

VESTIGIA VITAE

VELIKA MRDAKOVICA





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Vodice

Pruich

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VELIKA MRDAKOVICA

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VELIKA MRDAKOVICA

TRACES OF LIFE

VELIKA MRDAKOVICA

Vodice - Šibenik, lipanj 2023.

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PREDGOVOR

Preface

Predstavljamo vam petu arheološku izložbu Pučkog otvorenog učilišta Vodice, a treću posvećenu Velikoj Mrdakovici, lokalitetu koji svojim jedinstvenim nalazima i vrijednosti zaslužuje našu stalnu pozornost.

Od prve izložbe „Arheološka baština vodičkog kraja“ koju je Pučko otvoreno učilište Vodice organiziralo u suradnji s Muzejom grada Šibenika prošlo je punih dvanaest godina, tijekom kojih se ne samo nastavila već i produbila suradnja vodičkog Učilišta i šibenskog Muzeja. Arheološka istraživanja na Velikoj Mrdakovici nastavljena su u kontinuitetu, čak i tijekom pandemije bolesti COVID-19 i unatoč izostanku financijske potpore Ministarstva kulture, upravo zahvaljujući stalnoj potpori Grada Vodica.

U početku suradnje istraživanja su bila fokusirana na nekropolu, nakon čega je, u svibnju 2014. godine, iznjedrena izložba „Velika Mrdakovica, rezultati najnovijih arheoloških istraživanja 2011. – 2013.“. Iste smo godine dobili i sredstva iz europskog fonda HERA s pomoću kojih su započela istraživanja na samom liburnsko-rimskom naselju. Izdašnija europska sredstva omogućila su arheološka iskopavanja Toniju Brajkoviću, višemu kustosu Antičke zbirke Muzeja grada Šibenika i voditelju istraživanja, kojima se dala naslutiti imponantna dimenzija lokaliteta, a zatim se svake godine u novim kampanjama otkrivalo uvijek ponešto novo, ponekad uz pomoć Ministarstva, ali uvijek uz svesrdnu potporu Grada Vodica.

Ova izložba zorno dočarava Veliku Mrdakovicu kao vrijedan kulturno-povijesni spomenik, a time i kao zamašnjak vodičkoga kulturnog turizma. Izložba je po mnogočemu drugačija od prijašnjih jer je posvećena samom naselju. Nadamo se da će olakšati vizualizaciju života na ovom području prije više od dva tisućljeća i pridonijeti osvješćivanju potrebe da se i u Vodici otvori muzejska zbirka s nalazima s arheoloških lokaliteta vodičkoga kraja, što i dalje ostaje misija Pučkog otvorenog učilišta Vodice.

Gordana Birin, prof.
ravnateljica Pučkog otvorenog učilišta Vodice

This is the fifth archaeological exhibition organized by the Open University of Vodice, and the third dedicated to Velika Mrdakovica, an archaeological site that deserves our constant attention due to its unique findings and value.

Twelve years have passed since the Open University of Vodice and the Museum of the City of Šibenik organized the first exhibition on the Archaeological Heritage of the Vodice Region. Since then, our cooperation has not only continued, but also intensified. Despite the COVID-19 pandemic and the lack of financial support from the Ministry of Culture, archaeological research at Velika Mrdakovica has been carried out continuously, thanks to the ongoing support of the City of Vodice.

At the beginning of the collaboration, our research focused on the necropolis, which resulted in the exhibition Velika Mrdakovica: Results of Recent Archaeological Excavations (2011-2013). That same year, we received financial support from the European HERA fund, which allowed us to begin exploring the Liburnian-Roman settlement itself. This part of the site could be excavated thanks to the generous European funds and the expertise of Toni Brajković, senior curator of the Ancient Collection at the Museum of the City of Šibenik and head of the project. The ongoing excavations have revealed the imposing dimensions of the site, and each year brings new discoveries, sometimes with financial support from the Ministry, but always with the wholehearted support of the City of Vodice.

This exhibition vividly evokes Velika Mrdakovica as a valuable cultural and historical monument and a driver of cultural tourism in Vodice. Unlike the previous exhibitions, which focused on the necropolis, this one is wholly dedicated to the settlement itself. Our hope is that it will help the visitors visualize what life was like in the area over two millennia ago and raise awareness of the need to establish a museum collection in Vodice that will include finds from all archaeological sites in the region. This remains the mission of the Open University of Vodice.

Gordana Birin, prof.
principal of the Public Open University Vodice



Sl. 1. 3D idejna rekonstrukcija naselja | Fig 1. Conceptual 3D-reconstruction of the settlement

UVOD

Introduction

Velika Mrdakovica kao najznačajniji liburnski i rimskodobni lokalitet vodičkoga područja posljednjih osam godina dobiva novo ruho. Naime, osim manjih zahvata na naselju tijekom dvije kraće kampanje sedamdesetih godina prošloga stoljeća, od 2014. se provode sustavna arheološka istraživanja koja postupno otkrivaju vizure pretpostavljene Arauzone. Do sada je priča o Velikoj Mrdakovici uglavnom bila vezana uz nekropolu na kojoj se najduže radilo i koja je iz zatvorenih grobnih cjelina iznjedrila pregršt materijala na osnovi kojega se rekonstruirao život Mrdakovčana i njihove veze s tada poznatim svijetom.

Kako bi se popularizirao lokalitet i javnosti predočili rezultati arheoloških istraživanja, priređene su i dvije izložbe, *Arauzona. Velika Mrdakovica: liburnski grad i nekropola* sad već daleke 2000. godine te *Velika Mrdakovica – rezultati najnovijih arheoloških istraživanja (2011. – 2013.)* 2014. godine. Ovom izložbom također želimo široj javnosti približiti spoznaje do kojih je došlo posljednjih godina tijekom istraživanja naselja. Otkriveni predmeti, stratigrafski slojevi i istražena arhitektura pružili su nam nešto drugačiji uvid u svakodnevicu i izazove s kojima se stanovništvo suočavalo. Materijal se razlikuje od onoga u svojstvu grobnih priloga. Keramičke i staklene posude nađene su samo u fragmentima, uz velike količine ulomaka amfora – osnovne ambalaže, građevnog materijala, ostataka jela, proizvodnje, itd. Stoga su izložba i naročito katalog podijeljeni na cjeline, odnosno poglavlja u kojima se svaki segment ljudske djelatnosti razrađuje zasebno, popraćen nalazima s terena. Tako, na gotovo neposredan način, nastojimo posjetitelju i čitatelju predočiti svaki dio života koji se na Velikoj Mrdakovici odvijao prije dva tisućljeća osvještavajući iste potrebe i probleme s kojima se suočavamo i mi danas.

Ovdje moram zahvaliti kolegama koji su mi pomogli savjetima i prigodom determinacije materijala. To su u prvome redu dr. sc. Ivan Radman Livaja iz Arheološkog muzeja u Zagrebu, dr. sc. Marko Dizdar i dr. sc. Asja Tonc iz Instituta za arheologiju u Zagrebu, dr. sc. Berislav Štefanac iz Muzeja antičkog stakla u Zadru te dr. sc. Mato Ilkić s Filozofskog fakulteta u Zadru. Ne smijem zaboraviti ni Gordanu Birin, ravnateljicu Pučkog otvorenog učilišta Vodice koja me 2013. nagovorila da krenem s istraživanjima na naselju, kao ni Grad Vodice koji godinama financijski podupire ili u potpunosti financira istraživanja i izložbe posvećene ovom lokalitetu. Hvala vam svima.



Sl. 2. 3D idejna rekonstrukcija dijela naselja, pogled s juga | Fig. 2. Conceptual 3D-reconstruction of the settlement, view from the south

Velika Mrdakovica, the most important Liburnian and Roman-era locality in the Vodice area, has undergone significant changes in the past eight years. Minor works were conducted on the settlement during two brief excavations in the 1970s, and systematic archaeological research has been ongoing since 2014, gradually revealing the views of the supposed Arauzona. Previously, Velika Mrdakovica was mainly known for its necropolis, which was excavated for a long time, producing many finds from closed burial units. These finds were used to reconstruct the life of Mrdakovica's residents and their connections with the known world of that time.

In order to promote the locality and present the results of archaeological research to the public, two exhibitions were organized: *Arauzona – Velika Mrdakovica: A Liburnian Town and Necropolis* (2000), and *Velika Mrdakovica: Results of Recent Archaeological Excavations (2011-2013)* in 2014. The aim of the current exhibition is similar: to share with the public the recent insights gained during the settlement's excavations. The discovered objects, stratigraphic layers, and researched architecture offer a somewhat different insight into the everyday life of Mrdakovica's residents and the challenges they faced, with the material being distinct from that used as grave goods. Ceramic and glass

vessels have been found only in fragments, including large quantities of amphora fragments, which were used for basic packaging, storing building materials, remains of food, production, and so on. Consequently, the exhibition and its catalogue are divided into different units or sections, each focusing on a different segment of human life as evidenced by finds from the site. This approach is intended to bring the visitors and readers closer to every aspect of life that took place in Velika Mrdakovica two millennia ago, and to make them aware that the population faced the same needs and problems that we face today.

I would like to express my gratitude to my colleagues who provided me with advice and assistance in identifying the finds. These include Ivan Radman Livaja from the Archaeological Museum in Zagreb, Marko Dizdar and Asja Tonc from the Institute of Archaeology in Zagreb, Berislav Štefanac from the Museum of Ancient Glass in Zadar, and Mato Ilkić from the Faculty of Arts and Humanities in Zadar. I would also like to thank Gordana Birin, Head of the Open University of Vodice, who encouraged me to begin researching the settlement in 2013, as well as the City of Vodice for their financial support of the research and exhibitions dedicated to this locality. Thank you all.

ARHITEKTURA I STANOVANJE

Architecture and housing

Velika Mrdakovica je tipično gradinsko naselje čiji smještaj omogućava pregled unutrašnjih i pučinskih voda sve do otoka Sveca i nadzor plovnih ruta prema rijeci Krki, te je u vizualnom kontaktu s nizom prapovijesnih lokaliteta istoga tipa – Bribirska glavica (*Varvaria*), Šibenik (Sv. Mihovil), itd. Konfiguracija terena uvjetovala je plan naseobine koje se s najviše točke, na 142 m, terasasto spušta do jugoistočnog ulaza, s visinskom razlikom od 23 metra. Kaskadno posloženi objekti i ulice odraz su geološke strukture terena i prilagodbe života na njemu. Naime, cijeli raster naselja prati smjer pružanja ogranaka litice koja je priklesavana i probijana prema potrebi, te maksimalno iskorištena za gradnju kuća, bedema i komunikacija. U planiranju se posebna pozornost posvetila sigurnosti. Primarna uloga svake gradine jest zaštita stanovništva. Tomu na Velikoj Mrdakovici svjedoče obrambeni zidovi koji zatvaraju



Sl. 3. Zračni snimak Velike Mrdakovice | Fig. 3. Aerial view of Velika Mrdakovica



Sl. 4. 3D idejna rekonstrukcija naselja, pogled s juga | Fig. 4. Conceptual 3D-reconstruction of the settlement, view from the south

Velika Mrdakovica is a typical *gradina* (hillfort) settlement. Its location offers a view of the internal and external waters, extending up to the island of Svetac, and provides control of navigation routes toward the Krka River. Additionally, it has visual contact with several other ancient sites of the same type, including Bribirska Glavica (*Varvaria*) and Šibenik (St Michael). The settlement's plan is conditioned by the terrain configuration and descends in terraces from the highest point at 142 m to its south-eastern entrance, with a height difference of 23 metres. The buildings and streets are arranged in a cascading manner, reflecting the geological structure of the terrain and the adaptation of life to it: the settlement's grid follows the direction of cliff segments, which were carved and pieced as necessary, and used to the fullest extent for the construction of houses, ramparts, and communication routes. Defence was given special attention in the planning process. The primary role of any fortress is to protect its population, as is evident from Mrdakovica's defensive walls, enclosing an area of about 8,500 m². (Fig. 1 – 8) The best-preserved

ramparts are located near the south-eastern entrance, measuring 3.5 to 4 metres in width and consisting of the inner and outer stone faces filled with rubble, soil, and stone (Fig 9). The dimensions and construction allowed for at least a double height of approximately 8 metres. Due to the sloping ground and differences in accessibility, the walls were uneven in proportions, but their colossal size to the southeast undoubtedly indicates the importance of Velika Mrdakovica as one of the main trading centres along the Krka River. Another set of ramparts, approximately 30 metres below this one, was located in the direction of Pirnice. Remains of megalithic blocks weighing up to 2500 kg were discovered along the ancient road leading to the second entrance to the supposed Arauzona. These probably represent the first phase of the Mrdakovica hillfort, which covered around 15,000 m². Inside the settlement, around the highest part of the hill, another line of residential-defensive structure was built, providing additional security against hostile incursions. The rampart's construction styles speak to the development, continuity, and modifications



