mentioned above, it is possible that this amphora was manufactured in Issa as well. But, without additional analyses, including ceramic petrography and instrumental geochemistry, it is impossible to attribute this vessel to a specific part of the Adriatic coast.

The following episode of this object's biography is its travel from the place of manufacture to the island of Lastovo. This amphora was definitely a part of a ship's cargo, and, whiles its port of departure remains a mystery, its destination was located somewhere on the island, probably in one of its many coves. Traces of transport of this amphora type have been preserved in two shipwrecks with Lamboglia 2 cargo located in the Lastovo archipelago, at the positions Baški rat and Donji Školji II.[60]

The most interesting part of this amphora's biography is the context of its use in the Rača Cave, which can be observed from two different points of view – profane and sacral. It was probably a part of an indigenous Late Iron Age horizon, as well as some other Roman Republican finds on the island, found on the sites Kašćel and Lučica. Besides pottery finds, the following Roman metal objects have been recorded at the site of Kašćel: an Almgren 65 fibula, a bronze coin minted in the mid-1st century BC, and bronze shoe nails, characteristic for Roman military footwear (*caligae*).[61] Since Lamboglia 2 amphorae were used for wine transportation and storage, this amphora was undoubtedly used for the same purpose. Wine consumption in the indigenous context of the Rača Cave can be traced for a long period of time, as indicated by a high number of imported drinking vessels, like Gnathia and Hellenistic Black Slipped *skyphoi*. Finds of imported pottery, with almost all ceramic forms connected to feasting, found inside a local horizon in a specific place such as a cave, have led to a hypothesis of the Rača Cave as a ritual setting, a sanctuary similar to the Nakovana Cave and the Vilina Cave.

57 Lamboglia 1955; Bezeczky 1998.

58 Lindhagen 2009.

59 Miše, Quinn 2022.

60 Radić Rossi 1993; 2001; Kirigin, Katunarić, Šešelj 2005.

61 Della Casa *et al.* 2009.

Furthermore, all amphora types found inside the Rača Cave during the campaigns conducted by the Archaeological Museum in Zagreb were used for transport and storage of wine, a liquid whose consumption is connected not only with profane, everyday drinking, but in rituals as well.

Although it was probably considered as an object of little value to the people who used it, and therefore ended up discarded in the cave, the discovery of this Lamboglia 2 potsherd opened a new chapter of its story. Once cast away, today it adorns the exhibition's setup, together with some other valuable finds.

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SEGESTICA AND SISCIA — A PLACE OF CONNECTIVITY FROM PREHISTORY TO LATE ANTIQUITY

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Today's town of Sisak, with its extraordinary archaeological heritage, undoubtedly represents one of the most important sites in continental Croatia, although its significance should also be observed in a wider, regional context, especially in the frame of the Iron Age, as well as the period of the Roman Empire. The most meritorious reason for the emergence of the Late Bronze Age and later Iron Age settlement of Sisak is undoubtedly its exceptionally favourable geographical location. Namely, the settlement was located just before the confluence of the Kupa and Sava rivers, which since the earliest prehistoric times had been the main communication route in the south of the Carpathian Basin, connecting the eastern Alpine region with the middle Danube territory (Figure 1).

Rare archaeological evidence suggest that the prehistoric settlement was established at the end of the 2nd millennium on the right bank of the Kupa River, although certain bronze finds, such as weapons and elements of clothing, indicate somewhat earlier activities at the site during the 13th and 12th centuries BC.[1] Some of these objects may have been thrown into the river during ritual acts, with the water being the transforming medium and the deposited objects serving as votive offerings. This practice, recorded throughout Europe, especially in the period of the Late Bronze Age, was represented in the Pannonian region by the Urnfield culture. The most famous finds from Sisak, dated to this period, are four golden torques kept in the Hungarian National Museum. These necklaces were made of a gold intertwined and reforged wire in a particular way, forged in some places into rectangular pieces and decorated with incisions.[2] Similar finds are known from sites in Austria and Hungary and are interpreted as products that may have been made in one workshop. They could have circulated as gifts, dowry or exchange goods between noblemen from different communities of the Urnfield cultural complex. Obviously, the Sisak community was a part of that cultural communication network.

The prehistoric settlement in Sisak existed continuously during the Early Iron Age and spread on the right bank of the Kupa River covering an area of about 3 to 4 hectares in the period from the 6th to the 4th century BC.[3] This flourishing period is confirmed by rich archaeological layers containing the remains of well-organised dwellings. Based on the data collected during recent excavations, two types of wooden constructions can be assumed in the excavated part of the Iron Age settlement at Pogorelac.[4] The first type used vertical beams planted in the ground as the base for the structural walls. A more advanced construction technique – the so-called post and beam construction – includes horizontally laid foundation beams with vertical posts placed on top of them as the structural basis for the wall surfaces, to which the rafters and the roof structure are then attached.

During this period, the settlement developed into the most important regional centre in the lower Pokuplje region and southwestern Pannonia, as evidenced by the production of ceramic vessels and textiles, the processing of metals and the production of high-quality bronze objects. At the current state of research it is difficult to conclude what was the cause of the expansion of the Late Hallstatt settlement of Sisak, but chronologically it comes after the events that took place in the second half of the 7th and the beginning of the 6th century BC, which caused significant changes in certain parts of the Carpathian Basin, e.g. in Transdanubia and southern Pannonia, and are connected with the invasion of nomadic peoples – the Scythians – from the East. These events significantly changed the cultural and power structure of the Pannonian Plain and allowed some communities, such as that of Sisak, to find their place and thrive in the newly formed communication networks.

For example, significant contacts were established with the communities in the Dolenjska region, and some aspects of the material culture of Sisak, such as elements of attire or forms of pottery, indicate direct links with centres in the central Posavina region (Donja Dolina) and in western Bosnia (Sanski Most).[5] The importance of the settlement and the social status of some of its inhabitants, as well as its position in the Iron Age communication networks, are attested by some imported, often luxurious objects from various cultural contexts, such as the

1 Drnić, Ložnjak Dizdar 2020, 27–37.

2 Drnić, Ložnjak Dizdar 2020, 38–39.

3 Drnić 2018, 18–20; Drnić, Groh 2018; Drnić 2020, 41–47.

4 Drnić, Groh 2018, 109–115; Drnić 2020, 47–53.

FIGURE 1.
Iron Age settlement at Pogorelac position in Sisak.

represented Illyrian-type helmet and the Etruscan ladle (*simpulum*). Unfortunately, no graves of the inhabitants of the Early Iron Age settlement of Sisak have been found so far, so we lack valuable archaeological and bioanthropological data on possible movements of individuals or migrations of groups during this period.

The settlement situated on the northeastern part of the Pogorelac position shrank in size at the beginning of the Late Iron Age, at the end of the 4th and beginning of the 3rd century BC, and moved closer to the Kupa River, which corresponds with the processes that marked the transition from the Early to the Late Iron Age and the appearance of the La Tène material culture in southern Pannonia. Older academic narratives interpreted these processes in the context of massive Celtic migrations from the regions north of the Alps, but today it is clear that they were more complex and included both the migrations of smaller groups from the north/northeast and also individuals, as well as the transfer of cultural patterns through acculturation, thereby causing a larger or smaller degree of "latenization" within certain communities in southern Pannonia.[6] From the perspective of material culture, especially pottery, it is clear that the population of Sisak maintained its cultural continuity at the transition from the Early to the Late Iron Age, adopting certain elements of the La Tène culture, primarily elements of attire, such as fibulas which were a part of the supra-regional fashion at the time, as well as, to a lesser extent, new forms of ceramic vessels, including a new technology – the fast-rotating potter's wheel.[7]

The Late Iron Age settlement of Sisak experienced a new rise in the 2nd and 1st centuries BC and expanded to the left bank of the Kupa River, where it reached a size of approximately 10 hectares. This expansion is attested by the archaeological layer excavated at the positions Dunavski Lloyd, Frankopanska b.b., Railway station and Povijesni arhiv in today's town centre, where no traces of habitation from the Early Iron Age have been discovered so far.[8] The abovementioned expansion could represent a local reaction to social and political processes that, from the first half of the 2nd century BC, led to considerable centralization and urbanization in Central Europe (the so-called *oppida* civilization), as well as an increase in production and an intensification of connections with the Mediterranean world. The importance of the Late Iron Age settlement of Sisak in the regional communication network of the 2nd–1st centuries BC is supported by its mention in the works of ancient authors such as Strabo, Pliny and Livy under the names *Segest(ic)a* and *Siscia*.

At the end of the 1st millennium BC (35 BC), the Roman army invaded Pannonia and ended the autonomous development of the Segestan Iron Age community, which consequently lost its independence. The settlement at the confluence of the Kupa and Sava rivers, the famous *Segestica*/*Siscia*, became a crucial Roman military stronghold for the further advance into the Pannonian Plain. Recent research at several positions in the town centre finally allows us to position the military camp (or one of several!) from the Augustan-Tiberian period on the left bank of the Kupa River, i.e. in the area between the rivers Kupa and Sava.[9]

5 Fiala 1899; Truhelka 1904.

6 Džino 2007; Drnić 2020a.

7 Drnić 2020, 83–89, 99–110.

8 Drnić, Groh 2018; Drnić 2020.

9 Drnić 2018, Fig. 1; Drnić 2020, 45.

FIGURE 2.
Forum remains of Roman Siscia.

Siscia served as the most important military base during the Second Pannonian War in 12–11 BC and the Pannonian-Dalmatian War, known as the *Bellum Batonianum*, in AD 6–9.[10] After the departure of the army to the Danube Limes, Siscia gradually developed into a prosperous centre with all the characteristics of a large Roman city: a planned urban structure, massive fortifications, public buildings, water supply and sewerage system (Figure 2). During the reign of the Flavians, in AD 71, Siscia was raised to the rank of a colony – *Colonia Flavia Siscia*, and joined the tribe of *Quirina*. As a reward for their loyalty and support in the Civil War that took place in AD 69, Vespasian colonised the city with the veterans of the Ravenna fleet.[11] Shortly after, Siscia played an important role in traffic and military transport in the course of Domitian's military campaigns against the Sarmatians and Dacians.[12] In AD 100 Emperor Trajan divided the province of Pannonia into *Pannonia Superior*, which included Siscia, and *Pannonia Inferior*.[13] This period was characterized by an economic growth and new building projects – construction of a theatre, a curia, a basilica and a market place. The proximity of the iron ore mines in the valley of the Japra and Sana rivers secured the city the status of an administrative centre of the mines and the operation of an arms factory.[14]

The end of the Marcomannic Wars marks the beginning of a new phase in the life of Roman Siscia. During the Severan period, the city received the epithet *Septimia* and became known as *Colonia Septimia Siscia Augusta*.[15] Although the city experienced an intense urban development, the construction of defensive walls and interventions in the existing fortifications testify to the insecurity of this period, possibly related to a new invasion of the Quadi and Marcomanni in AD 227 or 228.[16] Only a few decades after this event, in the year AD 262, Emperor Galien founded the imperial mint. In Diocletian's division of Pannonia, Siscia referred to the newly founded province of *Pannonia Savia* and became its capital.[17] The period of the 3rd century is also related to the emergence of a new religion on the territory of Pannonia. The presence of Christianity in Siscia was confirmed by various small finds recovered during dredging of the Kupa River and found in a context of late antique cemetery. The early Christian city was initially under the jurisdiction of Sirmium, which later passed to the Archbishop of Salona. Several bishops from Siscia are known from epigraphic sources: Castus, Quirinus, who suffered martyrdom in Savaria, Markus and Constantinus.[18]

The period of the 4th century AD is characterized by decline and devastation that followed the clash between the emperors Constantius II and Magnentius. This conflict ended with Constantius II retreating to Cibalae and Magnentius capturing and destroying Siscia. Shortly after the city was captured once again – by the Emperor Theodosius I during his clash with Magnus Maximus. A more peaceful period followed, which was probably interrupted by the plundering of Pannonia by the Huns, who devastated this

10 Hoti 1992, 140; Lolić 2022, 6.
11 Hoti 1992, 143; Lolić 2022, 6.
12 Nenadić 1986, 74.
13 Hoti 1992, 144; Nenadić 1986, 74; Lolić 2022, 6.
14 Durman 1992, 126; Hoti 1992, 144; Lolić 2022, 6.
15 Hoti 1992, 145; Lolić 2022, 7.
16 Hoti 1992, 146; Lolić 2022, 7.
17 Hoti 1992, 149; Lolić 2022, 7.
18 Nenadić 1986, 74; Hoti 1992, 149; Lolić 2022, 7.

FIGURE 3. Grave 17 from the Western Necropolis of Siscia.

area in the year AD 441 under the leadership of Attila. The period of the 6th century is marked by the incursion of the Avars and Slavs, when Siscia, as well as other important centres such as Sirmium and Salona, was seized by these newly arrived peoples.[19] This once important Roman colony in *Pannonia Superior* and the capital of *Pannonia Savia* never managed to recover and regain its former glory.

As in other Roman cities, there were several necropolises (Northwestern Necropolis, Eastern Necropolis, Southeastern Necropolis, Southwestern Necropolis and Western Necropolis) in Siscia, built on roads outside the city, with hundreds of graves dating from the 1st to the 5th century.[20] The last recorded necropolis of Roman Siscia is the so-called Western Necropolis, located in the northeastern part of Pogorelac, on the right bank of the Kupa River.[21] In the last ten years, 93 graves from the period between the middle of the 3rd century and the beginning of the 5th century were investigated there (Figure 3). A certain number of these graves were also analyzed within the framework of the *Finds stories: Addressing Mobility through People and Object Biographies* project.

Siscia was one of the most important Roman cities in the province of Pannonia. During the long period of its existence, it was an important production center through which various goods, raw materials, people, technologies and knowledge circulated. A key role in this circulation was played by the well-developed Roman road network, which, as well as Siscia's location on navigable rivers, enabled river transport.[22] Siscia developed from a military stronghold into a flourishing colony with all the elements of a proper Roman city – a forum, a theatre, a curia, a basilica, a market-place, residential buildings, public baths, water-supply system, city walls, workshops, etc. The changes that began to take place in the 4th and 5th centuries affected numerous Roman cities in the western provinces, which subsequently adapted to the new and different conditions, transforming themselves into episcopal sees, garrisons, places of refuge, and so on. This period is also characterised by the ruralisation, which for Siscia is testified by a large number of villas and other types of Roman settlements situated *extra murros*, indicating a dense population of the area surrounding the city.[23] Certain archaeological finds, although fewer in number, indicate the occupation of the city in the following centuries, which continues to this day.

19 Nenadić 1986, 74; Hoti 1992, 153; Lolić 2022, 7–9.

20 Baćani, Tomaš Barišić 2018, 13.

21 Baćani, Tomaš Barišić 2018, 194–231; Drnić Groh 2018, 105–109.

22 Durman 1992, 118.

23 Nenadić 1986, 81; Lolić 2022, 8.

LIFE IN ROMAN SISCIA — HEALTH, DIET AND MOBILITY

Christianne Fernée

Roman Siscia (Sisak) was one of the largest settlements in the province of Pannonia. It had a river harbour, fortifications, termae, aqueducts, several cemeteries and a mint. During Diocletian's rule it became a capital of the province *Pannonia Savia*. The Western Necropolis was formed in the north-eastern section of Pogorelac. The goods and elements of costume from the thus far examined grave goods and the burial rites (exclusively skeletal interments) date this necropolis to Late Antiquity, from the end of the 3rd to the first half of the 5th century AD. Continuous archaeological excavations at Pogorelec started in 2012, led by Archaeological Museum in Zagreb, uncovered a total of 28 skeletal burials. Additionally, sixty-five graves were excavated during a rescue excavation conducted by the private company Arheolog d.o.o. in 2013 and 2014. The 28 skeletons excavated by the Archaeological Museum in Zagreb underwent full anthropological analysis[24] and comprised of 12 males, 7 females and 7 sub-adults. The individuals had a range of pathologies, including 2 individuals with possible cases of Leprosy. A sub-sample of 6 individuals was selected for a fine detailed study of the health, diet and mobility in Roman Siscia.

Health

A sub-sample of six individuals from Sisak underwent full osteorchaeological analysis. Age and sex were estimated according to established guidelines[25] to ascertain the demographic profile on a group level. Each individual was analysed for pathology and trauma to explore the health of the individuals of Roman Siscia.

The six adult individuals comprised of 4 males and 2 females, consisting of 5 young adults and 1 middle aged adult. These individuals exhibited a wide range of pathologies.

Joint and vertebral diseases

The individuals showed signs of a range of joint and vertebral diseases. Two individuals showed signs of osteoarthritis: skeleton 13 had osteoarthritis in their left shoulder, hips and knees, and skeleton 20 had osteoarthritis in their left shoulder. Finally, 5 of the 6 individuals had vertebral osteoarthritis.

Osteoarthritis is characterised by a deterioration of the bone and cartilage in one or more joints, resulting in pain, swelling and stiffness in a living individual. The typical age for the onset of osteoarthritis is during middle or old age and is often regarded as an unavoidable consequence of the aging process.[26] Previous research has shown that osteoarthritis can be caused by a range of factors such as age, sex, genetics and systemic inflammation.[27] In addition to this intense physical demands and mechanical stress, strain can also be a contributing factor.[28] Consequently, studies have explored links between osteoarthritis and specific occupational or habitual practices.[29]

All the individuals showed signs of vertebral pathology. All six individuals showed signs of intervertebral disc disease (IVD), present along the entire spinal column. IVD results in pitting on the surface of the vertebral body and bone formation on the margins of the intervertebral disc. IVD is very common in skeletal assemblages and can be caused by many factors, including trauma, mechanical loading and a genetic predisposition.[30]

All 6 individuals had Schmorl's nodes present. Schmorl's nodes are depressions on vertebrae due to herniation of the intervertebral disc into the vertebral body. Their cause is multi-factorial, a combination of genetic predisposition, disc shape and physical strain and trauma.[31]

24 Bedić 2014; 2016; 2017; 2020.

25 Buikstra, Ubelaker 1994.

26 Burt *et al.* 2013.

27 Malemud 2015.

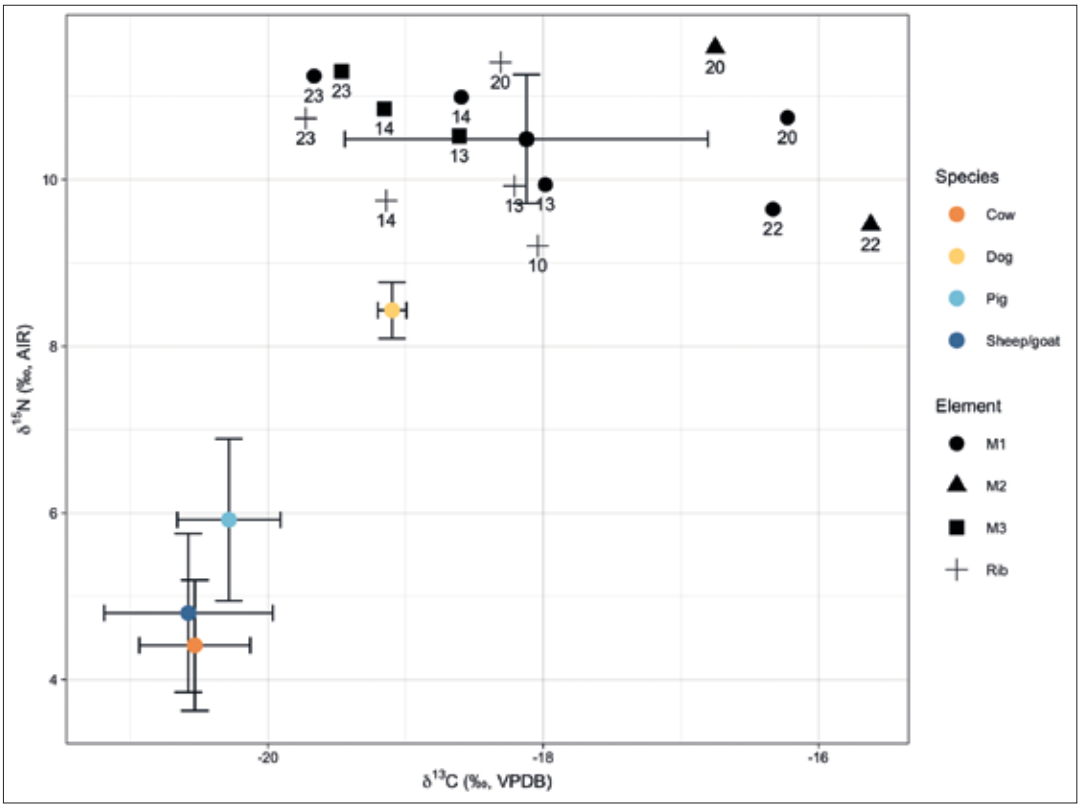
28 Rogers, Waldron 1995.

29 Zhang *et al.* 2017; Robson Brown, Pollintine, Adams 2008.

30 Waldron 2008; Urban, Roberts 2003.

31 Azzouzi, Ichchou 2022.

FIGURE 4.
$\delta^{13}C$ and $\delta^{15}N$ values for individuals from Sisak (black) compared to animal data (mean and standard deviations for each animal). Animal data was obtained from Zadar-Relja (Lightfoot *et al* 2012).



Metabolic disorders

Evidence of metabolic disorders, which are caused by deficiencies or surpluses in minerals, were present in half the individuals studied. Porous lesions of the orbital roof (termed cribra orbitalia) were present in 3 individuals (one male and two females), these were healed in one individual but active in the remaining two individuals. Three of the six individuals had porous lesions on the cranial vault (porotic hyperostosis). One individual (skeleton 22) had evidence of both. The exact cause of these lesions is not known, but they are often used as an indicator of stress and have been linked to conditions such as anemia.[32]

Infectious disease and trauma

Several individuals exhibited signs of infection. Two individuals had porosity on the bones of the lower leg, tibia and fibula. This is a sign of non-specific infection, possibly the result of trauma or damage to the soft tissue. Two further individuals exhibited porosity on the intercostal surface of the ribs. This could possibly be the result of a lower respiratory tract infection.[33]

Several of the individuals showed signs of trauma. Two individuals have several healed fractures. Skeleton 13 had a poorly healed fracture to the left radius and ulna, a fracture to their rib, thumb bones and a compression fracture to their thoracic vertebra. Skeleton 22 had a poorly healed fracture to their lumbar vertebra and a fracture to their left clavicle. Finally, skeleton 10 had a healed fracture to the left ulna and radius with signs of secondary infection.

Dental disease

Frequencies of calculus (mineralised plaque) and caries can be used to assess relative levels of proteins versus carbohydrate within an individual's diet. High levels of calculus are often found in populations with diets high in protein. Conversely, dental calculus is often observed in populations that consume diets high in carbohydrates.[34] Four of the individuals under study had both caries and calculus present on their dentition. In addition, four out of the six individuals studied had enamel hypoplasia. These shallow horizontal grooves, encircling the tooth crown, are associated with childhood illnesses or nutritional deficiencies/malnutrition.[35]

32 Brickley 2018, Zarifa *et al.* 2016.

33 Davies–Barrett, Antoine, Roberts 2019.

34 Forshaw 2014.

35 Goodman, Rose 1990.

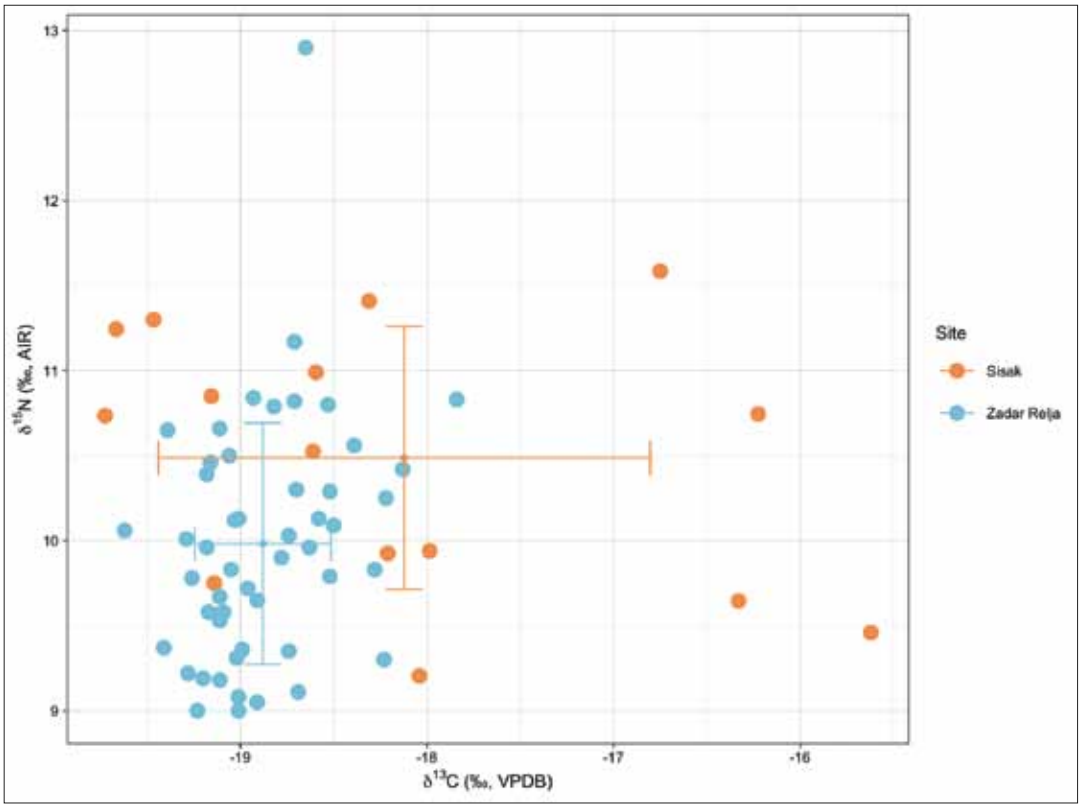


FIGURE 5.
$\delta^{13}C$ and $\delta^{15}N$ values for individuals from Sisak (orange) compared to individuals from Zadar-Relja (blue). Zadar-Relja human data obtained from (Lightfoot *et al* 2012).

Diet and mobility

Diet and mobility were studied using carbon, nitrogen and strontium isotopes. These were taken from a range of skeletal elements to obtain a detailed picture of diet and mobility over the life of the individuals from Sisak.

Bodily tissues remodel at different rates, which means they can provide a snapshot from specific intervals across a person's life. Teeth can provide a signature for earlier life, as teeth erupt at a regular rate and do not remodel after they are formed.[36] Teeth, therefore, can provide isotopic signatures for when they are formed. Conversely, bones undergo continuous remodeling, throughout life, with different bones remodeling at different rates. For example, ribs have a relatively fast turnover rate, due to constant loading during respiration, and are thought to provide isotopic signature within the last 10 years of an individual's life.

Samples were obtained from multiple skeletal elements to allow the reconstruction of a timeline, from childhood to adulthood, of diet and mobility at an individual level. First molars (M1) and third molars (M3) were chosen to represent childhood and early adulthood respectively, if either were not present a second molar (M2) was selected, and ribs were used for a snapshot of later life.

Diet

Carbon ($\delta^{13}C$) and nitrogen ($\delta^{15}N$) isotopes were analysed to explore dietary differences. Carbon isotope ratios distinguish the contribution of C3 and C4 plants, as these have different non-overlapping isotopic ratios.[37] These values are enriched by approximately 5‰ from diet to body tissue. Most plants utilise the C3 pathway, while plants in arid climates use the C4 pathway, such as corn, sorghum, sugarcane, millet and grasses. A figure of –18 ‰ is often used in isotopic studies to define a point at which the input of C4 foodstuffs can be firmly identified.[38]

Nitrogen isotope values indicate the relative amount of animal protein (meat or milk) consumed. Nitrogen stable isotope ratios increase by 3–5‰ with each trophic level.[39] The consumption of marine and freshwater species also increases nitrogen stable isotope ratios, variable depending on the environment, ranging

36 AlQahtani, Hector, Liversidge 2010.

37 O'Leary 1988.

38 Lightfoot, Liu, Jones 2013.

39 Bocherens, Drucker 2003; Schoeninger, DeNiro 1984.

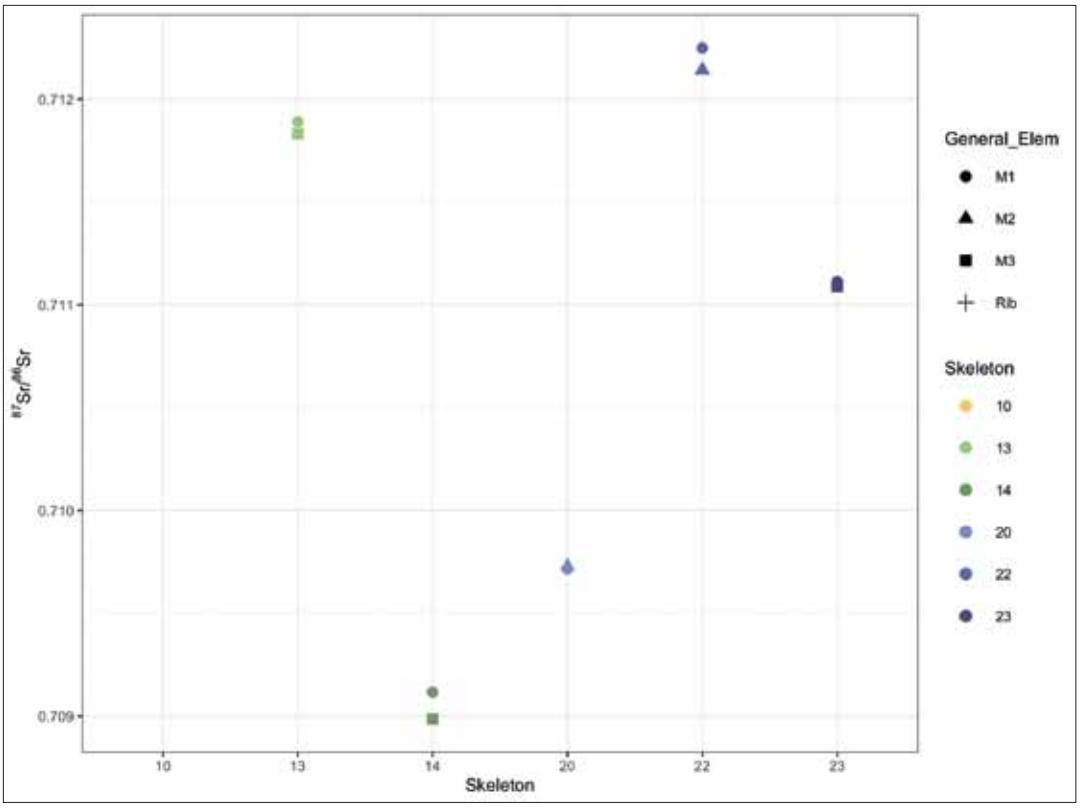


FIGURE 6.
$^{87}Sr/^{86}Sr$ values for each individual from Sisak (no strontium isotopes could be obtained for skeleton 10).

between 12–22‰.[40] Animal isotopic values, from a range of species, are needed to provide a baseline from which to interpret human data. Here, animal and human comparison data from the contemporaneous site of Zadar-Relja, a large urban Roman cemetery dating to 200–400 AD, were used to interpret the results obtained from Sisak.[41]

The average $\delta^{13}C$ and $\delta^{15}N$ results for the individuals from Sisak were –18.12 ± 1.31‰ and 10.48 ± 0.77‰ respectively. Overall, the diet of these individuals appears to consist of animal products and predominantly C3 plants, such as wheat, barley and legumes. The nitrogen isotope human-animal offset values of 4–5‰ suggest the consumption of high trophic level protein, perhaps freshwater fish (Figure 4). This picture is slightly different for 2 individuals, a male (skeleton 20) and a female (skeleton 22), have higher $\delta^{13}C$ molar values. This suggests that these individuals consumed C4 plants, perhaps millet, during their childhood.

When compared with individuals from Zadar-Relja, the diet of the individuals from Sisak appears to be far more varied (Figure 5). The individuals from Sisak have a broader range of $\delta^{13}C$ values, indicating a more varied consumption of plants. The $\delta^{15}N$ values of the individuals from Sisak are generally higher than the individuals from Zadar-Relja, indicating the consumption of higher proportions of meat and/or high trophic level proteins, such as freshwater fish.

Mobility

Strontium ($^{87}Sr/^{86}Sr$) isotopes ratios can be used to reconstruct past mobility patterns, allowing the estimation of whether an individual grew up locally to the site they were buried.[42] Strontium values reflect the underlying geology, entering the food chain through weathering of bedrock which is then incorporated into the skeleton.[43] Unlike teeth, bone accumulates strontium values from burial environment. Therefore, only dental samples are generally used to explore mobility using $^{87}Sr/^{86}Sr$ isotopes. By comparing local $^{87}Sr/^{86}Sr$ values with the values obtained from an individual, researchers can identify individuals with a non-local childhood. Unfortunately, no local strontium baseline is available for Sisak.

40 Dufour, Bocherens, Mariotti 1999; Schoeninger, DeNiro 1984.

41 Lightfoot, Šlaus, O'Connell 2012.

42 Slovak, Paytan 2011.

43 Bentley 2006.

The strontium isotopic signatures appear to go relatively unchanged from childhood to early adulthood (Figure 6). The strontium results do appear to cluster into 2 groups: 1) skeleton 14 (a male) and skeleton 20 (a female), 2) skeleton 13 (a male), skeleton 22 (a male) and skeleton 23 (a male). This may indicate that the individuals in the different groups had their childhoods in different localities to each other. However, further strontium baseline data is needed to confirm this.