Sl. 5. 3D idejna rekonstrukcija naselja, pogled na jugoistočni ulaz | Fig. 5. Conceptual 3D-reconstruction of the settlement, view of the southeast entrance

površinu od oko 8500 m² (sl. 1 – 8). Najsčuvaniji su uz jugoistočni ulaz, širine od tri i pol do četiri metra, a sastoje se od unutarnjeg i vanjskog kamenog lica s ispunom šute, zemlje i kamena (sl. 9). Dimenzije i način gradnje dopuštaju barem udvostručenu visinu od približno osam metara. Naravno da zidine, s obzirom na pad i pristupačnost terena, nisu u punom opsegu bile istih gabarita, no njihova kolosalnost s jugoistoka neupitno upućuje na značaj Velike Mrdakovice kao jednog od glavnih trgovišta uz rijeku Krku. Postojao je, međutim, još jedan vijenac bedema – tridesetak metara ispod spomenutog, u smjeru Pirnica. Tu su, uz prapovijesni put, koji vodi k drugom ulazu na pretpostavljenu Arauzonu, pronađeni ostaci megalitnih blokova teških i do 2500 kg. Oni vjerojatno predstavljaju prvu fazu mrdakovačke gradine s obuhvatom od približno 15 000 m². I unutar naselja, uokolo najuzvišenijeg dijela brda, izgrađena je još jedna linija stambeno-obrambene arhitekture pružajući dodatno osiguranje od eventualnog proboja neprijatelja. Korišteni slogovi gradnje zidina upućuju na razvoj, kontinuitet i preinake koji su se tijekom povijesti događale na ovom mjestu. Arhitektonski su najstariji grubo obrađeni „megaliti“ kakve nalazimo na ostacima bedema uz prapovijesni put, te na jugoistočnom ulazu i dijelu zidina koji ga flankiraju. Upravo tu je na prijelazu era došlo do preinaka pod utjecajem rimske države i upotrebe manjih kamenih



Sl. 6. Utvrđena arhitektura naselja
| Fig 6. Fortified architecture at the settlement

Sl. 7. Istraženi jugoistočni dio naselja | Fig. 7. Researched southeast part of the settlement





Sl. 8. Zračna snimka naselja s pogledom na more i otoke
| Fig. 8. Aerial view of the settlement with a view of the sea and islands

komada povezanih žbukom. Vrijeme je to i vjerojatnog smanjenja gabarita naseobine, što nije izdvojen slučaj u to doba.

Unutar „grada“, na zidovima prostorija primjećujemo dva tipa gradnje. Nije isključen ni treći, prvotni – prapovijesni, posve rudimentaran način, no s obzirom na stanje istraženosti i sačuvanu visinu arhitekture ne možemo ga bezuvjetno potvrditi. Pod utjecajem helenizma prihvaća se najljepši i jedan od najkvalitetnijih arhitektonskih slogova koji ujedno zahtijeva i najveću zanatsku vještinu. Kamen različitih dimenzija, od manjih primjeraka do onih težine 350 kg, uglavnom se pravokutno oblikuje i slaže „u suho“ ili povezuje slojem ilovače, te savršeno sljubljuje u horizontalnim nizovima „na preklop“ (sl. 10 – 12). Rimski kulturu donosi uporabu više različitih vrsta žbuke kojom se konstruktivni elementi zidova povezuju i/ili prekrivaju. Stoga visoka preciznost pri obradi kamenih komada više nije potrebna, zbog čega su manji, vizualno grublji i složeni u redove (sl. 13). Na Velikoj Mrdakovici utvrđene su „obična“ bijela, crvenkasta i slojevita žbuka dobivena kombinacijom prethodnih dviju. Bijela žbuka, sastavljena od vode, sitnog agregata i vapna rabila se za obloge unutarnjih zidova i stropova što je razvidno iz otisaka gredica ili trske primjetnih s unutarnje strane sačuvanih ulomaka. Crvenkasta hidrostatička žbuka, s dodatkom usitnjene opeke, uglavnom

that took place throughout history. Architecturally, the oldest segments are the roughly processed “megaliths” found in the remains of ramparts along the ancient road, at the south-eastern entrance, and the part of defensive walls next to it. It was here that changes occurred around the turn of the era under the influence of the Roman state, with the use of smaller stone pieces connected with plaster. This was probably also the time when the size of the settlement was reduced, which was not an isolated case at the time.

Two construction methods can be identified in the walls of the rooms inside the “city”. One could even presume a third, prehistoric, and utterly rudimentary method, but considering the state of research and the preserved height of the structures, it cannot be confirmed with absolute certainty. The most beautiful and high-quality architectural style was adopted under the influence of Hellenism, which also required the greatest craftsmanship. Stones of

different dimensions, ranging from smaller specimens to those weighing up to 350 kg, were mostly rectangular in shape and stacked “dry” or connected with a layer of loam, perfectly arranged in overlapping horizontal rows (Fig. 10 – 12).

Roman culture brought the use of several types of plaster, which were used to connect and/or cover the structural elements of walls. Therefore, high precision in processing stone blocks was no longer necessary, resulting in smaller, visually rougher stones arranged in rows (Fig. 13). Researchers of Velika Mrdakovica have identified three types of plaster: “ordinary” white plaster, reddish hydrostatic plaster with crushed brick, and a layered plaster obtained by combining the previous two. The white plaster, made of water, fine aggregate, and lime, was used to line the interior walls and ceilings, as evidenced by the impressions of beams or reed visible on the inside of the

Sl. 9. Segment bedema kod jugoistočnog ulaza u naselje
| Fig. 9. Segment of the rampart near the southeast entrance to the settlement





Sl. 10. Helenistički zid prostorije P 12
| Fig. 10. Hellenistic wall of Room P 12



Sl. 11. Helenistički zid prostorije P 9
| Fig. 11. Hellenistic wall of Room P 9



Sl. 12. Helenistički zid prostorije P 10
| Fig. 12. Hellenistic wall of Room P 10



Sl. 13. Rimskodobni zid u tehnici *opus quadratum*
| Fig. 13. Roman-era wall in the *opus quadratum* technique

se koristila za premaz cisterni iznutra. Služila je zadržavanju vode, ali i kao hidroizolacija na mjestima izravnog dodira objekta s liticom. Moguće je da su se zbog svojstva nepropusnosti, njome ili nekom vrstom premaza od gline, koja je na Velikoj Mrdakovici u debelom sloju ustanovljena u sondi 3 (žuta ilovača, fina siva glina), pokrivali vanjski zidovi. Problem vode, tj. vlage na svim je dijelovima naselja, posebice na „nižim etažama“ bio stalan, a prevenirao se i upotrebom slojevite žbuke koje je središnji sloj sprječavao vlaženje interijera (sl. 14). Život u kućama na obroncima brda bio je izložen prijetnji vodenih bujica izazvanih obilnim padalinama. Najveća je opasnost bilo plavljenje podrumskih prostorija s vinom, ljetinom i sušenom hranom. Tomu se doskočilo izgradnjom uskih drenažnih kanala između objekata, koji su regulirali otjecanje oborinskih voda izvan štićenog područja. I substrukcije, tj. proširenja temeljne stope zida 10d su možda služile omogućavanju normalne komunikacije ulicom čije bi zemljano središte namočila kiša (sl. 15). Da bi se prevladale visinske razlike od ulaza do dijela naseobine na vrhu brda, ulice su spajane na kamena stubišta, a litica se ponegdje probijala i preklesavala do širine od 150 cm. Voda je, osim poteškoća koje su s vremenom prevladane, bila nužno potrebna ljudima i stoci za svakodnevni život. Uz okolne izvore i kaptaže, od kojih je najveća i najbliža Ograđenica ili Pišća, trebalo je osigurati dostatnu akumulaciju vode u naselju. Stoga se skupljala u cisternama. Najstarija cisterna predrimskoga porijekla uklesana u živoj stijeni, s kasnijim dogradnjama, nalazi se na jednoj od najviših kota na tjemenu brda. Manjih je dimenzija i zapremnina joj ne jamči značajniju opskrbu. Na nju se u nizu spaja više drugih prostorija podjednake veličine. U kakvom su suodnosu ne možemo reći, no logično bi rješavanje problema vodoopskrbe trebalo tražiti u analognim primjerima tog doba. Tako je na danilskoj gradini padina brda iskorištena za izgradnju nekoliko u litici



Sl. 15. Proširenje temeljne stope zida 10d
| Fig. 15. Extension of the base level of the wall 10d



Sl. 14. Slojevita žbuka | Fig. 14. Layered plaster



Sl. 16 – 20. Dijelovi konjske orme | Fig. 16 – 20. Parts of a horse harness

izdubljenih cisterni s kanalima koje je na principu spojenih posuda kišnica punila i prelijevala se iz jedne u drugu. Sličan ili isti obrazac možemo pretpostaviti i „kod nas“ jer su u slučaju opsade svi okolni izvori stanovništvu bili nedostupni. Nažalost, organizacija naselja, kao ni namjena svih prostorija ili prostora nisu nam poznati. Je li smještaj najpotrebnijih djelatnosti (metalurgija, kovači) i najosnovnijih resursa (voda) strukturiran po zonama ili se sklop više stambenih jedinica njima koristio zajednički zaključujemo na osnovi dosadašnjih spoznaja. Shodno tomu, priklanjamo se pretpostavci da je metalurška aktivnost i sustav vodosprema bio smješten na gornjim etažama i tjemenu brda, dok se većina ostalih poslova odvijala u okviru svakog domaćinstva samostalno. Nesumnjivo je utvrđeno kako su mrdakovački Liburni, neovisno o snažnim kontaktima s helenističkim i rimskim svijetom te prihvaćanju novih ideja, i dalje, podosta, ukorijenjeni u vlastitim običajima. Postavlja se pitanje na koji su se način tradicija i odnosi unutar zajednice reflektirali u organizaciji i rasporedu pomoćnih građevina. Gdje su bile nastambe za konje i stoku? Osteološki materijal i dijelovi konjske orme potvrđuju njihovu prisutnost (sl. 16 – 20). Vjerojatno je „blago“ čuvano u stajama drvene i/ili slabije kamene suhozidne konstrukcije koja je s vremenom propala, a nalazila se izvan gradskog areala, između dva vijenca bedema, blizu puta, prema Pirnicama. Do sada je utvrđeno tridesetak prostorija skromnijih dimenzija. Naravno, više njih je tvorilo jedan objekt, no da li je on bio prizeman ili etažan ostaje pitanje. Središnji stub u prostoriji P 10, u vidu strukturnog pojačanja objekta sugerira bar poneku katnicu unutar naselja.

Preklesavanje litice i njeno inkorporiranje u strukturu objekata bilo je nezaobilazno s obzirom na konfiguraciju i kamenu podlogu terena. Litica se zaravnavala kao priprema za

preserved fragments. The reddish, hydrostatic plaster was mainly used to coat the inner walls of cisterns to retain water and provide a waterproof layer in places where the building was in direct contact with the cliff. It is possible that the exterior walls were also covered with this plaster or some kind of clay coating, which was found in a thick layer in trench 3 (yellow loam, fine grey clay). Moisture was a constant problem in all parts of the settlement, especially on the “lower floors.” A solution to this problem was to use layered plaster, wherein the central layer served to inhibit dampness from permeating the interior (Fig. 14). Houses on the hillsides were at risk of water torrents caused by heavy rainfalls. The greatest danger was the flooding of cellars containing wine, harvest, and dried food. To prevent this, narrow drainage canals were built between buildings, which regulated the outflow of rainwater outside the protected area. The substructures, i.e. extensions of the base level of the 10d wall, may have served to enable normal communication through streets when their earthen cores were soaked by rain (Fig. 15). To overcome the differences in height from the entrance to the part of the settlement on top of the hill, streets were connected to stone steps, while in some places, the cliff was cut and carved up to a width of 150 cm. Although water created some difficulties that were overcome with time, it was absolutely necessary for the everyday life of people and livestock. In addition to the nearby springs and catchments, the largest and closest of which was Ograđenica or Pišća, it was necessary to ensure sufficient water accumulation in the settlement. Therefore, water was collected in cisterns. The oldest cistern, pre-Roman with later additions, was carved into the living rock and is located on one of the highest elevations at the top of the hill. Although rather small, its capacity could supply a smaller number of people. Several other rooms of equal size connect to it in a row. It could not be established in what relation they were, but a logical solution to the problem of water supply should be sought in analogous examples from that era. Thus, in the hillfort of Danilo, the slope of the hill was used to construct several cisterns hollowed out in the cliff, with canals that were filled by rainwater and overflowed from one to another on the principle of connected vessels. A similar or identical structure can be presumed at Velika Mrdakovica, as in case of a siege, the population could not reach any of the surrounding water sources. Unfortunately, it is not known how the settlement

was organized or what the purposes of various rooms or spaces were. Were the locations of the most necessary activities (metallurgy, blacksmiths) and the basic resources (water) structured by zones or did several residential units use them jointly? It can only be presumed based on the present findings. Accordingly, it can be assumed that metallurgical activities and the water storage system were located in the upper areas and at the top of the hill, while most of the other activities were carried out within each household independently. Undoubtedly, the Liburnians of Mrdakovica, regardless of the strong contacts with the Hellenistic and Roman worlds, and the acceptance of new ideas, were still considerably rooted in their own customs. The question arises as to how the traditions and inter-community relations were reflected in the organization and layout of the auxiliary buildings. Where were the stables for horses and cattle located? Osteological material and parts of horse harnesses confirm their presence (Fig. 16 – 20).

Livestock was probably kept in sheds made of wood or constructed as weak dry-wall stone structures that decayed over time and were located outside the urban area, between two ramparts, near the road towards Pirnice. So far, about thirty rooms of modest proportions have been identified. Several of them must have been joined into one building, but whether these buildings were one-storey or multi-storey remains a question. The central pillar in Room P 10 suggests structural reinforcement of the building and thus at least one multi-storey building in the settlement.

Carving the cliff and incorporating it into the structure of buildings was unavoidable considering the configuration and the stony terrain. The cliff was levelled in preparation for the floors, which have been positively and unequivocally identified in only one place – in Room P 10. The floor there was made of compacted clay. However, numerous examples of thin, irregular stone slabs point to the possibility of paving streets or floors with them. The use of organic, perishable material should not be ruled out either, such as wooden beams or planks used for interior floors. The slope of the hill and the amount of rocks protruding from the ground surely presented a considerable challenge. They were not removed always and everywhere, which leads us to the question of how the walking surface was levelled “to zero,” especially since the height differences within the rooms, which were on average 30 m², sometimes

podnice koje su sigurno i nedvosmisleno utvrđene samo na jednom mjestu – unutar prostorije P 10. Riječ je o nabijenoj glini. Međutim, mnogobrojni primjerci tankih, nepravilnih kamenih ploča upućuju na mogućnost popločavanja, bilo ulica ili poda, upravo njima. Ne smijemo isključiti ni korištenje organskog, propadljivog materijala – drvenih greda/dasaka za podnice interijera. Velik je izazov predstavljao nagib brda te količina izdanaka matične stijene na tlu. Ona se nije uklanjala svugdje i uvijek, što nas dovodi do pitanja kako je hodna površina dovođena „u nulu“, to više što su visinske razlike unutar prostorija, prosječne površine 30 m², ponegdje veće od jednoga metra. Takve okolnosti uvjetuju i zidove različitih visina da bi se dosegla ujednačena visina stropa. Šupljine među izdancima na zemlji vjerojatno su bile popunjavane šutom i žbukom kako bi se riješio problem i nivelirao pod, no u nekim slučajevima, npr. u prostoriji P 1, izvedba ravnog poda bila je gotovo nemoguća. Naime, jugozapadni zid ove prostorije, gabarita oko 20 m², tek bi na visini od približno 1,5 m bio u ravnini s liticom na drugome kraju prostorije. Namjenu ovog prostora zasad ne možemo niti pretpostaviti. Prostorija P 12 daje nam savršen prikaz iskorištavanja stečenih uvjeta i njihove prilagodbe. Ona je većim dijelom usječena u brdo čija stijena tvori dva bočna zida. Procijepi u njoj zatvoreni su manjim pravokutnim kamenjem, a na visini od oko 2,4 m duž obiju stijenka litice usječen je žlijeb L profila koji je služio za postavljanje drvenih stropnih greda i konstrukcije krovišta. Ova je prostorija primjer rješavanja konstruktivnih problema, kao i primjenjivanih standarda u gradnji ostalih stambenih jedinica na naselju. Sličnu situaciju nalazimo i unutar prostorije P 21, na zapadnoj strani gradine, gdje zid popunjava široke praznine između ogranaka matične stijene (sl. 21 – 22).

Oblik krovova nemoguće je ustanoviti. Pretpostavljamo kako su pripadali jednostavnijim formama i bili orijentirani na način da streha pada prema drenažnim kanalima za odvod oborinskih voda. Prvotno su vjerojatno pokriveni kamenim pločama, da bi pod utjecajem rimske kulture došlo do upotrebe keramičkoga crijepa – *tegulae* i kupa kanalice – *imbrices*. To se događa u kasnorepublikanskom ili ranocararskom periodu, tj. negdje na prijelazu era, što je razvidno iz 34 pečata s imenima vlasnika radionica u kojima su tegule proizvođene. Većina ih je (32 komada) iz okolice Voghiere (Italija, provincija Ferrara) i pripadaju najpopularnijoj radionici – *Pansiana* (sl. 23 – 29). Tegula sa žigom *C(ai) Tros[i]* (sl. 30) dolazi iz pogona familije Trosia s područja Akvileje (Italija, provincija Udine), vjerojatno kao i pečat *Sexti* (sl. 31). Ne smijemo zaboraviti niti da je u obližnjoj Rakitnici, na lokalitetu Tri bunara 2008. godine otkrivena rimskodobna peć za proizvodnju tegula koja je vjerojatno dijelom opskrbljivala i mrdakovačko tržište.

Otvori svih objekata su bili okrenuti prema komunikacijama – ulicama, prolazima. Za analogiju ne smijemo uzeti forme gospodskih kuća (*domus*). Arhitektura je općenito uvjetovana ne samo namjenom i smještajem objekta već i socijalnim statusom njihovih vlasnika. Ulazna vrata i prozori objekata na Velikoj Mrdakovici nesumnjivo su bili rađeni



Sl. 21. Popuna zida prostorije P 12
| Fig. 21. Filling of the wall in Room P 12

exceeded 1 metre. Such circumstances also required walls of different heights to achieve a uniform ceiling height. The cavities between the rock protrusions on the ground were probably filled with rubble and plaster to achieve a uniform floor level, but in some cases, such as in Room P 1, this was practically impossible: the south-western wall of this room, measuring about 20 m², only came to one level with the cliff at the other end of the room at a height of about 1.5 metres. For now, we cannot even guess the purpose of this space. Room P 12 presents us with a perfect example of how the found conditions were used and adapted to the best. The room is mostly cut into the hill and rocks create its two sidewalls. The slits in the rock were closed with small rectangular stones, and at a height of about 2.4 meters, an L-profiled groove was cut along both walls of the cliff, used to install the wooden beams for the ceiling and the roof structure. This room is a good example of solving constructive problems and applying standards in the construction of other housing units in the settlement. A similar situation is found in Room P 21, on the western side of the hillfort, where a wall fills the wide gaps between the protrusions of the main rock (Fig. 21 – 22).

It has been impossible to determine the shape of the roofs. Presumably, they were simple in form and oriented in such a way that the eaves sloped towards the canals for the drainage of rainwater. Originally, they were probably covered with stone slabs, which were later replaced



Sl. 22. Zid prostorije 21
| Fig. 22. Wall of Room 21

with ceramic roof tiles (*tegulae* and *imbrices*) under the influence of Roman culture. This change likely occurred in the late republican or early imperial period, around the turn of the era. This is evidenced by 34 stamps found with the names of the owners of workshops where the tegulae were produced. Most of them (32 pieces) are from around Voghiera (Italy, province of Ferrara) and belong to the most popular workshop, the *Pansiana* (Fig. 23 – 29). A tegula with the stamp *C(ai) Tros[i]* (Fig. 30) comes from the workshop owned by the Trosia family from the area of Aquileia (Italy, province of Udine), probably same as the *Sexti* stamp (Fig. 31). It should be noted that a Roman-era furnace for the production of tegulae was discovered in 2008 at the nearby Rakitnica site of the Three Wells, which may have partly supplied the Mrdakovica market.

The openings of all buildings faced the communication lines – streets and passages. The form of manor houses (*domus*) should not be taken as an analogy. Architecture is generally determined not only by the purpose and location of the building, but also by the social status of its owners. The entrance doors and windows of buildings in Velika Mrdakovica were undoubtedly made of wood, the most available and easily processed material. Since the needs, resources, and technology have remained the same for millennia, one can assume a similar or identical appearance to the traditional architecture in the Dalmatian coastal area and hinterland. Based on the found/investigated situation



Sl. 23. – 29. Pečati s keramičkog krovnog crijepa (*tegulae*) s pečatom *Pansiana*
| Fig. 23. – 29. Stamps from ceramic roof tiles (*tegulae*) with the stamp of *Pansiana*

od drva (najdostupnijeg i lako obradivog materijala), a kako su potrebe, resursi i tehnologija tisućljećima ostali isti, možemo pretpostaviti sličan ili istovjetan izgled onima na tradicijskoj gradnji dalmatinskog priobalja i Zagore. Na osnovi zatečenog/istraženog stanja na terenu ustanovljena je uobičajena širina ulaznih vrata od približno 90 cm i širina prolaza između prostorija od 70 cm. Ona su prema gabaritima bila jednokrlna s bravom i mehanizmom za zaključavanje, no zasigurno su veličina ili barem masivnost varirali ovisno o namjeni prostorije i/ili bogatstvu vlasnika. Skladišni prostori su zahtijevali drugačiji ulaz od rezidencijalnih. Svemu tomu posredno svjedoče i ključevi. Oni su uobičajen nalaz na rimskodobnim lokalitetima, a veličinom i oblikom odaju svrhu i prvobitnu namjenu. Tipološki su raznoliki i mogu služiti za otvaranje drvenih podiznih brava, brava na oprugu, brava na okretanje, brava na povlačenje i katanaca. Nisu se zaključavala samo vrata već i škrinje te drugi dijelovi namještaja u kojima su čuvane dragocjenosti. Dosad su na Velikoj Mrdakovici otkrivena tri ključa s kružnim otvorom za vješanje. Dva su željezna. Onaj velikih dimenzija služio je za masivnija vrata, možda podrumске skladišne prostorije, (sl. 32) dok su se ostala dva – željezni s dekorativnim brončanim umetkom i ključ od lijevane bronce rabili za zatvaranje otvora uobičajenih gabarita (sl. 33 – 34).



Sl. 30. Pečat s keramičkog krovnog crijepa (*tegula*) s pečatom *C(ai) Tros[i]*
| Fig. 30. Stamp from a ceramic roof tile (*tegula*) with the stamp of *C(ai) Tros[i]*

on the ground, the common width of the entrance door has been estimated to around 90 cm, and the width of the passages between the rooms to around 70 cm. Judging by their dimensions, they were single-winged with a lock and a locking mechanism, but their size and strength certainly varied depending on the purpose of the room and/or the wealth of the owner. Storage areas required a different entrance than the residential ones. The keys indirectly testify to all this. They are a common find on Roman sites, and their size and shape reveal their purpose and original use. They are typologically diverse and could be used to open wooden lift locks, spring locks, turn locks, pull locks, or padlocks. Not only doors were locked, but also chests and other pieces of furniture in which valuables were kept. So far, three keys with a circular loop for hanging have been discovered in Velika Mrdakovica. Two of them are made of iron. The large one must have been used for a rather massive door, perhaps a basement storage room (Fig. 32), while the other two – one made of iron, with a bronze strip as a decorative insert, and another made of cast bronze – were apparently used to close openings of average dimensions (Fig. 33 – 34).