Health, diet and mobility in Roman Siscia

Health

By looking at the prevalence of pathologies in the individuals from Sisak we can get a picture of their lives. On the whole, the people of Roman Siscia appear to have been in relatively poor health. The high incidence rates of cribra orbitalia, porotic hyperstosis and enamel hypoplasia, points to deficiencies, possibly dietary, and stress. This is supported by the prevalence observed across the 28 individuals, with 8 of the 28 exhibiting signs of cribra orbitalia and/or porotic hyperostosis and 8 of 28 having enamel hypoplasia.[44] The presence of active lesions on bone and the enamel of the crown, which forms in childhood, suggests that these deficiencies and stress were present throughout their lives. In addition to this, the high incidence of joint pathologies and trauma suggests high levels of strenuous activity. Finally, the presence of caries and calculus in all individuals under study points to a diet comprised of a high amount of both carbohydrates and meat.

Diet

Archaeobotanical and stable isotope results have highlighted the increase in millet, a C4 plant, consumption in continental Croatia during the Iron Age.[45] This includes archaeobotanical evidence, a pot filled with foxtail and broomcorn millet, from Iron Age Sisak.[46] The Roman period that followed saw an influx of people, ideas and food, resulting in changes in diet and cuisine. During the Roman period, foodstuffs spread across the Empire, introducing new species as items for trade. The urban settlement of Siscia with its river port, would have undoubtedly received new foodstuffs.

The isotopic evidence from Sisak supports the introduction of new food stuffs during the Roman period, pointing to the predominant reliance on C3 plants. This aligns with cereals and pulses being a dietary staple of the Roman Period. This is supported by archaeobotanical remains recovered from various sites across Pannonia. These include wheat, spelt, emmer, millet, rye, lentil, pea, oil crops, fruits and vegetables. This is further supported by the range of pottery types discovered that indicate the consumption of dried fruits, garum and olive oil.[47]

Zooarchaeological evidence from Roman Croatia indicate that the main animal species raised were caprids (sheep and goat), alongside smaller numbers of domestic cattle, pig, horse, and dog.[48] The isotopic evidence from Sisak suggests that the individuals consumed a high protein diet, which may have comprised of these species. It is also possible that they were consuming freshwater fish, supported by Sisak's locality on the banks of the Kupa River.

Mobility

Mobility was prevalent across the Roman Empire, involving the spread of people, objects and ideas. The carbon and nitrogen isotopic evidence points to the movement of new food stuffs. The stability of the strontium isotopes within each individual indicates little movement of these individuals across their childhoods to early adulthood. Conversely, the differences between individuals may suggest two different groups. However, further strontium baseline data is needed to confirm this theory.

44 Bedić 2014; 2016; 2017; 2020.

45 Reed 2016; Lightfoot, Liu, Jones 2013.

46 Reed, Drnić 2016.

47 Reed 2016.

48 Lightfoot *et al.* 2015.

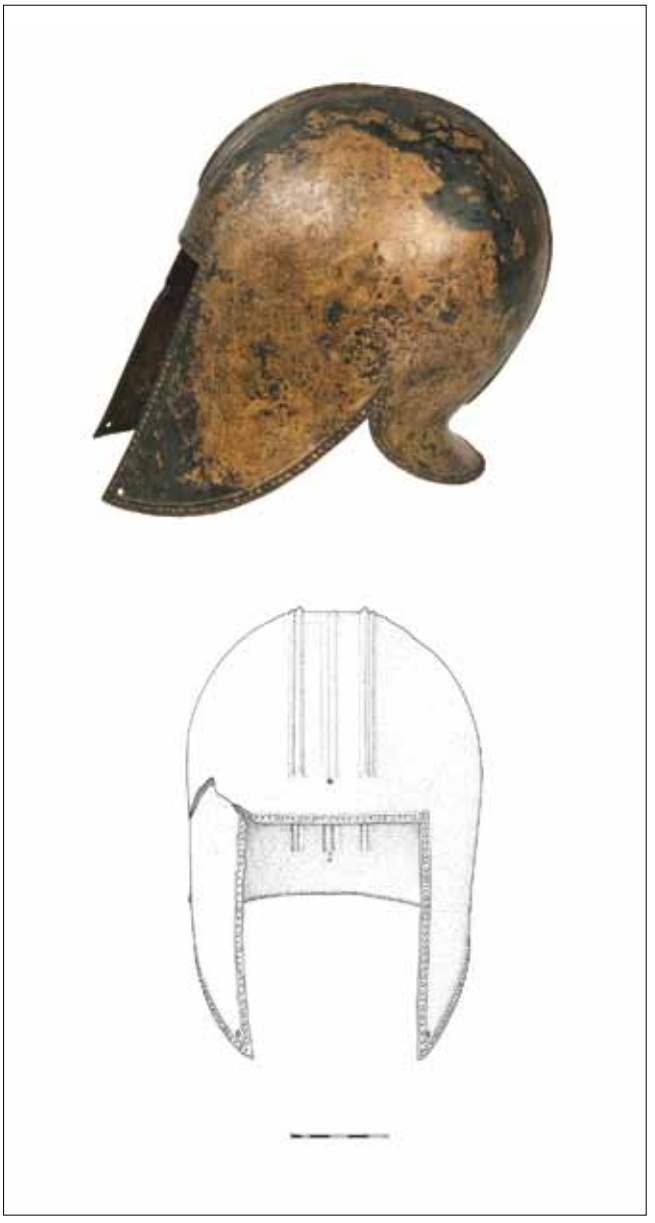
Kristina Brkić Drnić

Illyrian-type helmet

An Illyrian-type helmet of unknown manufacture, dating from the second half of the 6th to the second half of the 5th century BC, was found during dredging of the Kupa River in Sisak.

The completely preserved Illyrian-type helmet was made of copper alloy. The helmet is characterized by a rounded calotte, elongated triangular cheek-guards, a rectangular face opening and a short neck-guard. A crest holder is positioned in the middle of the calotte, flanked by two vertical ribs, with three incised parallel lines in between. The edge of the helmet is decorated with ribbon that bears a row of rivets with rounded heads for fixing the lining made of organic material. Double perforations on the cheekguards were used for fastening the helmet during use. Based on the latter, the helmet is classified as variant III A1a.[49] Since it was retrieved from the riverbed, the helmet lacks the characteristic green patina.

The life story of this exceptional archaeological find starts with its production. Although the location of the workshop is unknown, analogies of this helmet type date its production to the period from the second half of the 6th to the second half of the 5th century BC. The possibility of a slightly later date is indicated by the well-known grave of the 'brothers in arms' from Kapiteljska Njiva in Novo Mesto (VII/19), dated to the second half of the 5th century BC.[50] The unknown origin of the helmet makes a reconstruction of its journey to Segestica almost impossible. It is known that Illyrian-type helmets of the same variant circulated over a large area between Macedonia in the south, the Banat region in the northeast and the Dolenjska and Kvarner in the northwest. Together with the archaeological finds from Novo Mesto and Putićevo near Travnik, it points to the existence of the communication route which connected the Iron Age communities in the Western Balkans, the Pokuplje area and the Dolenjska region. The favorable position of the Iron Age settlement of Segestica at the confluence of the Kupa and Sava rivers and at the crossroads



49 Drnić 2020.

50 Drnić 2020.

of three geographical regions – the southeastern Alps, southern Pannonia and the Western Balkans – enabled the influx of various imported luxurious goods from remote areas. This communication network provided much more than trade and exchange – it ensured transfer of ideologies, concepts, practices and ideas.[51]

The biography of this helmet is characterised by a unique, powerful ideology that was widespread across the territory of Western and Central Europe, the Apennine Peninsula, the Balkans, and Greece. It was shared by distinguished individuals, members of the Iron Age warrior elite, who had special positions in their communities.[52] The find of the Illyrian-type helmet confirms the existence of such an elite social class in Late Halstatt Segestica. Its members were prominent during their lifetime, and were therefore escorted to the afterlife in a manner worthy of their significance – buried with their weaponry, the silent witness of former glory. In addition to weaponry, some other finds connected with the warrior ethos have been placed in tombs as well: feasting sets that included both metal and ceramic vessels, toiletries (razors, tweezers), iron grills and firedogs, and hunting weapons such as arrowheads.[53]

There is a gap in the chapter of this object's biography dedicated to its use and its owner. It must have been the property of a member of the Segestica's warrior elite, who belonged to inhabitants of higher social status. Furthermore, he was important and powerful enough to be able to obtain this valuable object by exchange, trade or gift exchange. For him, the helmet was much more than a purely defensive weapon of just functional use – it was a symbolic indicator of the high position of its owner not only in the warrior hierarchy, but within the social structure of the community as a whole. In addition to the helmet, his weaponry could have consisted of a shield, protectors for the lower legs (greaves), an axe, one or several spears, and a single-bladed sword (mahaira, falcata). The data on the Late Halstatt warrior equipment comes from burials and figural depictions, notably those coming from the context of situla art.[54]

The helmet was found during dredging of the Kupa River and therefore lacks a proper archaeological context. Did it experience a shift from a functional defensive weapon to a status symbol as a grave good? And if so, how did it end up in the river? Since no graves from the Late Halstatt period have been found in Sisak so far, these questions remain unanswered for the time being.[55] However, there is another interesting possibility of how the helmet got into the fold of the Kupa River. The ritual of depositing metal finds into water contexts is an ancient practice that probably began in the early periods of prehistory. After its peak in the Late Bronze Age, followed by a decline in the Early Iron Age, the ritual reappeared in the Late Iron Age. During that period, rivers, lakes, and springs throughout Western and Central Europe have taken numerous different objects into their fold – from weapons and horse-riding equipment to pieces of attire and bronze vessels.[56] Was it a gift dedicated by a distinguished member of the Segestica's warrior elite to some powerful ancient gods? Did it experience a shift from an object of functional use to an item associated with ritual activity? We will never find out the answers to these questions, but some things we already know. Although this is the only Illyrian-type helmet found so far in Sisak, it points to the presence of an elite class of warriors in Late Halstatt Segestica who could possess such a valuable object. It carried symbolisms of the class and status of the owner in the military hierarchy and in the society as a whole. Its appearance long ago aroused admiration and respect that, after millennia of hiding in the muddy riverbed, are awaken once again.

Etruscan bronze ladle (*simpulum*)

A bronze ladle (*simpulum*), dated to the late 6th and 5th centuries BC, probably of Etruscan origin, was recovered during dreding of the riverbed of the Kupa River in Sisak.

The fully preserved *simpulum* has a shallow, calotte-like receptacle and a vertical handle with a rectangular cross-section that widens slightly towards the end. The handle ends in the shape of a waterfowl's head, possibly a swan. The height of the simpulum is 28 cm, and the diameter of the receptacle is 6.5 cm. Traces of weathering by the muddy riverbed are visible on the surface of the object.

The biography of this remarkable bronze artefact not only tells its story, but also gives an insight into the life, status and importance of the Iron Age settlement at the site of Sisak-Pogorelac, known as Segestica. The exact place of manufacture of the simpulum is not known, but it was certainly made of a copper alloy in a manufactory with a high level of craftsmanship specialisation. The dating of *simpula* of the same type made in ancient Etruria to the late 6th and 5th centuries BC is based on archaeological finds in tombs on the Appenine Peninsula. However, although this artefact most probably comes from an Etruscan workshop, similar objects of the same type were found in the 4th century BC. During the same period, they were also used in Magna Graecia and Thrace, as well as in remote areas of Scythian kurgans. Similar to the younger Greek and Macedonian specimens, it differs from the Late Republican *simpula*.[57] Although it was made in a remote area, its arrival in Segestica is not a surprise. Indeed, the famous Iron Age settlement was founded in an exceptionally favourable location at the confluence of the Kupa and Sava rivers. Since the earliest periods of prehistory, the Kupa River was the most important traffic route between the Eastern Alps and the middle Danube region.[58]

51 Drnić 2020.
52 Drnić 2020; Blečić 2007.
53 Drnić 2020.
54 Drnić 2020.
55 Drnić 2020.
56 Gaspari 2007; Balen, Drnić, Mihelić 2012; Drnić 2014; Drnić 2020.
57 Castoldi 1995; Castoldi, Feugere 1991; Drnić 2020.
58 Drnić 2020.

The location of the settlement at the crossroads of three geographical regions – the southeastern Alps, southern Pannonia and the western Balkans – made it one of the most important centers of the Iron Age communication network. This network enabled the circulation of ideas and influences and ensured a flourishing trade and exchange.[59] It is not possible to determine whether the simpulum came to Segestica through exchange, trade, or gift exchange, but its presence, along with several other bronze objects of Italian provenance, confirms the location of the settlement on the main communication routes between the Mediterranean and mainland Europe. It also indicates that some of the inhabitants of Segestica had a higher social status and belonged to the Iron Age elite. For them, luxurious items such as the *simpulum* were not only commodities, but also indicators of social status, wealth, and power.

The *simpulum* could have been used in two different contexts: as a utilitarian object and in a ritual. At banquets – *symposia* – wine was prepared in larger vessels and then scooped with the *simpulum* to pour into glasses. Details from these events, including complete *symposia* with *simpula* as an integral part, were immortalized on representations of feasts on bronze situlae, such as the well-known examples from Vače and Magdalenska Gora. In addition to situla art, evidence of the *simpula's* function in feasts has also been found in graves containing parts of the sets used in *symposia*.[60]

The *simpulum* indicates the existence of a social group whose members could acquire these objects and confirm their high social status through their use and presentation. The owner of the *simpulum* was a member of the Iron Age Segestica elite, who probably belonged to the Late Hallstatt warrior class. Members of this class possessed various valuable items – from weapons and riding equipment to precious metal vessels, including sympotic sets. It is not known whether this *simpulum* underwent a change of function or whether it was used only for utilitarian or ritual purposes. In addition to its use in sympotic events, it may also have been used for ritual, religious purposes – to perform liquid sacrifices called libations.[61] The exact purpose and duration of its use are unknown. But this is not the only unsolved part of its biography. The circumstances of the *simpulum's* arrival in the murky waters of the Kupa River remain unclear. Moreover, the context of this valuable archaeological find complicates its interpretation. One possibility is also related to the ritual actions – the ritual dropping of certain objects into the water. Numerous archaeological finds, from simple ceramic vessels to luxury objects such as the Illyrian-type helmet and this *simpulum*, were recovered from the riverbed during dredging of the Kupa River.[62] Was the simpulum a gift to a deity whose wrath was to be soothed or who had a request to fulfill?

We will never know the answers to these questions, nor many other details from the chapters of this object's biography. But some things we can state with certainty. This precious metal vessel came to Iron Age Segestica through exchange, trade, or gift exchange and was the property of a member of the higher social class. Long ago, in ancient times, its presence indicated the importance, status and wealth of its owner, and still honours him in this exhibition catalogue.

Glass *balsamarium*

A glass *balsamarium*, imported to Roman Siscia from an unknown workshop, is dated to the second half of the 4th century AD. It was found as a grave good during the archaeological excavation of the Roman necropolis at the Sisak-Pogorelac site in 2016.

The Roman glass *balsamarium* is completely preserved. It is characterized by an irregular, square body shape with round indentations on the walls. Indentations were made by pressing warm

59 Drnić 2020.

60 Drnić 2020.

61 Drnić 2020.

glass. It has a tubular rim that continues into a wide slightly funnel-shaped neck. The rim was folded over and rolled in, with a bulging outer edge. It has a base that is round and concave. The height of the balsamarium is 6.5 cm, a rim diameter 3.4 cm, a bottom diameter 2.6 cm. It was made of naturally coloured glass, the pale greenish yellow colour deriving from iron oxides in the raw material. The *balsamarium* was manufactured using a free-blowing technique.

This beautiful Roman glass vessel was found during archaeological excavation at the Sisak-Pogorelac site in 2016. Although being of utmost importance for its Iron Age cultural layers, the site was occupied in the Roman era as shown by one of the necropolises of the ancient Siscia. The glass *balsamarium* was found as a grave good in grave 21, located in Trench 4. Grave 21 is part of a group of four burials (graves 6, 8, 10, 21), found on the southern part of the investigated trench. Graves were laid above one another, without disturbing any earlier graves or subsequent disturbance by later burials. Grave 21 appears to be the earliest of four burials of the group. Grave goods consisted of a shallow bowl, a juglet and the glass *balsamarium*, all placed next to the left leg. Ten biconical beeds of blue (9 pieces) and green (1 piece) glass were found on the lower side of the skull, possibly attached to clothes. Grave goods also included two bronze coins found next to the pelvis: AE3 of Emperor Constans, minted in Thessaloniki between the years AD 348–350 and AE2 of Emperor Decentius, minted in Aquileia in the year AD 351. Above the head of the individual was a large iron clamp with remains of wood, which probably represents the remains of a coffin. Anthropological analysis suggests that the deceased was a female of 40 to 45 years of age.[63]

Grave 21, based on coins, dates to the second half of the 4th century AD. Placing grave goods next to the deceased was a common practice in the Roman period.

The biography of an object is much more than just its story, since every object shares an unbreakable bond with people who crossed its path. In the case of this glass *balsamarium*, there is a certain number of them, from the manufacturer and the merchant to the deceased woman and her family members. Therefore, this object's biography starts with the manufacturer who made it. The object was made using a free-blowing technique, a new revolutionary technique which occured in the 1st century BC and simplified the production process. As a result, glass products lost their status as luxury goods and became affordable to a larger number of customers. Although archaeological finds of raw and melted glass, as well as the remains of glassworking furnace[64], point to the existance of secondary glass production in Siscia, the *balsamarium* probably was not made there. This specimen is one of two known glass *balsamaria* with indentations on the walls from ancient Siscia, a rare *balsamarium* type, with the closest analogy found as a grave good at the Late Roman cemetery in Štrbinci near Đakovo.[65] Other *balsamaria* of this type are known from archaeological sites in Dalmatia, Slovenia, Serbia, Hungary and Switzerland.[66] *Balsamaria* with indentations on the walls originate from Syro-Palestinian workshops, from where they spread to other workshops across the Roman Empire.[67] Since this *balsamarium* type is a rare find not only in northern Croatia, but the Roman territory in general, and because all the known specimens were differently manufactured[68], the locations of the workshops are still a mystery. Therefore, it is hard to reconstruct how the *balsamarium* came to Siscia – via one of the roads which passed through the city, or by river? In any case, the *balsamarium's* arrival was probably connected with trade.

Spread across the Roman world, objects made of glass were used in everyday life for various purposes – from tableware, lamps, storage and transport utensils, to jewellery production and architecture. Glass *balsamaria* were small vessels used for storage and transport of various contents: perfumes, medicins, oils, creams, balsams and dried herbs.[69] This popular type of glass vessels was used all over the Roman territory from the period of the Roman Republic to Late Antiquity. Part of the *balsamarium's* life after its arrival to Siscia opens many questions and provides no answers – it is impossible to know how it came into the de-

62 Balen, Drnić, Mihelić 2012; Drnić 2020.

63 Drnić, Groh 2018.

64 Baćani 2017.

65 Migotti, Perinić 2002; Baćani 2018.

66 Lazar 2003.

67 Lazar 2003.

68 Leljak 2014.

69 Baćani 2017.

ceased lady's possesion, was it a gift, family heirloom or did she buy it herself? Which of the above mentioned contents once filled this *balsamarium*? Was it her favorite perfume or a medicine she used to bring her relief? Having the rarity of this *balsamarium* type in mind, as well as the fact that it probably was not produced in Siscia, it may indicate a higher social status of the deceased lady. But, contrary to the *balsamarium*, the necklace of glass beads and bronze coins, pottery found in the grave, a bowl and a jug, represent plain, common, locally produced specimens. The diversity of the finds could be explained by the fact that Late Roman graves usually contain a smaller number of objects carefully selected based on their ritual meaning.

Present in almost every aspect of life, glass vessels had a place in the afterlife as well – used in cremation rituals, as urns or grave goods, they accompanied the deceased to eternity. Unlike glass urns, which were produced for a specific purpose and only to be used in burials,[70] this *balsamarium* experienced a change in function from utalitaritarian object of everyday use to a grave good used in a ritual.

The *balsamarium* tells more than just its story – it gives insight into circulation of glass objects and represents a valuable analogy for other specimens of this rare type. Due to its beauty and rarity, the balsamarium was presented to the public during two exhibitions: *Glass of Siscia* and *Necropolises of Siscia*.[71] But, it was just the beginning of its final life chapter – more publications and exhibitions, including this one, are waiting just behind the corner.

Gold beaded necklace

A gold beaded necklace, probably imported to Siscia, dating from the end of the 3rd to the first half of the 5th century AD, was found in a grave during the archaeological excavation of the Roman necropolis at the site of Sisak-Pogorelac in 2015.

The gold beaded necklace consists of 32 hollow, barrel-shaped beads of square cross-section, completely preserved. The beads are made of gold sheet. Due to fragility of the sheet, some of the beads have not maintained their original shape. Every bead has a round indentation with a shallow impressed circle on each of the four sides. Alternating cylindrical and slightly funnel-shaped tangents allow the beads to connect with each other, creating a seamless appearance. Since the organic string which was keeping the necklace together disintegrated over time, a restorator has placed the beads on a new string in order to make it resemble the original necklace. The beads have a height of 0.4–0.45 cm, diameter of 0.25–0.3 cm, and, with the string included, a weight 1.9 g.

Sisak-Pogorelac is importanat multi-period site with three distinctive chronological phases: Iron-Age settlement Segestica, part of Roman Siscia outside the city walls (*extra murros*) and Western Roman necropolis. In 2015, during archaeological excavation of Trench 4, grave 18 was found. The legs and feet of the deceased were destroyed by the inhumation of the later grave 13. Anthropological analysis has revealed that grave 18 belongs to a female of 25–35 years of age.[72] Although the deceased lady was buried with only one grave good, its value and beauty surpasses all other grave goods found in the necropolis so far – she was laid to rest with a gold beaded necklace, the only indicator of her social status and wealth, placed above her pelvis. While 31 beads have been found together, one bead was located a little higher, above the second lumbar vertebra.[73]

The gold beads probably represent a variant of gold barrel-shaped (or vase-shaped according to some authors) beads with funnel-shaped tangents and a round cross-section. These beads appear in two variants: undecorated or decorated with horizontal grooves. In order to compose a necklace the beads were threaded together alone or combined with dark green glass beads. The beads from Siscia are distinguishable by their square cross-section and complex decoration. Its uniqueness could potentially be explained by the uniformity of the Late Roman artisanal production, and imitation of small number of basic types by provincial workshops, which, consequently, led to variants different only in details.[74] Although identical beads are not present in currently available literature, similar beads have been found during archaeological excavations of the Late Roman necropolises in Štrbinci near Đakovo, Zmajevac, Jagodin Mala near Niš and Budaörs.[75]

70 Baćani 2017.

71 Baćani 2017; Baćani, Tomaš Barišić (eds.) 2018.

72 The anthropological analysis of all human remains from the Western Necropolis of Siscia was carried out by Dr. Željka Bedić.

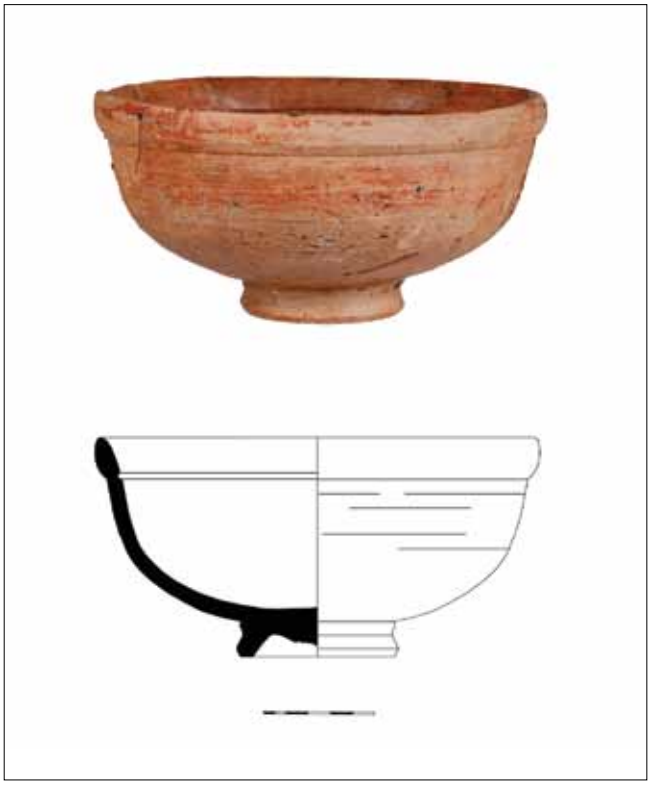
73 Drnić, Groh 2018.

74 Migotti, Perinić 2002.

75 Migotti 2009; Filipović 2010; Jeremić 2013; Katalin 2016.

Some object biographies are harder to reconstruct than others, as in the case of this necklace, and although some parts of its life journey are currently a mystery, it still has an interesting story to tell. Although Siscia was a production center with established pottery, glass and metal workshops, as well as a well-known mint from the Late Roman period, no archaeological traces of goldsmithing have been found so far. The current absence of analogies from Siscia, including the fact that manufacture of this jewellery required high artisanal specialisation, indicates that the necklace probably was not produced in this Roman city. Therefore, it probably arrived to Siscia by trade. The advantageous position of Siscia at the intersection of Roman roads leading to Emona–Aquileia, Poetovio, Mursa with a section towards Sirmium, Senia, and Sirmium with a section towards Salona, as well as the navigable rivers Kupa and Sava,[76] enabled formation of a transitional and trading center. The following part of the object's biography is also impossible to determine, due to the uncertainty of the necklace's circulation. There are different ways in which the necklace could have come into the deceased lady's possesion: by trade, as a gift exchange, or a family heirloom. Although gift exchange seems the most likely, heirloom cannot be excluded. As a family heritage and witness of its wealth, status, and history, precious jewellery sometimes passed down from generation to generation. Consequently, it is hard to speculate about the duration of its use.

Yet, the final part of the necklace's life journey can be almost certainly reconstructed. The necklace experienced a transition from an item of personal adornment and signifier of affluence and prosperity, to a grave good with ritual and religious importance, incorporated in the funerary ritual. It is important to emphasise that all objects found in a grave are not necessarily grave goods in the full sense of the word – there is a difference between 'real' grave goods, which were placed next to deceased, and objects that were integral elements of clothing. Yet, archaeological finds that were a part of a costume could have had a ritual meaning as well. The decision about the burial of the deceased with or without clothing and decorations was, in many cases, based on a ritual, rather than social status or wealth.[77] Considering its position in the burial, the gold beaded necklace from grave 18 was indeed a grave good in the full sense of the word. Since it was the only grave good, and therefore probably carefully chosen, the placement of the necklace in the grave was ritually conditioned. Roman women of medium and higher social status were usually laid to rest with one pair of earrings, a necklace, one or more bracelets and, rarely, a ring. Yet, a number of jewellery items was not the real indicator of social status and wealth – nobleness of the material was more important than the quantity of objects.[78] Therefore, although burried with only one grave good, the deceased lady belonged to a group of wealthy inhabitants of higher social status of Late Roman Siscia.



After excavation and post-excavation procedures, the necklace found its place on a shelf in the Archaeological Museum in Zagreb. The missing string of organic material, which disintegrated as the time went by, was replaced with a new one in order to restore its initial beauty and shape. Although the necklace is currently separated from its owner, their ritual and religious bonds connect them for eternity.

Pannonische Glanztonware bowl

During the archaeological excavation at the Sisak-Pogorelac site in 2014, a Roman *Pannonische Glanztonware* bowl, most likely a product of a local manufacturer, was found. It dates from the last quarter of the 3rd to the first quarter of the 4th century AD, and was discovered as a grave good of a child.

This bowl is entirely preserved even though it was reconstructed from several fragments. It has the same ring base, semiglobular body, and a fairly thick, somewhat outcurving rim as Dragendorff 37 *terra sigillata* type. The red gloss of inferior quality has largely faded and peeled. Fine, micaceous clay distinguishes the bowl's fabric. The bowl is 7.1 cm high, with the rim diameter of 14.2 cm and the base diameter of 5.2 cm, and it weights 282 grams. Its colour could be described as 2.5 YR 4/8 red which faded to 5 YR 5/6 yellowish red.

76 Durman 1992.

77 Migotti, Perinić 2002.

78 Migotti, Perinić 2002.

The object's biography will be discussed starting with its very creation by a certain potter. It is challenging to find out whether this bowl was created locally or if it was imported to Siscia without further analysis, such as clay tests. There are arguments that point to a local potter as the maker of this bowl. Ancient Siscia was given the status of a Roman colony, *Colonia Flavia Siscia*, by Emperor Vespasian in AD 71. The city was designated as the provincial capital of *Pannonia Savia* during the reign of Emperor Diocletian.

It is evident from Siscia's aforementioned status as well as the artifacts recovered from several archaeological excavations that the city was a highly developed and significant Roman metropolis with its own workshops for the manufacturing of various goods, including pottery. Even though a Roman city of this size and importance must have had a sophisticated pottery production, there are still no obvious archaeological traces of it. Roman pottery kilns and waste pits have not yet been discovered, but hopefully future archaeological digs will reveal their existence.[79] As a result, this *Pannonische Glanztonware* bowl was presumably created by a local potter using clay from the area, but further research is required to decide whether to accept or reject this theory.

The bowl's acquisition is the beginning of the next chapter in its biography, which continues with its use as a functional vessel serving as a table or a kitchen ware. It is impossible to determine who purchased the vessel, but it might have been a member of the family of the deceased child. Also, it is challenging to ascertain how long this vessel had been in use prior to its transformation into a grave good.

It is possible that the bowl was not used for a very long time because kitchen and tableware were made for everyday use and were consequently subject to damage, ranging from mere scratches to being smashed into potsherds. After all, if we disregard cracks brought on by the weight of the soil, it was perfectly shown to be preserved.

There are various ways to look at this vessel's biography, but one of them stands out for its richness and diversity. Typically, when we discuss mobility, we refer to both people and items. The tale of the mobility of ideas, influences, and tastes is also revealed in this object's biography. In this particular instance, Roman lifestyle, fashion, food habits and pottery repertoire travelled through the Roman territory. *Pannonische Glanztonware* is a type of Roman pottery made and used all over the Roman Empire, from Greece to the Iberian Peninsula and Britain.[80] It is slip-covered pottery that is manufactured on a wheel, unadorned or embellished with rouletting or/and stamping, and burned either in oxidation or reduction. This explains why it appears in a variety of distinct colours.[81] This group of ceramics is sometimes overlooked and considered to be a local replica of *terra sigillat*a. Even though it belongs to a different pottery group, *Pannonische Glanztonware* should be considered an imitation of *terra sigillata* because it was created by regional potters to cater to people with inferior social position and financial means.[82]

Grave 1, yielding the *Pannonische Glanztonware* bowl, is the only burial in Trench 2. The deceased was found in the central part of Trench 2, buried into the rubble of the Iron Age Structure 6, without a clearly visible grave pit. The bones of the lower extremities were the only preserved part of the skeleton, which was placed in the pit and oriented east-west, with the head pointed eastward. Anthropological analysis has revealed that the deceased was a child of 10–12 years of age. Four coins, a glass balsamarium, a silver ring, and a glass bead fashioned of tourquoise-coloured glass were among the grave goods that were buried with and placed under the foot of the deceased. Another coin was found below the pelvis, while the whole *Pannonische Glanztonware* bowl was located near the skeleton. All the coins are bronze antoniniani, minted during the reigns of Galienous and Claudius II. The most recent one was minted by Claudius II, and dates from the years AD 270/271. Based on this coin, the grave and all accompanying grave goods are dated from the last quarter of the 3rd to the first quarter of the 4th century AD.[83]

For this Roman bowl, being placed in a grave represents a clear diachronic shift in function and usage, a transition from an utalitarian vessel, simple tableware, to an object incorporated in a funerary ritual and a part of ceremonial performance. When observing all the grave goods together, this piece is visibly different from the other objects. It may appear plain and insignificant compared to the glass *balsamarium*, the coloured glass bead and coins. Yet, it was important enough to the deceased child or, more likely, his or her family, to be chosen for a grave good to accompany it in the afterlife. Was it a gift from someone dear to the child, a piece they inherited or just a preffered vessel from their household, we will never know. The only thing we do know is that it was significant enough to write this chapter of its biography.

The story of this *Pannonische Glanztonware* bowl does not end with the excavation's post-procedures, including drawing, photographing, typological and chronological analysis. Additional analyses, including the ones of clay, will be preformed to reveal its analogies and exact place of origin. That would indeed be an appropriate final chapter of this Roman bowl's object biography.

79 Ožanić Roguljić, Miletić Čakširan 2022.

80 Schindler Kaudelka 2022.

81 Ožanić Roguljić, Jelinčić Vučković 2022.

82 Schindler Kaudelka 2022.

83 Drnić, Groh 2018.

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PERIOD OF THE 5TH AND BEGGINING OF THE 6TH CENTURY IN BARANJA (CROATIA)

Anita Dugonjić

Baranja is an area located in the northeastern part of the Republic of Croatia, bordered by the rivers Drava and Danube, the two important communication routes which, in the past, used to connect and separate it from the surrounding area of the Pannonian Basin (Figure 1). Owing to the abundance of water, diverse fauna, fertile soil, and natural shelters in the hilly area around Banovo Brdo, Baranja was a suitable place for permanent residence and settlement for all archaeological populations in the past, as evidenced by a great number of archaeological sites. According to its topographic specificities, Baranja can be divided into three parts: the lowland flood plain along the Drava and Danube rivers, the area of the slightly hilly loess plain stretching between Bilje–Kneževi Vinogradi–Beli Manastir–Bolman, and the hilly area of Banovo Brdo.[1] Exactly these specificities allowed various populations to settle, and establish their settlements in the 5th and beginning of the 6th century.