Sl. 31. Pečat s keramičkog krovnog crijepa (*tegula*) s pečatom *Sexti*
| Fig. 31. Stamp from a ceramic roof tile (*tegula*) with the stamp of *Sexti*



Sl. 32. – 34. Ključevi | Fig. 32. – 34. Keys

PREHRANA

Nutrition

Nužnost svakodnevice je svakako bila prehrana. Na pitanje što su Mrdakovčani jeli, odgovor nam daju materijalni ostatci hrane, ali i posuđa kojim su se koristili pri jelu i piću, a koje prožima osim svjetovne i duhovnu stranu života uobličenu utvrđenim ritualnim praksama. Nadalje, ne smijemo zanemariti podneblje, dostupnost namirnica i resursa, te analogije na sličnim ili srodnim lokalitetima. Veliku Mrdakovicu i njezine žitelje prije svega moramo staviti u okvir prostora kojim su gospodarili. Široko prihvaćenu zabludu da su siromašniji pripadnici nižih klasa bili uglavnom pothranjeni, posljedično bazičnoj, jednoličnoj i nutritivno nedostatnoj prehrani, pobijaju novija arheološka saznanja. Tako je velika erupcija Vezuva 79. godine poslije Krista uništenjem Pompeja, Herculana i sveg okolnog područja, donijela brojna arheološka saznanja o svakodnevici stanovnika. Naime, vulkanski pepeo je zapečatio, karbonizirao i sačuvao sav organski materijal, među ostalim i onaj unutar kanalizacijskog sustava siromašnih naselja u napuljskom zaljevu. Analize su posve neočekivano pokazale bolju prehranu tadašnjeg stanovništva od njihovih potomaka iz 20. stoljeća, što je evidentno i iz visine pojedinaca. Jelo se grožđe, smokve, masline, svježa i usoljena riba, a mnogo više od polovice namirnica pripadalo je nemesnoj prehrani. Naravno da je kvaliteta prehrane umnogome ovisila o mjestu prebivališta i dostupnim resursima, pa je bilo i onih sa siromašnijom trpezom. Općenito možemo reći da se konzumiralo dosta žitarica. Ovdje posebno ističemo danas „ponovno otkrivene“ – proso i sirak. Dugo korišteni isključivo kao stočna hrana, vraćeni su u ljudsku uporabu ponajprije zbog toga što ne sadržavaju gluten. Nutritivna vrijednost im je iznimno visoka, a primjena raznolika. Plodna polja rimskih provincija na sjeveru Afrike bila su zasađena sirkom (*Sorghum*), uz pšenicu glavnom sirovinom za proizvodnju kruha milijunskoga Rima, središta tadašnjega svijeta. Nedaleko od Velike Mrdakovice, u Danilu (*Municipium Riditarum*), otkriveno je skladište karboniziranih žitarica. Okvirno su datirane od 2. do 5. stoljeća poslije Krista. Utvrđene su vrste: *Triticum ef. spelta* – pravi pir, *Triticum aestivum* – jara (obična) pšenica, *Hordeum vulgare* – ječam ozimac (obični ječam), *Avena* – zob. Puno veća skladišta – horea, postojala su i u Skardoni – najvećoj tranzitnoj luci za vojni logor u Burnumu. Količini utovara i istovara najbolje svjedoči dužina luke – blizu 800 metara.

Food was certainly a daily necessity. The answer to the question of what the people of Mrdakovica ate can be found through the material remains of food, as well as the dishes that were used for eating and drinking. It pervades not only the secular, but also the spiritual side of life, shaped through established ritual practices. Furthermore, we must not ignore the climate, the availability of food and resources, and the analogies in similar or related localities. Velika Mrdakovica and its inhabitants must first of all be placed within the framework of the area they controlled. The widely accepted misconception that the poorer members of the lower classes were mostly malnourished as a result of reduced, monotonous, and nutritionally insufficient diet has been refuted by recent archaeological findings. Thus, the great eruption of Mount Vesuvius in 79 AD, with its destruction of Pompeii, Herculaneum, and the entire surrounding area, brought numerous archaeological insights into the everyday life of the inhabitants. The volcanic ash had sealed, carbonized, and preserved all organic material, among other places within the sewage system of the poor settlements in the Bay of Naples. The analyses, completely unexpectedly, showed that the population of those times had better nutrition than their 20th-century descendants, which is also evident from the height of individuals. They ate grapes, figs, olives, fresh and salted fish, and far more than half of the foods belonged to the meatless diet. Of course, the quality of food depended a lot on the place of residence and the available resources, so there were also people eating nutritionally poorer meals. In general, one can say that a lot of cereals were eaten, whereby those “rediscovered” today should be highlighted: millet and sorghum. Long used exclusively as animal feed, they have been returned to human use primarily due to the fact that they do not contain gluten. Their alimentary value is extremely high, and their application is diverse. The fertile fields of the Roman provinces in North Africa were planted with sorghum along with wheat, and they were the main supplier of bread to feed the million-strong Rome, the centre of the world at that time. Not far from Velika Mrdakovica, in Danilo (*Municipium Riditarum*), a warehouse of carbonized grains has been discovered. They have been tentatively dated to the 2nd-5th century AD. The following species have been identified: *Triticum ef. spelta* – heirloom spelt, *Triticum aestivum* – summer (common) wheat, *Hordeum vulgare* – winter (common) barley, and



Sl. 35. Željezni lanac – gredeljnica
| Fig. 35. Iron plough chain

Sl. 36. Ulomak željeznog kosira s naselja
| Fig. 36. Fragment of an iron billhook from the settlement

Sl. 37. Dva željezna kosira s nekropole
| Fig. 37. Two iron billhooks from the necropolis

Sl. 38. Kameni brus
| Fig. 38. Stone grinder

I na Velikoj Mrdakovici su zasigurno uzgajane iste vrste. Plodna polja kao npr. u Pirnicama, Rakitnici i Tankim dragama, uz nekoliko stalnih i povremenih izvora vode, bila su dostatna za potrebe lokalnog stanovništva. Obradive površine su se ekstenzivno kultivirale, o čemu nam posredno govore i ostaci zasad malobrojnog željeznog alata. Nažalost, zbog korozije i kiselosti tla većina je predmeta degradirana. U prostoriji P 8 pronađen je lanac – gredeljica. Sačuvano je 14 željeznih karika oblika ovala i broja osam. Njome se povezivala greda pluga s kolicima (sl. 35). Na nekropoli i naselju su utvrđena tri kosira (*falces*) koji su služili za sječenje, potkresivanje i branje, među ostalim i vinove loze (sl. 36 – 37). Na više mjesta unutar bedema su otkriveni fragmenti, te jedan posebno lijep i u cijelosti očuvan kameni brus (sl. 38). Brusovi su neizostavni dodaci za održavanje svih oružja i oruđa – od onih za sječu do onih za ubadanje, a njihova disperzija po naselju skreće pozornost na stupanj odgovornosti koju su žitelji Velike Mrdakovice posvećivali brizi o alatu potrebnom za obavljanje uobičajenih poslova. Svakodnevno se u pripremanju obroka rezala svakovrsna hrana pri čemu su različite vrste noževa bile nužne. Dosad je utvrđeno šest primjeraka koje možemo svrstati u nekoliko različitih tipova. Dva noža, manjih dimenzija, dužine oštrice od približno 10 cm pripadaju zakrivljenom tipu (sl. 39 – 40), dok tri imaju „klasičniji“ izgled s ravnim hrptom i stranom za rezanje nakošenom prema gore (sl. 41 – 43). Stražnji dio oštrice kod svih završava horizontalnim ili vertikalnim jezičcem za nasad drvenog ili koštanog drška. Ovomu pridodajemo željeznu jezgru drška perforiranu četirima otvorima kroz koje su se provlačile zakovice za učvršćivanje obloge od vjerojatno organskog materijala (sl. 44). Sve mrdakovačke noževe možemo pripisati kuhinjskom asortimanu, mada je svaki od njih vrlo dobro mogao poslužiti i kao oružje. Iz veličine i oblika je razvidno kako su se koristili za pripremu različite hrane, no točnu namjenu za svaki pojedinačno možemo samo pretpostaviti. Kruh je bio svakodnevna namirnica. Da bi se dobio potrebno je žitarice samljeti u brašno. Na naselju Velike Mrdakovice otkriveno je mnoštvo ručnih žrvnjeva. Oni pripadaju trima tipovima – najstariji, tzv. sedlasti tip, poznat je i korišten još od neolitika. Sastoji se od udubljenog stanca (*tarionika*) i kuglastog/polukuglastog rastirača (*tučka*) koji se držao u ruci i pokretima naprijed-nazad „rastirao“ plod. Osnovni dio, podlogu za rastiranje, nismo pronašli, no nekoliko kružnih komada pogodnih za šaku sugerira da su upravo oni – tučci spomenute vrste žrvnja (sl. 45 – 46). U helenizmu se razvija tzv. olinski tip, s donjim pravokutnim dijelom (*meta*), prosječnih dimenzija 45 cm × 50/60 cm (sl. 47). Na njega se stavljao gornji dio (*catillus*) kvadratnog oblika s konusnim otvorom i utorom za drvenu motku u središtu. Kroz otvor su se sipale žitarice, a mehaničkim pokretima motke lijevo-desno težina katilusa mljela je plod i dobivalo se brašno. Nešto je kasniji i jednostavniji rotacijski žrvanj, koji je radio na istom principu, a njegovi su ostaci otkriveni u većini istraženih prostorija na naselju (sl. 48 – 49).

Uz kruh je jedna od osnovnih namirnica bila i vino. Čak i danas vino je, ne bez osnove,

Avena – oats. Much larger warehouses (*horea*) were located in Skardona, the largest transit port for the military camp in Burnum. The amount of loaded and unloaded goods is best evidenced by the length of the port, which is close to 800 meters.

The same cereals must have been consumed in Velika Mrdakovica. Its fertile fields, such as those in Pirnice, Rakitnica, and Tanke Drage, along with several permanent and temporary water sources, were sufficient for the needs of the local population. The arable areas were extensively worked, as indirectly indicated by the remains of a small number of iron tools. Unfortunately, due to corrosion and soil acidity, most of the items have degraded. A plough chain, used to connect the plough beam with the cart, was found in Room P 8. Fourteen oval-shaped and figure-eight iron links have been preserved (Fig. 35). Three hedging bills (*falces*) were also found at the necropolis and the settlement. They were used for cutting, trimming, and picking vine, among other things (Fig. 36 – 37). In several places inside the ramparts, fragments of grindstones have

been discovered, as well as one particularly beautiful and completely preserved grindstone (Fig. 38). Grindstones are indispensable accessories for the maintenance of all sorts of weapons and tools, from those used for cutting to those for stabbing, and their distribution across the settlement indicates the degree of responsibility that the residents of Velika Mrdakovica felt for taking care of the tools necessary for the performance of everyday duties and the normal course of life. All kinds of food were cut every day to prepare meals, and different types of knives were required. So far, six specimens have been identified, which can be classified into several different types. Two knives of minor dimensions, with a blade length of about 10 cm, belong to the curved type (Fig. 39 – 40), while three have a more “classic” look, with a straight back and an upward sloping cutting edge (Fig. 41 – 43). In all of them, the rear part of the blade ends with a horizontal or vertical tang for attaching a wooden or bone handle. It is also worth mentioning an iron core of the handle, perforated with four holes through which rivets were inserted to fasten



Sl. 39. Željezni nož s hrptom zakrivljenim prema dolje | Fig. 39. Iron knife with a spine curved downwards
 Sl. 40. Željezni nož s hrptom zakrivljenim prema dolje | Fig. 40. Iron knife with a spine curved downwards
 Sl. 41. Željezni nož s ravnim hrptom | Fig. 41. Iron knife with a straight spine
 Sl. 42. Željezni nož s ravnim hrptom | Fig. 42. Iron knife with a straight spine
 Sl. 43. Željezni nož s ravnim hrptom | Fig. 43. Iron knife with a straight spine
 Sl. 44. Željezna jezgra drška noža | Fig. 44. Iron core of a knife handle

uvršteno na popis prehrambenih proizvoda. Ovo piće nastalo od loze čiju je domestikaciju/kultivaciju na našim prostorima starija historiografija pripisivala grčkim kolonistima danas ubrajamo među postignuća domaćeg svijeta. Međutim, za intenzivniju proizvodnju vina najzaslužnije su trgovačke veze s Helenima koji su ovo piće nerazdvojivo vezali uz Dioniza. Upravo zato je Dionizov kult i kult njemu srodnih božanstava, ponajprije italčkog Libera, u krajevima gdje ih štiju indikator uzgoja vinove loze i korištenja njenoga nektara. Vino je pod utjecajem helenističke kulture postupno penetriralo u sve sfere života – od svakodnevnoga do religijskoga. Ta opojna tekućina je grčkim naseljenicima Visa (Ἴσσα) i Hvara (Φάρος) bila tako egzistencijalno važna da su pojedine emisije novca na sebi „nosile“ vinske attribute – Hvar: kantaros, grozd, Dioniz; Vis: grozd, kantaros, amfore. Naravno da Vis i Hvar ovim prikazima na novcu nisu iznimke, no to još više naglašava važnost vina kao trgovinskog proizvoda i izvora blagostanja. Veliku potrošnju pratila je i produkcija posuda namijenjenih njegovu miješanju, posluživanju i ispijanju. To su vinski setovi. Na Velikoj Mrdakovici zastupljeni su od 2. stoljeća prije Krista do 1. stoljeća poslije Krista, a sastoje se od kratera, pehara, kaleža i posuda tipa *Sarius*. Većina nabrojanih tipova posuda, uz one tankih stijenki, utvrđena je u helenističkim i ranocarskim grobnicama/grobovima na nekropoli, a njihova učestalost i svrha sugeriraju ritualnu ulogu u kojoj je vino sa svom svojom simbolikom i značenjem vjerojatno bilo u prvome planu. I dok sve ove keramičke izrađevine unutar grobnog konteksta dobivaju posve novu ulogu, značenje im je na naselju, u svijetu živih, posve obično – profano. Nalazimo ih, naravno, u ulomcima, kao potvrdu da im funkcija nije isključivo kulturna već primarno svakodnevna, a prilaganje u grobove govori o odnosu koji su prema „opojnom nektaru“ imali i važnosti koju su mu pridavali.