Despite its numerous internal conflicts in the middle of the 4th century, the Roman Empire managed to function and survive by constantly adapting its military organization to defend its vast borders (*Limes*), which were more or less constantly invaded and threatened by neighboring barbarian populations.[2] Baranja was actually located by the border area of the Roman Empire, next to the defense system along the Danube's right bank, between Batina and Osijek. The defense system included an array of smaller camps, that is a system of observation posts and forts on the Danube terraces, 4–6 kilometers apart, and connected by roads to facilitate communication.[3]

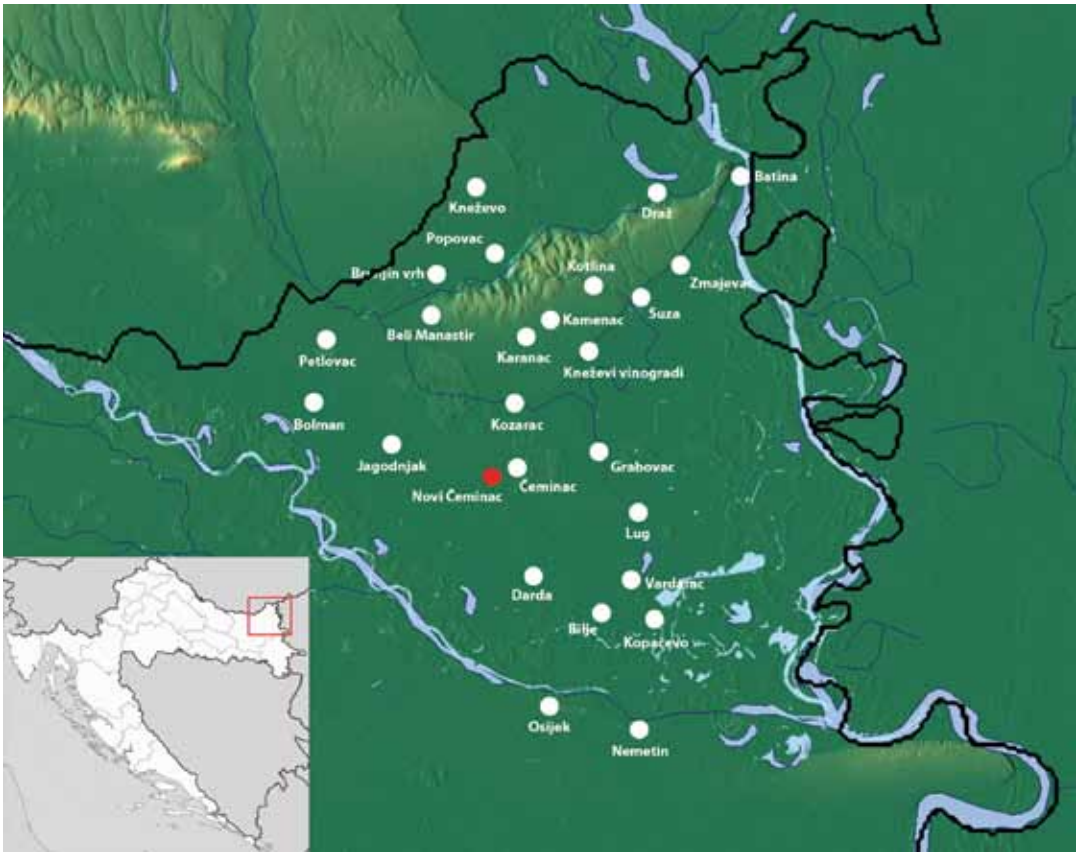
The period of crisis worsened when the nomadic Huns, who also attacked numerous East Germanic populations, threatened the eastern borders of the Roman Empire. After the defeat at Adrianople in 378, and the loss of Emperor Valens (364–378), the Empire was forced to reorganize its army. Emperor Theodosius (379–395) tried to balance the instability by forming an alliance (*foedus*) with the Goths, including them into the Roman army as allies (*foederati*).[4] Exactly at that time (end of the 4th and beginning of the 5th century), increasing numbers of Germanic and nomadic groups arrived to Pannonia in service of the Late Roman defense system. Their presence in Baranja is witnessed by chance finds and findings discovered at burial grounds of Late Roman population from the following sites: Batina,[5] Kneževi Vinogradi,[6] Lug-Crkvena ulica,[7] Zmajevac-Mocsolác.[8]

However, the imperial government who managed to build or restore certain forts in Pannonia at the beginning of the 5th century was soon confronted with an overwhelming force of the nomadic Huns, whose intrusion and settlement demonstrated their inability to adequately defend the limes. The Hunnic reign extended over almost all of Roman Pannonia in the first half of the 5th century. The demarcation between *Pannonia Valeria* ruled by the Huns, and *Syrmian Pannonia*, or *Pannonia Secunda* still under Roman authority, was in Baranja during the Hun period (433/4–455). It is difficult to say who ruled over Baranja in the first half of the 5th century, but the discovery of a sword or knife scabbard from Zmajevac (site Várhegy) with gold sheething and almandines, speaks in favor of the Huns. It is assumed that the fittings belonged to the inventory of the destroyed warrior's grave.[9]

The political situation changed with the death of Attila in the middle of the 5th century, as did the rule over the territory of the Pannonian plain – including Baranja. The Germanic period (455–568) began when the Germanic populations, the Goths and the Gepids as the most visible ones, assumed power over Pannonia, which they held until the arrival of the nomadic Avars in the second half of the 6th century. With the collapse of the Hunnic state, the Ostrogoths occupied the area from Lake Balaton to Syrmia

1 Dugonjić, Fileš Kramberger, Balen 2021, 178.
2 Bunčić (ed.) 2020, 21.
3 http://limescroatia.eu/dunavski-limes-u-hrvatskoj/
4 Bunčić (ed.) 2020, 21.
5 Dimitrijević, Kovačević, Vinski 1962, 67.
6 Dimitrijević, Kovačević, Vinski 1962, 68.
7 Vukmanić 2013, 22.
8 Filipović 2010, 40–46.
9 Demo 2014, 18–19 with bibliography.

FIGURE 1.
Position of the Novi Čeminac-Jauhov Salaš site in Baranja.



(parts of *Pannonia Valeria*, and *Syrmian Pannonia* or *Pannonia Secunda*),[10] but only for a short period of time, because the migration, which resulted in the Goths leaving to Italy at the end of the 5th century, had already begun.

A number of finds describe the period when the East Germanic populations inhabited Baranja. A burial ground with two groups of graves and settlement features with rich finds from the 5th and early 6th centuries were found at the Novi Čeminac-Jauhov salaš site,[11] and finds and settlement features from the same period were found at the neighboring site Jagodnjak-Čemin-Ciganska pošta.[12] Sporadic finds of East Germanic provenance were also recorded in Beli Manastir, at the site Ciglana, and in Popovac, at the site Šumarina. In Baranja, the influence of Germanic populations is archaeologically recognizable and visible until Justinian's Reconquista, and the fall of the Ostrogoth kingdom in the middle of the 6th century, as well as the arrival of the Avars in the second half of the 6th century.

A visible decrease in population, dissolution of larger communities, disintegration of urban communities and, consequently, a change in the composition of the population and its mobility is noticeable at the beginning of the period we are discussing (transition from the 4th to the 5th century). The Roman population, i.e. what remained of it, and did not resettle into fortified towns – the last strongholds of the Empire in Pannonia, was incorporated into the newly arrived society. An archaeologically recognisable new network of settlements and established burial grounds emerged in the 5th century. The burial grounds were usually located next to older Roman settlements, forts or villas.[13]

This process indicates a general social change, a transformation and reorganization of space. The whole process is best observed in burial grounds and burial customs. Large cemeteries of the Late Roman period lose their importance, and appearance of single graves, smaller burial grounds, or burial grounds is noticed; the graves were oriented from the west towards the east, and artificial cranial modification is a common occurence. This custom in Europe and Pannonia can be associated with the movements of the Huns, it was widespread in the 5th and 6th century, and gradually disappeared with the arrival of the Avars.[14]

10 Bunčić (ed.) 2020, 29.

11 Balen *et al.* 2016, 17–23.

12 Vrkić 2015, 36–39.

13 Vida 2007, 319–325.

14 Rácz 2016; Molnar *et al.* 2014, 2.

It is the burial grounds (Late Roman and burial grounds of new populations) that give us the most information – they indicate the common features in fashion as well as the already mentioned burial customs. The uniformity is best seen in the characteristic female clothing, which includes earrings with polyhedral endings, amber and glass bead necklaces, brooches worn on the shoulders or on the abdomen, belt buckles, bracelets, rings, and a toilet set, the most common of which are combs made of bone.[15] The so-called "women's package" refers to the uniformity and universality of women's fashion, regardless of ethnicity and geographic location. The female grave (G 4) from the Novi Čeminac-Jauhov salaš site fits into this group, where a woman with a severe artificial cranial modification was buried with golden earrings in the shape of a polyhedron filled with almandine, an amber necklace and glass beads, a pair of large bow fibulae made of gilded silver sheet which supported a cloak on her shoulders, an iron buckle on her belt decorated with incisions filled with copper alloy, and a double-sided bone comb found in her right palm.[16] A similar chance find was found at the Ciglana site in Beli Manastir (a silver bow fibulae made of hammered sheet metal),[17] and another find from this period, a fragment of a bow fibulae with three knobs made of silver with gilding, was found at the Šumarina site in Popovac.[18]

Baranja underwent economic and social changes as did the other border areas of the Roman Empire since the battle of Adrianople in 378, until the end of Justinian's Reconquista in the middle of the 6th century, and the arrival of Avars in the second half of the 6th century. The period of constant changes, especially changes in the power structure (from the Romans to the Huns to the Germanic tribes), are reflected in the material culture, but through uniformity and uniqueness in comparison to the rest of Pannonia.

FIGURE 2. Novi Čeminac-Jauhov salaš, grave 4.

Novi Čeminac-Jauhov Salaš site

The Novi Čeminac-Jauhov salaš site is located in Osijek-Baranja County, not far from the town of Beli Manastir, and was excavated in 2014 and 2015 as a part of a large-scale archaeological rescue research on the route of the A5 highway (Osijek-Beli Manastir section), conducted by the Archaeological Museum in Zagreb (Figure 1). Traces of several archaeological periods from prehistoric times (Late Copper/Early Bronze Age and Late Iron Age) and Roman period to the late Middle Ages were found and documented at the site.[19]

An interesting, and generally rarely found period in archaeological research is the Great Migration Period, which is represented on the site by settlement traces, and a burial ground. The burial ground consists of two groups of graves, about 50 meters apart from each other, distinguished as the north and south group. Ten people (five in each group) including four men, four women and two children, were discovered in the graves, laid out in an east-west direction with their heads facing west.[20]

Rich grave goods were found within the graves, which indicate the existence of a local elite that lived in Baranja in the 5th and 6th centuries. Among the most significant grave goods is the grave of a warrior buried in a wooden coffin, with a number of objects: a leather belt fastened with an iron buckle decorated with almandines, a battle knife in a scabbard hanging from it, and a pouch with preserved fittings and a buckle, in which the warrior kept an iron knife, a flint and tweezers. He also wore shoes, of which remained only two silver buckles. Anthropologi-

15 Rácz 2020, 780–789.

16 Balen *et al.* 2016, 20, Figs. 7–8.

17 Dimitrijević, Kovačević, Vinski 1962, 67–68.

18 Bojčić (ed.) 2009, 17, Fig. 6.

19 Balen 2015; Balen, Dugonjić, Đukić 2015, 55–58; Balen *et al.* 2016, 11–24; Ivanković 2016.

20 Another very poorly preserved grave was documented during the research, buried in a shallow grave pit, and separated from the two groups mentioned. The manner of burial and the contributions (ceramic vessels) in the tomb do not indicate the same period (Balen *et al.* 2016, 19).

FIGURE 3.
Reconstruction of the Germanic dwelling from Novi Čeminac-Jauhov salaš.

cal analysis revealed that the warrior had been subjected to extreme physical stress, and among other traumas, a head injury was found, showing a series of injuries that can be associated with the life of a warrior.[21]

A woman was also buried in a wooden coffin not far from the warrior's grave, adorned with rich jewellery: golden earrings with a polyhedron shaped end filled with almandine, a necklace of amber and glass beads, a pair of large bow fibulae made of gilded silver plate, and a belt with an iron buckle decorated with incisions filled with copper alloy (Figure 2). A bone comb was placed in her right palm during burial.[22] The warrior and the woman from Novi Čeminac-Jauhov salaš had an artificial cranial modification, and this practice is specific to these burial grounds, as well as to burial grounds of this period throughout Pannonia. At the Novi Čeminac-Jauhov salaš site, this practice was found in 6 out of a total of 11 skeletons, including 3 women aged 15–40, 2 adult men aged 30–40, and one child aged 6–7.[23]

The settlement part of the site is also demarcated in the immediate vicinity of the graves. It includes approximately twenty settlement units with accompanying facilities, consisting of pits, channels and postholes. The residential features were mostly square in shape, partially dug into the ground, and measured about 3 x 3 meters. Postholes were noticed in the buildings: three postholes on each of the opposite sides of the dugout, suggesting a wooden construction of the dwellings. It is believed that the walls were made of brushwood covered with clay (according to the findings of the house daub, i.e., burnt parts of the walls), and the roof was made of straw (Figure 3). Hearths or ovens were also an integral part of the dwelling – they were observed in the form of a cluster of irregularly shaped bricks in the northern and northeastern part of the dwellings or as a hearth made of burnt earth, charcoal and bricks, and even a round dome-shaped oven was found in one dwelling. A considerable number of ceramic vessels (mostly pots), conical loom weights, double-sided bone combs, bone needles, iron knives, and animal bones were found in the dwellings and adjacent features.[24] The remains of settlement features and graves with rich grave goods were dated to the 5th and early 6th century after typological-comparative analyzes, and dating with the C^{14} method.

21 Dugonjić, Fileš Kramberger, Balen 2021, 180.

22 Balen *et al.* 2016, 20, Figs. 7–8.

23 Šlaus *et al.* 2015.

24 Balen *et al.* 2016, 17–19, Figs. 5–6.

EAST GERMANIC COMMUNITY OF NOVI ČEMINAC-JAUHOV SALAŠ — HEALTH, DIET AND MOBILITY

Christianne Fernée

Excavations at the site of Novi Čeminac-Jauhov salaš revealed 11 graves that, based on grave goods, were dated to the 5th and 6th century AD and attributed to one of the East Germanic tribes. The skeletal samples comprised of 4 females, 5 males and 2 sub-adults, 6 of which had artificially deformed skulls.[25] These burials are thought to represent a single generation of kin from the migration period. A sub-sample of mature adults were analyzed to explore the health, diet and mobility of these people.

Materials and Methods

General Osteological Analysis

Six adult individuals from Novi Čeminac-Jauhov salaš underwent full osteoarcheological analysis. Age and sex were estimated according to established guidelines and analyzed for pathological and traumatic lesions to estimate the health of this group.[26]

Stable Isotopes

Bodily tissues remodel at different rates, which means they can provide a snapshot from specific intervals across a person's life. Teeth can provide a signature for earlier life, as teeth erupt at a regular rate and do not remodel after they are formed.[27] Teeth, therefore, can provide isotopic signatures for when they are formed. Conversely, bones undergo continuous remodeling, throughout life, with different bones remodeling at different rates. For example, ribs have a relatively fast turnover rate, due to constant loading during respiration, and are thought to provide isotopic signature within the last 10 years of an individual's life. The dense cortical bone of the femoral shaft is thought to have a slow turnover rate relative to rib bone.[28]

Samples were obtained from multiple skeletal elements to allow the reconstruction of a timeline, from childhood to adulthood of diet and mobility at an individual level. First molars (M1) and third molars (M3) were chosen to represent childhood and early adulthood respectively, if either was not present the second molar (M2) was chosen. Ribs were also sampled for snapshots of later life. This is of particular interest as changing residence may coincide with changes in diet as individuals adapted to new social contexts.

Diet

Carbon ($\delta^{13}C$) and nitrogen ($\delta^{15}N$) isotopes were analysed to explore dietary differences. Carbon isotope ratios distinguish the contribution of C3 and C4 plants, as these have different non-overlapping isotopic ratios.[29] These values are enriched (increased) by approximately 5‰ from diet to body tissue. Most plants use the C3 pathway, while plants in arid climates use the C4 pathway, such as corn, sorghum, sugarcane, millet and grasses. Nitrogen isotope values indicate the relative amount of animal protein (meat or milk) consumed. Nitrogen stable isotope ratios increase by 3–5‰ with each trophic level.[30] The consumption of marine and freshwater species also increases nitrogen stable isotope ratios, variable depending on the environment, ranging between 12–22 ‰.[31] Animal isotopic composition is needed to provide a baseline from which to interpret human data. Samples from a range of food species are critical for the interpretation of human isotopic signatures. As there were no animal bones available from Novi Čeminac-Jauhov salaš, comparative animal isotopic data was used from the site of Mözs.[32] This cemetery, in modern day Hungary, was in use during the second and third quarters of the fifth century. The grave goods exhibit a wide range of typological influences and more than forty individuals in the cemetery had modified skulls.[33]

25 Vyroubal *et al.* 2016.
26 Buikstra, Ubelaker 1994.
27 AlQahtani *et al.* 2010.
28 Skedros *et al.* 2013.
29 O'Leary 1988.
30 Bocheren, Drucker 2003; Schoeninger, DeNiro 1984.
31 Dufour *et al.* 1999; Schoeninger, DeNiro 1984.
32 Hackenbeck *et al.* 2017.
33 Hackenbeck *et al.* 2017.

Mobility

Strontium ($^{87}Sr/^{86}Sr$) isotopes ratios can be used to reconstruct past mobility patterns, allowing the estimation of whether an individual grew up locally to the site they were buried.[34] Strontium values reflect the underlying geology, entering the food chain through weathering of bedrock which is then incorporated into the skeleton.[35] By comparing local $^{87}Sr/^{86}Sr$ values with the values obtained from an individual, researchers are able to identify individuals with a non-local childhood. As there is currently a small amount of strontium baseline data available for Croatia, 'local' strontium values were obtained from nearby sites of Vinkovci and Vukovar, Croatia,[36] Mözs[37] and Borjád,[38] across the border in Hungary.

Results

The six adult individuals comprised of 4 males and 2 females and a mix of ages (3 young adults and 3 middle adults). Despite the small sample size, pathological lesions were prevalent in all the skeletons.

Joint and vertebral diseases

Diseases of the joints and spine were prevalent throughout the individuals from Novi Čeminac-Jauhov salaš. Osteoarthritis was observed in all the individuals analyzed. Osteoarthritis is characterized by a deterioration of the bone and cartilage in one or more joints, resulting in pain, swelling and stiffness in a living individual. The typical age for the onset of osteoarthritis is during middle or old age, and is often regarded as an unavoidable consequence of the aging process.[39]

Four individuals, all male, showed signs of osteoarthritis in their shoulders, elbows, hips, ankles and the spine. Notably, one individual had evidence of osteoarthritis in the shoulders, elbow, hips, pelvis, ankles and spine (SK 5 a male middle-aged adult). Excessive activity may lead to degeneration of the joints and in archaeological contexts osteoarthritis has often been used as an activity-related skeletal trait. However, it is rarely possible to identify a specific activity from osteoarthritis in a particular joint. The presence of osteoarthritis depends on a combination of factors.[40] These factors include age, genetics, trauma and movement.[41]

All but one individual showed signs of intervertebral disc disease (IVD). IVD results in pitting on the surface of the vertebral body and bone formation on the margins of the intervertebral disc. IVD is very common in skeletal assemblages and can be caused by many factors, including trauma, mechanical loading and a genetic predisposition.[42]

Four of the individuals, 1 female and 3 males, had Schmorl's nodes present, across all vertebrae. Schmorl's nodes are depressions on vertebrae due to herniation of the intervertebral disc into the vertebral body. Their cause is multi-factorial, a combination of genetic predisposition, disc shape and physical strain and trauma.

Metabolic disorders

Evidence of metabolic disorders, deficiencies or surpluses in minerals, were present in the individuals from Novi Čeminac-Jauhov salaš. Porous lesions of the orbital roof (termed cribra orbitalia) and vault of the skull (porotic hyperostosis) were evident in three of the individuals: 2 males and 1 female. As the exact cause of these lesions is not known, they are often used as an indicator of stress and have been linked to conditions such as anemia.[43]

Infectious disease and trauma

Three individuals showed evidence of infectious disease. All these individuals (2 males and 1 female) exhibited signs of non-specific infection of the tibia of the lower leg. It is possible that these are the result of trauma or damage to the soft tissue.

Trauma, trepanation and artificial cranial modification

Two individuals showed evidence of healed skeletal trauma, one male had a healed fracture to the right thumb and a female had a compression fracture of the L5 vertebrae. One individual has a possible case of trepanation at the back of the skull (across the left parietal and occipital bone). Trepanation is an intentional surgical procedure during which a piece of the cranium is removed, a practice carried out in various archaeological populations across the globe.[44] However, post-mortem damage to the skull means that definite diagnosis is not possible.

Two of the individuals have clear evidence of artificial cranial modification (ACM): SK 4, a female young/middle-aged adult, and SK 5, a male middle-aged adult (Figure 4). A further two individuals have probable cases of ACM, however identification is uncertain due to post-mortem damage to the skulls. These skeletons consist of SK 8, a young female, and a SK 9, a middle-aged male.

34 Slovak, Paytan 2011.
35 Bentley 2006.
36 Depaermentier *et al.* 2020.
37 Hackenbeck *et al.* 2017.
38 Depaermentier *et al.* 2020; Depaermentier *et al.* 2021.
39 Burt *et al.* 2013.
40 Burt *et al.* 2013; Roberts, Manchester 2005.
41 Waldron 2008.
42 Waldron 2008; Urban, Roberts 2003.
43 Zarifa *et al.* 2016; Brickley 2018.
44 Ortner 2003.
45 Mayhall, Pilbrow 2019.

FIGURE 4.
Artificially modified skulls of skeleton 4 (female) and 5 (male).

The cultural practice of ACM has spanned every continent and existed for over ten millennia.[45] It is attributable to social status, migration patterns, boundaries between social groups and social identity at a group level.[46] During the Great Migration Period (5th/6th century AD), ACM became widespread across the Pannonian Plain (modern day Hungary and Croatia), adopted by nomadic tribes that eventually came under Avar rule.[47] This included Ostrogoths, Huns, Gepids and Avars.[48]

Dental disease

The dental health of the individuals from Novi Čeminac-Jauhov salaš was poor, with all individuals having dental calculus (mineralized plaque) and four of the six individuals having carious lesions (2 males and 2 females). Frequencies of calculus and caries can be used to assess relative levels of proteins versus carbohydrate within a groups diet. High levels of calculus are often found in populations with diets high in protein. Conversely, dental calculus is often observed in populations that consume diets high in carbohydrates.[49] The high prevalence of calculus suggests that the individuals from Novi Čeminac-Jauhov salaš consumed high levels of animal products and moderate levels of carbohydrates.

Finally, three individuals (2 females and 1 male) have hypoplastic defects on their teeth. These shallow horizontal grooves, encircling the tooth crown, are associated with childhood illnesses or nutritional deficiencies/malnutrition.[50]

Isotopic Evidence

Diet: at a group level

The average $\delta^{13}C$ and $\delta^{15}N$ results for individuals from Novi Čeminac-Jauhov salaš were –16.61 ± 2.57‰ and 10.68 ± 0.80‰ respectively. This suggests that the individuals had a diet containing medium to high amounts of animal protein and, though not exclusively, C4 plants, most likely millet. This is supported when the Novi Čeminac-Jauhov salaš isotopic data is compared to the animal baseline (Figure 5), with an approximately 4‰ increase from cattle, ovicaprids (sheep and goat) and pigs. Indicating the consumption of the products of these kinds of species.

Diet: at an individual level

When you look at diet on an individual level, there appears to be a lot of variation between individuals and across their lifetime (Figure 6). The diet of one individual (SK 8), a female with ACM, appears to have stayed the same between childhood and early adulthood. Conversely, the diet of two individuals saw a considerable change during their lifetime. SK 6, a young male, went from a diet with little to no protein during childhood (M1) to a high protein diet during adulthood (rib). SK 9, another young male with probable artificial cranial modification, went from a childhood diet with a significant amount of C4 plants to a diet with largely C3 plants and increasing dietary protein (meat and/or milk). The diet of the remaining individuals saw moderate changes in their diets across their lifetime.

46 Mayhall, Pilbrow 2019.
47 Fernandes *et al.* 2019.
48 Vyroubal *et al.* 2016.
49 Forshaw 2014.
50 Goodman, Rose 1990.

FIGURE 5.
$\delta^{13}C$ and $\delta^{15}N$ isotope values for Novi Čeminac-Jauhov salaš (black) and animals from Mözs (Hackenbeck *et al* 2017).

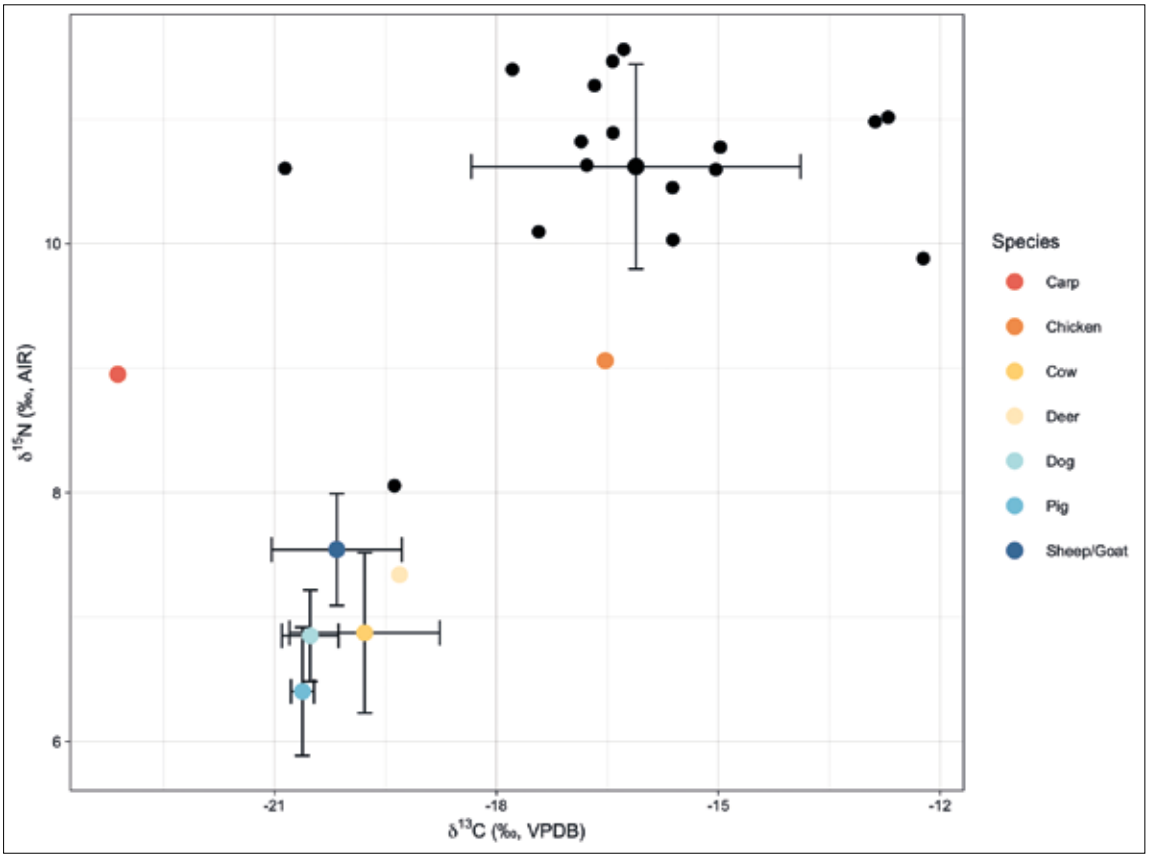
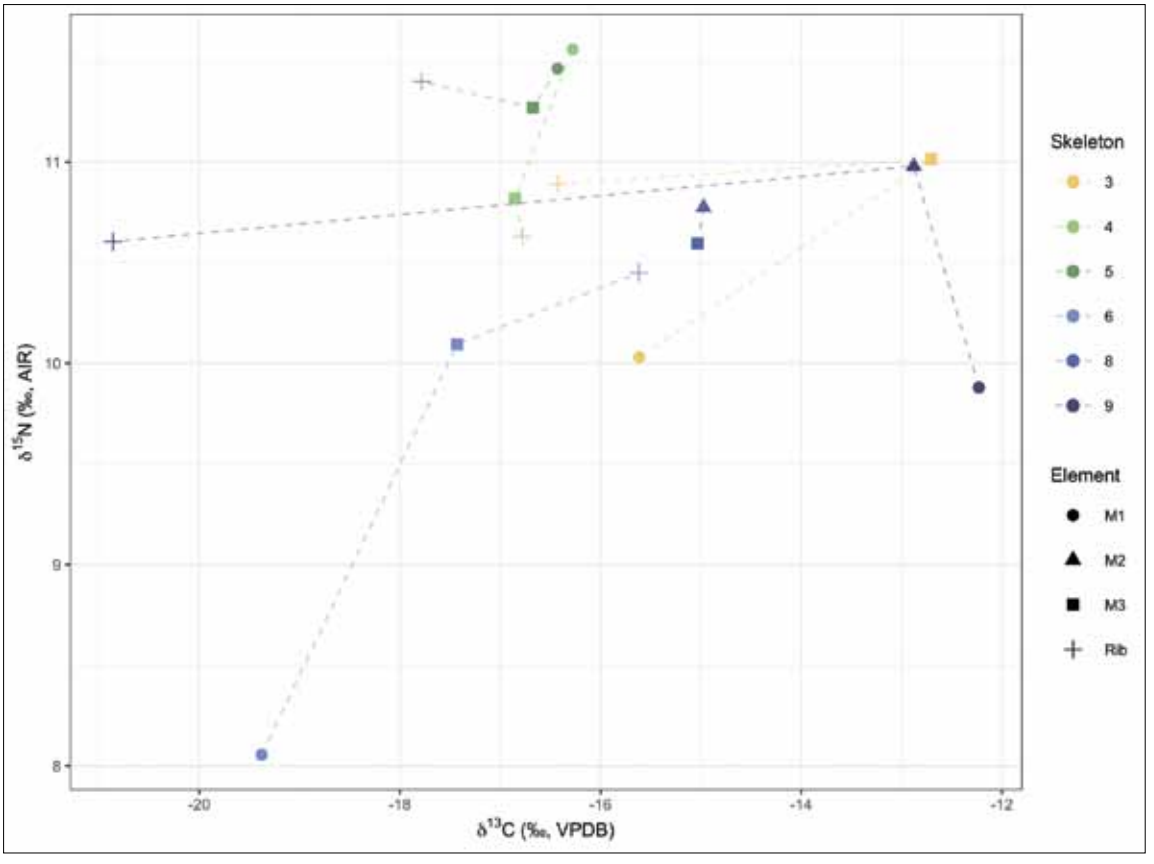


FIGURE 6.
$\delta^{13}C$ and $\delta^{15}N$ isotopic values by individual. Lines showing timeline of values (from childhood to adulthood).



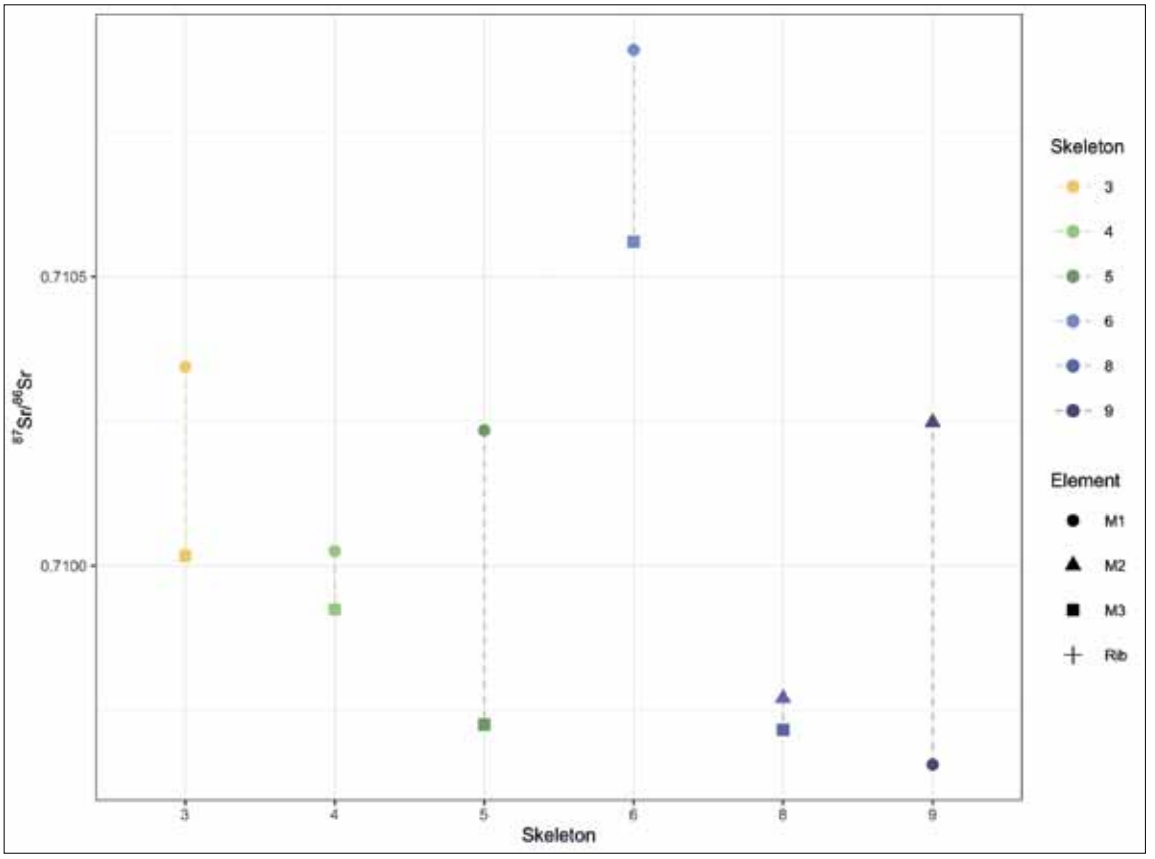


FIGURE 7.
$^{87}Sr/^{86}Sr$ values by individual skeleton, from childhood (M1) to early adulthood (M3).

Mobility

The strontium values of the group are largely similar. The 'local' $^{87}Sr/^{86}Sr$ signature falls between 0.70912–0.7104.[51] All but one individual falls within this 'local range'. SK 6 appears to fall outside of this range, suggesting that they were possibly a 'non-local' during childhood. This movement is supported by a corresponding dietary change, from C3 plants to C4 plants. Looking at the $^{87}Sr/^{86}Sr$ values on an individual level, gives a picture of possible varying levels of movement during childhood into adulthood at an individual level (Figure 7). Individuals 8 and 4, both females with ACM, show very little change in their $^{87}Sr/^{86}Sr$ values. Compared to individuals 5 and 9, both males with ACM, that shows greater change over the course of their childhood.

The health, diet and mobility of the East Germanic community of Novi Čeminac-Jauhov salaš

The extensive amount of pathology in the individuals from Novi Čeminac-Jauhov salaš suggests that nutritional deficiency and stress were prevalent in the lives of these individuals. Their diet appears to have consistently comprised of an agro-pastoral diet of medium to high amount of animal protein alongside the consumption of C4 plants such as millet. This is consistent with the results of other studies that suggest that millet appeared to play an important role in the everyday diet of various populations during the Migration Period in the region.[52] Despite this period being a time of large-scale migrations, mobility appears to be some-what limited in this group of individuals. There does, however, appear to be one non-local. This young male appears to have moved during childhood which coincides with a shift in diet from C3 to C4 plants; potentially showing this individual adapting to a new social context. There does also appear to be more mobility for males than females over the course of their childhood to early adulthood. Further strontium baseline data will be able to confirm this further.

51 Depaermentier *et al.* 2020; 2021; Hackenbeck *et al.* 2017.

52 Fernandes *et al.* 2019; Hackenbeck *et al.* 2017.

Kristina Brkić Drnić, Anita Dugonjić

Gold scabbard fittings

Gold scabbard fittings made of thin gold sheet, decorated with almandines and pseudogranulation, dated to the first half of the 5th century AD. They were found by chance in 1932 in the Várhegy vineyard in Zmajevac in northeastern Baranja, where in Late Antiquity the Roman military fortification Ad Novas was situated, which served for the defence of the Roman border – *limes*. Since the fittings adorned the scabbard of a weapon (knife or sword), they probably belonged to the damaged but unexplored tomb of a warrior buried on this hill.[53]

The fittings were made of a piece of thin gold sheet in the form of two semicircular surfaces facing each other, connected by a short and narrow strip, to which a narrower square-shaped eyelet is soldered for pulling through. The semicircular surfaces are decorated with raised, symmetrically spaced cells filled with six differently shaped, slightly rounded or flat cut almandines, and the banded eyelet for threading is decorated with a raised, longitudinally placed cell filled with a flat cut almandine/carnelian. The edges of the fittings and the eyelets for pulling through are decorated with pseudogranulation. Rivet holes are drilled in the corners of each of the semicircular surfaces of the fittings. On the back of the fittings, more or less preserved, are the remains of a bronze cover plate secured by a narrow strip of folded gold sheet.[54]

The dimensions of the fittings are as follows:
a) Length 47 mm; width 25.7/25 mm; thickness 4 mm; strip plate for threading: width 10.7 mm; length 13.8/12.4 mm; weight 4.825 g.

b) Length 48 mm; width 24.8/23.8 mm; thickness 4.7 mm; strip plate for threading: width 10 mm; length 13.8/12.4 mm; weight 6.123 g.

The use of gold and, more rarely, of silver for the production of various objects and the decoration of the products with a variety of semi-precious stones are the basic feature of the goldsmith's art of the Hunnic period. Scabbard fittings from Zmajevac could be attributed to the group of the polychrome artefacts which is associated with the period of dominance of this nomadic people. Based on the production and decoration, the fittings are attributed to Pontic or Danube polychrome jewellery workshops.[55] Their beauty and the complexity of their manufacturing production suggest a high level of craftsmanship specialisation and an exceptional skill of the goldsmith. The way in which the fittings came into the possession of the owner cannot be reconstructed. They were probably acquired through trade or gift exchange, but an heirloom cannot be ruled out for such rare, luxurious items. Although the exact context of the procurement remains unknown, the owner of the fittings was undoubtedly a wealthy and pow-

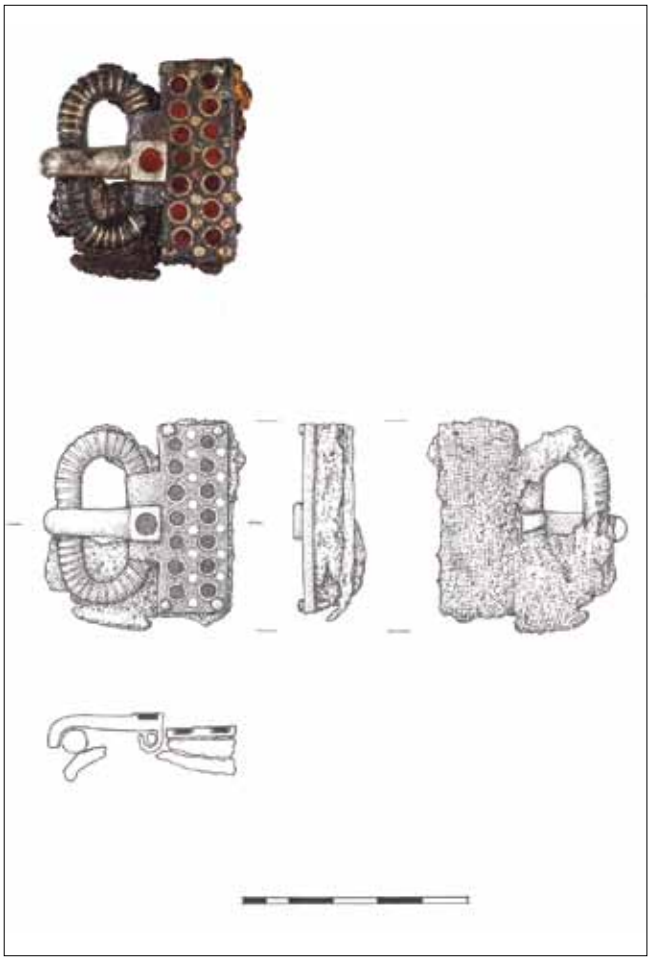
53 Demo 2014; Vinski 1957.

54 Demo 2014; Vinski 1957.

55 Demo 2014; Vinski 1957.

erful warrior. Valuable weapons were more than just functional objects – they were indicators of the importance within society and the owner's belonging to a higher social class. The scabbard fittings were used for a certain time as a functional weapon before they served their owner as grave goods. After being buried for almost a millennium and a half, the new chapter of their biography began with the purchase for the Archaeological Museum in Zagreb in 1954 from Mr. Josip Pilиš from Zmajevac. Under the numbers S-3373 and S-3374 the fittings found a place in the museum depot. Because of their peculiarity, they have already found their way into literature and have been introduced to a wider audience through museum exhibitions. Therefore, *Finds Stories: Addressing Mobility through People and Object Biographies* is not the first, and probably not the last, exhibition and catalogue to present and honour these extraordinary archaeological finds.

Since the scabbard fittings probably belonged to a damaged princely burial, they could have undergone a shift from a functional weapon to a status symbol as grave goods. Their value and beauty prove the higher social rank of their owner, his warrior status, importance and wealth, while their specific features indicate the object's belonging to the Hunnic material culture.



Belt buckle

A belt buckle with almandine ornament and pieces of fabric, dated to the second half of the 5th and the beginning of the 6th century, discovered at a Germanic cemetery in Novi Čeminac at the site Jauhov salaš.

During the excavation, the buckle was not recognized in its form; it was removed from the grave covered with a layer of soil, dirt and iron corrosion deposits, and was included among the finds as an iron object of unknown function. Due to its complexity, the object was X-rayed, and the X-ray image revealed a richly decorated buckle in an amorphous mass of corroded material. The two-piece belt buckle is made of several different materials: iron as the base material, silver alloy, copper alloy and a precious stone – almandine. On the oval iron buckle loop with circular cross-section there are thirty-three notches filled with copper alloy. The solid smooth silver alloy thorn is bent at the apex and widened at the root to a square base filled with round straight-cut almandine. The rectangular fitting of the buckle consists of two parts: the upper plate, which is connected to the lower one by the support of the thread, and the lower plate, which is not visible due to the remains of the mineralized fabric. Between the plates of the fittings there are remains of a leather strap. The plates and the leather strap were connected at the corners with rivets made of a copper alloy with a round head. The top of the fittings is decorated with a row of seven round straight-cut almandines fixed in cells arranged in two rows. A copper alloy foil was used to make the cells, and on two cells (below the almandine) the decoration with an embossed net motif can be seen. The net motif on the foils gave the object liveliness and shine, as it was visible through the thin, translucent almandine plates. There are fifteen almandines on the entire buckle: fourteen on the fitting and one on the thorn base of the buckle. Between the two rows of almandines on the fittings is a row of eight round cells (recesses) filled with a thin round sheet of copper alloy, and the same row is under the second row of almandines on the edge of the fittings, where there are six cells, not eight (because of the rivets located in the corners). The abovementioned 14 sheets in the recesses have the function of decoration.[56]

The dimensions of the buckle are as follows: length 45 mm, width 48 mm, and thickness 16 mm. The buckle loop is 23 mm long, 38 mm wide and 6 mm thick. The incisions on the loop, which are only in the upper half, are 0.5 mm thick. The thorn is 26 mm long, 6 mm wide; the width of the square root is 7 x 7 mm, the thickness is 3 mm and the thickness of the root is 4 mm. The diameter of the almandine at the root is 5 mm, the thickness of the almandine is about 1 mm. The fitting (upper plate) is 23 mm long, 42 mm wide, 2 mm thick; the diameter of the rivet heads is 3 mm, the length is 7 mm. The diameter of the almandines on the fit-

56 Dugonjić, Fileš Kramberger, Balen 2021.

ting is 3 to 3.5 mm, the thickness is about 1 mm, and the copper alloy cells containing the almandines are about 0.5 to 0.8 mm thick, while the maximum diameter of the cells containing the almandines is 4 to 5 mm. The sheets of copper alloy are about 0.03 mm thick, and their diameter is 2 to 2.5 mm. The weight of the buckle is 34.55 g.[57]

The buckle is made in the champlevé (pseudo cloisonné) technique. Almandine, the precious stone that decorates the buckle from the Novi Čeminac-Jauhov salaš site, is one of the most common precious stones on Earth (24 types of this mineral have been recognized), and analyses show that red almandines were the most commonly used in the classical and early medieval periods. Mineralogical analysis of the chemical ingredients on almandines show that almandines were used to decorate objects from the 5th and 6th centuries originating from South Asia, from India and Sri Lanka.[58]

The fabric preserved on the belt buckle suggests that it is a finer fabric, probably of local production, with relatively typical technical features for the period of the 5th century in Central Europe (twill weave, probably 2/1, and patterning with various thread twists). The analysis of the fabric revealed that this fine cloth, probably locally made, belonged to the clothing of the deceased. It was probably the upper garment, a wider piece of attire, gathered and girded with a belt.[59]

The belt buckle was found in Novi Čeminac at the site Jauhov salaš, near Beli Manastir in Osijek-Baranja County. A two-piece cast belt buckle was found in the grave of a man (grave 5) who was between 30 and 40 years old at the time of his death, about 176 cm tall, and had a skull that was intentionally shaped or deformed (tabular-erect method). He was buried in a wooden coffin equipped with luxurious clothing and a number of items: a leather belt closed with a richly decorated buckle, a combat knife in a scabbard hanging from the belt, a pouch where the shackles were kept, where the warrior kept an iron knife, a flint and tweezers; then the shoes, of which two silver threads with a thorn remained. On the bones of the deceased were found traces of extreme physical stress in the area of the shoulders, arms and hands. Trauma was discovered on the foot and thumb bones, and a head injury was also found.[60]

The biography of this object is closely linked to the life and death of its owner. The fineness of the workmanship and the value of the material indicate a high level of craftsmanship specialisation. The circumstances under which the buckle came into the possession of its owner cannot be reconstructed, but there are several possibilities: trade, gift exchange and an heirloom. The belt buckle was part of a military belt, and it probably belonged to a member of the mercenaries. Military belts were an important part of the attire of the time, being status symbols in addition to their practical purpose of holding weapons and other accompanying items. The material, decoration and size of the elements of the belt set indicate the status of the wearer. Apart from its functional and symbolic meaning, the buckle has evolved from a utilitarian object to a grave good incorporated into the funerary ritual, accompanying its owner on his journey from the world of the living to the world of the dead.

The belt buckle from the Novi Čeminac-Jauhov salaš site has no direct parallels, and according to typological and stylistic characteristics it can be attributed to the circle of Mediterranean buckles of the second half of the 5th and the beginning of the 6th century, among the specimens found, except in the Mediterranean region, all over Europe, i.e. in the material culture of Germanic populations in Europe. According to current knowledge and the state of research, buckles decorated with cloisonné of the Mediterranean type (those found in the archaeological context) are attached to warriors' graves as part of their equipment.[61] The beauty and value of the belt buckle indicate a higher social status of its owner and his belonging to the warrior class of that time, which was characterised by constant change and uncertainty.

Bone comb

A bone comb, dated to the 5th century AD, found during archaeological rescue excavation at the Novi Čeminac-Jauhov salaš site in 2015.

The bone comb from the Novi Čeminac-Jauhov salaš site was found in a residential building (number 8) together with a comb of the same type, a stone sharpener, a bone awl, a ceramic loom weight, fragments of ceramic vessels, etc.[62] This comb typologically belongs to double-sided composite combs. It consists of three plates connected by four iron rivets with a diameter of 4 mm. The central plate is the widest and longest, on it there are partially preserved teeth of the same width with a length of about 15 mm. The lateral ends of the comb are profiled, which is a rare occurrence among the combs from the site. The upper and lower horizontal plates are decorated on the outer edges with four incised parallel lines, and inside the frame there is a repeated decoration – a pair of smaller circles followed by an elongated almond-shaped motif. The colour of the comb is a darker yellowish-brown. The comb has the following dimensions: central plate: length 105 mm, width 43 mm, thickness 4 mm; outer horizontal plates: length 92 mm, width 14.5 mm, thickness 3 mm.

The presence of combs in everyday life can be traced from pre-

57 Dugonjić, Fileš Kramberger, Balen 2021.

58 Dugonjić, Fileš Kramberger, Balen 2021.

59 Dugonjić, Fileš Kramberger, Balen 2021.

60 Balen, Dugonjić, Đukić 2015; Balen *et al.* 2016; Dugonjić, Fileš Kramberger, Balen 2021.

61 Dugonjić, Fileš Kramberger, Balen 2021.

62 Balen 2015.

history to the present-day. They were made from a variety of materials, including animal bones, horns, and wood. Although these objects are primarily associated with combing and cutting hair, they were also used as tools for weaving and scraping wool. During the period of Antiquity, they were an integral part of toiletries used by both men and women for embellishment.[63] Their manufacture required skill and a high level of craftsmanship specialisation. Different workshops can be distinguished on the basis of specific decorations, artistic details and a delicacy of manufacture. Furthermore, combs could be observed as more than just functional objects of everyday use – their material, as well as decoration, could indicate the social status of their owner. Combs, consisting of one or more parts, could have been single- or double-sided, that is, they could have had teeth only on one side or on both sides. This type of comb (double-sided composite comb) is considered one of the most common types characteristic of Late Antiquity. During the 4th century they were distinctive for the Danubian provinces, from where they spread across the Carpathian Basin in the 5th century. Combs of this type were also found in Germanic cemeteries of the 4th, 5th and 6th centuries, as well as in early Slavic sites in Europe.[64] The comb from the Novi Čeminac-Jauhov salaš site was found in a building with objects that, based on their stylistic characteristics and forms, can be dated to the 5th century.[65]

The biography of this object is rich in blank pages, which makes it difficult to reconstruct its life story. However, some questions can be answered using analogies from the same time period and geographical region. Since the comb comes from a settlement context, it is hard to conclude on the sex or age of the owner. Archaeological finds of bone combs, found in the graves of deceased of both sexes and of a wide age range, are characteristic of Germanic (Gepidic) cemeteries. Still, since double-sided combs were associated with female burials, while single-sided combs were found in male burials, the bone comb was probably the property of a female child or adult.[66] At the moment it is impossible to determine the exact location of the workshop, but a large number of bone combs found in the settlement indicate that they probably came from a local context, perhaps even from the settlement itself. The bone comb was obviously a product of a skilled craftsman. Both single-sided and double-sided bone combs were made by the same technique, that is, by joining three bone plates with iron or bronze rivets. The part of this object's biography that refers to how the comb came into the possession of its owner remains unanswered. Possibilities include exchange, trade, gift exchange, or maybe even an heirloom. Also, it is impossible to conclude about the duration of use. Bone combs found as grave goods in Vinkovci may provide information about the wearing of the combs – most of the combs were placed in the head area of the deceased, indicating that the combs were probably worn in the hair, while one comb, found next to the right knee, suggests that they may also have been worn on a ribbon around the waist.[67]

The large number of combs, found during excavations at the Novi Čeminac-Jauhov salaš site, recorded in the settlement and the funerary contexts, suggests the importance of embellishment and personal hygiene in the everyday life of the inhabitants of this Germanic settlement.

Gold earrings

Gold earrings with an extension in the shape of a polyhedron, dated to the 5th and 6th centuries AD.

This type of earrings, with a full extension or an extension filled with almandines, semi-precious stones or glass paste, is the most common earring type found in female graves from the 5th and 6th centuries AD. Together with beaded necklaces, fibulae worn on the shoulders, bone combs, bracelets and rings, they were the part of the clothes most often worn by women.[68] The earrings differ from each other and can be described as follows:

a) A gold earring with an extension in the shape of a polyhedron, with a height of 28 mm and a width of 27 mm. The 1.8 mm wide

63 Biró 1994; Petković 1995.

64 Biró 1994; Petković 1995.

65 Balen 2015.

66 Rapan Papeša 2011.

67 Rapan Papeša 2011.

68 Rácz 2016.

hoop tapers towards the end. In 12 cells there are flat-cut almandines, 4 square and 8 triangular. At the transition to the polyhedron there is a twisted strip on both sides of the polyhedron.

b) A gold earring with an extension in the shape of a polyhedron, with a height of 26 mm and a width of 28 mm, more richly decorated than the previous one. The hoop is 2 mm thick and tapers towards the end. There are the same number of cells with straight-cut almandines, except that in this earring the square cells are bulging and decorated with granulation where they touch the core. The underside of the square protrusions is decorated with granules that connect them together, and on the non-protruding surfaces there is a total of three granules. At the junction of the hoop with the core, as well as on the opposite side of the core, there is a twisted strip.

The earrings were found in a grave during rescue archaeological excavations at the Novi Čeminac-Jauhov salaš site, along with other items of jewellery and grave goods, including a necklace of amber and glass beads, a pair of large fibulas made of a gilded silver sheet, that supported the cloak on the shoulders, an iron buckle decorated with notches filled with copper alloy, and a double-sided bone comb found in the right palm of the deceased.[69] Anthropological analysis has shown that the deceased, buried in a wooden coffin, was a female of 30–40 years of age with a height of about 160 cm. Apart from the numerous luxurious finds, the burial is also characterised by her extremely deformed skull (circular oblique method). Artificial cranial modification is a cultural custom that alters the shape of the skull in early infancy, indicating membership in a particular social group and a different social status within the group. Anthropological evidence suggests that the practice of artificial cranial modification existed ten millennia ago and was present on all continents. The research of artificially modified skulls has been characterized and considered by many anthropologists as a cultural feature that marked territorial or social boundaries, ethnic affiliation, and the reinforcement of social and political power for certain groups of people in the past. Therefore, it served as a permanent symbol of solidarity within a group and cultural differences between groups. Furthermore, throughout history, the way the skull was shaped and methods of artificial modification in some cases marked a sign of different groups within the same society.[70]

The beauty of the earrings and the obvious delicacy of their manufacture suggest that they were made in a manufactory with a high level of craftsmanship specialisation. Unfortunately, the exact location of the workshop remains unknown. There are several ways in which the earrings could have come into the possession of their owner: through trade, gift exchange, or inheritance. Luxurious, valuable jewellery circulated from generation to generation in families from prehistoric times to the present-day. Therefore, the question of how the earrings came into the possession of the deceased remains unanswered. All types of jewellery – from luxurious items made of gold, amber and precious stones to plain objects made of bone or copper alloy – served primarily as utilitarian objects with a functional use, that is, the embellishment of their owner. They were also indicators of wealth and status, which were used to demonstrate power and importance among the members of one or more groups. Some jewellery was also attributed special powers, which led to their apotropaic importance and ritual use. These earrings underwent a shift in function from objects of functional use and social significance to objects of ritual meaning that were included in the burial as grave goods. Their placement in the grave signifies the end of their circulation among the living and their passage into the world of the dead.

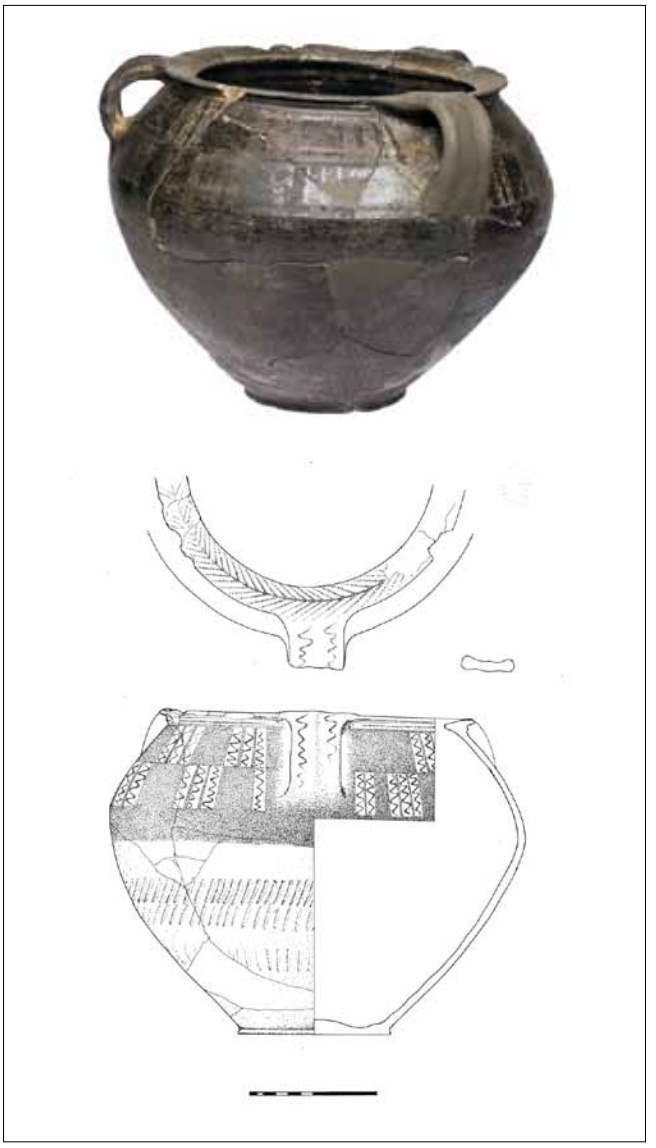
The gold earrings indicate that the deceased belonged to a higher, elite social class. However, the presence of similar, more modest objects made of copper alloy in female graves of lower social status points to the existence of a typical female costume in the 5th and 6th centuries AD, regardless of ethnic and social affiliation, or geographical location.[71]

69 Balen 2015; Balen, Dugonjić, Đukić 2015; Balen *et al.* 2016.

70 Paušić 2020.

71 Rácz 2016.

Ceramic vessel



A ceramic vessel with polished decoration, made on a fast-rotating potter's wheel, dated to the first half of the 5th century AD.

The vessel is characterised by a wide opening with three handles connecting the rim of the vessel to the belly, the widest part being in the upper half of the vessel, while the lower part of the body narrows sharply towards a round, flat bottom. The height of the vessel varies, as placed on the bottom it stands at an angle, so that its height is 25.8 cm on one side and 24 cm on the other. The largest width of the vessel is 33.5 cm, while with a 4 cm wide handle it is 35 cm wide. The rim diameter is 25.5 cm, and the bottom diameter is 12 cm.

The peculiarity of this vessel lies in its decoration, which belongs to the so-called Murga decoration type, created by polishing technique. The polishing technique is a surface treatment technique carried out before the actual vessel is fired and has been used for both decorative and functional purposes. The tools used to create the polished motifs were pebbles, bone tools, horns, seeds, flat pieces of wood, leather or sharp and hard cloths used to rub the surface in different directions.[72] The decoration consists of vertically arranged waves and/or zigzag lines separated by vertical stripes on the upper part of the vessel (the so-called Murga type) just below the rim. The Murga decoration on the vessel from the Novi Čeminac-Jauhov salaš site consists of two horizontal bands (each four centimetres thick) and follows a pattern of three vertical waves and/or zigzag lines, followed by a black polished band (square). The pattern is uniform, except in one place where instead of three vertical waves, four appear in a sequence. At the very edge, which is 2.6 cm thick, the bowl has a polished decoration of fir branches aligned clockwise.

Objects made of pottery are the most common archaeological finds, as seen at the Novi Čeminac-Jauhov salaš site. Fragments of the vessel were found in a cylindrical pit at a depth of about 90 cm.[73] They were later assembled in the Conservation and restoration workshop of the Archeological Museum in Zagreb into a large vessel of dark grey to dark brown colour, shiny polished dark surface and with polished decoration. Since this find represents the only vessel with the Murga decoration type found so far on the territory of the Republic of Croatia, it certainly was not a product of local manufacture. Having been made by a skilled potter from a currently unknown area on a fast-rotating potter's wheel, it probably came to the East Germanic settlement in Novi Čeminac-Jauhov salaš by trade, barter or gift exchange. Since the period of the 5th century is characterised by frequent migrations, there is also the possibility that the vessel accompanied one of the newly arrived inhabitants as personal property. No assumptions can be made about the identity of the owner or the duration and context of use, but due to the beauty and rarity of the vessel, its owner is likely to have been a member of the inhabitants of a higher social class. Along with other luxurious objects such as jewellery, weaponry, glass and metal products, imported pottery has been an indicator of wealth and social status since prehistoric times. Such vessels should be observed as much more than utilitarian objects of just functional use – they play an important role in a narrative about the migration of objects, influences and style, communication and trade networks.

Although simple late antique forms of ceramic vessels (pots and lids) predominate among the pottery finds, vessels of this type with polished surfaces, decorated with the technique of polished motifs, as well as fragments of glazed pottery, are also found at archaeological sites from the Migration Period.[74] Together with other valuable finds from the Novi Čeminac-Jauhov salaš site, the ceramic vessel with the Murga decoration type indicates the existence of a higher social class among the inhabitants of this small East Germanic community.

72 Hárshegyi, Ottományi 2015.

73 Balen 2015; Balen, Dugonjić, Đukić 2015; Balen *et al.* 2016.

74 Hárshegyi, Ottományi 2015; Roksandić 2015; Roksandić Vukadin 2018.

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KYTHERA —
AN INSULAR PERSPECTIVE INTO LONG DISTANCE AND INTRA-BALKAN MIGRATION OVER THE PAST TWO CENTURIES

Christina Marini, Lita Tzortzopoulou-Gregory

Migration in the Balkans from the end of the 19th century onwards is a complex and diverse phenomenon that is deeply tied to the rapidly shifting historical circumstances. The disintegration of the Ottoman Empire, the formation of nation states, the change of political regimes, warfare, and successive conflicts that variously defined the economic, political, and social realities over the entire region have profoundly impacted population movements and migratory flows.[1] In addition to the forced dislocation of population groups depending on ethnic or religious parameters, economic factors have generated immense flows and shifting migratory patterns over time. Long distance migration between the last quarter of the 19th and the first quarter of the 20th century was primarily directed towards the United States, in differential degrees per nation state, while the Interwar and post-WWII periods saw a rise in the prominence of other new world destinations, as well as Western European countries. On the other hand, the collapse of communist regimes and the opening of borders in the late 20th century created new migratory streams, while the processes of accession of several countries in the European Union re-shaped the geopolitical map, rendering those countries more promising as migratory destinations – at least until the financial crisis of 2008 and the Eurozone crisis of the 2010s.

These ongoing changes can be observed on a regional scale in the case of the island of Kythera. For the purpose of the present exhibition, it functions as a contained, insular case study from southern Greece that provides an insight into the diverse mechanisms and facets of intra-Balkan and overseas migration. It thus presents the opportunity to observe closely the socioeconomic aspects of distinct examples of transnational mobility, as approached from the perspective of materiality that lies in the heart of the *Finds Stories* project.

Kythera is a small island located off the southern coast of Greece, part-way between the mainland and the island of Crete (Figure 1). It has few natural resources, and its inhabitants have always struggled to survive, despite the significance of its location, along the main trade routes of the eastern Mediterranean.

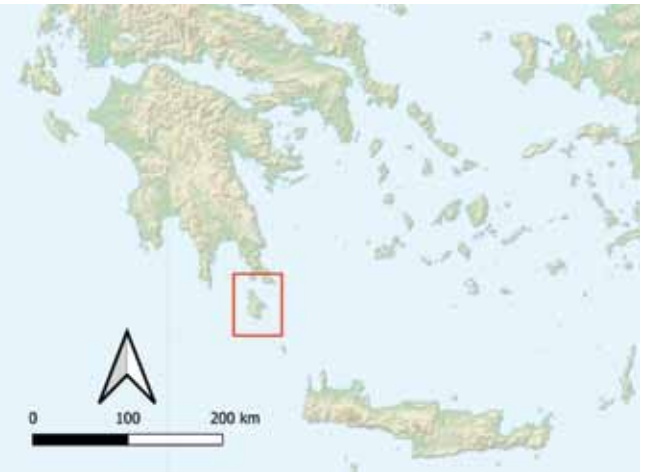

FIGURE 1. The location of the island of Kythera.

Although a "small player" on the world stage, it was not left unaffected by the storms of worldwide change. This can be seen on several occasions over the last few centuries, with the ways in which modernisation, the collapse of European colonialism, and the struggles between empires and ideologies have created change in Kythera on a massive scale and often in a remarkably short period of time. As such, one of the most defining characteristics of the island is the impact on it of mass migration movements, mostly due to economic reasons.

While the majority of Kythera's most recent migrants have stayed within Greece, establishing themselves in the greater Athens area, especially in Piraeus and its vicinity, Kytherians are historically known for their migratory ventures further afield and across the seas. Following similar trends of migration from elsewhere in Greece, from the latter part of the 19th century, many Kytherians, especially those with commercial interests and experience, became part of the prosperous Greek communi-

1 Vermeulen, Baldwin-Edwards, Boeschoten 2015.

FIGURE 2.
Chora – the island's capital.

ties of the Ottoman Empire in Asia Minor, Egypt, and the Black Sea. In addition to the Greek community of Istanbul, Izmir in Asia Minor emerged as a major centre, with gradually growing flows from Kythera itself after 1750 and until the population exchange treaty that terminated the Greek-Turkish war in 1922.[2] While the first generation of Kytherian migrants in Izmir found occupations as farmers and sailors, many went on to set up successful businesses in commerce, financing, and shipping. A similar pattern holds true for the Kytherian community of Alexandria in Egypt, which flourished until the foreign policies of the mid-20th century that seriously restricted migrant labour.[3] A smaller but no less financially prosperous stream of Kytherian migrants of the late 19th century settled in the port of Braila in Romania, capitalising on the commercial and shipping opportunities offered by the trade routes connecting the Danube and the Black Sea to the Mediterranean and Western Europe.[4]

The early 20th century marks the beginning of mass transatlantic emigration, in two main waves:[5] one between the 1890s and the 1920s, that was directed primarily towards the United States,[6] and a second in the Interwar period and especially following the end of WWII, with a wider range of destinations, including – besides the United States – Canada, and most significantly Australia,[7] as well as European countries, predominantly Germany after the 1960s.[8] The first wave in the beginning of the century was triggered by crop failures, most intensely felt in the Peloponnese. This development, in combination with the failed Greek-Turkish war of 1897 had catastrophic results for the Greek economy, creating conditions of extreme poverty. Similarly, the economic and political repercussions of WWII, in addition to the instability and violence caused by the Greek Civil War that broke out immediately afterwards (1946–1949) contributed to the even stronger second migratory wave. The booming economies of the

2 Kassimati 2014.
3 Kassimati 2019.
4 Kontogeorgis 2012.
5 Kardassis, Harlaftis 2006; Kitroeff 2006.
6 See e.g. Moskos 1989; Laliotou 2004.
7 See e.g. Gilchrist 1992, 2004; Chimbos 1994; Tamis, Gavaki 2002.
8 See e.g. Lianos 1980.

FIGURE 3.
RHMS Patris, the liner that brought thousands of Greeks to Australia from 1959 to the 1970s.

destination countries and the high needs for cheap labour in their industrial and urban centres determined to a great degree the direction of migratory movements, and eventually many of the migrants managed to achieve an upwards socio-economic mobility.