Uz osnovne namirnice – kruh i vino, Mrdakovčani su nesumnjivo konzumirali i maslinovo ulje. Iako nemamo neposrednih dokaza o tome, jer još nisu provedene kemijske analize sadržaja amfora i kuhinjskog asortimana, klimatološki i geografski uvjeti, te svakodnevna upotreba maslina i njihovih produkata širom mediteranskog svijeta podupiru ovu pretpostavku. I grčko-rimski povjesničar i geograf Strabon u svom djelu *Geographia* navodi da su istočnojadranski otoci i obala na prijelazu era bili puni nasada maslina i vinove loze. Očito je stoga da ove poljoprivredne kulture i njihovi produkti čine okosnicu agrarne proizvodnje, ne samo za osobne potrebe i domaće tržište već i kao vrlo cijenjena roba za izvoz. K tomu, kako piše Apicije, autor knjige recepata *De re Coquinaria* iz 1. stoljeća poslije Krista, liburnsko ulje je bilo najcjenjenije i najbolje kvalitete, iako mu se količina nije mogla mjeriti s onim hispanskog podrijetla. Upravo zbog ograničene dostupnosti liburnskog „tekućeg zlata“ Apicije čak daje instrukcije kako od običnog maslinova ulja napraviti ono koje će se gostima činiti kao vrhunsko – liburnsko: u amforu s „običnim maslinovim uljem“ treba dodati korijen biljke iz porodice Šiljeva (vjerojatno *Cyperus esculentus*), gorsku metvicu (*Calamintha*) ili sunčanu zaručnicu (*Helenium*) te lišće lovora, pa pustiti da odstoji barem tri dana.



Sl. 45. Tučak žrvnja sedlastog tipa
| Fig. 45. Saddle-shaped mill grinder

Sl. 46. Tučak žrvnja sedlastog tipa
| Fig. 46. Saddle-shaped mill grinder

Sl. 47. Donji dio (*meta*) žrvnja olinškog tipa
| Fig. 47. Lower part (*meta*) of an Olynthian-type millstone

Sl. 48. Gornji dio (*catillus*) ručnog rotacijskog žrvnja
| Fig. 48. Upper part (*catillus*) of a manual rotary mill

Sl. 49. Donji dio (*meta*) ručnog rotacijskog žrvnja
| Fig. 49. Lower part (*meta*) of a manual rotary mill

the lining, probably made of an organic material (Fig. 44). All knives from Mrdakovica belonged to the kitchen assortment, although each of them could very well have served as a weapon. Judging by their size and shape, they were used to prepare different foods, but we can only guess the exact purpose of each one. Bread was a daily staple food. In order to obtain it, it was necessary to grind the grains into flour. In the settlement of Velika Mrdakovica, a number of manual millstones were discovered. They belong to three types – the oldest, so-called “saddle quern” type, had been known and used since the Neolithic. It consists of a hollow stand (bedstone) and a spherical or semi-spherical grinder (rubber) that was held in the hand and “spread” the grains with back-and-forth movements. The basic element, the bedstone, has not been found, but several circular pieces suitable for holding them by hand suggest that they were rubbers for the said type of millstone (Fig. 45 – 46). In the Hellenic period, the so-called Olynthian type emerged, with a lower rectangular part (*meta*) of average dimensions 45 x 50/60 cm (Fig. 47). The square-shaped upper part (*catillus*) with a conical opening and a slot for a wooden pole in the centre was placed on it. Grains were poured through the opening, and with mechanical left-right movements of the pole, the weight of the *catillus* ground the grains to obtain flour. A somewhat later and simpler type is the rotary millstone, which worked on the same principle, and its remains were discovered in most of the researched rooms in the settlement (Fig. 48 – 49).

One of the basic staple foods, along with bread, was wine. Even today, wine is included in the list of nutritional products for good reason. Created from a vine whose domestication/cultivation in this area was attributed by older historiography to Greek colonists, it is now counted among the achievements of the local population. However, the more intensive production of wine was due to trade ties with the Hellenic Greeks, who associated it inseparably with Dionysus. For this reason, the cult of Dionysus and the related deities, primarily the Italic Liber, in the regions where they were worshiped, is an indicator of the cultivation of the vine and the use of its nectar. Under the influence of Hellenistic culture, wine gradually penetrated into all spheres of life, from everyday to sacral. This intoxicating liquid was so existentially important to the Greek settlers of Visa (Ἴσσα) and Hvar (Φάρος) that certain issues of coins carried wine attributes. For Hvar, these



Sl. 50. Izbor ostataka ptičjih kostiju te kostiju domaćih i divljih životinja
| Fig. Selection of remnants of bird bones and bones of domestic and wild animals

Da je prehrana Mrdakovčana uistinu bila raznovrsna, saznajemo iz ostataka ljuštura mnogobrojnih školjki, kao i iz osteološkog materijala raznorodnih kopnenih životinja utvrđenih na naselju. Kostii ptica, krava, sitnih papkara – koza i ovaca, te domaćih svinja, među kojima jedan dio sigurno pripada i veprovima, samo su dio kopnenog menija (sl. 50). Meso se u tadašnjem svijetu pripremalo na iste načine s istim priručnim pomagalicama kao i danas – kuhalo se nad otvorenim ognjištem u keramičkim ili brončanim posudama, peklo se pod pekom ili na keramičkom roštilju, a pržilo na maslinovu ulju. Od krava, koza i ovaca se dobivalo mlijeko i sir, vuna je korištena za odjeću, a koža za niz proizvoda. Hrana i piće su se posluživali u keramičkim i staklenim izrađevinama od kojih su neke, npr. kuhinjski setovi za vino, bile usko namjenske. Jelo se iz keramičkih tanjura različite dubine, a pilo iz staklenih i keramičkih čaša. Sav navedeni arheološki materijal ustanovljen je i na obližnjoj nekropoli unutar grobnih cjelina, sukladno onodobnom vjerovanju o potrebi spomenutih stvari i u zagrobnom životu.



Sl. 51. Izbor ostataka ribljih kostiju, školjki i puževa s naselja
| Fig. 51. Selection of remains of fish bones and shells from the settlement

included the *kantharos*, the grapes, and Dionysus; and for Vis, the grapes, the *kantharos*, and amphorae. Of course, Vis and Hvar are no exception with these depictions on coinage, but this circumstance emphasizes the commercial importance of wine as a product and a source of wellbeing. Its large consumption was accompanied by the production of vessels intended for its mixing, serving, and drinking – the wine sets. In Velika Mrdakovica, they are attested from the 2nd century BC to the 1st century AD, and consist of kraters, goblets, chalices, and vessels of the Sarius type. Most of the listed vessel types, in addition to those with thin walls, have been found in Hellenistic and Early Imperial tombs/necropolises, and their frequency and purpose suggest a ritual role in which wine, with all its symbolism and meaning, probably played the main role.

While all these ceramic artefacts acquired a completely new meaning in the cemeterial context, in the settlement, in the world of the living, their use was completely ordinary and profane. Of course, they are found in fragments, a fact that confirms that their function was not exclusively cultic but primarily everyday, and their placement in graves speaks of the people's relationship with the "intoxicating nectar" and the importance they attached to it.

In addition to these basic foods – bread and wine – the population of Mrdakovica undoubtedly consumed olive oil. Although there is no direct evidence of this at the moment, as chemical analyses of the contents of amphorae and kitchenware have not yet been carried out, the climatological and geographical conditions, and the daily use of olives and their products throughout the



Sl. 52. Zračna snimka šibenskog Zatona, Velike Mrdakovice i vodičkog kraja
| Fig. 52. Aerial view of Šibenik's Zaton, Velika Mrdakovica, and the Vodice region

Utvrđeni su ostaci ribljih kostiju, te čitav niz školjki i puževa – najbrojnije su dagnje (*Mytilus galloprovincialis*), kvrgavi volci (*Hexaplex trunculus*), bodljikavi volci (*Bolinus brandaris*), konjska kopita (*Spondylus gaederopus*), kamenice (*Ostrea edulis*) i obične vretenjače (*Cerithium vulgatum*). U manjoj mjeri nalazimo srčanke (*Cerastoderma glaucum*), rovanice (*Venus verrucosa*), kunjke (*Arca noae*), pješčani ugrc (*Gibbula albida*), ugrc/nanaru (*Osilinus turbinatus*), kamotočac (*Pholas Dactylus*) i tek jednu Jakobovu kapicu (*Pecten jacobaeus*) (sl. 51). Mnogobrojnost školjki i puževa neumitno govori o njima kao hrani. Na koji su se način pripremali ne znamo, no da su posebice konjska kopita i kamenice mogli poslužiti i u pripravljanju umaka okusom kojega su se obogaćivala jela, znamo iz onodobnih recepata. Iz svega navedenoga očita je jaka povezanost stanovnika Velike Mrdakovice s rijekom Krkom, od koje ih dijeli tek 3,5 km do šibenskog Zatona. Tu se zbog dva faktora morala nalaziti pretpostavljena luka ili manje pristanište. Prvi je konfiguracija terena, tj. prirodna uvjetovanost. Zaton je, što mu i ime govori, jedino pristupačno i zaklonjeno mjesto na Krki kojemu gravitira Velika Mrdakovica (sl. 52). Drugi je čimbenik potvrđena

Mediterranean world, support this assumption. The Greco-Roman historian and geographer Strabo also states in his work *Geographica* that at the turn of the era, the Eastern Adriatic islands and coastline were full of olive groves and vines. It is therefore evident that these agricultures and their products formed the backbone of agricultural production, not only for personal needs and the domestic market, but also as highly valued goods for export. According to Apicius, the author of the book of recipes *De re coquinaria* from the 1st century AD, Liburnian oil was the most valued and of the best quality, although in quantity it could not compare to that of Spanish origin. Because of the limited availability of Liburnian “liquid gold,” Apicius even gives instructions on how to use ordinary olive oil to produce what will appear to be superior, i.e. Liburnian: in the amphora with “ordinary olive oil,” one should add a mixture of Cyprian rush (probably *Cyperus esculentus*), calaminth (*Calamintha*) or elecampane (*Helenium*), and green laurel leaves, and let it rest for at least three days.

The diet of the inhabitants of Mrdakovica can be inferred from the remains of numerous shells, as well as from the osteological remains of various land animals found at the settlement. Bones of birds, cows, small ungulates such as goats and sheep, and domestic pigs, among which there were certainly boars, show only a part

of the continental menu (Fig. 50). Meat was prepared in the same way as today, with the same handy tools: cooked on open fire in ceramic or bronze pots, roasted under the bell or on a ceramic grill, and fried in olive oil. Milk and cheese were obtained from cows, goats and sheep, while wool was used for clothing and leather for a whole range of products. Food and drink were served in ceramic and glass vessels, some of which, such as kitchen sets for wine, were specifically designed for the purpose. Meals were eaten from ceramic plates of different depths, and liquids were drunk from glass and ceramic glasses. All these archaeological finds were also discovered in the nearby necropolis, as grave goods, in accordance with the belief of the time that the deceased would need these objects in the afterlife.

Remains of fish bones have been identified, as well as a whole range of shells, the most numerous being the mussel (*Mytilus galloprovincialis*), the banded dye-murex (*Hexaplex trunculus*), the spiny dye-murex (*Bolinus brandaris*), the thorny oyster (*Spondylus gaederopus*), the flat oyster (*Ostrea edulis*), and the horn shell (*Cerithium vulgatum*). To a lesser extent, one finds the lagoon cockle (*Cerastoderma glaucum*), the warty venus (*Venus verrucosa*), the Noah's Ark shell (*Arca Noae*), the whitish gibbula (*Gibbula albida*), the turbinate monodont (*Osilinus*

Sl. 54. Keramički utezi za ribarske mreže | Fig. 54. Ceramic weights for fishing nets



intenzivna robna razmjena s istočnojadranskim grčkim kolonijama u helenističko doba te Apeninskim poluotokom tijekom republikansko-carskog razdoblja. Sav taj promet se odvijao morem i Krkom do Skradina. U zatonskoj luci i pripadajućim manjim uvalama dosad nisu provedena arheološka istraživanja koja bi potvrdila postojanje barem sidrišta, no kako smo naveli, ovo je mjesto jedini logični položaj za privez trgovačkih brodova i brodica domaćih Mrdakovčana kojima su se vjerojatno služili. Posredno to možemo zaključiti iz nekoliko činjenica. Općenito je teško zamislivo da zajednica koja stoljećima eksploatira riječne resurse nije usavršila i iskoristila sve poznate i dostupne načine ribolova. Tomu se protivi i osnova prosperiteta Liburna koja je zasnovana na moru i pomorskoj tradiciji. Stoga možemo zaključiti kako su Liburni s Velike Mrdakovice, što vidimo iz ostataka hrane – ribljih kostiju i školjaka, zasigurno imali brodice kojima su, pretpostavljamo, išli i do prvih otoka šibenskog akvatorija. Neosporiv je dokaz o ribolovu brončana udica iz prostorije P 19 (sl. 53). Ostatak ribolovnog (maritimnog) asortimana čine pršljenasti, bikonični i kuglasti keramički utezi koji su služili za opterećivanje ribolovnih mreža (sl. 54). Otkrivena su i dva kamena utega. Istina, svi su se oni mogli upotrebljavati za zatezanje niti tkalačkog stana, ili za obje svrhe, no prema analogijama s drugih lokaliteta i kontekstu nalaza na Velikoj Mrdakovici pripisujemo ih priboru za ribolov.

Višak hrane se konzervirao uglavnom soljenjem, sušenjem i dimljenjem te držao u podrumskim prostorijama zajedno s uljem, žitaricama i vinom. Debeli ulomci pitosa i/ili dolija, te ostaci kamenih posuda potvrđuju ovu tezu. S obzirom na osteološku prisutnost svinja i sitnih papkara na naselju, možemo s velikom vjerojatnošću pretpostaviti da su pancete, pršuti i kobasice naveliko mirisali u „konobama“ Mrdakovčana, to više što su načini obradbe i dugotrajnog čuvanja mesa, posebice svinje, poznati i naveliko korišteni u antičko doba. Ovce, koze i goveda također su služili za jelo no, zbog vrijednosti vune, mlijeka, mliječnih proizvoda, kao i vremena gestacije te broja mladih u okotu, učestalost njihove uporabe za hranu je znatno manja. Koliko je stoke držano na Velikoj Mrdakovici nemoguće je utvrditi, no da su manja i veća „grla“ slobodno pasla po okolnim poljima i brežuljcima, znamo iz nepotpuno sačuvanog brončanog zvona otkrivenoga u sondi 3 (sl. 55). Pripadalo je, s obzirom na veličinu, ovci ili kozi, tj. predvodniku jednog stada. Ovo je nesumnjivi dokaz stočarstva koje za trajanja naselja na Velikoj Mrdakovici vjerojatno čini okosnicu života tamošnjih Liburna.



Sl. 53. Brončana udica iz prostorije P 19
| Fig. 53. Bronze hook from Room P 19



Sl. 55. Brončano zvono za stoku sitnog zuba
| Fig. 55. Bronze bell for small ungulates

turbinatus), the common piddock (*Pholas dactylus*), and a single specimen of the Mediterranean scallop (*Pecten jacobaeus*) (Fig. 51). The abundance of shells shows beyond doubt that they were consumed as food. It is not known how they were prepared, but recipes from the time reveal that particularly oysters may have been used to prepare sauces intended to enrich dishes. From all of the above, it is obvious that the Krka River, only 3.5 km away from Šibenik's Zaton, was very important for the residents of Velika Mrdakovica. There was probably a harbour or a small pier there, for two reasons: the first was the terrain configuration, i.e. natural conditions. Zaton, as its name suggests, was the only accessible and sheltered place on the Krka to which Velika Mrdakovica gravitated (Fig. 52). Another factor was the attested intensive exchange of goods with the Eastern Adriatic Greek colonies in the Hellenistic era and the Apennine Peninsula during the Republican-Imperial period. All that traffic took place by sea and on the Krka River up to Skradin. So far, no archaeological research has been carried out in the port of Zaton and the associated smaller bays to confirm the existence of an anchorage at

least, but as mentioned above, this place is the only logical location for the mooring of merchant ships and boats that were probably used by the local people of Mrdakovica. This can be inferred from several facts. In general, it is hard to imagine that a community that exploited the river resources for centuries had not perfected and used all known and available fishing methods. This is corroborated by Liburnian prosperity, which was based on the sea and the maritime tradition. Therefore, it may be presumed that the Liburnians of Velika Mrdakovica, as evidenced by the remains of their diet – fish bones and shells – had boats, which they apparently also used to visit the nearest islands of the Šibenik waters. An indisputable proof of fishing is the bronze hook from Room P 19 (Fig. 53). The rest of the fishing (maritime) assortment consists of vertebral, biconical, and spherical ceramic weights that were used to load fishing nets (Fig. 54). Two stone weights have been discovered as well. To be sure, all of them may have been used to tighten the threads of the weaving loom, or for both purposes, but based on analogies from other localities and the context of the finds in Velika Mrdakovica they have been identified as part of the fishing equipment.

Surplus food was preserved mainly by salting, drying, and smoking, and kept in cellars together with oil, grains, and wine. Thick fragments of pithoi and/or dolia, and remains of stone vessels confirm this hypothesis. Considering the osteological presence of pigs and small ungulates in the settlement, it can be assumed with considerable certainty that the smell of pancetta, prosciutto, and sausages was omnipresent in the “taverns” of Mrdakovica, especially since the methods of processing and long-term preservation of meat, particularly pork, were known and widely used during antiquity. Sheep, goats, and cattle were also used for food, but to a far lesser extent, due to the value of wool, milk, and dairy products, as well as the gestation period and the number of young. It is impossible to determine the amount of livestock kept in Velika Mrdakovica, but smaller and larger “herds” must have grazed freely on the surrounding fields and hills, as inferred from an incompletely preserved bronze bell discovered in trench 3 (Fig. 55). Judging by its size, it must have belonged to a sheep or a goat, the leader of a herd. This is positive evidence of animal husbandry in Velika Mrdakovica, which was probably the backbone of Liburnian economy for as long as the settlement existed.

NOVAC

Money

Novac je najlakše datirana i najzahvalnija vrsta materijala unutar svakog arheološkog konteksta. On nesumnjivo postavlja okvir prema kojem krojimo vremensku lentu i smještamo događaje na njihovo mjesto. Do sada je na Velikoj Mrdakovici evidentirano 30 primjeraka novca rađenog od srebra i raznih bakrenih slitina – tri s nekropole, ostatak iz naselja. Kroz njegova lica i naličja možemo vidjeti prošlost očima suvremenika koji su ga cijenili i po vrijednosti i po ljepoti, kao i kroz oči vladara kojima je on često bio jedina izravna veza s podanicima. Pozicije na kojima je nađen unutar naselja sugestivne su, ne nužno i opravdano. Naime, većina komada utvrđena je u kutovima prostorija. Mogli bismo to pripisati konfiguraciji terena i eroziji, ali i mogućem praznovjerju. Donedavno je, kao dio ritualne prakse, bio običaj bacanja novca u kut prostorije na samom početku gradnje. Tim se magijskim činom prizivalo blagostanje. Jesu li to uistinu prežici minulih vremena, ostavljamo otvorenim za neke buduće analize i razmatranja.

Kovani novac kakav danas poznajemo pojavio se tijekom 7. stoljeća prije Krista na području Male Azije, u Lidiji, a zatim i kod nekoliko grčkih polisa u egejskom bazenu. Njegova uporaba je u početku bila lokalna, a postupnu ekspanziju doživljava od 5. stoljeća prije Krista širenjem helenske kulture na zapad. I prije toga, kao predmonetarna sredstva plaćanja korišteni su amorfn komadi bronce – *aes rude*, koji vremenom dobivaju određenu formu – *aes formatum* te se standardiziraju, oblikom i težinom, kasnije i s pečatom kao jamstvom vrijednosti i podrijetla – *aes signatum*. Tom dobu (5. – 3. stoljeće prije Krista) pripada i jedan brončani ingot s Velike Mrdakovice kao dokaz prilagodbe lokalnog tržišta „novim“ trendovima (sl. 56). Još jedan *aes formatum* oblika školjke zagolicao je maštu istraživača (sl. 57). Takvi su primjerci i inače iznimno rijetki – pronađeno ih je tek nekoliko u Liburniji – no svi su izliveni od bronce. Mrdakovački komad je napravljen od olova, što cijeloj priči daje drugu dimenziju i čini ga unikatnom istočnoga Jadrana. Ova tranzicija u razmjenu, sa žive stoke i raznih drugih dobara na uobličeni novac, inicirala je bržu i sigurniju trgovinu te veću akumulaciju kapitala. No novac osim primarnoga vrijednosnog značaja postaje i sredstvo propagande, ne zanemarujući dekorativni i ritualni aspekt koji mu se pridodaje. Prikazi vladara, božanstava i njihovih atributa, alegorijskih scena, elemenata vezanih uz osnovne gospodarske djelatnosti pojedinog područja, kao i ostale scene poput riječi u slici daju srž onoga što se njime htjelo poručiti – tko ga izdaje i po čemu je bitan, s



Sl. 56. Brončani ingot
| Fig. 56. Bronze ingot



Sl. 57. Olovni *aes formatum* oblika školjke
| Fig. 57. Shell-shaped lead *aes formatum*

Coins are the most easily dated and most rewarding type of finds in any archaeological context, as they provide a precise framework to define the timeline and place various events. So far, thirty coins made of silver and various copper alloys have been found in Velika Mrdakovica – three from the necropolis and the rest from the settlement. Looking at their obverses and reverses, one can glimpse into the past through the eyes of contemporaries, who appreciated money for both its value and its beauty, as well as through the eyes of rulers, for whom it was often the only direct link with their subjects. The locations where coins were found within the settlement are suggestive, although they do not necessarily lead to the right conclusions: most of the pieces were found in the corners of rooms. This might be explained by the configuration of the terrain and erosion, but also by superstition. Until recently, it was part of a ritual practice to throw money into the corner of a room at the very beginning of construction, an act of magic intended to invoke prosperity. For now, it must remain an open question for future analysis and consideration whether these are truly vestiges of the past.

Coinage as we know it today appeared during the 7th century BC in the area of Asia Minor, in Lydia, and then in several Greek polises in the Aegean basin. Its use was initially local, but from the 5th century BC, it experienced a gradual expansion with the spread of Hellenic culture to the West. Even before that, amorphous pieces of bronze – *aes rude* – were used as pre-monetary means of payment, which over time acquired a certain form – *aes formatum* –

and were standardized in terms of shape and weight, later with a seal as a guarantee of value and origin – *aes signatum*. A bronze ingot from Velika Mrdakovica also belongs to that age (5th-3rd century BC) and is evidence of the adaptation of the local market to “new” trends (Fig. 56). Another shell-shaped *aes formatum* has tickled the imagination of researchers (Fig. 57). Such specimens are very rare – only a few have been found in Liburnia. Moreover, they were all cast from bronze, whereas the Mrdakovica piece is made of lead, which gives another dimension to the whole story and makes it unique in the Eastern Adriatic. This transition in exchange from livestock and various other goods to money that was given a specific form marked the beginning of faster and safer trade and greater accumulation of capital. But apart from its primary value significance, money also became a means of propaganda, not to forget its decorative and ritual aspect. Depictions of rulers, deities, and their attributes, allegorical scenes, elements related to the basic economic activities of a particular area, as well as other images, such as words in the picture, rendered the core of what was intended to be conveyed by money – who issued it and why it was important, with the intention of gaining recognition among the wider masses. Thus, most of the coins from Carthage had the head of the goddess Tanit on the obverse and a standing horse on the reverse, making them easily recognizable. Syracuse's coins were more diverse in terms of visual representations. In the first century and a half, the most common motifs included the nymph Arethusa (Ἀρέθουσα), the quadrigas, and the