It was the migratory wave to Australia that would leave the strongest and most long-lasting marks on Kythera and the lives of its people. Kytherians were among the first Greeks to venture to Australia as early as the 19th century. As part of the United States of the Ionian Islands (1809–1864), a semi-autonomous protectorate under the British Empire, Kythera was put in the orbit of a massive colonial network – albeit in a peripheral manner.[9] Kytherians and other Ionians serving on British ships were able to gain knowledge of the region. At this early stage their migration cannot be described as systematic, and it was to a large extent driven by rumours about the abundance of gold in Australia. The transition to the 20th century saw an increase in numbers, and often migrants previously settled in the United States or Alexandria and Izmir relocated to Australia in search for better work opportunities. As migration swelled in the years after WWII, it is estimated that there are now more than 50,000 people of Kytherian descent in Sydney alone, while the island at present has a population of merely around 3,500 (Figure 3).

From an early time, the Australian Kytherians engaged in business, initially on a very local level, working as unskilled labourers. The majority of first-generation migrants were young, in the beginning predominantly male, with a low level of education, that had to adjust the hard way to a new social and cultural environment and a different language. Progressively they created their own families and many were able to open their own small businesses, like milk bars and fish'n'chips establishments (Figure 4). Many of them thrived, eventually bringing significant wealth to some of the immigrant families and establishing themselves among the "elite" of the non-British society of Australia. Second and third generation Greek-Australians were thus able to receive high education and to occupy prominent positions in business, sciences, and arts. The Kytherian diasporic community in Australia, nurturing a close collective connection to the island, has also maintained an important role in Kythera's economic and cultural life, not only in terms of revenues, business and property investment, or tourism, but also through a small but non-negligible flow of return migration.

Return migration from Australia to Kythera is mostly a phenomenon of the end of the 20th century, which was also a time that saw a decline of outwards migration from the island, and Greece as a whole. Joining the European Union had positive albeit rather ephemeral effects on the Greek economy, and rapidly transformed migratory patterns, with a decline of mass-emigration. A roughly contemporaneous sharp increase in immigration rates was heavily influenced by the drastic political changes in the Balkans. Alongside the return of a sizeable number of Australian, European, U.K., and USA expats, Kythera experienced a notable influx of immigrants from Albania, and to a smaller extent from other Eastern European countries.[10] The shrinking and increasingly ageing permanent population on the island, which was an outcome of both the overseas migration and the relocation of many Kytherians in the wider area of the Greek capital, created needs in the labour market that could not be met locally. These employment opportunities weighed in to individual decision making of Albanian migrants, who started settling in Greece after the end of the totalitarian regime in Albania.

Albanian economic immigrants arrived on Kythera initially as single male workers, and eventually, as observed in the rest of Greece, family migration came soon afterwards. Absolute numbers do not necessarily convey the full picture, as they do not take into account seasonal workers and individuals with uncer-

9 Pratt 1982; Prineas 2009.

10 Kassimati 2021.

FIGURE 4.
Greek (Kytherian) storeowners at Nyngan, central NSW, 1933 (courtesy of Hariklia Castrisos).

tain legal status, but based on data of recent decades, roughly 400 Albanian migrants work and live on the island, accounting for over 10 percent of the total permanent population. They were quickly absorbed in the primary sector of the local economy, especially as farmers and construction workers. They became an integral part of the local work force, despite the fact that the reactionary character of Greek migration policies created systemic obstacles in the way towards social inclusion and political participation. The financial crises over the past 20 years have also generated trends of return migration, though the slow growth of the Albanian economy contributes mainly to several formal and informal modes of circular mobility and remigration.[11]

The Kythera case study opted to focus on the migration to and from Australia and Albania as these two strands of transnational mobility proved the most impactful in shaping the realities on the island. However, one should not overlook the recent exodus of highly qualified individuals towards countries of Western Europe and beyond,[12] or most importantly the experiences of thousands of refugees reaching Greece – and Kythera – as they flee warfare and humanitarian crises in the Middle East and elsewhere.

The five objects selected to illustrate the materiality of the Greek-Australian and Albanian mobility on Kythera, as part of the present exhibition aim to testify to the diverse experiences of first- and second-generation migrants of different age, sex, level of education, and occupation. The objects, recorded in 2022 and 2023 on Kythera for the *Finds Stories* fieldwork campaigns, belong to 14 individuals currently residing on the island, who are either contemporary migrants or return-migrants. The individuals, aged between 45 and 90 years old, volunteered to participate in our research by providing objects they felt a strong emotional attachment to in relation to their personal or family migration. The total of 45 recorded objects that constitute the studied material corpus from Kythera form a widely varied group, from passports, to children's books, land working tools, and floor tiles. Their owners offered accompanying oral testimonies aimed at identifying their relational connections and interactions with the objects, and the ways they are linked to their individual migratory journey. The biographical approaches presented here and the creative works inspired from them intend to convey the diversity of their experiences.

11 Gemi, Triandafyllidou 2021.

12 Labrianidis 2014.

Christina Marini

Leather Suitcase

Leather suitcase, manufactured in the second quarter of the 20th century, most likely in Britain or in Australia. Recorded in the village of Karavas on the island of Kythera.

The suitcase is rectangular, with dimensions of 66 x 43 x 22 cm, and is made of a hardboard frame with embossed, deep brown leather cover over the entire exterior surface. It is equipped with metal hardware and a leather handle, while two metal snap locks flanking the handle keep the suitcase securely closed. The handle is attached to a leaf-shaped leather plate on its two terminations, and is fixed in place with a single similar rivet. A leather tag on the handle bears in handwriting the name of the owner. The corners of the suitcase are strengthened with leather caps, each fastened with nine flat-headed rivets – three on each side. The corners of the standing surface in particular are additionally supplied with metal studs, to minimise chances of wear from friction when lifting or resting the suitcase on the ground. The suitcase has only one compartment, and two pairs of leather straps could be adjusted to keep the contents in place in the course of travelling. The signs of wear are obvious, and include several scratches and cracks on the outer surface, marks and smudging on the inner lining, heavy oxidisation of the metal gear, and several missing rivets. One of the snap locks is broken, while at some point in the course of its use the lid was repaired, with the addition of six rivets towards the edge of one short side.

In lack of concrete information regarding the manufacturer, there is little that can be said about the social context of the suitcase's production. It is, however, certain, that the manufacturing and distribution process of the object created a broad field of diverse interactions developing around the acquisition of raw materials (hardboard, leather, metal hardware, paper), the collaboration of craftsmen with different skillsets and specialisations, and the likely involvement of vendors or middlemen along the object's initial path from producer to consumer. What we can securely claim is that the suitcase was purchased by its first owner, Theodoros, in Sydney, at some point prior to his return from Australia to Kythera in 1949.

Theodoros was a first-generation migrant, who migrated to Australia during the Interwar period, in the late 1930s. He had just been married on his island of origin, Kythera, and immediately after the birth of his first child, Matina, he made the decision to join some of his relatives who were already based on Sydney and find a job there in order to financially support his newly created family. His move was never intended to be permanent: it was driven by opportunity and was meant to be temporary, aiming towards the achievement of a more or less loosely defined financial goal. However, the outbreak of WWII found Theodoros stranded in Australia, and in combination with the ensuing civil war in Greece, led to a much-prolonged stay until his ultimate reunion with his wife and daughter Matina twelve years later. The suitcase was purchased in anticipation of this return voyage to Kythera, and thus contained the material possessions that its owner considered essential or valuable enough to bring along with him from his former life in Australia.

Suitcases, travel trunks and other forms of luggage are in general intricately linked to the migratory experience. Research has variously focused on the possessions of first-generation immigrants at the time of their migration and the role they played as repositories of memories and bearers of narratives and traditions.[13] The contents of suitcases and trunks have been extensively shown to symbolically represent new beginnings in new countries and to help in the mitigation of the emotional repercussions of migration and dislocation. Research conducted on travel trunks and glory boxes of both Greek and Italian migrants to Australia after the end of WWII has shown the highly symbolic character and emotional value of the objects they contained, as well as the gradual transformations the main functions and meanings of these objects underwent through the migratory experience.[14]

In the case of Theodoros' suitcase, a reverse but no less significant process can be traced. The contents of the suitcase that accompanied him on his return migratory journey comprised a curated selection of objects that the owner regarded worthy, necessary, or useful enough to have with him in the course of his resettlement in Greece. They provided a tangible means of creating a bridge between people, landscapes, and experiences of two spatially and temporally separated parts of his life, and in this way the suitcase itself was interconnected with the process of forging a sense of continuity, of moving forward without alienating himself from his migratory past. It was intertwined with its owner's perceptions of home and belonging, and his hybridised sense of self-identification, which, as widely observed for diasporic populations,[15] by the time of the voyage to Kythera lay between the "here" and "there".

We do not know which ship Theodoros – and the suitcase – would have embarked on in their homewards journey to Greece, but it can be assumed that they must have been aboard one of the major steam liners of the time. The tag, recording the name of the owner, highlights another knot in the object's itinerary, indicating the owner's concern with making sure he did not lose track of his possessions for the duration of the long sea voyage. The latter must have also involved a stop at the port of Pireaus, before ultimately reaching Kythera. In fact, the arrival on Kythera marks the interweaving of the itinerary of the suitcase with the childhood of Matina herself. Being a new-born at the time of her father's departure from the island, Matina's first memory of her father – and one that would stay with her for decades to come – was meeting him on the port of Kythera, carrying this suitcase. The object was entangled with the promise and the expectation of building a relationship with a father that she had been unwillingly separated from throughout her childhood.

The suitcase, according to Matina's testimony, had contained mostly ropes, tools, and other implements. It was brought to their family home in Karavas, placed under her parents' bed and was never used again for the purpose of traveling. Nevertheless, its sturdy manufacture and utilitarian character as a storage container continued to be appreciated, and it gradually transitioned to be used as a toolbox – a use already relevant based on its reported contents at the time of the return journey to Kythera. It thus acquired new meanings and functions, and maintained them until the house was passed down to Matina and her husband, after her parents' death. This was by no means, the end of the object's itinerary: since Matina and her husband eventually became migrants to Australia themselves, they connected to Theodoros' journey and its material aspect, identifying in it parts of their own experiences. They opted to donate the suitcase to the Migration Museum of Kythera, an initiative of Greek-Australian expats that is envisioned to house the diverse migratory experiences associated with the island, and as part of this future collection the suitcase and its transnational itinerary will be embedded in a new web of relational connections.

Teapot

Silverware teapot manufactured during the second quarter of the 20th century. It was recorded on the island of Kythera, in the village of Karavas – the place of residence of its current owner.

The teapot, measuring 17 cm in height and 25 in width, has a fluted body and is decorated with festoons executed in relief. It is preserved in very good condition, with slightly tarnished surfaces and signs of use, and a mildly damaged lid, whose elaborate knob is no longer securely attached.

The itinerary of the vessel can be examined in three segments: the manufacturing process, its circulation and use in Australia during the 20th century, and its present-day status in the possession of its current owner, Tony.

The manufacturing process created a setting for a wide range of social interactions. Different people were involved at different stages across the *chaîne opératoire*, from the procurement of raw materials, and technical equipment to the operation and maintenance of the industrial facilities. The teapot was also linked to processes of design, company branding, and advertising strategies, while its promotion and distribution involved a large number of intermediaries.

The teapot was produced using the electroplating process: a technology that developed in the 1830s and was used to plate a less valuable base metal with a precious one. The engraved details on the underside of the vessel provide precise information about the manufacturer and the applied technique. It was manufactured in Sheffield, by the firm of James Deakins & Sons, and is made of Electroplated Britannia Metal. Britannia metal

13 Bertram 2010; Burrell 2000; Tolia-Kelly 2006.

14 Agutter *et al.* 2013; Palaktsoglou *et al.* 2014.

15 Tölölyan 1996; Hall 2006.

was a pewter alloy, introduced as a cheap alternative to silver. In contrast to Nickel Silver – a copper alloy that was contemporaneously used as an affordable substitute to silver – Britannia metal was less durable, but both materials were used widely for cutlery and table wares.

The technology our teapot employs, albeit no longer innovative at the time the specific vessel was made, should be placed within a certain scientific and economic setting.[16] Its emergence and success is entangled with the recruitment of science for the maximisation of profit in the industrialised, capitalist economy. Electroplating offered an inexpensive way to achieve mass-production. The factory setting of the production of the vessels is intertwined with social change: with working class individuals trying to make a living and their fights over work rights. In fact, electroplating factories were central in strives over regulating work conditions in Britain, especially in the second half of the 19th century. The popularity of electroplated wares is further tied to the rise of the middle class in Victorian Britain. The technology opened the market to objects previously associated with aristocratic status. Luxury objects, along with the ideologies and symbolisms tied to them, were no longer as exclusive, allowing a widespread emulation of consumption patterns, which, among many other things, encompassed the British tea culture. The electroplated vessels appealed to the aspiring middle and lower classes, emulating the tastes of the upper class.

Deeply entangled with the materiality of British (post)colonialism and the ideological and class- associated matters intertwined with British tea culture, the teapot was transported overseas, enmeshed in a network of commercial interactions both in Britain and Australia, finding its way to an establishment owned by the uncle of its current owner. In order to understand the conditions of its entanglement with the materiality of the Greek-Australian migration, and accordingly the next segment of the vessel's itinerary, in 20th century Australia, one needs to first take a quick look to America, where many Greeks, including Kytherians, migrated to as early as the late 19th century. The Greek migrants there became active in the food catering industry and many of them transferred this knowledge and experience when they relocated to Australia in the Interwar and post-WWII period. In fact, many Greek migrants in Australia bought pre-existing food businesses, like oyster saloons, and upgraded them, by incorporating soda parlours and American-style ice-cream.[17]

Hence, the Greek café was introduced, which was albeit run by Greek owners, had nothing in common with the traditional Greek coffee culture (*kafeneia)* or in fact the Greek cuisine. These Greek cafés, milk bars, soda and sundae parlours reproduced the cosmopolitan environment of American dining establishments and often brandished names like Niagara, Olympia, Hollywood etc., imbued with the glamour of American innovation.[18] On the other hand, they maintained a persistently Anglo-cuisine, catering to the local Australian taste. Tea was a consistent element of the served menus, and this is the setting our teapot needs to be contextualised in. Unlike other teapots belonging to similar establishments, it did not bear engraved branding of the café it originated from – as it was never custom made for the specific business, when it was manufactured in Sheffield. It was, however, stylistically adhering to Victorian formal characteristics, catering to a nostalgia of elitist consumption patterns of the past.

Within the context of the café/milk bar the tea pot was part of the materiality of a pattern of business practice that had a strong impact on both the Australian and the migrant communities. The Greek cafés were among the most iconic enterprises where Australians met, dined, and socialised, not only in urban centres, but also in much more remote, rural areas. It became so ubiquitous that the phrase "I'll meet you at the Greeks" became common in the 1940s–60s. At the same time, these establishments offered employment and financial security to the migrant families, and created a space for social interactions. When interviewed about it, Tony mentioned that he has vivid childhood memories of his uncle's café and the teapot allows him to connect to his family history. The fact that two more individuals among the volunteer interviewees from Kythera opted to talk about similar silverware teapots during the *Find Stories* fieldwork campaigns on the island, shows that these vessels eventually became tied to personal experiences, memories of successful business ventures, and transitioned to tangible links to places, family members, and relationships.

The most recent segment of the teapot's itinerary involves its rediscovery by Tony, in the building that housed his uncle's business, after a period of abandonment. Its interconnectedness with matters of ancestry, family, and history, in addition to the aesthetically pleasing design and the good state of preservation, resulted in its re-incorporation in a new context, that of Tony's

16 Gleason 2001.

17 Risson 2014.

18 Alexakis, Janiszewski 2016.

household. This eventually resulted to its transportation to Kythera. While the owner was born and raised in Australia, to a family of Kytherian descent, his connection to Kythera brought him back to the island periodically, and eventually on a permanent basis during the Covid-19 pandemic. The teapot is now not valued for its utilitarian function, but instead is cherished for its emotional and symbolic association with family history and heritage. In more ways than one, the vessel, along with the materiality of the Greek café as a whole, partook in the shaping of a physical space for the negotiation of hybridised identities at communal and public level, and the mediation of shared practices and imagery. Deprived of their Australian context, the teapot is neither out of place, nor out of time, but instead captures the in-between-ness of the diasporic experience.

Kilim

Contemporary woollen kilim, made in a village of Southeast Albania in the 1990s. Recorded in the village of Karavas on the island of Kythera.

Kilims are flat tapestry-woven rugs or carpets decorated with geometric patterns that are ubiquitously found in the textile tradition from the Middle East to the Caucasus and the Balkans. The object presented here, measuring 60 x 220 cm, was designed for covering the oblong floor of a corridor. It is decorated with abstract geometric motifs in stacked, symmetrical compositions, executed in vibrant colours (red, green, light blue) on a black background within a neutral beige frame along the perimeter. The short sides of the carpet have an additional black border with tasselled termination. It was woven on the loom by its owner, Claudia, using locally sourced lamb's wool.

Similarly to most of the objects that belong to the Samarina material corpus of the *Finds Stories* project, the manufacturing process of the kilim is deeply intertwined with the social construction of gender identities and gender roles, and their interplay with the division of labour within households and beyond. It is also linked with the ways all of the above aspects shift with differential pace, depending on the social and economic context, and the historic circumstances, particularly with the rapid modernisation of the Albanian society after the collapse of the totalitarian regime.

Weaving and kilim production has a long history not only in Albania, but the Balkans as a whole, and stretches back to the Ottoman and Anatolian tradition.[19] Weaving held a central place among domestic activities, especially in pastoral communities and transhumant populations. Textiles were destined both for domestic use and exchange, and as such they played a significant role in the household and village economy. The craft was typically passed down from one generation to the next among the female members of a family – as in the case of our interviewee, who informed us that she was taught how to use the loom by her grandmother. In Albania, during the communist regime, many women were further trained by the state and were employed in large factories producing handwoven rugs mostly for export.[20] This is indicative, on the one hand, of the potential this industry offered for financial profit, and, on the other hand, it illustrates how aspects of "folk culture" were recruited and incorporated in state narratives. The latter element – the exalted importance attributed to folk art and folk culture in the disseminated state ideology – may in fact be a major contributing factor to the prolonged persistence of this craft in the country up until the 1990s and its rapid decline in recent decades, with the onset of the modernisation of the Albanian society and economy.

With regards to the object itself, our interviewee recalls that the wool used for its manufacture came from flocks owned by people in the village where she was raised and the processing and dying of the wool was done by herself and her family. The owner wove it on her own on the loom and it was a copious project that according to her estimate, should have taken her roughly two months to complete. The manufacture of the kilim, therefore, as narrated by its owner, despite its modern-day setting, ties in to a millennia-long connection between weaving, knitting, or many other forms of textile and clothing production, and the construction of gender.[21] Not only were these activities almost exclusively considered to be a female responsibility, but also the very products of this highly gendered labour were equally crucial in defining womanhood and were often embedded in rites that

19 Petsopoulos 1979; Davis 2000.

20 Zoto 2020.

21 Barber 1994.

marked a woman's life, especially the transition to matrimony.[22] Women's identities were in various ways built, negotiated, and experienced through the material attributes of these processes and in many cases the lines between leisure and profit, work for covering family needs and work for trade purposes were easily blurred or merged.

This could not be more relevant for the maker and owner of this particular object, as she recollects that she was a young adult when she made the kilim, around the age of 18 or 19, and it was from its inception intended to be part of her dowry. As in many other parts of the world, marriage preparations in Albania entailed the fulfilment of financial obligations by the families of the couple, which could acquire the form of money, material artefacts that would be essential for building a new household assemblage, and expenses for the actual wedding ceremony. Recent analyses based on data drawn from the first half of the 20th century have shown that these customs were practiced in most parts of Albania, exhibiting wide variation on a regional scale, with notable differences between urban and rural areas, and often depending on religious and denominational factors.[23] In this context, the kilim was enmeshed in a complex set of relational connections, rooted in the conventions and socio-economic implications of marriage, alongside all other objects that comprised Claudia's dowry. Claudia herself, as well as her mother and sister actually made many of the tapestries, kilims, knits and textiles of her dowry, which started being compiled during her teenage years. The dowry was displayed in the bride's home prior to her wedding, for relatives, friends, and visitors to see, and subsequently accompanied her to the groom's village, where they settled after their marriage.

Due to the deep entanglement of these objects with their owner's identity and their links to her pre-migration past, many of the things that made up her dowry were transported to Kythera, when she relocated to be re-united with her husband, who had already migrated to Greece for economic reasons. The kilim was one of these objects, even though its owner mentions that she has very little use for it, due to the much warmer climate of the island compared with the cold winters of South Albania. Albeit rarely used, it is still valued by her as a reminder of her country of origin, her family and heritage, her own hard work and skill in the making of her dowry, and her marriage, that was a milestone in her adult life.

Wooden Jewellery Box

Wooden jewellery box, with carved panelled decoration, manufactured in the end of 1940s and the early 1950s on the island of Makronisos, off the coast of Attica and/or the island of Agios Efstratios, in the Northern Aegean. Recorded at the village of Agia Pelagia on Kythera.

The box is rectangular, with a single compartment of 15 x 20 cm. It rests on four legs of trapezoidal section that give it a total height of 10 cm. It is handcrafted and is heavily ornamented on the outside, bearing carved decoration with alternating panels of various sizes, in dense, symmetrical arrangements, containing floral and geometric motifs. The lid, attached with hinges to the main body of the box bears a central medallion, decorated with small structures in a rural setting. The front side of the box further displays a central rectangular panel depicting a Classical Greek temple in stylised execution. The box is varnished, with use of auxiliary muted red, green and dark brown colours for accentuating parts of the decoration. The interior of the box is lined with deep red velvet fabric and a small oval-shaped mirror is attached to the inner lid.

The object, currently owned by Vana, a Greek-Australian migrant of Thessalian ancestry residing on Kythera, has a complex itinerary, associated not only with long-distance migration and return migration, but also with the materiality and temporality of forced mobility in contexts of political upheaval.

The manufacture of the jewellery box is inseparably tied to the implications of the Greek Civil War (1946–1949), as Thomas – Vana's father – crafted the box in the course of his forced displacement as a political exile. The Greek Civil War, albeit receiving growing attention in recent historical research, remains one of the most sensitive and problematic chapters of modern Greek history, due to its long-lasting consequences that shaped Greek political and social realities for decades to come and are still felt acutely to this day.[24] In the years following the end of the Nazi occupation in Greece, while parliamentary democracy was re-

22 Auslander 2014.

23 Kera, Pandelejmoni 2008.

24 Iatrides, Wrigley 1995.

stored, and despite the widespread WWII resistance movement in which the communist party and other left-wing elements played a central role, Greek political life relapsed into a cycle of violence. It was characterised by the persecution against people with left-wing beliefs and those branded as communist "sympathisers". When not outright executed by rule of martial courts, they were persecuted, incarcerated or exiled in one of the many military-run concentration camps, where they were "rehabilitated", by means of torture, forced labour, and state-curated "ideological" re-education, until they formally denounced their former political views.[25]

Thomas, according to his daughter's testimony, after having fought alongside other members of his family, in the Greek People Liberation Army (ELAS), was exiled to the island of Makronisos and eventually Agios Efstratios. In the transient, traumatic setting of this forced internal exile, the manufacture of the box in specific, and materiality as a whole, was crucial for negotiating time and space in the physical and ideological confines of the camp. While surviving a traumatic period, whose structure was externally defined, and whose duration was uncertain, Thomas, as many other inmates like him, felt the need to actively develop material practices that would enable him to maintain a sense of agency. In the de-humanising environment of the exile, forcefully separated from places, objects, and people, the crafting of the box would have assisted in mediating feelings of loss or alienation, and in creating a bridge of continuity with pre-exile life and routines, as materiality is often observed to function in other forced migration settings.[26]

A single iconographic element reveals the deep entanglement of the box with the indoctrinating mechanisms in place at the time and their subtle subversion. The Greek temple of the Doric order featuring on the small central panel on the front side of the box invokes the reference to classical antiquity. Classical arts and culture held a central position not only in the ideological "curriculum" of the camps but also in the official discourse surrounding the "rehabilitation process".[27] Classical antiquity featured heavily in the disseminated propagandistic material and narratives, as opposing – communist – political beliefs were presented as being at odds with Greek identity and history, built on ancient Greek values. Makronisos especially was associated very closely with ancient Greece: even though the attribution of the term "New Parthenon" widely used to refer to Makronisos is ambiguous, intellectuals, politicians, and military figures often compared the camp with classical Athens. Exiles were forced to build copies of ancient buildings, monuments, and theatres, to perform ancient Greek plays etc. Antiquity, however, was also appropriated by the political discourse opposing to the oppression and was often utilised by the inmates in acts of covert resistance. This is how the depiction on the jewellery box can be interpreted: while deploying a symbol of the dominant discourse, Thomas decided to relegate it to a subsidiary part of the iconographic narrative, dedicating the more prominent medallion on the lid to a scenery possibly alluding to his past or future life.

The box accompanied its maker away from Agios Efstratios, and all the way to Athens, when Thomas was able to rebuilt his life. It was given as a gift to Evangelia, his future wife, and Vana's mother, enmeshed in a completely new web of relational connections and family dynamics. We do not know if Thomas signed a "repentance statement" or not. At the end of the day it bears little significance, considering that most of these statements were signed as a result of pressure, coercion, and violence. Regardless, the social repercussions of being in exile, in addition to economic factors, must have weighed in to the decision made by Vana's parents to migrate to Australia in 1962. There the box was part of the well-researched processes of creating a sense of home and belonging in a new environment, and was part of the family's migratory and transnational experience. It is doubtful if Thomas ever used the box for its functional purpose as a container prior to gifting it, but Evangelia certainly used it for storing her jewellery, and this is the way her daughter remembers it.

It was passed down to Vana by her mother as an heirloom, and it is cherished as an object connected to her parents' marriage, as a testimony of her father's endurance in the traumatic confinement of exile, and as an object commemorating her father's love for her mother. As such it is deeply tied to its current owner's family history and has followed her in her present place of residence, Kythera, where she migrated, following the route of a large number of Greek-Australian return migrants, despite not having a Kytherian ancestry herself. In our questions about the future she sees for the object, Vana mentioned that she intends to pass it on to her niece and nephew, so the object and its many stories of family and mobility can continue their course.

Souvenir Pot

Contemporary miniature ceramic vessel, purchased from a souvenir store in Tirana, Albania, in the 2010s. Recorded on the island Kythera.

The pot has the form of a miniature amphora, loosely inspired from the Late Antique and Medieval ceramic tradition. The vase has a height of 17 cm and a rim diameter of 5 cm. It is equipped with a funnel shaped mouth, with thickened inner lip, and vertical rim to shoulder handles with coiled terminations. It has a dumpy body with a low positioned maximum circumference of 9.5 cm and a flat base. The vessel is solidly glazed with moulded appliqué decoration depicting the Et'hem Bey Mosque in Tirana, and bearing the indication Albania/Tirana incised above. Auxiliary red slip and parallel incised lines were used to accentuate the transition to the base, prior to the attachment of the applique, while red slip further covers the rim interior.

25 Bournazos 2000; Voglis 2002.

26 Yi-Neumann *et al.* 2022.

27 Hamilakis 2002; see also van Steen 2011.

Very little can be said with regards to the manufacture of the vessel. It was produced in the context of a contemporary ceramic workshop and as such it was enmeshed in a web of social and economic relations between craftsmen and workmen in a professional setting. The hasty execution of the pot, as indicated by the overall irregularity of its shape, particularly visible on the asymmetrical rendering of the rim, points to the limitations imposed not necessarily by the skill of the potter(s), but rather by the need to cater to mass commercial consumption, in combination with a low production cost. The fact that the vessel bears auxiliary decoration that partly overlaps with the applique, which was subsequently attached, may suggest that such appliques, possibly even a range of appliques depicting different landmarks or other decorative themes, could be used on different vessels from the stock repertoire produced in the workshop to deliver a variety of vessel type-decoration combinations. The selection of the Et'hem Bey mosque illustrated on the applique, besides depicting one of the most prominent heritage sites of the city of Tirana, further reflects the changed official attitudes towards religious imagery, following the collapse of the totalitarian regime in the 1990s.

It is not certain whether intermediaries were involved in the distribution of the vessel, or if the manufacturer and vendor were part of a single business, but eventually the pot found its way to the display of a souvenir store in Tirana, where its current owner, purchased it during one of his visits to the Albanian capital. He transported it to the island of Kythera, where he currently lives with his wife and family, and where the vessel became part of his household assemblage.

In order to understand the circumstances and social context of the acquisition and use of the pot and its intra-Balkan movement, it is necessary to contextualise it within the changing circumstances that affected Albanian migration and return migration over the past decade. In particular, the economic repercussions of the Eurozone crisis of the 2010's were catastrophic for the Greek job market, leading to a rise in unemployment or drastically reduced income for many Albanian migrants, especially those working in the construction business. The latter, while rendering living in Greece financially unsustainable for many migrants, further created an environment of uncertainty and fear of loss of legal status and residence permits for entire families due to unemployment. As such, many Albanian migrants had to reconsider their situation, resulting to a wave of return migration.[28] While some transferred their economic activities to Albania, others maintained cross-border social connections and various forms of formal and informal circular migration to mitigate the risks of the instability of the Albanian economy itself. The transfer of savings and investments in property ownership or other ventures were also seen as a precautionary measure for avoiding the precariousness of the Greek banking system at the time.

It is in this context that the purchase of the pot by its current owner took place, long after his migration to Greece. The owner of the vessel initially moved to Kythera alone in the 2000s, as a single worker, following a pattern well-documented among Albanian migrants in Greece. He found a job in agriculture and construction, and became part of the growing Albanian community of the island, followed soon afterwards by his wife. While he did not disclose how the economic crisis affected his business, he did share with us that the vessel was purchased when he travelled with his family to Tirana, where they have also bought their own flat. In this way, the acquisition of the pot is entangled with major milestones in his and his family's migratory experience. While still permanently settled in Greece, they reached an economic capacity that allowed them acquire property, strengthening their links to their country of origin. They actually opted to acquire property in a major urban centre, instead of the smaller villages they were raised at, possibly because the Albanian capital offers opportunities for financial exploitation as well as social mobility.

28 Gemi, Triandafyllidou 2021, 41–78.

Therefore, the pot functions in a symbolic way as a material connection to Tirana, and the opportunities it offers. It holds a prominent place in its owner's home on Kythera, displayed on a shelf in the main living space, alongside family photographs, and other memorabilia from Albania, at a spot were the members of the family and visitors can have visual contact with any time they enter or use the room. Even though not phrased explicitly by the owner, the vessel seems to be valued for its entanglements to the family's migratory journey. It is in this way intertwined with the strong and complex cross-border connections that emerge between "home" and destination country in the course of transnational mobility, and from a broader perspective with aspects of return migration. As noted by recent studies focusing on return migration, return is not a single event, or a final step in the migration process.[29] Migration is instead conceptualised as a cycle, encompassing multiple and diverse episodes. Re-settlement in the country of origin need not be permanent, remigration is a frequently followed path, and a range of formal and informal strategies fall in between, as part of migrants' decision making against the risks of resettlement. In the case of this family, the achievement of economic goals in the country of settlement created positive circumstances for strengthening the ties to the country of origin by means of financial investment through property ownership, and the itinerary of this souvenir pot is intertwined with that, offering a visual and symbolic connection.

29 Cassarino 2004; Kuschminder 2017.

CREATIVE BIOGRAPHY — A NOTE FROM THE ARTIST

Maria Marinou

This cluster of seven mixed media paintings portrays different aspects of the suitcase's biographical elements and draws inspiration from the itineraries of other pieces of luggage containing migrant possessions as represented in the *Finds Stories* corpus. *Chaîne opératoire*, use-life, use-wear, materiality, various object functions, social interaction, object perception and relations with the owners, to name a few, have overall shaped their stories. These are further represented through utilising different materials, for instance, oil colours, pencil, leather parts, photography and prints, as well as the element of collage.

For us, the suitcase's story begins from the moment it was rediscovered in a village house on the island of Kythera, and continues with its biographical analysis that echoes through these visual representations, like memories of a past life. The main goal of this creative process is to add the visual element to these echoes and memories through the lens of academic archaeological theory and analysis. As a result, the visualisation of this study does not solely function as a mere visual translation of the written object's biography, but it furthermore creates additional alternating relationship pathways between the object, its biography, the artist, the artworks, the archaeological research, through space and time.

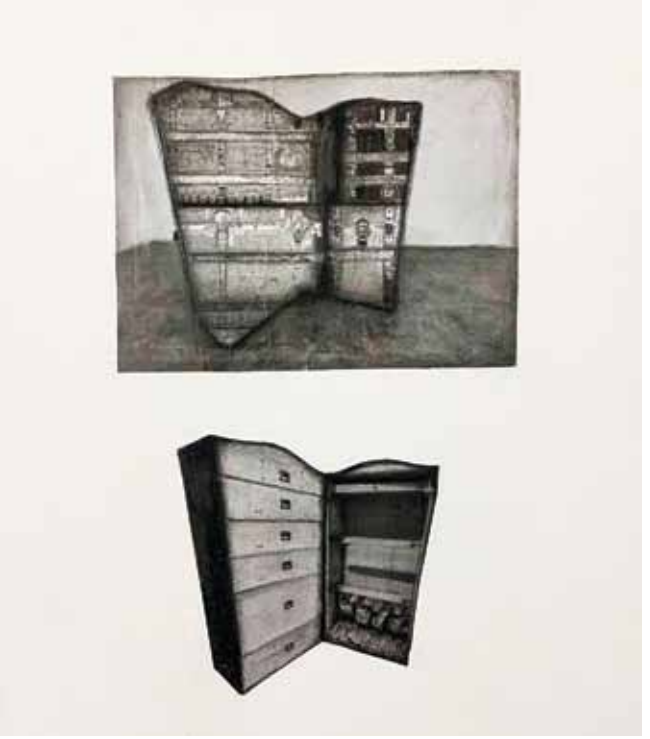

FIGURE 1. Bnw collage.

FIGURE 2. Leather.

FIGURE 3. Mining.