intencijom prepoznatljivosti kod širokih narodnih masa. Tako većina kartaških nominala na aversu ima glavu božice Tanit, a na reversu stajaceg konja, po čemu je ovaj grad prepoznatljiv. Sirakuški novac raznolikiji je likovnim predstavama. U prvih stoljeće i pol najčešći je motivi nimfe Aretuse (*Ἀρέθουσα*) te kvadriga i božice Nike, da bi se kasnije repertoar proširio i na ostala božanstva (Zeus, Apolon, Perzefona, Artemida, Atena, Posejdon) i morska bića od kojih prednjači dupin te niz drugih (hobotnica, rak...). I Kartaga i Sirakuza su kroz mitološki prepoznatljive likove i ostale profane scene istaknuli svoje porijeklo i pripadnost mediteranskoj kulturi. Dva kartaška primjerka s Velike Mrdakovice iz 3. stoljeća prije Krista uklapaju se u širu sliku numizmatičkog materijala s područja Liburnije kojom posljednja tri stoljeća stare ere dominira sjevernoafrički novac, a za trajanja Punskih ratova posebice emisije Kartage (sl. 58). Istodoban je njima i novac Sirakuze iz prostorije P 19, kovan za vladavine Hijerona II. (274. – 216. pr. Kr.). Propast starih centara moći i širenje utjecaja rimske države na istočni Jadran razvidni su povećanjem količine njihova novca. S Mrdakovice potječu četiri republikanska denara s kraja 2. i iz 1. stoljeća prije Krista, tri nađena tijekom arheoloških istraživanja, a jedan spomenut u opisu zatonskog učitelja Frane Škarpe u drugoj polovini 19. stoljeća (sl. 59 – 60). Najviše primjeraka ipak pripada julijevsko-klaudijevskoj dinastiji – osamnaest, tj. carevima Augustu, Tiberiju, Gaju Kaliguli, Klaudiju i Neronu. Među njima se, kao kurioziteti u sjevernoj Dalmaciji, kriju i dva provincijalna novca kovana u gradovima Side (Pamfilija) i Amphipolisu (antička Makedonija) (sl. 61 – 62). Vrijeme je to najveće prisutnosti vojske na liburnskom teritoriju nakon dugotrajnih i iscrpljujućih Ilirskih ratova. Uspostavom mira započeli su veliki javni radovi te priljev italjskih došljaka i orijentalaca, a shodno tomu došlo je i do pojačane cirkulacije rimskog novca. Na Velikoj Mrdakovici tri brončane nominale flavijevskih careva Vespazijana i Domicijana određuju gornju granicu života na naselju, što potvrđuje i ostali arheološki materijal (sl. 63).



Sl. 58. Novac Kartage | Fig. 58. Carthage coinage

Sl. 59. Republikanski denar kovan u pokretnoj kovnici | Fig. 59. Republican denarius minted at a mobile mint

Sl. 60. Republikanski denar kovan u Rimu | Fig. 60. Republican denarius minted in Rome



Sl. 61. Novac cara Nerona kovan u gradu Side u Pamfiliji

| Fig. 61. Emperor Nero's coinage minted in the city of Side in Pamphylia

Sl. 62. Novac cara Augusta kovan u gradu Amphipolis u antičkoj Makedoniji

| Fig. 62. Emperor Augustus' coinage minted in the city of Amphipolis in ancient Macedonia

Sl. 63. Novac cara Vespazijana kovan vjerojatno za Komagenu

| Fig. 63. Emperor Vespasian's coinage, probably minted for Komagena

goddess Nike. Later, the repertoire expanded to include other deities such as Zeus, Apollo, Persephone, Artemis, Athena, Poseidon, and various sea creatures such as the dolphin as the most prominent, the octopus, the crab, and others. Both Carthage and Syracuse emphasized their origin and Mediterranean identity through mythologically recognizable characters and other, profane scenes. Two Carthage specimens from Velika Mrdakovica (3rd century BC) fit into the wider picture of numismatic finds from the Liburnian area, which was dominated by North African money during the last three centuries of the ancient era, and by Carthaginian coins during the Punic Wars (Fig. 58). The Syracusan coin from Room P 19, minted during the reign of Hieron II (274-216 BC), is contemporary with them. The decline of these old centres of power and the expansion of Roman influence across the Eastern Adriatic is evident from the increase in the amount of Roman coins. Four Republican denarii from the late 2nd and 1st centuries BC originate from Mrdakovica: three were found

during archaeological research and one was mentioned in a description by Frano Škarpa, a teacher from Zaton, in the second half of the 19th century (Fig. 59 – 60). Most of the specimens, however, belong to the Julian-Claudian dynasty: eighteen coins issued by the emperors Augustus, Tiberius, Gaius Caligula, Claudius, and Nero. Among them, as curiosities in northern Dalmatia, there are also two provincial coins minted in the cities of Side (Pamphylia) and Amphipolis (ancient Macedonia) (Fig. 61 – 62). This was the time of the strongest military presence in the Liburnian territory after the long and exhausting Illyrian wars. With the establishment of peace, extensive public works began, as well as the influx of Italian and Oriental immigrants, which led to an increased circulation of Roman money. In Velika Mrdakovica, three bronze denominations of the Flavian emperors – Vespasian and Domitian – define the upper limit of the settlement's habitation, also confirmed by other archaeological finds (Fig. 63).

TRGOVINA

Trade

„Ploviti se mora“ (*Navigare necesse est*) izreka je koju Plutarh, grčko-rimski polihistor, u svom djelu Usporedni životopisi (*Bíoi Paráλληλοι*) pripisuje Gneju Pompeju. Ona u svom drugom djelu: „... živjeti nije neophodno“ (*vivere non est necesse*) naglašava neumitnost plovidbe, neodložnost trgovine koja se uglavnom odvijala morem – jer bez nje i bez mora nema života, ni nas samih. Mediteran je bio okosnica svih velikih država i kultura – feničke, grčke, egipatske te na posljetku Rimske Republike i Rimskoga Carstva. Veći ili manji drveni brodovi su među sredozemnim obalama razmjenjivali sirovine, gotove proizvode, životinje i ljude. Upravo zato trgovinu ne smijemo gledati samo kao razmjenu dobara već i u širem kontekstu, kao razmjenu informacija i ideja. Velika Mrdakovica je kao priobalno naselje, tek 3,5 km udaljena od Zatona, pretpostavljene i vjerojatne luke, iskorištavala blagodat mora vrlo rano, vjerojatno od prapovijesti. Utjecaji helenizma posredovanjem grčkih kolonija na Jadranu su vidljivi na reljefno ukrašenim keramičkim posudama za vino. Od druge polovine 1. stoljeća prije Krista povećava se import iz središnje i sjeverne Italije, produkti stižu iz Male Azije, te galskih radionica – Velika Mrdakovica je umrežena kolopletom sredozemnih ruta, a trgovački brodovi po zahtjevu naručitelja, što je razvidno iz arheološkog materijala, najviše ipak donose opojni „groždani sok“. Vinske amfore (*vinariae*) nalazimo diljem naselja. Kako nijedna nije sačuvana u punom obujmu teško je na osnovi ručki, dna i oboda sa sigurnošću utvrditi o kojem je tipu riječ. Najveći problem predstavljaju srodne i vremenski bliske amfore: Korint B i grčko-italske, te amfore tipa Dressel A – Dressel B – Lamboglia 2 gdje se razlika uočava tek u obliku trbuha. Naime, i unutar pojedinih tipova, ovisno o mjestu proizvodnje, postoje razlike i u izvedbi oboda, i u izvedbi dna, čak i u veličini – zapremini. Međutim, osnovne značajke ulomaka dopuštaju nam da ih smjestimo u užu kronološki okvir i odredimo tijek uvoza vina unutar nekoliko stoljeća. Fragmenti koje možemo pripisati najranijim amforama s Velike Mrdakovice pripadaju tipu Korint B (posljednja četvrtina 6. stoljeća – kraj 3. stoljeća prije Krista, i duže) ili grčko-italskom tipu (kraj 4. – kraj 2. stoljeća prije Krista). Ti produkti helenske kulture rasprostranjeni su po cijelom Mediteranu





Sl. 77. – 82. Pečati s amfora otkriveni tijekom arheoloških istraživanja naselja
 | Fig. 77. – 82. Amphora stamps discovered during archaeological excavations at the settlement

uključujući Jadran, posebno grad Spinu, Apuliju, Istru, te srednjodalmatinske otoke gdje na Hvaru i Visu pretpostavljamo lokalne radionice. Mali broj ostataka grčko-italskih amfora ne govori nužno o još neuhodanim trgovinskim vezama tog doba, već o stupnju istraženosti naselja i „reciklaži“ starijega materijala. Posebno je zanimljiv fragment amfore s najudaljenijega grčkog otoka Rodosa. Ove vinarije su od približno 275. godine prije Krista u iduća dva i pol stoljeća preplavile mediteranska tržišta. Na ručkama im se nalaze pečati s imenima svećenika vrhovnog božanstva, boga sunca Heliosa. Jedan od njih, svećenik *Απολλώνιος* javlja se na ulomku ručke s Velike Mrdakovice u formi ΑΠΟΛ s datacijom amfore između 107. i 40. godine prije naše ere (sl. 64). Najzastupljeniji su dijelovi najčešćih jadranskih vinarija tipa Lamboglia 2 (sl. 65), koje se od Apulije do Akvileje, i vjerojatno na „našoj“ strani, proizvode od kraja 2. stoljeća prije Krista do početka nove ere. Od ove vrste amfora potječe tip Dressel 6A – za vino i riblji umak. U uporabi su od 30-ih godina stare do kraja 1. stoljeća nove ere s centrima u Picenu, možda u Istri, regiji Marche i posebno u sjeveroistočnoj Italiji u pokrajinama Veneto i Friuli Venezia Giulia na što upućuju imena familija na žigovima. Najcjenjenije vino na prijelazu era dolazilo je s tih prostora. Plinije Stariji i Svetonije pišu kako je car August posebno cijenio ono iz okolice Verone ili istočne Emilije, dok je njegova žena Livija pripisivala svoju dugovječnost vinu s akvilejske rivijere. I amfore tipa Dressel 2-4 s bifidnim ručkama pripadaju vinarijama, a rade se u tirenskoj i sjevernoj Italiji, Istri i Apuliji. Gotovo istodobno se javljaju i jedne od najpoznatijih olearia – tip Dressel 6B čija je produkcija

“To sail is a necessity” (*Navigare necesse est*) is a saying attributed by Plutarch, a Greco-Roman polyhistor, to Gnaeus Pompeius in his *Parallel Lives* (*Βίοι Παράλληλοι*). Its second part, “to live is not” (*vivere non est necesse*), emphasizes the inevitability of navigation and the urgency of trade, which was mainly carried out by sea, because without it and without the sea, there is no life and man would not even exist. The Mediterranean was the backbone of all great states and cultures: Phoenician, Greek, Egyptian, and finally the Roman Republic and the Roman Empire. Larger or smaller wooden ships transported raw materials, finished products, animals, and people between the Mediterranean coasts. For this reason, trade should not be viewed merely as an exchange of goods, but also in its broader context, as an exchange of information and ideas. As a coastal settlement and a probable port, Velika Mrdakovica, located only 3.5 km away from Zaton, used the benefits of the sea very early, probably from prehistoric times. The influences of Hellenism through the Greek colonies on the Adriatic are visible on ceramic wine vessels decorated in relief. From the second half of the 1st century BC, imports from central and northern Italy increased, and products started to arrive from Asia Minor and Gallic workshops as well. Velika Mrdakovica was included in the network of Mediterranean routes, and merchant ships mostly brought the intoxicating “grape juice” at the request of customers, as evident from archaeological material finds. Wine amphorae (*vinariae*) have been found throughout the village. However, as none of them has been preserved in full, it is difficult to determine with certainty which type they belonged to based on the handles, bottom, and rim, especially with the amphorae that are similar and close in time: the Corinth B and the Greco-Italic types, as well as the Dressel A – Dressel B – Lamboglia 2 ones, where the difference is only noticeable in the shape of the body. Even within the specific types, there are differences in the design of the rim and the bottom, and even in the size or volume, depending on the place of production. Nevertheless, the basic features of the fragments allow us to place them in a narrower chronological framework and determine the course of wine imports across several centuries. The fragments that can be attributed to the earliest amphorae from Velika Mrdakovica belong to the Corinthian B type (last quarter of the 6th century – late 3rd century BC, or even longer) or the Greco-Italic type (late 4th – late 2nd