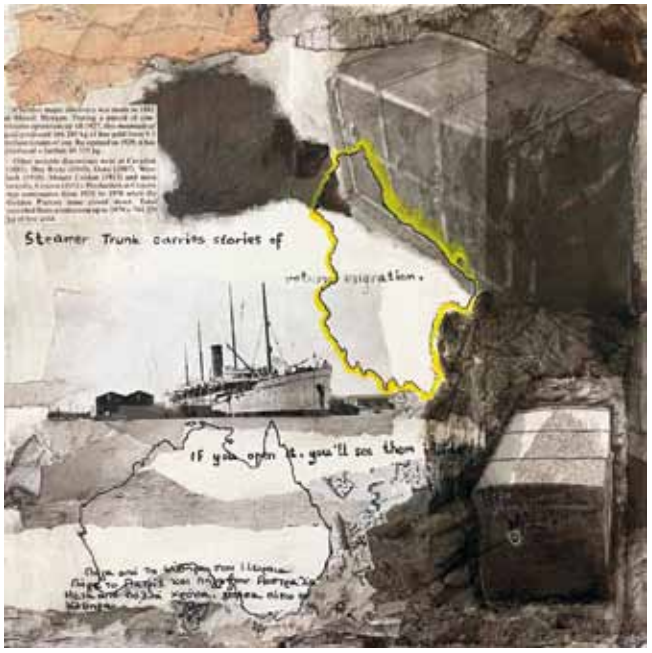

FIGURE 4. Patris.

FIGURE 6. Travel well.

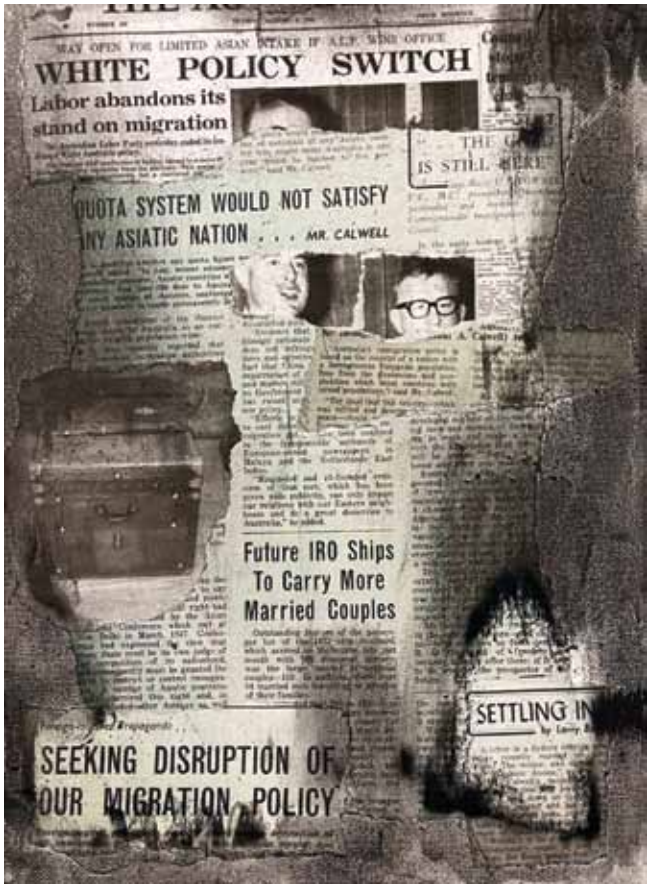

FIGURE 5. Seeking disruption.

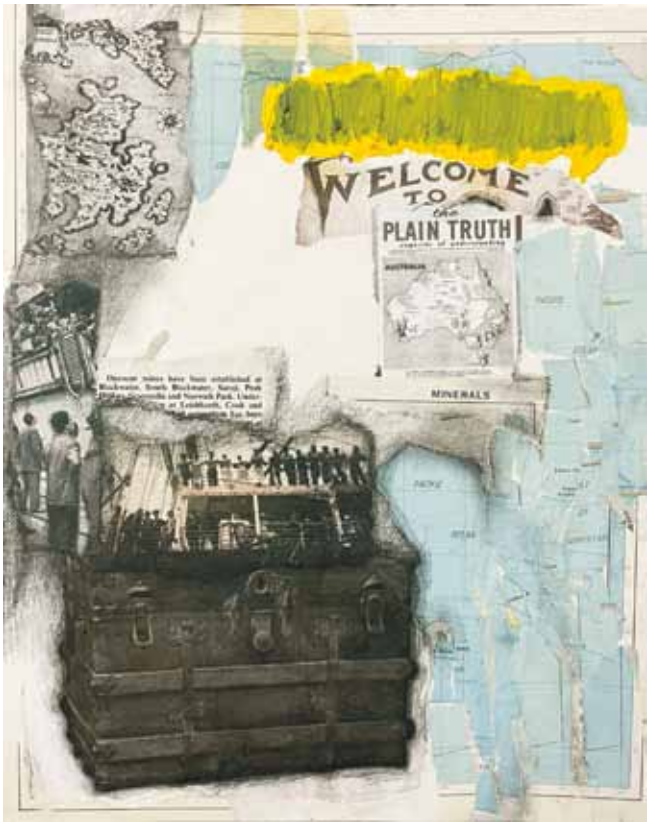

FIGURE 7. Welcome to the plain truth.

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VLACHS OF SAMARINA — A CASE OF MODERN TRANSHUMANCE IN THE SOUTHERN BALKANS

Konstantinos P. Trimmis, Melina Perdikopoulou, Christina Marini, and Christianne L. Fernée

Transhumant pastoralism is an economic activity which involves the seasonal movement of domestic herds between differentiated and complementary pastures. Transhumance is a form of semi-nomadic pastoralism in which domestic animals play a predominant, but not an exclusive role in shaping the economic and cultural lives of the people who depend on them.[1] This type of pastoralism is characterized by the relationship between seasonally mobile groups moving their livestock between permanent or seasonal settlements.[2] Vertical movement between highlands and uplands and agricultural activities in temporary lowland settlements is another strong feature that distinguishes transhumance from nomadism.[3]

Transhumance groups usually occupy marginal lands, because the better-favoured environments are already occupied by agricultural communities who permanently occupy a settlement. Therefore, pastoral nomads make use of environments that other economic systems cannot use and have discarded. Unlike nomads, however, transhumants have permanent 'homes', with certain members of transhumant communities remaining in their homes, while others occupy themselves in agriculture, craftsmanship, and trade.[4]

Historically, transhumant pastoralism has been, and is, a significant part of the economy in the Mediterranean and the Balkans. The Mediterranean climate has dry summers, forcing upland migration along extended routes feasible only for sheep and goats. Therefore, that climate and ownership of large estates together facilitated transhumance in southern Europe. Even today, seasonal migrations of herds and herdsmen takes place on a fairly large scale in many parts of the Balkan Peninsula and neighboring countries (i.e., Albania, Bulgaria, Greece, Romania, and the various countries of the former Yugoslavia)

FIGURE 1. On the move towards the lowlands.

(Figure 1).[5] Many researchers agree that the vertical movement of livestock in the Mediterranean can be dated even to the Early Neolithic.[6]

1 Galaty, Johnson 1990, 2–4.

2 Jones 2005, 357.

3 Ehlers, Kreutzmann 2000, 16.

4 Chang, Tourtellotte 1993, 252.

5 Bartosiewicz, Greenfield 1999, 48; Rafiullah 1966, 17.

6 See Halstead 1981, 312–319; Geddes 1983, 58; Greenfield 1986a, 28–36; 1991, 170–175; 1999a, 21–27; 2001a, 125–128.

FIGURE 2.
Historical photo showing the traditional equipment for the annual movement.

While the existing literature tends to recognize ethno-religious differences, most of it identifies the region's transhumants by the general name "Vlach", as applied to the transhumant shepherds of the Greek highlands since the 11th century. The Vlachs, (or Aromanians), are a large community indigenous to southeastern Europe who range from Greece to Romania. From the 12th to the 15th century, when the Vlachs constituted its principal population, northern Greece was called "the Great Wallachia", but during the following centuries the Vlachs were gradually Hellenized and the "Vlach" identity was associated not only with ethnicity, but also with a socio-professional position.[7]

The original homeland of the Vlachs were the mountainous regions of the Northern Greece (Epirus and Thessaly), the Northwest Macedonia, and the Southeast Albania. During the Ottoman rule over the region (until 1913) the Vlachs migrated from Epirus, Pindus Mountain and the Grammos Range towards the North and the East. The reasons for their migrations have been of multiple economic nature: the need of new pastures, the increased number of livestock, the prosperous trade with Austria, the declining trade activities with Venice, the afforestation of the mountains (after 1918) that limited opportunities for the free nomadic cattle-breeding. Multiple political events also contributed to the Vlach mobility, such as the administrative disorder in the Late Ottoman Empire, the pressure by the Muslim Albanians, the Romanian propaganda (after 1918) for the purpose to colonize the Southern Dobruja, among others.[8] The Vlach emigrants resettled themselves either in the hilly areas of Bulgaria, Thrace and Macedonia or found the new homeland in the towns in Austria, Serbia, Greece, and Bulgaria. Some of the urban Vlach residents became economically well-to-do citizens and even very wealthy entrepreneurs who played a significant role in municipal cultural and political life.[9]

The Vlach communities of modern Greek Macedonia and Thessaly consist of a rather large part of a group of peoples geographically spread across the Balkans.[10] Their history transcends the Byzantine and Ottoman empires,[11] but scholars are to a great degree divided by the fragmentation imposed by modern political borders. Traditionally, they inhabited the wooded slopes of northern Pindus between Epirus and southwestern Macedonia, beginning to move down to the plains of Thessaly and Macedonia in September, taking their flock with them (Figure 2). The Vlachs in northern Greece based their transhumance patterns on regular twice-yearly migrations between Epirus and Thessaly.[12] At least until the mid-nineteenth century, only a few families overwintered in their mountain villages, to maintain their businesses and as watchkeepers of the abandoned summer villages.

Materials presented in this volume come from the group of the Samarina Vlachs (Figure 3). Samarina is a large community/village located in the modern day Grevena administrative unit of the Western Greek Macedonia (Figure 4). In the summer months, more than 5000 people settle in the village while during the winter, very few remain working on the local inns and tavern. Sa-

7 Öncel 2021, 55–56.
8 Wace, Thompson 46–48.
9 Winnifrith 2009, 67.
10 Winnifrith 1987, 2, 9.
11 Nitsiakos 1985, 13–29.
12 Nitsiakos 1985, 36–37.

FIGURE 3.
Contemporary Vlach shepherds from Samarina, Grevena with their *kapas* and *glitsas*.

marina was established at some point during the late 16th century by Thessalian shepherds from Praetori village in Larissa region Thessaly. Samarina shepherds traditionally move their flocks from their highland summer residence to the lowland winter pastures and villages (*himadia*) of the Thessalian plain.[13] The journey (called strata or *diava*) towards the plains usually begins in late September or early October, and the move back to the uplands takes place in late spring, between late April and May. During the journey, sheperds, their families and the livestock followed a predetermined route and made stops in specific locations frequented for generations (*konakia*). During this laborious process of descending to the plains and returning to the mountains, families used to carry their entire households on foot and on animals.[14] However, with the increasing accessibility to motorized transportation, today trucks play an important role in assisting the transfer of household possessions and family members for the entirety of the journey or part of it.

With the increasing urbanization, the modernisation of production, state intervention, changing economic strategies, as well as climate change, the way transhumance is practiced by the Vlachs of Samarina has undergone significant changes. Since the third quarter of the 20th century, the Vlach communities have been extensively sedentary and the pastoral cycle, for those continuing to practice seasonal transhumance, has shifted, making the actual period of migration much shorter. Still, the return to the mountainous village of origin continues to be deemed crucial for maintaining group membership and reaffirming the shared heritage as transhumant pastoralists.[15] Some Vlach families return from the plains to the mountains in May, at the earliest on St. George's Day, while most other Vlach families preferred to wait until the great fair of St. Akhilios, which took place from 29 May to 5 June.

The resilience of pastoral transhumance over time, despite the adverse and sometimes hostile conditions to which it has been called upon to adapt, is remarkable and is largely due to its adaptability. The familial nature and deep connection of movement with family and community traditions, the attachment to place and the land, the functionality of mobile livestock in the context of a modern agropastoral economy are only some of the reasons that have contributed to the preservation of mobile livestock as in our days.

Older sources on nomadic pastoralism testify to a steady decline in nomadic herds. Over the last 25–30 years the population of mobile sheep and goats in Greece has remained stable, although the number of farms has been decreasing, which is linked to the formation of larger and more sustainable herds. However, this decline has been interpreted as a deterioration of the system, with the result that mobile livestock farming is considered dead. In the context of a generalized policy of support for intensive production systems, further strengthened by the policies of the European Union (Common Agricultural Policy), mobile livestock farming was not reinforced, ignored or even characterized as "obsolete" and "anachronistic".[16] Nev-

13 Wace, Thompson 1914, 4, 14; Sivignon 1968, 12–14.

14 Chang 1993, 692.

15 Chang 1993, 696.

16 Ragkos *et al.* 2015, 503–504.

FIGURE 4.
Panoramic view of the village of Samarina.

ertheless, mobile animal husbandry in Greece is far from dead today. Instead, it incorporates a set of traditional elements, as described above, appropriately adapted to today's reality, while it adopts a series of practices that can be characterized as innovative. *Finds stories* showcases the lifeways of modern Samarina pastorals through the biographies of people and their objects.

A total of 159 objects were recorded from Samarina, varying in type and functionality. These predominantly included some sort of kitchen and tableware (25%) or tools (20%), followed by pictures (8%) and grave goods (6%). The majority of the objects had a utilitarian function (44%) followed by culinary use (23%). Other functions included commemorative (12%), decorative (9%) and ceremonial (7%). In terms of manufacture, most required high artisanal specialization (37%) or were handcrafted and/or produced in a domestic setting (41%). Conversely, the minority of objects were mass produced (17%), or employed exotic/unusual technology (5%).

Object biographical accounts were produced for multiple objects, tracking their itineraries across time, space, and people. The biographies presented here include the *sofras*, the *haragia*, the *doubeki*, a hand-mill, the *kapa*, and the *glitsa*. These objects highlight the deep ties between material artefacts and the economic and mobility strategies of transhumant pastoralism, the shaping and maintenance of self- and collective identification within the Vlach community, and perceptions of gender within the family as well as in community setting.

Bringing together anthropological data along with the material and relational parameters of the objects, we can discern direct links between material culture and analytical evidence, and it becomes possible to observe how this interplay can be displayed on both objects and bones.

AN OSTEOARCHAEOLOGICAL PERSPECTIVE OF THE VLACHS OF SAMARINA

Christianne L. Fernée

Despite the historic economic significance of transhumance across the Mediterranean, we know very little about the impact that this movement had on the individuals that took part in it. To examine how the bi-annual movement impacts the pastorals of Samarina a sample of 23 adult skeletons from the late 19th/ early 20th century underwent a full osteorchaeological analysis. Age and sex were estimated according to established guidelines[17] and pathological and traumatic lesions to estimate the health implications of mobility.

Health

The 23 skeletons analysed consisted of 12 females and 11 males and spanned a range of ages (5 young adults, 8 middle adults and 10 old adults). The sample was extremely well preserved, with multiple cases of mummified tissue being present.

Diseases of the joints and spine

Joint diseases were infrequent in the individuals from Samarina. Osteoarthritis was observed in the shoulders, wrists, hips and hands and feet of four individuals (2 males and 2 females). Vertebral diseases were far more common, with approximately half of the individuals having some sort of vertebral pathology. Ten individuals, 4 females and 6 males, had Schmorl's nodes across. These depressions on the vertebral body are caused by the herniation of the intervertebral disc into the vertebral body. They can have many causes, a combination of genetic predisposition, disc shape and physical strain and trauma.[18] Eleven individuals, 6 females and 5 males, had osteoarthritis in their spinal column. Excessive activity may lead to articular degeneration and in archaeological contexts osteoarthritis has often been used as an activity-related skeletal trait. However, it is rarely possible to identify a specific activity from osteoarthritis in a particular joint. The presence of osteoarthritis depends on a combination of factors, including age, genetics, trauma and movement.[19] Twelve individuals showed signs of intervertebral disc disease (IVD). IVD results in pitting on the surface of the vertebral body and bone formation on the margins of the intervertebral disc. IVD is very common in skeletal assemblages and can be caused by many factors, including trauma, mechanical loading, and a genetic predisposition.[20]

FIGURE 5. Well healed break to right clavicle of skeleton 3.

Metabolic diseases

Metabolic diseases are often used as an indicator of deficiencies or surpluses in minerals. There were no signs of metabolic or infectious diseases in the historic pastoralists from Samarina. Only two individuals, both male, exhibited signs of trauma. One individual (SK 12) had a healed fracture on a single rib, whilst another (SK 3) had healed breaks/fractures to the clavicle, ribs and pelvis (Figure 5).

17 Buikstra, Ubelaker 1994.

18 Azzouzi, Ichchou 2022.

19 Burt *et al.* 2013; Waldron 2008; Roberts, Manchester 2005.

20 Waldron 2008; Urban, Roberts 2003.

FIGURE 6.
$\delta^{13}C$ and $\delta^{15}N$ isotope results for Samarina individuals (black diamonds) and animal baseline (mean and standard deviation) from Dotsika *et al.* 2019.

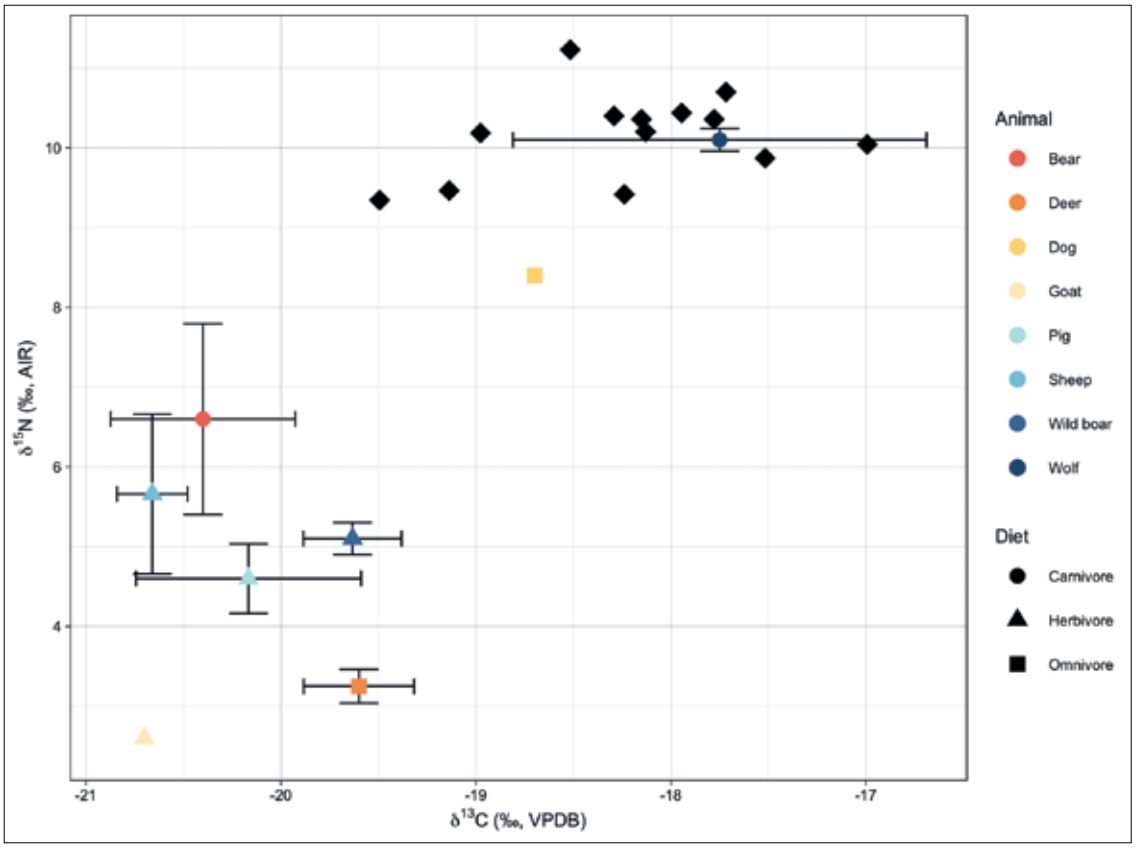
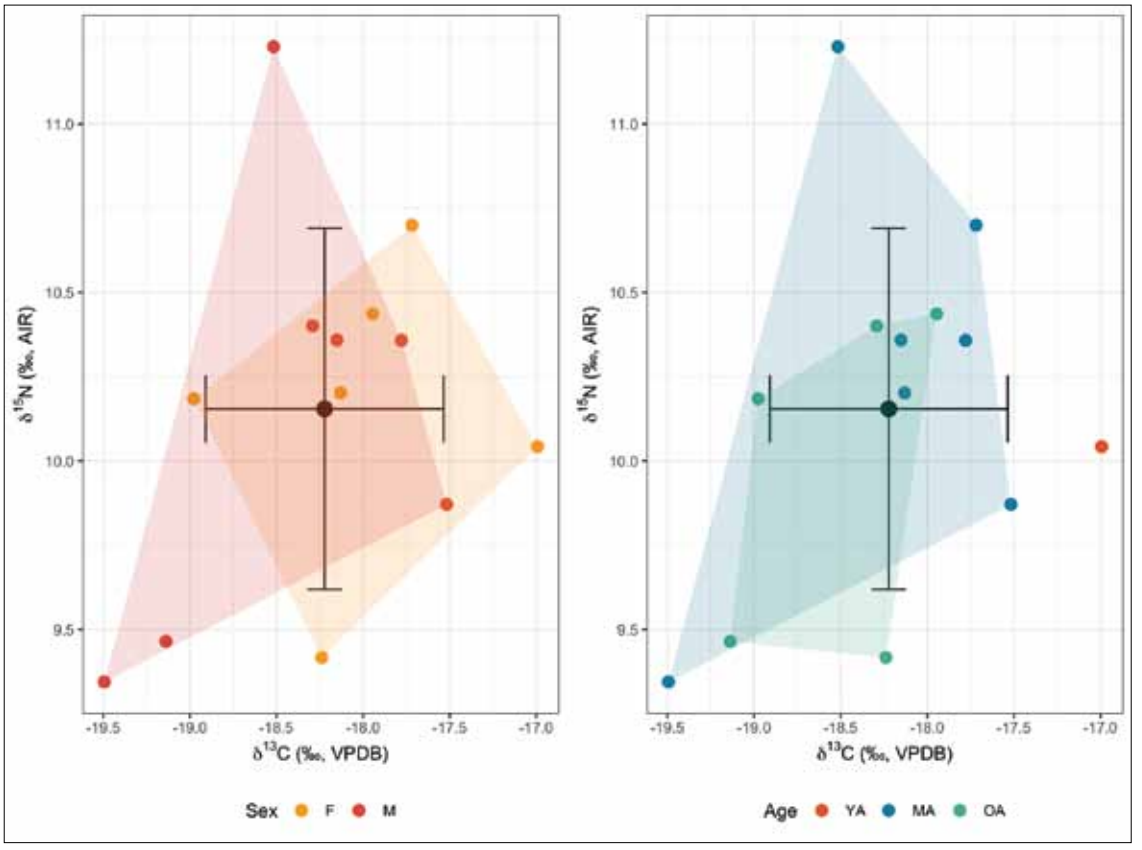


FIGURE 7.
$\delta^{13}C$ and $\delta^{15}N$ isotope results for Samarina highlighting differences between: left – males (M) and females (F), and right – Young adult (YA), Middle Adults (MA) and Old Adults (OA).



Dental health

Interestingly, the dental health of the individuals was extremely poor. All individuals exhibited some degree of tooth loss during their life. In fact, some individuals had lost all their teeth in their dentition. Teeth may be lost for a variety of reasons, including periodontal disease, trauma, extraction or scurvy, but periodontal disease accounts for the majority.[21] In the remaining teeth, a range of dental pathologies were present in the teeth that remained, this included 7 individuals with caries (3 females and 4 males), 5 individuals (2 females and 3 males) with calculus (mineralised plaque) and 7 individuals had periodontitis (6 females and 1 male). In addition to this, 2 individuals, both female, had evidence of enamel hypoplasia. These shallow horizontal grooves, encircling the tooth crown, are associated with childhood illnesses or nutritional deficiencies/malnutrition.[22]

Diet

Carbon ($\delta^{13}C$) and nitrogen ($\delta^{15}N$) isotopes were analysed to explore the diet of the transhumant pastoralists from Samarina. Carbon isotope ratios distinguish the contribution of C3 and C4 plants, as these have different non-overlapping isotopic ratios.[23] These values are increased by approximately 5‰ from diet to body tissue. Most plants use the C3 pathway, including wheat, rice, barley, all trees, shrubs, nuts and fruits. Populations that consume only C3 plants have $\delta^{13}C$ values from –20‰ to –21‰.[24] Conversely, C4 plants grow in arid climates, including corn, sorghum, sugarcane, millet and grasses. Populations with diet rich in C4 plants have $\delta^{13}C$ values as high as –10‰.[25] Nitrogen isotope values indicate the relative amount of animal protein (meat or milk) consumed. Nitrogen stable isotope ratios increase by 3–5‰ with each trophic level.[26] The consumption of marine and freshwater species also increases nitrogen stable isotope ratios, variable depending on the environment, ranging between 12–22‰.[27]

To interpret human data, an animal isotopic baseline is needed. Samples are required from a range of food species to help interpret human isotopic signatures. An animal baseline could not be obtained from Samarina, as there was no contemporaneous animal material present. Modern animals could not be used as sheep, for example, are fed using commercially bought feed which would skew the isotopic signatures obtained. Therefore, comparative animal data from local sites were obtained from elsewhere.[28]

A preliminary analysis of ribs from 13 individuals provides a picture of the diet of the historic pastoralists. The average $\delta^{13}C$ and $\delta^{15}N$ results for individuals from Samarina were –18.22 ± 0.687‰ and 10.15 ± 0.53‰ respectively. This suggests that their diet consisted of high proportions of meat and dairy products alongside the consumption of mainly C3 plants, such as wheat, barley and legumes. A comparison to an animal baseline highlights the dominance of animal products in the diet of the historic pastoralists (Figure 6). There is around a 6‰ increase from cattle, ovicaprids (sheep and goat) and pigs. This reflects an increase in a trophic level and, therefore, suggests that these consuming products come from these types of animals. Their dietary dependence on animal products is highlighted further by the individuals from Samarina who have a similar isotopic signature as carnivorous wolves.

The isotopic evidence suggests that there were differences in diet within the group. Males and females appear to have had a generally similar diet. The average $\delta^{13}C$ and $\delta^{15}N$ results for females were –18.00 ± 0.65‰ and 10.16 ± 0.43‰ respectively. The average $\delta^{13}C$ and $\delta^{15}N$ results for males were –18.41 ± 0.70‰ and 10.14 ± 0.64‰ respectively. However, males have more varied isotopic signatures than females (Figure 7), indicating that males had a more varied diet than women. Likewise, middle-aged adults also appear to have a more varied diet than old adults.

Mobility

Bone size and shape provide an insight into physiological stress and behaviour of past populations. Lower limb size and shape can be used to identify differences in the levels of mobility across the landscape.[29] To capture external and internal bone geometry, 21 femora and 23 tibiae were CT scanned using medical CT at Afidea, Kozani, Greece. The CT scans were segmented using Simpleware ScanIP to isolate bone surfaces and exported as surface files for further analysis.

Bone shape was analysed using Geometric Morphometrics (GM). GM allows quantifiable comparisons of complex shapes in fine detail.[30] This method uses landmarks to capture specific anatomical points and semi-landmarks to capture curves and surfaces. Each point (landmark and semi-landmarks) provides specific co-ordinates, which can then be used to quantify the shape. This method was employed to explore differences in mobility and movement across the landscape in individuals from Samarina.

21 Waldron 2008.
22 Goodman, Rose 1990.
23 O'Leary 1988.
24 DeNiro, Epstein 1981.
25 Schwarcz *et al.* 1985.
26 Bocherens, Drucker 2003; Schoeninger, DeNiro 1984.
27 Dufour *et al.* 1999; Schoeninger, DeNiro 1984.
28 Dotsika *et al.* 2019.
29 Osipov *et al.* 2020.
30 Mitteroecker, Schaefer 2022.

GM data was extracted in R[31] using the geomorph 4.0.4 package.[32] Femora were analysed using 27 landmarks, 12 curve semi-landmarks and 200 surface semi-landmarks. Tibiae were analysed using 27 landmarks, 6 curve semi-landmarks and 200 surface semi-landmarks.

The main sources of variation in femur morphology are related to the curvature of the femoral shaft (along PC 1 in Figure 9) and the angle of the femoral neck. However, the main axis of variation between males and females appears to be the angle and length of the femoral neck (along PC 2 in Figure 9), with a wider angle and longer neck apparent in females (Figure 9). This is likely the result of differences in the shape of the pelvis rather than differences in mobility. The female pelvis, being broader and wider, is adapted for childbirth. This, in-turn, appears to impact the morphology of the femoral head and neck.

The main axis of variation in tibia morphology are related to the protrusion and breadth of the tibial tuberosity (the ridge running along the front of the tibia) and the shape of the top of the tibia (Figure 9). Tibia morphology is similar between males and females at all ages (see overlapping points in Figure 6). This indicates a similar type of mobility regardless of gender or age.

Health, diet and mobility in Samarina

The skeletal evidence suggests that the health of the historic pastoralists of Samarina was generally good. However, two females did exhibit signs of childhood deficiencies and/or stress. Two individuals show evidence of fractures, but in both cases the fractures were well healed. Their dental health, however, was very poor. This is likely a combination of poor dental hygiene and diet. A diet heavy in protein and carbohydrates is often associated with high levels of dental calculus and caries,[33] which is consistent with isotopic and ethnographic evidence.

Food clearly played a central role in the lives of the pastoralists of Samarina, with many of their objects centered around food and consumption. The isotopic evidence is consistent with the material culture and ethnographic evidence. The heavy reliance on meat and dairy products is consistent with ethnographic accounts of dietary habits. Meat and dairy products were a staple of the pastoralist diet, with cheese continuing to be produced whilst on *Diava*.

Males appear to have a more varied diet than women, in terms of protein and plant intake. This likely reflects the gendered eating practices within the pastoralist community when not taking part in *Diava*. Our ethnographic research revealed that women would predominantly eat and socialise in a domestic setting, whereas men would eat and socialise in the village taverns. This greater variability observed in the male isotopic signature may reflect the more diverse dietary options available to men.

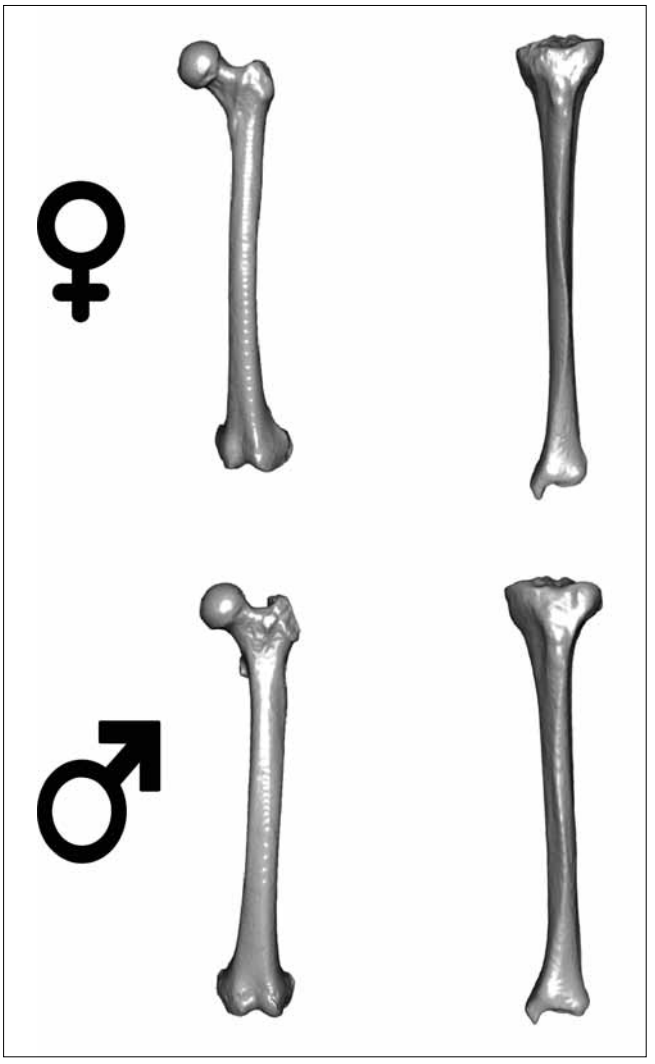


FIGURE 9. Average shape of female (top) and male (bottom) femora and tibiae.

Finally, the reliance on predominantly, but not exclusively, C3 plants is consistent with the material culture of Samarina. Multiple objects, such as the *doubeki* and the hand mill (see object biographies), were used by families to process cereal and grains.

The importance and inclusion of all individuals in *Diava* is highlighted by the lack of morphological differences in the lower limbs of the Samarina pastoralists. The similar tibia morphology of individuals by sex and age indicates that both males and females, old and young, were travelling through the landscape in a similar manner. This is supported by ethnographic evidence that whole families would participate in the bi-annual movement along the *Diava*.

31 R Core Team 2022.

32 Adams *et al.* 2022.

33 Forshaw 2014.

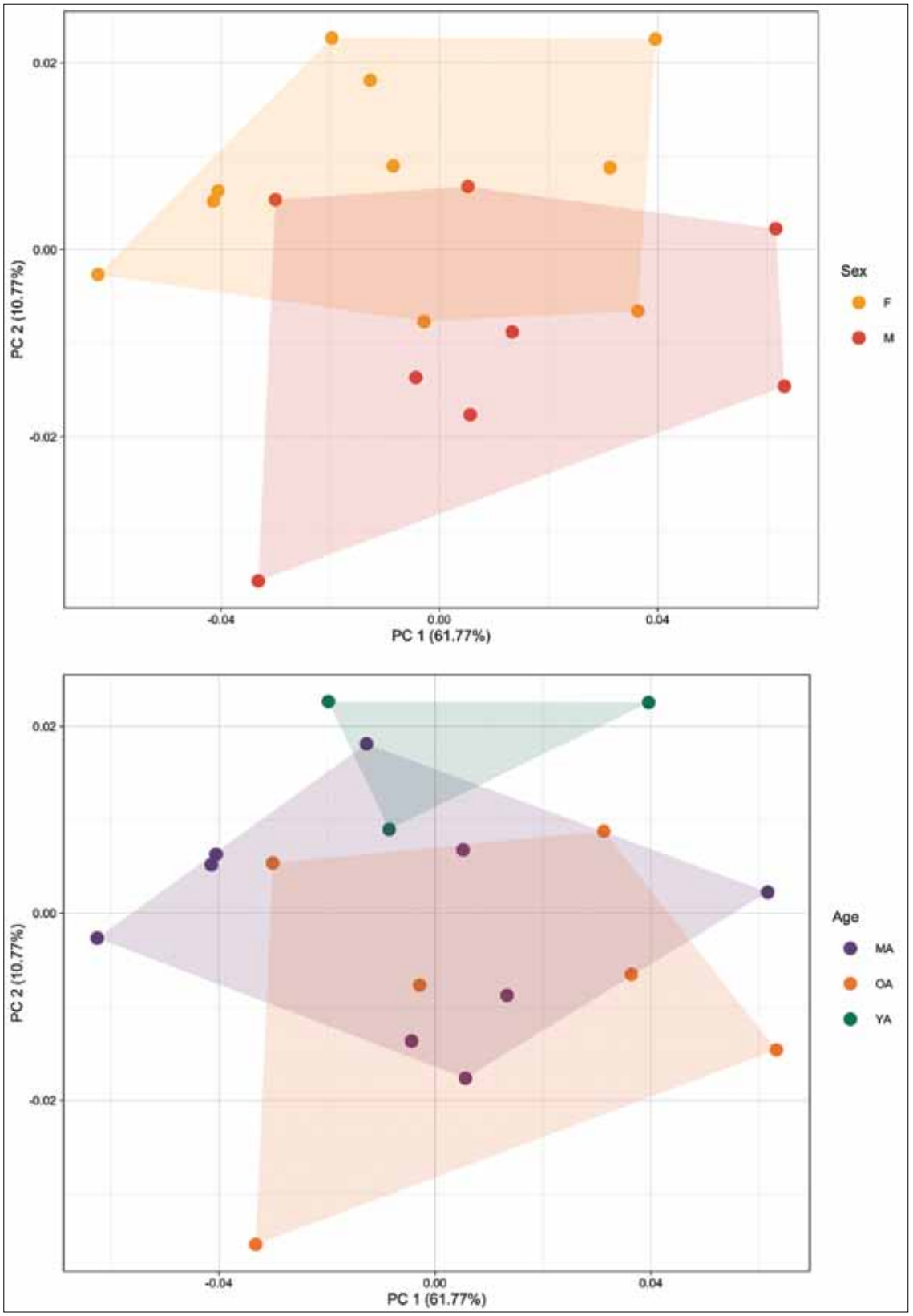
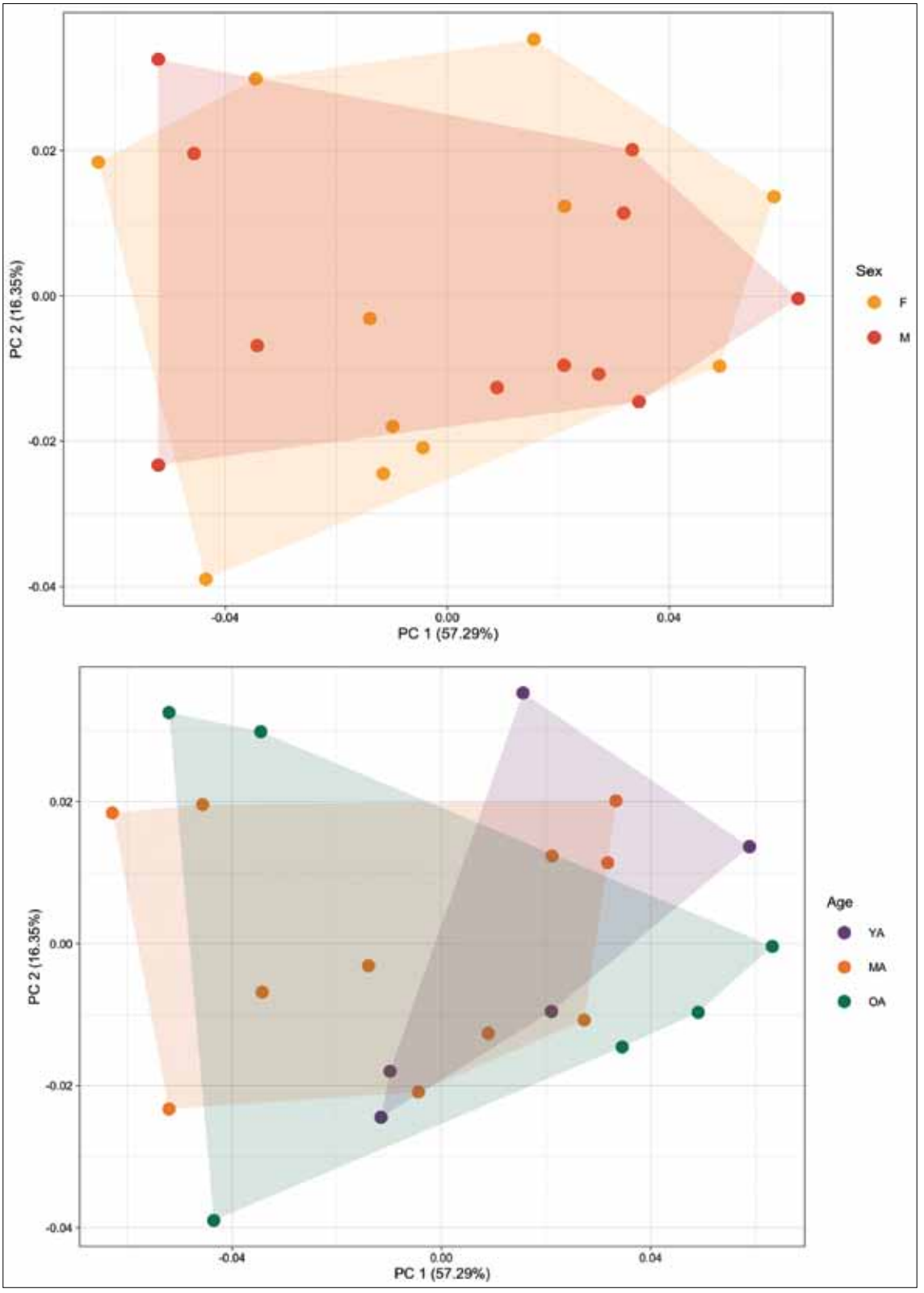


FIGURE 8.
PCA plot showing shape differences in femora by sex (top) and age (bottom).

FIGURE 10.
PCA plot showing shape differences in tibiae by sex (top) and age (bottom).



Christina Marini

Sofras

Wooden *sofras*, dating between the second and third quarter of the 20th century, and originating from the village of Samarina, in the area of Grevena, in northern Greece.

The *sofras* is a low round table, with a diameter of 62 cm and a total height of merely 24 cm. The top surface was made of a single plank that rests on two crossing oblong legs. The legs intersect in the centre of the table, leaving an open pyramidal space underneath. Each leg has been manufactured of three planks, which are held together and are attached to the table top with 20 iron nails on one side and 10 on the other. The wood used for crafting the *sofras* can be reasonably speculated to have been locally sourced from the wider Grevena area or Northwest Thessaly, and a range of raw materials, such as walnut or chestnut, could have been deemed appropriate for its manufacture. It bears abundant signs of use and wear. One of the legs was broken and repaired with the addition of two auxiliary wooden pieces, which further explains the unequal number of nails keeping the table together on each side. The surface is unvarnished, and could have also replaced an earlier one, accounting for the colour discrepancy between the legs and the table. Still, it exhibits visible marks of previous use, including scratches, indentations, and small pits made by blunt as well as sharper implements, consistent with its original household use.

The object forms part of the small community ethnographic collection of the village of Samarina. The objects comprising the collection were never systematically documented and their itineraries are at best blurred but mostly creatively enhanced, yet they are no less real in the imaginary of the community. The collection itself has become a point of reference for local conceptualisations of the historical past and its relevance to the present. Despite the scarcity of available date, the life-history of the *sofras* and its entanglement with social relations within and beyond the Vlach community can be closely pursued, by combining previous ethnographic research conducted on the subject of Greek transhumant pastoralist life and tradition, and can be enriched by the account given by Eleni – a resident of the village – who supplied information about another similar specimen that belongs to her personal collection of Vlach traditional items.

As a class of material culture, low tables are part of a long tradition extending to the Ottoman period.[34] The diachronic persistence of the *sofras* as part of Vlach household assemblages can be best understood by approaching the utilitarian role it played, fitting the transhumant realities and way of life down to the previous century, and consequently by exploring the entanglement of transhumant material practices with the shaping of Vlach identities.

34 Skouteri-Didaskalou 1999.

The easily transportable nature of the *sofras* rendered it an essential part of the moveable household items that accompanied the families during the period of winter transhumance and return to their summer village or settlement of origin in the mountains. It constituted the main dining table during the seasonal move along the traditional route followed by transhumant flocks. Family members and kinsmen gathered around it for the evening meal in the tent, once the animals were herded in the folds for the night. It was positioned on handcrafted woollen rugs, and its limited height, generally below 40 cm, eliminated any need for additional seating arrangements that would require the transportation of more furniture.

The object was interconnected with constructing, negotiating, or retaining family and kinship dynamics, which held a prominent position within the Vlach community. It contributed in shaping the physical space where such dynamics could develop and be performed, by serving as a material focus for these social interactions to the degree that they intersected with food consumption. As the main surface used for dining as well as food preparation, the *sofras* was entangled with food ways and the diverse paths culinary and food consumption habits were intertwined with self-identification and the creation of shared cultural values and ideologies.[35]

As a significant part of the equipment involved in the cycle of the seasonal pastoral transhumance and the Vlach cultural practices, the *sofras* lay in the heart of the processes that functioned as a core element in conceptualisations of their collective identity.[36] It was embedded in physical expressions of the transhumant pastoralist Vlach ideology. It partook into processes of negotiation and re-affirmation of social relations and it was involved in patterns of consumption of material culture that played a central role in both the internal organisation of the community and the maintenance of perceptions of Vlach identity as projected outwards. According to oral testimonies – including Eleni's, who is the current owner of one such specimen – these traditional tables continued to be symbolically used to evoke aspects of the transhumant pastoralist ideology even after the movement from summer to winter pastures had been modernised, making the need to transport furniture during the process more or less redundant. On weddings they are often placed in the main reception room of the house, bearing food and wine. They thus tend to remain imbued with meaning, particularly with regards to the commemoration or symbolic propagation of the shared transhumant background, by establishing a physical and performative link to transhumant identity and pastoralist origin.

After a long period of use, demonstrated by the signs of wear on its surface, which bears witness to the accumulation of biographic elements throughout its itinerary, the *sofras* came to be incorporated under undocumented circumstances to the local collection. It is unknown what kind of meanings it would have held for its previous owner. It could be speculated that at some point it might have been involved in kinship relations, connected to ancestry and family history, rendering it worth donating to the community exhibition. However, if we look at Eleni's testimony, her *sofras* was not described as an important object in terms of family history, for triggering childhood memories, or constructing a sense of home. Similarly to Eleni's object, this *sofras* has lost its utilitarian character along with its links to family relations. In its current context it is valued for its capacity to function as imagery of a past and a cultural heritage that some of the visitors of the collection have an attachment to. In lack of accompanying museological planning, though, the full range of implications of the object's entanglements is not easily accessible by a wider visiting audience that may connect with it at different levels, depending on their background, sense of self-identification, level of education etc. It is displayed as a signifier of heritage in more abstract terms and as a material connection to Vlach identity, as communicated outwards.

Haragia

Woollen sacks, used for transporting possessions and goods. The exact chronology of their manufacture is not precisely documented, but it can be securely assigned between the end of the 19th and the early 20th century. Recorded in the village of Samarina, in the area of Grevena, northern Greece.

The sacks, referred to as χαράγια or ντένκια by their Vlach owners, were handmade, using woven textiles made of sheep wool. The recorded specimens, measuring 100 x 70 cm, are in a black and white plaid pattern and are preserved in pristine condition. They are currently displayed filled and stacked one on top of the other in a private heritage collection in Samarina, belonging to Eleni, who provided an oral interview about them.

From their production to their current place as exhibits, the sacks present a prime opportunity to explore a multinodal itinerary, as their story is closely intertwined with the economic and mobility strategies of transhumant pastoralism, as well as the negotiation and solidification of collective identities. They are also deeply tied to perceptions of gender through the division of labour at household and community level.

The manufacturing process itself illustrates the entanglement of the sacks with the material practice and the ideology of Vlach pastoralism. The procurement and processing of the raw wool, necessary for the production of the fabric, was not a by-product of the Vlach subsistence strategies imposed by environmental determinism. Contrarily, the production of wool was the outcome of increased specialisation and held a prominent position in the Vlach economy. As indicated by Wace and Thompson's account on the Samarina Vlachs,[37] which was composed roughly

35 Twiss 2007.

36 Chang 1993.

37 Wace, Thompson 1914.

within the same timeframe our *haragia* are assigned to, wool and textiles were the economic pillars of the village economy, used especially for trade. After shearing, which took place in spring, credit for purchase of wool was given through informal arrangements. Any pending debts were settled later on, after sales of the final products in fairs, the largest one taking place in Konitsa in September.

The raw wool was processed over summer, and wool-working alone provides a close insight into the gendered division of labour. Research has variously shown that approaches emphasising the cross-cultural prominence of women as primary domestic producers of textiles can mask diversity in the modes of textile production in non-state societies.[38] However, the specialised pastoralism practiced by the Samarina communities was structured upon this model of gendered division of labour.[39] Specifically, wool-working and weaving are known to have almost exclusively been executed by women. Early 20th century Vlach domestic units tended to have a room dedicated to wool-working on the ground floor, equipped with carding implements for preparing wool for spinning and felting, a spinning wheel and a loom. It can, thus, be argued that the production of textiles, within which the manufacture of our Samarina sacks falls, was not only deeply embedded in the operation of the Vlach economy but was also pertinent to family and social dynamics. It affected the perceptions of womanhood and the social capital of women, who were directly involved in the production of specialised goods that were of pivotal significance for both the household's finances and the community's economy as a whole. The production of the sacks was, as a result, entangled with the ideological framework of reciprocal social obligations at both household and community level.

Based on the accompanying personal interview taken from the present owner of the objects, the two sacks were hand crafted by Eleni's maternal grandmother. Although it is possible that all relevant wool-working for the manufacture of the fabric was undertaken by the same person, it is equally likely that parts of the process could have involved other family members or even individuals that were not part of the household. This can be posited with certainty at least for the purchase of the raw wool in this case, since we know that Eleni's maternal grandparents were not herders themselves. They practiced long-distance transhumance, together with the community's sheep owners, but her grandfather was reportedly a maker of τσαρούχια, the type of footwear traditionally worn by rural populations.

The *haragia* had a utilitarian character and their function was inseparably tied to the cycles of seasonal migration of the Vlach communities. They were used for transporting all essential moveable goods of the household from the village of origin to the winter lowland pastures and back to the uplands in the end of spring. Filled with commodities such as articles of clothing, bed linen, etc., the sacks were loaded on the horses and mules, and secured with twisted ropes, whose high craftsmanship and elegance is praised by the present owner. As such a direct connection was physically and symbolically established between this specific class of artefacts and the ways collective pastoralist identity was conceptualised and performed.

The latter was an element that was consciously appreciated by the community, as the *haragia* of each Vlach village bore distinct colour combinations. Those from Samarina were, as we see on our specimens, black and white, while, for example the Vlachs of Avdella had their own red and brown pattern. In this way they functioned as visualised representations of identity and signified group membership. They were material manifestations of Vlach perceptions of ethnicity, which were solidly built on the practicing of transhumance and the commitment to a pastoral lifestyle, even if some of group members – as in the case of Eleni's grandparents – were not shepherds themselves. The village-specific colours and patterns provided a physical signal of belonging, promoting group solidarity and distinguishing Vlach groups of different origin.

38 See e.g Brumfiel 2006; Øye 2016; Harlow, Michel, Quillien 2021.

39 Nixon, Price 2001.

The sacks remained in consistent seasonal use by Eleni's grandparents and were subsequently passed down to her mother, and eventually to herself. Through this mobility across three generations of women they became part of their owners' family history, evoking their shared pastoral heritage. Eleni, who did not grow up practicing transhumance with her family, recalls vividly stories she had been told of her grandmother's experience crossing the deep river on horseback, during the transit to Samarina, and her efforts to maintain the family's belongings safe.

The objects found their way to Eleni's private collection, in which as mentioned above, they are still displayed in a way that attempts to re-create their original utilitarian properties. As part of the exhibition, they function as evocations of Vlach cultural and regional identity. In lack of accompanying labelling, however, their former entanglements are not fully communicated. This is specifically the case of the explicit links to the Vlachs of Samarina, which can only be acknowledged by visitors with prior knowledge of the significance that different colour pallets and patterns hold as markings of provenance. Interestingly the long-life cycle of our specimens is not a rare occurrence. The sturdiness of manufacture and the quality of the fabrics, in combination with the functionality of the *haragia* as protective containers of commodities, encouraged many other owners of similar sacks in their property to continue using them, long after they stopped actively participating in pastoral transhumance. As we learn from Eleni's interview, many of the sacks are still part of local households, often repurposed as covers or curtains.

Doubeki

Stone mortar used for pounding grain. The date of its manufacture is unclear, but its use extends to the first half of the 20th century. The artefact originates from the village of Samarina, in the area of Grevena, northern Greece.

This type of mortar features with different names in local tradition, like ντουμπέκι or τουμπέκι in the case of our specimen from Grevena, or τσιούμπα and τσιούμα in the area of Karditsa further to the South. It was manufactured from an irregular block of hard stone, limestone in the case of the Samarina specimen, and it bore a central round concavity that received the grains for processing. The Samarina specimen has a height of 55 cm and width of 32 cm. Its form is crudely rendered, bearing marks of the axe, hammer, or other metal tools used for the treatment of the surfaces and preserving rich evidence of wear associated with its use.

The use of similar mortars goes back to prehistory, and unlike rotary querns that served the coarser or finer milling of cereal, boulder mortars were used to pound wheat, barley, or corn with the aim to remove the husk and to crack and bruise the grain. The product was either subsequently removed for further grinding in the rotary querns, like the hand mill whose object itinerary is presented right afterwards, or it was collected and used in this form for cooking. The latter was commonly used for preparing traditional meals, such as *trahana* or bulgur that was a staple in traditional diet among the Vlach as well as farmer communities. Two mallet-shaped tools, traditionally referred to as στουμπόξυλα, were alternately utilised for knocking the grains that were poured into the concavity of the mortar. They were manufactured of hard wood, had elongated shafts, and the knocking of the grains was achieved by consecutively lifting them overhead and forcefully lowering them to the bottom of the mortar. To ensure the stability of the mortars against the repeated knocking, the blogs were often sunken in the soil, either partly or nearly to their top.

The biography of the *doubeki* can be traced back to its manufacture. We can securely assume, due to the size and heavy weight of the stone block, that the raw material was locally sourced, most likely in the wider vicinity of the village. The selection would have been determined by the characteristics of the stone itself, and especially its capacity to take the strong pounding without serious damages and breaks. Even though there is no available information about the timeframe of its manufacture and the individual(s) involved in it, we can convincingly place it within discussions about social perceptions of gender roles, as it is generally argued, on the grounds of ethno-archaeological research, that the manufacture of stone tools and implements relating to grain processing, such as millstones, was primarily undertaken by men.[40]

The *doubeki* can be assumed to have had a long period of use, as indicated by the comments of the interviewed current owner, as well as the signs of wear on its surface. It occupied a space in the yard or other outdoor area of the house, like the traditional outdoor kitchens of Vlach households, and it was used regularly, to meet the dietary requirements of the domestic unit. The intensity and frequency of its usage would have depended on a range of factors, including the availability of supplies, the experience and physical stamina of the user, and especially the number of family members or family units it served.

With regards to the latter, it seems that ownership of a *doubeki* was connected with parameters of economic status. As we can glimpse from the interview of the current owner, poorer households did not have such mortars in their possession, and resorted to using mortars belonging to relatives or neighbours. The owner specifically mentions that her grandmother – and previ-

40 Searcy 2011; Hamon, LeGall 2013.

ous owner of this *doubeki* – was a rich woman and many people visited her kitchen to use the mortar. The *doubeki*, therefore functioned to a degree as a status indicator, especially among women. It was a physical testimony to its female owner's affluence and capacity to provide not only for the family but to the wider community. It was embedded in networks of family relationships and interactions, and at least some basic planning would have been required with regards to resource sharing at family and community level.

In addition to the status implications of mortar ownership, its use alone was deeply entangled with the construction and performance of female gender identities. On the grounds of a wide range of archaeological and ethnographic studies, it has been established that the processing of cereals is a task predominantly tied to women in pre- and non- industrial societies, as is the preparation of all kinds plant foods in general.[41] In particular, with regards to the Samarina *doubeki*, not only was it exclusively the property of women, but the allocation of work in relation to its use was also considered a female responsibility. The operation of the *doubeki* was a labour-intensive process, and, as the current owner acknowledges, it often required the participation of multiple members of the family. Who and how one would contribute to that process was determined by a female figure, usually the mother, who was responsible for the preparation of cereals for consumption. As the current owner reminisces, as a child, she was often asked by her mother to assist with the husking of grains, alongside her siblings. It appears, though, that male children could also be required to contribute if asked to do so.

Another aspect that needs to be considered in relation to the biography of the *doubeki* is the performative nature of its use. Usually at least two individuals were involved in the process, taking turns in the pounding of grains, which was a demanding task, requiring strength and stamina. The physical engagement with the object, and the visual and auditory environment this created, provided opportunities for social interaction. It offered a performative space for the negotiation and communication of female identities and family dynamics. It was additionally closely linked to defined patterns of food consumption and culinary habits shared widely among the Vlach community. As discussed widely in bibliography, food processing, preparation, and consumption are not exclusively a product of ecological determinism, but are intricately connected with economic, social, and cultural realities.[42] In this context, the *doubeki* from Samarina can be contextualised within wider processes of construction and reproduction of collective identities and the shaping of cultural boundaries.

The object had a long working life, over at least three generations, and was passed down to female members of the family, from the current owner's grandmother to her mother, ultimately to herself. When it came to the current owner's possession it was already out of its original use, and is primarily appreciated for its entanglements with her family history and cultural identity. As we further learn by the owner's testimony, as well as other interviewed individuals, many house owners in the area of Samarina have kept such mortars in their households, even though their utilitarian character has become obsolete. The longevity and durability of the stone blocks themselves in combination with their connections with matters of ancestry and heritage explain this tendency. Interestingly, in some cases current owners have found new ways to incorporate the mortars in their lives as decorative items. One such example, cited in an interview, is a *doubeki* whose concavity has been filled with sand, and is now used for holding candles during the Greek Orthodox Easter. Another individual has incorporated a *doubeki* in the traditional decoration of his restaurant. In these new contexts of use, the objects are infused with new meaning but are still closely tied to expressions of identity or nostalgia for past tradition and cultural values.

41 Murdock, Provost 1973; Alonso 2019, 4320–4321.

42 Parker Pearson 2003; Twiss 2012; Hastorf 2017.

Hand-mill

Hand-mill (stone rotary quern), used for manual cereal grinding. It can be roughly dated between the second half of the 19th and the first half of the 20th century and originates from the village of Samarina, in the area of Grevena, in northern Greece.

The hand-mill consists of two large disc-shaped grinding stones, with a diameter of 41 cm in our case. The two stones fit together, the lower one being stationary and the upper rotating by the means of a vertical stick that would have been placed in the socket preserved in the upper stone. The top of the upper stone bears shallow engraved decoration of triangles, encircling the central perforation through which grains, pulses, and other foodstuffs could be fed into the quern. The grains were crushed through the rotation of the stone and subsequently spilled between the two grinding stones, to be collected on fabric or another surface below. The object bears visible scrapings and marks created by the grinding process.

When approaching the biography of the hand-mill, the social relationships the object created or was involved in can be contextualised within the domestic setting of its use, its function for the individuals operating it, and its relation to gender allocation of work in family and community setting.

There is little information available when attempting to address questions about the manufacture of the hand-mill itself. Variability and regionality in the selection of the rocks for the manufacture of querns have been previously observed in scholarship.[43] The tendency of choosing different types of rock for the upper and lower grinding stone respectively, depending on the intended function, has also been noted. In the case of this specific hand-mill, the use of the same limestone for both parts of the quern was apparently considered sufficient for the functional needs the particular tool served, as its coarseness would have been appropriate for the milling of cereals. The choice was most likely determined by factors like regional availability and proximity to the source of raw material. With regards to the social context of the manufacturing process, there is no data about the chronology and circumstances of manufacture, which unsurprisingly extends beyond the living memory of the current owner. Querns, in general, are known to have very long cycles of use, a fact that can also be deduced from the strong evidence of wear documented on the specimen from Samarina. Nevertheless, as previously mentioned in relation to the *doubeki*, ethno-archaeological approaches indicate that it was primarily men that undertook the manufacture of millstones.

The social context of its use, on the other hand, is easier to reconstruct, within the domestic environment of food preparation and consumption. The grating of the grains and pulses was essential for rendering them suitable for consumption, by removing inedible or indigestible parts. It played a central role in processing one of the staple food ingredients of every day diet and as such the artefact itself and the skill of operating it held value at community and family level. This is also acknowledged by the current owner of the artefact, who albeit not using it any more, expresses an appreciation of the significance it had for the subsistence of her forbears, which was one of the motivations behind her eagerness to include it in her personal collection.

The specifics of usage can also be followed closely. Hand-mills were used in a flat position, either at floor level or on counters or other elevated flat surfaces, either indoors or outdoors. On the island of Karpathos, for example, hand-mills were usually placed on wooden platforms, permanently positioned in a room close to a wall or corner, but could also be temporarily placed on a surface and stored away after use.[44] The individual could thus drive the mill either in seated or standing position, with one hand rotating the grindstone and the other adding the grains. The hand-mill was part of a wider process that did not only involve the foodstuffs intended for milling but also other tools, such as meshes and sieves, and most importantly necessitated a level of experience and technique, as the speed of the movement had a direct influence on the characteristics and quality of the final product.[45] Additionally, the intensity of the labour required for the operation of the hand mill generated social interaction, as it has been observed that more than one person could participate and take over parts of the process.[46] In

43 Alonso 2019.

44 Parton 2011.

45 Alonso *et al.* 2014; Alonso 2019.

46 Samuel 2010.

fact, up until today the iconography of pairs of women taking turns in handling hand-mills is often reproduced in ethnographic presentations and folk art in Near and Middle East.[47]

The manual milling of cereal can be closely associated with perceptions of self and gender or family dynamics, especially if one takes into consideration that, on the grounds of ethnographic data, it is predominantly a female task.[48] The preserved history of ownership of our hand-mill from Samarina attests to that, as it appears to have been in the property of women from the same family. Usage of the object was thus tied to conceptualisations of womanhood, and performance or maintenance of standardised gender norms. The present owner, in fact exclusively associates the object with female figures in the recorded interview.

As already mentioned above, the chronological span for the use of the Samarina specimen is unclear, but querns in a multitude of ethnographic contexts often remained in use over several generations, passed down between family members. This also holds true for our hand-mill, which came to the hands of its current owner through her maternal aunt. It did not, however, come to be in her possession as an heirloom. After the mass availability of industrially milled flour, the object had fallen into disuse. It was still kept in an outdoor kitchen, where the current owner discovered it and subsequently requested it personally from her relative, when she was in the process of building her private collection. It is unknown how long the hand-mill remained unused, but, regardless, it cannot be argued that during this phase of disuse it completely lacked interaction or relational connections: it continued to be deemed appropriate to be kept in a setting associated with food preparation and it maintained a spot of visibility, possibly due to its relevance to its previous owner's identity and heritage.

The most recent part of the object's biography is, thus, its incorporation in a private heritage collection. Albeit taken out of its context, it is still placed in the vicinity of other utilitarian items relating to food preparation and consumption. In its current environment it functions as an exhibit it represents notions of heritage and also past tradition, regardless if the visitors claim Vlach ancestry or not, as hand-mills are not specific to Vlach material culture. Hand-mills often feature alongside other household artefacts in ethnographic exhibitions in Greece, as symbols of traditional rural family life, prior to having easy access to industrial goods. Recent research on rotary querns as exhibits in ethnographic collections and heritage centres in the Near and Middle East has commented on their interconnectedness with depictions and perceptions of gender and nationalism, often displayed in settings – e.g., a reconstructed room or courtyard – with other traditional items relating to food preparation or consumption alongside female mannequins.[49]

47 Ebeling 2019.

48 Alonso 2019.

49 Ebeling 2019.

Kapa

Thick coat, known as κάπα, manufactured roughly between the second and third quarter of the 20th century. It originates from the village of Samarina, in the area of Grevena, northern Greece.

The *kapa* is made of off-white coloured goat wool. It was handwoven, using locally sourced wool, and was manufactured to serve a functional purpose, protecting the owner(s) from adverse weather conditions during herding activities. The object is still owned by an individual with pastoral occupation but it is only occasionally used, in contexts not actively involved in herding, and it is preserved in pristine condition.

The manufacturing process and the cycles of usage of the coat can be closely followed and compose an itinerary that is strongly connected to the economic and mobility strategies of transhumant pastoralism in Greece, the shaping and maintenance of self- and collective identification within the Vlach community, as well as with perceptions of gender, as negotiated and normalised within the family unit and at community level.

The wool used in the production of the coat was among the highly valued products of the specialised Vlach pastoral economy. Alongside sheep's wool, it was used in textile production and constituted one of the commodities that were of central

importance for the subsistence and the economy of the community. The wool was collected after the shearing of the animals and was exchanged and obtained through informal, personal agreements. The raw material followed a long path of processing, which involved the use of specialised equipment, including carding tools, spinning wheels and looms, and necessitated access to water for certain parts of the process. Almost the entirety of the process was undertaken within the domestic setting, and as such it was closely tied to gendered allocation of labour. As already observed in relation to the *haragia*, these tasks were largely associated with women. The production of the coat was entangled with social obligations within the family, crystallised perceptions of womanhood, and the role of women in the finances of the household and the community as a whole. It is also quite likely that multiple individuals belonging to the same wider family, or outside of it, may have contributed to some of the different parts of the manufacturing process.

The context of use of the coat was also strongly connected with the cycles of pastoral transhumance practiced by the Vlach communities. The long, warm coat was predominantly worn by the male members of the community, and it provided protection from the cold, when in the field with the animals, while the treatment of the goat's wool made it water resistant. The design of the coat served an array of functional purposes mandated by the practicalities the herders were faced with in their outdoor pastoral activities. It was suitable for the challenging weather conditions under which they had to work during the cycles of seasonal migration of the flocks and it functioned not only as an essential article of clothing, but also as a protective cover for sleeping outdoors. As mentioned by the current owner, and known from a variety of anecdotal and literary sources, the herders, when far from a winter fold or encampment, tended to use one half of their coat to lie on and the other half to cover themselves and sleep through the cold nights. The long sleeves were additionally sewn closed, defying the obvious purpose of the original design, but adapted to the needs of the transhumant lifestyle. As the sleeves were rendered useless by the fact that the *kapa* was thrown around the individuals' shoulders, they instead offered a dry space for carrying the essential tools for setting up a fire when in the field, serving as makeshift pockets.

In the context of its use, therefore, the coat was once again tied to the division of labour within the pastoralist communities.[50] Unlike the manufacturing process, it was used by men, who were the ones primarily responsible for the shepherding of the animals. It became intertwined with activities that were vital for local and household economies, and the role of the male members of the community for the subsistence and the prosperity of their families and village. It thus was a symbolic visualisation of perceptions of manhood and its ownership and use were linked to matters of self-identification.

The coat further functioned as a material connection to shared cultural values, in a similar way to what can be argued with regards to ethnic dress and traditional outfits. This is not to say, however, that such handwoven coats were exclusively worn by Vlach pastoralists. Woollen coats with nearly identical stylistic features were worn by shepherds all over Greece across the same chronological horizon. Interestingly, unlike the *haragia* that bore distinct colour combinations, visually distinguishing the village of origin of their users, there is no equivalent differentiation in the colour, weaving technique or decoration of the coat that would communicate the provenance of its wearer and making it visible from afar. Still, their significance for Vlach collective identities can be clearly glimpsed from the interview supplied by the object's current owner: while its everyday use in the field became redundant with the unhindered modern-day access to protective outdoor clothing, the owner continues to wear his *kapa* in Vlach seasonal festivals. This demonstrates the coat's deeply rooted associations to aspects of Vlach heritage, and its capacity to invoke these links in the communal, ritualised setting of the festivals. It symbolically reaffirms and re-establishes the ties to the long tradition of pastoralism, still practiced by its owner, as well as claims to the transhumant ancestry, that remained central in Vlach collective identification diachronically.[51] As the owner further mentions, the coat is additionally deemed fitted for wearing when going out in social gatherings and events, due to its aesthetic value as a clothing item. These entanglements of the object can be identified as the key factors that determined the persistence of such coats in local material practices, long after the commercial spread of clothing made of industrial fabrics.

Glitsa

Wooden *glitsa*, made in the end of the 20th or the early 21st century. Recorded in the village of Samarina, in the area of Grevena, in northern Greece.

Glitsa (γκλίτσα, plur. γκλίτσες; also referred to as κλίτσα, αγκλίτσα, and κλούτσα) is a regional variant of a shepherd's crook; a strong stick that typically has a hooked termination, used for catching and controlling the animals. The specimen, with a height of 125 cm, is made of olive wood. Unlike the ornate, wood-carved examples abundantly represented in folk art, it has a solid, plain handle, as it was manufactured to be serve a utilitarian purpose rather than to be used as a display piece. A rubber cap covers the lower termination of the shaft, increasing the stability of the stick against slippery or uneven surfaces and protecting it from damage and wear. The continuous use of the stick, as confirmed by the owner's oral testimony, is also reflected on the polished surface of the handle, that is the result of consistent handling and friction.

50 Nixon, Price 2001.

51 Chang 1993.

The *glitsa* was handcrafted and locally purchased in Samarina by the owner. The manufacture of traditional shepherd's crooks has a long history in Greek and Balkan folk culture. Even though they have evolved to be mass-produced, to serve the demands of a wider market for folk art and the tourist industry, traditional wood-carving is a craft requiring high skill and time investment. According to the interview supplied by the object's owner, many shepherds from Samarina continue this tradition, crafting their own *glitses* from locally available wood. The raw material used depends on regional availability and proximity to the source, and in general sturdy woods, such as olive tree (ελιά) and dogwood (κρανιά), are preferred for their strength and durability. The object, was thus purchased by a local craftsman, whose talent is praised and appreciated by the owner.

The *glitsa* is an essential tool for the shepherd, finding various uses in outdoors responsibilities in the field. In particular, the small hook created between the handle and the main shaft fits the width of the sheep's legs, assisting to re-directing them back to the flock or their folds, especially for young sheep and their mothers. Besides this primary use in managing the flocks, the *glitsa* can function as a defensive tool in case of danger from dogs, wolves, or other predators, or even for repelling snakes while walking the fields and mountain sides. It is further used as a walk support or aid, similar to a walking stick. The stability it offers can relieve the user from the tiredness of prolonged standing and walking, and provides additional balance when traversing the uneven terrain of the countryside. Different variations of length prove to be more suited to either shepherding or walking, and most shepherds own more than one items, alternating them depending on the circumstance. On the other hand, heavily ornamented pieces were meant to be used for display in different social settings, such as public gatherings, in which the factor of luxury took precedence. This can be glimpsed from the interview of the owner of this object, who further confirms that throughout his life he has, in fact, owned multiple *glitses*, catering to different needs, and some of which he had to replace due to damage and wear. This particular *glitsa* is currently used on a daily basis, accompanying him in all his daily work activities.

As a class of artefacts, *glitses* are an iconic aspect of the materiality of pastoralism, and in this capacity, they have permeated Greek culture, from folk art to religious iconography, and literature. Albeit not a material element exclusively associated with Vlach pastoralism, their association with pastoral transhumance, its values and way of life is undeniably prominent in the collective imaginary. The *glitsa*, in combination with the woollen *kapa*, which at a time of industrially available goods can in many ways be considered easily replaceable by other tools and garments, persist in social practice among Vlach and other communities still practicing transhumant pastoralism due to the century-old entanglement of these material artefacts with matters of self-perception and collective identification. As multiple of our interviewees have highlighted, carrying a *glitsa* is an inseparable part of being a shepherd, and one that is central for defining group membership. In fact, as they all mention, besides the utilitarian benefits of using it, they could often be mocked by fellow shepherds if seen walking in the fields without one. The *glitsa* in many ways has therefore come to be the tangible and performative representation of a whole socioeconomic strategy and a collective ideology, charged with symbolic connections to status, prosperity, and propagations of social claims.

CREATIVE BIOGRAPHY — A NOTE FROM THE ARTIST

Zoe Katsilerou

Sofras is a screen dance project exploring motion, stability, harmony, dissonance light and darkness in relationship to the natural environment and a round wooden structure.

The film was inspired by the object *sofras*, used by the Vlach communities in the Balkans. In creating this film, I drew inspiration and attention to the contrast between the constant movement of the Vlach population and the stability offered by something like a table. I experimented with movements such as walking, rolling and climbing trees; everyday movements that would have been prevalent within these communities, whilst maintaining a sense of grounding offered by an object such as a table. The dance reflects all these notions, and echoes the sensitivities of spending time outdoors, moving through nature; listening, smelling, touching, feeling.

The sound world of this film includes the call of the Cretzschmar bird, or Skourovlahos. Build on the call of this bird, we hear a polyphonic melody reminiscent of the messy polyphonic melodies sung by Vlachs. Gently sitting in relationship to a 7/8 tempo played on the traditional Greek instrument *daouli* by percussionist Eilon Morris, with loose melodic movements, the vocals aim to maintain a sense of communal, outdoor singing, directly responding to the environment (bird song), and the landscape.

The ending of the film aims to draw attention to the fragility of these populations in terms of maintaining their culture and language, and the decay of the Vlach lifestyle over time.

FIGURE 1. A still from the *Sofras* creative biography.

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THESSALONIKI YMCA
BASKETBALL MUSEUM

RECORDING CONTEMPORARY MOBILITIES IN THE EUROPEAN SPORTS SCENE — THESSALONIKI YMCA BASKETBALL MUSEUM

Eleftheria Theodoroudi

Heritage and sport have a long history, though it is only recently that this relationship has started to be examined in some detail. Sports heritage is becoming more and more relevant. It is now understood as an aspect of social history, though that has not always been the case. The need to safeguard and narrate as well as represent sporting heritage alongside more "traditional" or well-established forms of heritage means that there is a growing acceptance and a better understanding of its importance.[1]

Sports shape local identities. Due to their character and mass appeal, they can easily build a personal connection to sports heritage for anyone, making sports heritage very popular. This popularity, which transcends different kinds of identities – social, national, gender, etc. – could allow people to reconnect with and create new personal memories and their personal narrative of a sporting event. Few cultural practices have such an impact on the popular imagination as sport.[2] Despite globalisation, sporting culture is still fragmented like an archipelago.[3]

The connection between sports and sports heritage is accomplished through popular culture but also through museums and sports halls. Also, sports and sports heritage when represented in a museum or a hall of fame as a commemorative space for sports history can become a tool, and a rather effective one, for the social regeneration of an area and can also support the development of tourism. A very good example was the establishment of the National Football Museum in Preston, UK (now in Manchester). This demonstrated that sporting heritage in the form of a sports museum can be a significant and meaningful part of the urban regeneration of a city, despite all the challenges and limitations in establishing a museum.[4] The venue became a repository for the local identity.[5]

On the other hand, sports heritage, as seen in a sport museum, is often based on nostalgia and the romanticisation of the sport itself, which can, at the least, be misleading and most of the time lacks any critical reflection on the subaltern stories of the sport.[6] According to the classification of sports museums developed by M. G. Phillips,[7] sports museum policies and management approaches are dictated by their funding model and their public or private character, as these play a fundamental role in how they represent and interpret the past.

This is changing though, as there have been a breakthrough in museum studies and a new paradigm in museology. Thus, it is becoming more obvious that museums should be more open and critical and give alternative meanings of the past.[8] In 2017, the International Committee of Archaeology and History within the International Council of Museums organised a working group on Sports in Museums of History and Archaeology.[9] This workshop showed in the most emphatic way the need for inclusivity, espe-

1 Ramshaw, Gammon 2005.

2 Ramshaw, Gammon 2015, 249.

3 Brabazzon 2006, 7.

4 Moore 2008.

5 Ramshaw 2017, 180.

6 Ramshaw 2019.

7 Phillips 2012.

8 Ramshaw 2019.

9 Report of the working group on Sport in Museums of History and Archaeology, 21 April 2017, Nice.

10 Since the 1970s, the International Sports Heritage Association, which before 2005 was called the Association of Sports Museums and Halls of Fame, has been engaged with the education, promotion and support of institutions and organisations. It now has more than 130 members, mostly in North America but also in Europe and Asia. The International Sports Museums Association is a network that brings together museums run by sports clubs, sports museums and other sporting cultural heritage institutions to promote the recognition, importance and cultural relevance of sporting heritage through exhibitions, research, conferences, knowledge exchanges, partnerships and research projects.

FIGURE 1.
The YMCA building in Thessaloniki which hosts the Basketball Museum.

cially for sports museums,[10] as well as the need to classify sports museums and to establish a methodology for collecting, classifying, interpreting, conserving and exhibiting sports material and for refining the communication policies of sports museums.

An important aspect of any sporting event, whether regional, national or international, is sporting mobility. This refers to the athletes, coaches, officials, administrators, sport scientists and sports fans who travel to the event, often from long distances.

Historically, the Panhellenic Games in Ancient Greece (such as the Olympic Games) promoted mobility of athletes and representatives between the city states in the Ancient Greek world throughout the Mediterranean.[11] This sporting mobility due to the ancient games was common in the whole ancient world until Late Antiquity. So, sporting mobility is not new but has become more pronounced in the era of globalisation. Contemporary sports and travel have a complex relationship, as athletes have become able to travel further and faster, allowing them to cross national boundaries, explore different cultures and engage with a variety of people.

Sporting mobility, though, also has a cost. Events such as the modern Olympic Games make also a negative impact on local communities, on town planning, transportation and infrastructure, but also on the environment.[12] Thus, there is a need to understand the multifactorial effects of sports and the consequent sporting mobility.

In the YMCA (Young Men's Christian Association) Basketball Museum, sporting mobility is represented in several ways. It is understood through different research and interpretative schemes relating to local and regional mobility (local championship) and to national and international mobility (national and international championships). Sporting mobility is also portrayed in the museum through the history of basketball and its trajectory to Greece and the resulting diffusion of the sport to the city of Thessaloniki and throughout the country (Figures 1 – 2).[13]

The YMCA pioneered the sport in Greece, introducing it as a form of recreation for the soldiers at the Macedonian Front in the numerous soldier's huts, which were established by the YMCA between 1918 and 1920.[14] Thessaloniki YMCA was inaugurated in

11 Swaddling 1999, 11–12; Young 2004.

12 Lopes dos Santos *et al*., 2022.

13 Γουρλής 1997; Παπαδήμας 2021; Φελάνης 2019.

14 Diogos 2022.

FIGURE 2. The entrance hall of the Basketball Museum, an homage to the history of YMCA Basketball team.

FIGURE 3. A replica of the upside-down chair, the first makeshift basket for basketball in Greece.

1921, and from the very start, it has promoted basketball in the city and in the rest of Greece.[15]

Since the times when an upside-down chair was used as a basket (see the first depiction of basketball ever played in Greece back in 1919),[16] much has changed (Figure 3). The new game conquered Greece and became popular, especially after Greece hosted and won the European Championship in 1987 and to a lesser degree, after winning the 2005 European Championship.

The YMCA Basketball Museum of Thessaloniki opened its doors to the public in 2013. It was established through an INTERREG Greece–Bulgaria project titled *Youth Mobilisation – Cultural Heritage and Athletic Valorisation*. It is the first museum in Greece solely dedicated to basketball and one of the few around the world. Since its beginning, the museum has adopted an open collecting policy to enrich the existing collection and archive of the YMCA. The collection includes various types of material and immaterial traces. It is also a repository for the history of basketball in Thessaloniki as well as for the histories of the people involved in basketball. Thus, it depicts much of the sporting as well as social history of the city. YMCA volunteers, veteran ath-

15 Μπουντίδου-Τσιομπανούδη 2006.

16 Φελάνης 2019.

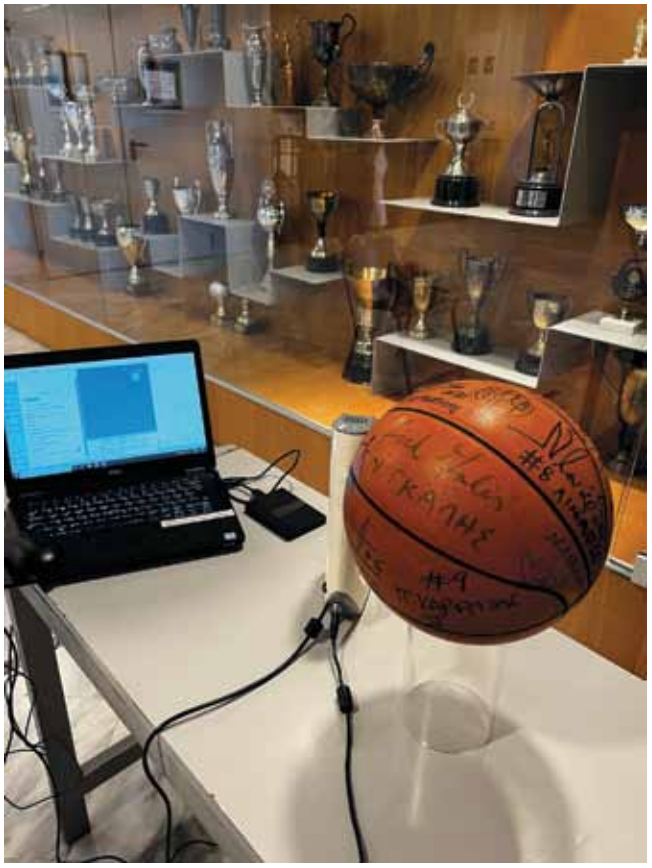


FIGURE 4. Recording the ball from the 1987 FIFA European Basketball Tournament final, signed by the members of the Greek team which won the game. The signature of Nikos Gkalis, the leader of the team, is prominent in this photo.

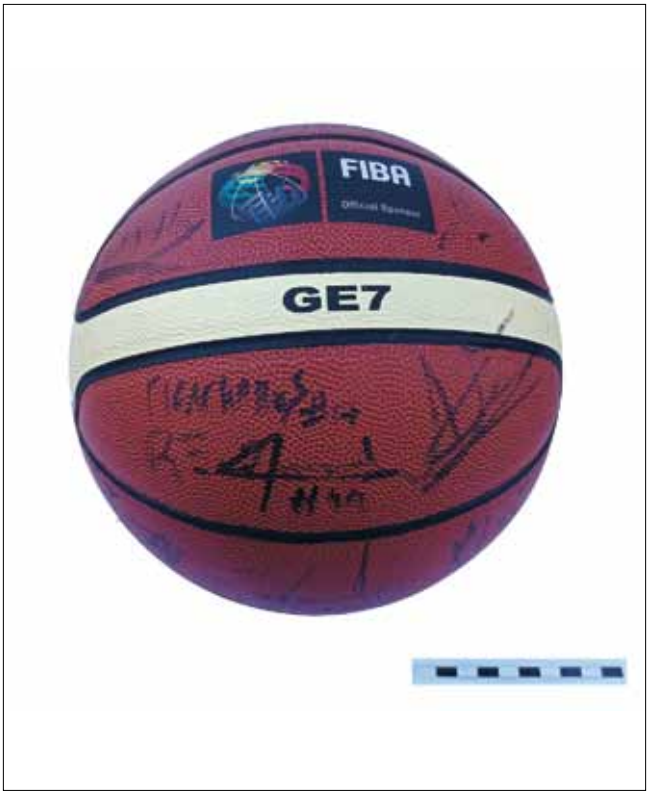
letes and active athletes have donated items from their own personal collections, and they have also shared their stories and their memories to enrich the archives of the museum (Figure 4).

The artefacts chosen for the *Finds Stories* exhibition come from the museum's collection and illustrate sporting mobility in the Balkan Peninsula, as the European Championships in 1989 and 2005 were held in Zagreb and Belgrade, respectively. All the artefacts demonstrate sporting mobility and also reveal the tendency for people to keep and collect memorabilia as objects of special importance, as a connection to their memories and a reminder of the past, both personal and communal. Another important object is the personal coaching board of the coach Željko Obradović from when he was the head of the coaching team of Fenerbahçe.

Another item donated to the museum by a collector is a commemorative jersey bought from the museum dedicated to Dražen Petrović and signed by his mother. This item has multiple layers of interpretation. First, it narrates the story of a great athlete who became a legend in his country and abroad. There is even a memorial dedicated to him. The artefact illustrates how sports fans move from one node to another within a big network of places for recollection, such as museums and memorials. Moreover, a profound and emotional aspect is the wish of the collector, who wanted to donate this special acquisition to the YMCA Basketball Museum due to his pride in being a part of the YMCA family and enhancing its basketball legacy.

Valentina Soumintoub

The 2005 FIBA European Basketball Championship ball



The authentic ball that was used in the 2005 FIBA European Basketball Championship. It is not the ball of the final game, but it is one of the balls they used to train. It carries the signatures of all the Greek National Team who won the gold medal. The Championship was held in Serbia and Montenegro and the final took place in Belgrade. Sixteen teams participated in the Championship, Greece won the gold medal, Germany won the silver and France won the bronze. The ball was produced by the sports equipment company Molten and was approved by FIBA to be used in the Championship. The standards for the balls, as well as the rest of equipment, used in official games of FIBA are very specific and strict. According to FIBA regulations, besides the official matches, the teams must also be provided with the balls of the same make and type for their practices. As the ball is item of mass production there were thousands identical balls produced and circulated. The signatures on that specific ball is what makes it special and different from the others.

According to Nikos Zisis, a basketball player who participated in the Greek National Team that won the 2005 FIBA European Championship, the players get to use the specific ball only during the Championship, when they arrive to the hosting facilities. As Mr. Zisis told us, this is a fact that the players don't like, as handling a completely new ball is more difficult than a used one. According to Mr. Zisis it needs some experience participating in official FIBA games to be able to handle the new balls every time in a more effective way.

The ball is brown with light beige and black details. The logo of FIBA is printed on it as well as the type of the ball GE7. There is another print "molten OFFICIAL PRO FORCE". The ball is signed by all the members of the Greek National team that participated in the championship. The players and their numbers were respectively: Theo Papaloukas (4), Vassilis Spanoulis (5), Nikos Zisis (6), Ioannis Bourousis (7), Panagiotis Vasilopoulos (8), Antonis Fotsis (9), Nikos Chatzivrettas (10), Dimos Dikoudis (11), Kostas Tsartsaris (12), Dimitris Diamantidis (13), Lazaros Papadopoulos (14), Michalis Kakiouzis (15). The head coach of that team was Panagiotis Giannakis, who previously was athlete of the legendary Greek National Team that won the FIBA European Championship in the 1987. Assistant coach of that team was Lefteris Kakiousis, who also had played as an athlete with the Greek National Team in many international events, such as Olympic Games.

According to Mr. Zisis the fact that this ball is now exhibited in a museum is particularly important as it is a reminder to the visitors not only of the great success of the team but also of athletes' collaboration and unity.

Regarding the championship of 2005, Mr. Zisis says that for him as well as for the rest of the players it was particularly emotional as they were all young kids when Greece won the respective

Championship in 1987 and that victory was for most of them an inspiration to become basketball players. And a few years later they got to the basketball court guided by Panagiotis Giannakis, who had lived this experience as an athlete and now was their coach.

Mr. Kakiousis, the assistant coach of the team, said that the whole tournament is a great chapter in his life and that all the memories are still very vivid until this day. Mr. Kakiousis stated that this team was built up of very talented athletes that became professionals and later on winners. All the athletes had significant personalities that got combined together in the team.

According to Mr. Kakiousis, who had previously been a basketball player, in order to become a successful coach, he had to differentiate his mentality as an athlete. The position of the coach demands different abilities than those of an athlete. As a coach he had to handle more factors and maintain the balance of the team's dynamic.

One of the most memorable moments of this championship for Mr. Zisis happened outside the basketball court. He referred to the presence of the Greek fans in Belgrade who were chanting outside the hotel that hosted the athletes. Furthermore, as Mr. Zisis told us, during the first matches, there were few Greek fans, but as the team was having a good performance during the championship, each match more and more fans would be present in the court. So, during the final matches the support of the Greek fans was very emotional for the players.

As Mr. Zisis has a great career playing in multiple European basketball clubs, he also described the difficulties of the athletes' life when they have to move from one country to another while they pursue their career. As he described, an athlete that plays in different clubs, in various countries, has to create his life from the beginning every time they move to another country and they have to adapt to the different cultural environments. So, they get to do what they love – play basketball, but they also have to face several difficulties. For them, the ball represents, in a way, the axes that remain stable during their path.

Mr. Kakiousis told us that if he wanted to share some memories of the tournament with the public, those would be the moments outside the court. The whole process of the athletes training and preparing for each game of the tournament. The process of them becoming a team.

Regarding the fact that the ball, as well as other objects worn and used by the athletes (e.g. jerseys) now are exhibited in a museum, Mr. Kakiousis stated that it is very moving fact, it brings him a lot of memories of the championship. He also believes that it is a great reminder of those moments not only for the athletes and the team that won the championship but also for all of the fans who watched it at the court or on TV. Additionally, he wishes that this exhibit apart from being a reminder becomes also an inspiration for the next generations to become basketball players and maybe one day see their own jerseys and other objects being exhibited in the same museum.

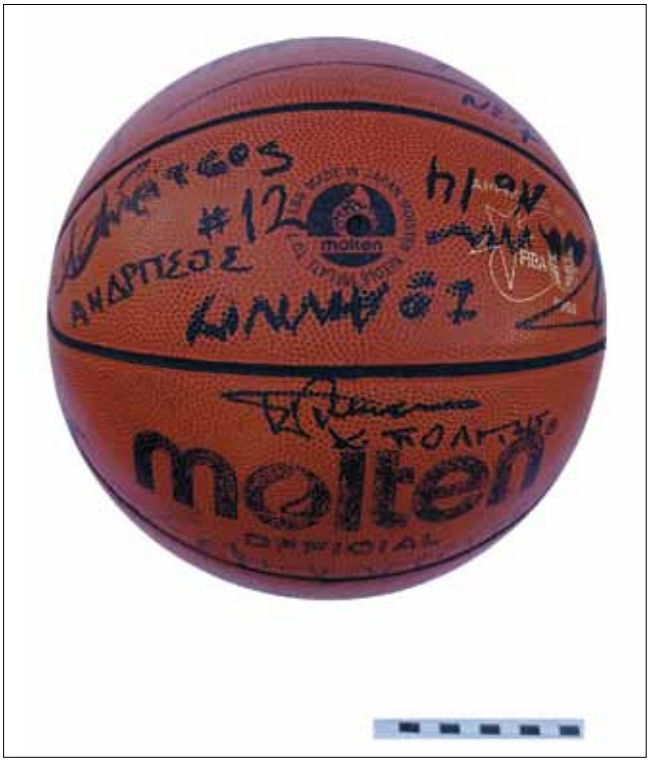
The ball was donated to the museum by Mike Fountedakis, president of the Hellenic Cheerleading Federation who asked personally all the participants of the team to sign it. In the Museum the ball is exhibited in the unit dedicated to the National Team and is frequently a reference exhibit of the educational programs.

The 1987 FIBA European Basketball Championship ball

The official ball of the 1987 FIBA European Championship. It is not the ball used in the final game, but it is one of the balls they used to train. It is signed by all the members of the Greek National Team that won the championship. It is light brown with black details and its diameter is 23 cm. It is common for athletes to sign their sports clothing and equipment in order to donate it to fans or collectors. What makes this ball special is that it is signed by all the members of the team that was admired by the public on a very high level.

The legendary team included Nikos Galis, Nikos Stavropoulos, Panagiotis Giannakis, Argiris Kambouris, Nikos Linardos, Panagiotis Karatzas, Michalis Romanidis, Nikos Filippou, Liveris Andritsos, Panagiotis Fasoulas, Memos Ioannou and Fanis Christodoulou. Kostas Politis was the coach of the team. Nikos Galis was voted as the tournament's MVP (Most Valuable Player).

The 1987 EuroBasket (as the championship is widely known) took place 3–14 June in Piraeus, Greece. Twelve national teams participated in the championship: Czechoslovakia, France, Italy, Soviet Union, Spain, West Germany, Yugoslavia, Israel, Netherlands, Poland, Romania and Greece that qualified as host and eventually



became the winner. The Greek team's win in that event was celebrated at a national level and the athletes were appreciated as national heroes. This victory inspired many young kids to start playing basketball and there was an actual increase in numbers and improvement in quality of basketball facilities in Greece. As many people recall, suddenly, you could see people playing basket in each small neighborhood with the bare minimum equipment. Panagiotis Fasoulas has mentioned in one of his interviews that, after that victory, basketball became an "institution" in Greece.

The ball was signed in the basketball court during the championship. It was later donated to the YMCA Basketball Museum where it is exhibited until today. It is included in the exhibition hall dedicated to the Greek National Team. The educational programs and the guided tours that take place in the museum also refer to that exhibit as the 1987 victory in the eyes of most visitors is the greatest achievement for Greek Basketball. It is a very valuable exhibit in every educational activity, on the aspect of building the group dynamic, as most of the visitors, even those of young ages, have something to share regarding the particular championship. Usually, they try to observe in detail the exhibit and try to identify all the signatures.

Nikos Zisis has mentioned in the interview that the 1987 victory inspired the athletes of his generation. He himself recalls this victory being celebrated by his parents and his brother in a very joyful way, so he grew up believing that it was actually something important. This was a reason for him and for many other basketball players in his team to start playing basketball and to aspire to get better at it.

The victory of the Greek National Team in that Championship was somehow more than just a sports victory. It had a social aspect as well. During those 12 days it was the main topic for all the TV programs and newspapers, not only sports ones. Furthermore, it became an inspiration for a popular song "We Are Chapions Now", written by Nikos Portokaloglou.

The commemorative medal of the 1989 FIBA European Championship

The commemorative medal from the 1989 FIBA European Championship is placed in its original case along with the accompanying keyring on a velvet base. Additionally in the case there are two pins that were placed by Lakis Tsavas, the initial owner of the objects. Lakis Tsavas was a basketball player and later on he continued as a basketball coach participating in numerous tournaments with the Greek National Team. Nowadays, Lakis Tsavas is also an ambassador of the Thessaloniki YMCA Basketball Museum. In the 1989 FIBA European Championship Greece won the silver medal, losing the final game to the Yugoslavian team that won the gold medal.

The shape of the commemorative medal is the same as the ones that were awarded to the winners and it is actually a part of the emblem of the Championship. It resembles a basketball on which there is a relief reading "Zagreb '89". The letter "Z" is larger in size and exceeds the perimeter of the medal, respectively outside the perimeter is placed the chronology "'89". The medal is of bronze color and it is dark in some parts due to the time that has passed since its production.

The keyring that accompanies the medal is also placed within the case in a specifically designed base. On the keyring is depicted the full emblem of the championship: the basketball with "Zagreb '89" on it, on the top there is an inscription "EUROBASKET" and at the bottom part there is an inscription "ZAGREB '89". Attached to the top part is a short chain which connects the decorative part with the ring.

One of the two pins that are placed in the case has the same decoration with the keyring. The other one is a souvenir of the city of Zagreb with an image of a white castle with two towers.

According to what was stated by Lakis Tsavas during the interview, he had bought the commemorative medal as a souvenir from the Championship. Since then, he had kept it in his collection and later he donated it to the Thessaloniki YMCA Basketball Museum upon Museum's representative's request. In 2011 the medal was also exhibited in a temporary exhibition at the Olympic Museum of Thessaloniki. Regarding the pins, Mr. Tsavas stated that he often exchanged pins with participants from other countries, which is a common practice at sport events. He also said that he always tried to have several dozen of those pins that

were produced by the Hellenic Basketball Federation so that he could give it to other participants.

Mr. Tsavas stated that he remembers vividly the whole championship, as it was very important for the Greek team. He also stated that he remembers the great love and appreciation that the people had for Dražen Petrović, who was adored as a national hero.

Regarding the fact that those objects are now exhibited at the Museum, Mr. Tsavas said that it brings him joy and pride as in this way his participation in the championship can be shared with the public.

The coach board of Željko Obradović

The coach board belonged to Željko Obradović, a Serbian professional basketball coach and former basketball player. Željko Obradović started his career as a basketball player and later became a coach winning multiple National, European, and World titles as a head coach with the National Yugoslavian Team and with several European Clubs. Most important ones for the Yugoslavian team being the silver medal at the 1996 Olympic Games, the silver medal at the 1997 FIBA European Championship, the gold medal at the 1998 FIBA World Cup and the bronze medal at the 1999 European Championship. As a headcoach of European basketball clubs he has won more than 50 awards and honorary titles. In the period from 1999 to 2012, he coached a Greek Basketball Club, Panathinaikos.

The front side of the coach board has a depiction of a regular basketball court. In the middle there is the emblem of the Fenerbahçe Basketball Club topped with three stars, a reference to titles won by the team. (Željko Obradović coached Fenerbahçe from 2013 till 2020.) The rim of the coach board at the front side is decorated with blue and yellow colors, the main colors of the club. On the two long sides there is an inscription "Fenerbahçe SK" and the short sides bear the inscriptions "Coach OBRADOVIĆ", with the letter o in the word "Coach" being replaced by a ball and "www.tactic-boards.com", the website of the firm that produced the coach board. There is a signature of Željko Obradović on this side of the board with a permanent marker.

On the back side of the board there is a depiction of half the basketball court and over this depiction there is an inscription "COACH OBRADOVIĆ", the same as the one on the front side.

On the other half on the back side there is a table of 5 lines for the coach to write down the names of the players and a white space for other notes. On the down part there is an inscription of the firm's website and another one referring to the copyrights.

The coach boards like that are frequently used by coaches during training and matches. They auxiliate the visual description of the movements in the court during the game. The coaches use erasable markers to point out positions and movements of players to depict the strategy during the game and to write down the names of the players involved in the game. The visual communication is important in putting the meaning across when discussing the team's strategy with number of people (players and the coach team).

On the concept of mobility, examining this object, we can observe several kinds of it. First of all, it is a transferrable object used by the coach anywhere he needs to communicate with his team. While using it, the movement of players at the court is also depicted. Additionally, the person who owned this board has operated in several different countries transforming the route of the sports history of each of them. The fact that he has lived in different countries (Yugoslavia, Spain, Italy, Greece and Turkey) and interacted with each community for some period of his life portrays a lifestyle of a person who pursues an international career.

The jersey of Dražen Petrović

The jersey is associated with Dražen Petrović (1964–1993), a well-known Croatian basketball player who had a successful career in Europe before participating in the NBA. It is designed as a jersey of Šibenka, the team of Petrović's hometown Šibenik, where he started his basketball career. Dražen Petrović had multiple medals and awards in the most globally acknowledged tournaments. Participating in the National team he had won medals in Olympic Games, FIBA World Cup and FIBA Eurobasket. He also successfully participated in other tournaments with the European teams Cibona Zagreb, Real Madrid and NBA's Portland Trail Blazers and New Jersey's Nets. Petrović died in a traffic accident, 28 years old.

The jersey is orange with blue and white details, orange being the main color of the team. The emblem and the name of the team "Šibenka" are printed on the front in velvet quality and the number "4". On the back side the name "PETROVIĆ" and the

number “4” are also printed in the same quality. On the back side there is a handwritten signature with permanent marker “Petrović Biserka”, mother of Dražen Petrović. It is not the original jersey, worn by the athlete, as it was massively produced as merchandise for the Dražen Petrović Museum in Zagreb. It was acquired in Zagreb, by a representative of the Thessaloniki YMCA Basketball Museum, who asked Biserka Petrović to sign it as a donation to the Museum. Later on, it was included in the Museum collection.

The inclusion of this item in a Greek museum has also a sentimental aspect for the Petrović family, as according to the press articles published in the year of the fatal accident, he was considering to continue his career in one of the Greek basketball teams, before his sudden death.

It is a common practice for athletes to sign their jerseys or other type of sport equipment when donating them to fans or institutions as museums. This occasion is quite different as the signature belongs to the mother of the athlete.

In this item the concept of mobility can be interpreted in the object itself but also in the biography of the people associated with it. The item itself is produced as memorabilia to be sold in a museum shop and to be used by its owner as a piece of clothing or as a souvenir. Although, the design is based on an actual item of clothing, a sports uniform. While being purchased in a souvenir shop, it was included in a devote process while being signed. Later on, it became part of a museum collection, where it can be included in exhibitions or educational material about the athlete Dražen Petrović, whose personal path can be traced in several countries in the framework of significant historical events. Additionally, it can also be included in a narrative regarding the Basketball Club Šibenka (1973–2010), which was dissolved in 2010 because of bankruptcy. During its operation the team participated in the Korač Cup, a significant European basketball tournament, in which the team of Thessaloniki YMCA had also a great presence. The club’s name was changed several times. Some of them included the sponsors’ names, another frequent practice for sports clubs.

CREATIVE BIOGRAPHY — A NOTE FROM THE ARTIST

Maria Marinou

This oil painting captures the triumphant moment of the Greek National Basketball Team in 2005. With this painting, I aim to capture the essence of victory when the hands hold a basketball that shines in the colours of pride and athletic achievement. The artwork, which is part of the broader project that explores creative object biographies, becomes a testament to the intertwined narratives of sports, culture, and national identity. Just as all the athletes' signatures are visible on the basketball, so too are the hands that held the ball and led the team to victory. The painting delves into the rich history of Greek basketball, revealing the fervour and elation that gripped the nation during this momentous European Cup win. The ball, which is the centre of the image, symbolises unity and spirit. Its worn texture testifies to countless hours of training, while every scuff and mark opens a window into past trials and triumphs. The artwork tells a captivating story that goes beyond the purely visual. They invite the viewer to reflect on the shared experiences, emotions and aspirations of the Greek team. The meticulous attention to detail gives each stroke a sense of awe at the significance of this historic achievement. By depicting the journey of the basketball from its production to this pinnacle of success, the painting weaves together the fields of art, archaeology and archaeological theory, bringing to life the essence of an object long after its use.

FIGURE 1. The Champion's Grasp: Basketball Hands.

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