century BC). These products of Hellenic culture are spread all over the Mediterranean including the Adriatic, especially the town of Spina, Apulia, Istria, and the central Dalmatian islands, where local workshops may have been active on the islands of Hvar and Vis. The small number of remains of Greco-Italian amphorae does not necessarily speak of the still unestablished trade relations of that era, but is rather a result of the yet incomplete exploration of the settlement and the “recycling” of older materials. An especially interesting fragment belongs to an amphora from the farthest Greek island of Rhodes. Starting around 275 BC, products of these wineries flooded the Mediterranean markets for the next two and a half centuries. Their handles bear seals with the names of priests of the supreme deity, the Sun God Helios. One of them, the priest *Απολλώνιος*, appears on a handle fragment from Velika Mrdakovica in the form ΑΠΟΛ, and the amphora is dated between 107 and 40 BC (Fig. 64). Most fragments come from the Lamboglia 2 type (Fig. 65), used by the most common Adriatic wineries from Apulia to Aquileia, and probably on “our” coast of the Adriatic as well, from the late 2nd century BC to the beginning of the new era. The Dressel 6A type, used for wine and fish sauce, originated from this type of amphora. It was in use from the 30s BC to the late 1st century AD, with production centres in Piceno, perhaps in Istria, the Marche, and especially in north-eastern Italy, in the provinces of Veneto and Friuli Venezia Giulia, as indicated by the family names on stamps. The most valued wine at the turn of the era came from these areas. Pliny the Elder and Suetonius wrote that Emperor Augustus especially appreciated wine from the area of Verona or eastern Emilia, while his wife Livia attributed her longevity to wine from the Aquileian Riviera. The Dressel 2-4 type, with bifid handles, was also used to transport wine, and was made in Tyrrhenian and northern Italy, Istria, and Apulia. Almost simultaneously, one of the most famous types of olearia, amphorae of the Dressel 6B type, appeared. Their production has been recorded in the Po valley, Istria, and on the island of Pag. Stamps on the rims or handles, which indicate the owner or worker in a particular workshop, help to determine the individual types more accurately. Although some of them appear on several different forms of amphorae, they are useful for determining the provenance and trade routes. Of course, not all of them have been deciphered, and there is no

zabilježena u padskoj nizini, Istri te na otoku Pagu. Točnijoj determinaciji pojedinih tipova pridonose pečati s oboda ili ručaka a potpis su vlasnika ili radnika određenog proizvodnog pogona. Iako se određeni žigovi nalaze na više različitih oblika amfora korisni su za utvrđivanje porijekla i trgovinskih ruta. Naravno, nisu svi dešifrirani, niti postoji jedinstveni popis ili registar, ali 19 u cijelosti i djelomično sačuvanih pečata s Velike Mrdakovice zasigurno će upotpuniti saznanja uhodanih pomorskih putova sredozemnog svijeta. Jedan od njih je [---]AECBAS – *C Laecanius Bassus* (sl. 66). Ovaj natpis pripada vrlo imućnoj obitelji Laecanii, podrijetlom iz središnje Italije, čiji su članovi tri generacije obnašali senatorske dužnosti. U Istri su imali velike posjede i bili među najvećim proizvođačima maslinova ulja, a od 45. – 50. godine, kroz naredna tri desetljeća, gotovo sami zadovoljavaju svu potražnju na Apeninskom poluotoku i u provincijama. Kako bi ga uspješno izvezili, uglavnom na sjeveroitalsko i podunavsko tržište, izgradili su dva centra za izradu amfora – u Loronu na području Poreča i u Fažani kraj Pule, koji su potkraj 70-ih godina 1. stoljeća prešli u carske ruke. Drugi cjeloviti žig s mrdakovačkog naselja je L SALVI u kojem se iščitava ime moćnog roda *Salvia* rasprostranjenog u mnogobrojnim talijanskim pokrajinama (sl. 67). Njihovo je ishodište vjerojatno gradić Urbisaglia, nedaleko od Ferma i Ancone. Vino su izvezili u amforama Lamboglia 2 i Dressel 6A najviše u Padaniju, ali su trgovali i s obalama Tirenskog i Jadranskog mora uključujući Naronu – Vid kod Metkovića. Natpis P A I+[---] iz 1. stoljeća prije Krista možda pripada gensu *Papia* sa zemljištima u Kampaniji i Dalmaciji (sl. 68), a SOS[---] Gneju Petroniju Sostratu koji je s Lucijem Marcijem Saturninom vlasnik pogona za proizvodnju amfora na području Brindisija (sl. 69). Posebno zanimljiv i nezabilježen na jadranskim obalama jest žig ZIRA precizno datiran unutar arheološkog sloja u Ateni, u 86. godinu prije Krista, kad ju je Lucije Kornelije Sula zauzeo i opljačkao (sl. 70). Osim u glavnome gradu Grčke pečati s ovim natpisom su do sada pronađeni samo u Španjolskoj (Loma de Herrerias, Punta de Algas, Cabezo Agudo, Elche, brodolom kod Majorke). Na mrdakovačkim žigovima se javlja ime još jedne poznate rimske familije – gensa. To su *Platorii* ([---]TORI) (sl. 71). No u mnogim su slučajevima nedvojbena transkripcija i restitucija onemogućene, što zbog manjkavosti i oštećenja natpisa, što zbog manjka analogija. Tako pečat DOR F ne nalazimo nigdje (sl. 72). Najbliža paralela je DOR H s amfore Lamboglia 2 uz koju vezujemo i natpis [RO]D palma (sl. 73). Za žig [---]++LE nemamo nikakve usporedbe, kao ni za dva kraća otiska proizvođača (sl. 74 – 76). Završetak natpisa [---]ILI vjerojatno pripada formi Dressel 6B, oleariji i sadržava ime [*Crispin*]ili (sl. 77). [---]ATHC možda krije ime grčkog porijekla – *Athenedorus* (sl. 78), kao i TRVPO – *Tryphon* utvrđen u Anconi (sl. 79). U istom gradu, i u viškom akvatoriju, otkriven je još jedan „mrdakovački“ pečat – PRVX iz 1. polovine 1. stoljeća prije Krista (sl. 80). Za žig CA+[---] više je mogućih varijanti prijevoda. Smještamo ga od kraja 2. stoljeća prije Krista do 1. stoljeća nove ere, a [---]ELIO može pripadati jednom od mnogih gentilicija i kognomena (sl. 81 – 82). Osim,

definitive list or register, but nineteen completely or partially preserved stamps from Velika Mrdakovica will surely enhance our knowledge of well-established maritime routes in the Mediterranean world. One of them is [---]AECBAS – *C Laecanius Bassus* (Fig. 66). This inscription belongs to the very wealthy *Laecanii* family, originally from central Italy, whose members held senatorial positions for three generations. In Istria, they had large estates and were among the foremost producers of olive oil. Starting from 45 to 50 AD, they almost single-handedly met all the demand on the Apennine peninsula and the provinces for three decades. In order to successfully export it, mainly to the northern Italian and Danube markets, they built two centres of amphora production – in Loron, in the area of Poreč, and in Fažana near Pula, which passed into imperial hands at the end of the 70s. Another complete stamp from Mrdakovica is L SALVI, which bears the name of the powerful *Salvia* genus, widespread in numerous Italian provinces (Fig. 67). They probably originated from the small town of Urbisaglia, not far from Fermo and Ancona. They exported wine in Lamboglia 2 and Dressel 6A amphorae, mostly to Padania, but they also traded with the Tyrrhenian and Adriatic coasts, including Naronu (Vid near Metković). The inscription P A I+[---] from the 1st century BC may belong to the *Papia* genus, which had lands in Campania and Dalmatia (Fig. 68), and SOS[---] to Gneius Petronius Sostratus, who was the owner of an amphora production facility in the area of Brindisi, together with Lucius Marcius Saturninus (Fig. 69). Particularly interesting and otherwise unattested on the Adriatic coast is the ZIRA stamp, precisely dated within an archaeological layer in Athens in 86 BC, the year when Lucius Cornelius Sulla occupied and looted it (Fig. 70). Apart from the Greek capital, stamps with this inscription have only been found in Spain (Loma de Herrerias, Punta de Algas, Cabezo Agudo, Elche, shipwreck near Majorca). The name of another well-known Roman family or genus appears on stamps in Mrdakovica: the *Platorii* ([---]TORI) (Fig. 71). However, in many cases an unequivocal transcription and restitution is impossible, either because of the lacunae and damage to the inscriptions or because of a lack of analogies. Thus, the DOR F stamp is not found anywhere else (Fig. 72). The closest parallel is DOR H from the Lamboglia 2 amphora to which we also associate the inscription [RO]D palm (Fig. 73). There are no analogies for the stamp [---]



Sl. 65. Dio amfore tipa Lamboglia 2 iz prostorije P 19
| Fig. 65. Part of an amphora of the Lamboglia 2 type from Room P 19

]++LE either, or for the two shorter marks of the manufacturer (Fig. 74 – 76). The end of the inscription [---]ILI probably belongs to the form Dressel 6B, an amphora used for oil, and refers to the name [*Crispin*]ili (Fig. 77). [---]ATHC may conceal a name of Greek origin, *Athenedorus* (Fig. 78), and the same goes for TRVPO, *Tryphon*, attested in Ancona (Fig. 79). In the same town, and in the Vis area, another “Mrdakovica” stamp was discovered: PRVX from the first half of the 1st century BC (Fig. 80). As for the stamp CA+[---], there are several possible variants of translation, and it can be dated between the late 2nd century BC and the 1st century AD, while [---]ELIO may belong to one of the numerous gentilicia and cognomina (Fig. 81 – 82). In addition to these numerous fragments of amphorae, more than 60 ceramic lids with which the amphorae were closed have been discovered in the area of Mrdakovica, especially in trench 3, along the south-eastern segment of the rampart. They differ in form and production method. The oldest ones were made on a pottery wheel, followed by plate caps made in one-part or



Sl. 83. Izbor keramičkih čepova amfora | Fig. 83. Selection of ceramic amphora lids

kao što smo vidjeli, mnogobrojnih ulomaka amfora, u mrdakovačkom naselju je, posebno u sondi 3, uz jugoistočni segment bedema, otkriveno više od 60 keramičkih čepova kojima su se amfore zatvarale. Oni se razlikuju po obliku i načinu proizvodnje. Najstariji su rađeni na kolu. Slijede pločasti čepovi pravljeni u jednodijelnim i dvodijelnim kalupima. Nalazimo i kamene, te izrađene od razbijene građe namjenjenjih poklapanju drugih tipova posuda (sl. 83 – 84). Pločasti su čepovi na Velikoj Mrdakovici najzastupljeniji i izrazito česti posljednjih stoljeća stare ere te prvih stoljeća nove. Velik broj ih ima oznake izvedene prije procesa pečenja, a predstavljaju vlasnika ili proizvođača, no uglavnom je riječ o simbolima koje je teško protumačiti iako zasigurno imaju određeno značenje. Tako su slične ili istovjetne oznake čepova s Velike Mrdakovice ustanovljene na lokalitetima u Španjolskoj, Austriji, Italiji, Sloveniji, Grčkoj, a „kod nas“ u kanalu sv. Ante, Smokvici Veloj kraj Rogoznice, Naroni i Resniku u Kaštel Štafiliću (antički *Siculi*), poznatom ranocarskom veteranskom naselju s helenističkom tradicijom. Zastupljenost na tako velikom području svjedoči opsegu trgovine i hiperprodukciji amfora u kojima su se osim vina i maslinova ulja prevozili i svakovrsni proizvodi mora te plodovi kopna. Ostatak jednog takvog ploda možda se nalazi i na dnu amfore iz već spomenute sonde 3. Napominjemo možda, jer svojstva gline u određenim



Sl. 84. Kameni čepovi / poklopci | Fig. 84. Stone caps / lids

two-part moulds. Stone ones were also found, as well as those made from broken pottery pieces that were used as lids for other types of vessels (Fig. 83 – 84). Plate caps are the most common in Velika Mrdakovica, especially in the last centuries BC and the first centuries of the new era. Many bear marks of the owner or manufacturer, made before the baking process, but most of these are symbols that are difficult to interpret, although they certainly have a meaning. Similar or identical markings have been found in various localities in Spain, Austria, Italy, Slovenia, and Greece, as well as in Croatia, in St Anthony's Canal, Smokvica Vela near Rogoznica, Naron, and Resnik in Kaštel Štafilić (ancient *Siculi*), a well-known early imperial veteran settlement with a Hellenistic tradition. The presence of these markings across such a large area testifies to the volume of trade and the hyperproduction of amphorae, which were used to transport not only wine and olive oil, but also all kinds of sea and land products. Perhaps a remnant of one such fruit has been found at the bottom of

the amphora from the aforementioned trench 3. We say “perhaps” because the properties of clay in certain layers create calcification on the surface that is extremely difficult to remove. Only after the conservation procedure and a detailed analysis, more will be known.

The manual grinders mentioned above tell their own story. While the saddle-shaped ones are occasionally made of sandstone, the other two types were made exclusively of volcanic stone, i.e. igneous rocks. The petrographic analysis performed by Sanja Šuica, a senior expert in petrology, has yielded interesting results that also reveal the source of the raw material. Igneous rocks are not uniform. They consist of different types of stone that melt during an eruption, and are formed by the cooling of lava. Therefore, what is generically referred to as volcanic stone can vary in composition. Basalt, trachyte, and feldspathoidite have been identified in the three sampled fragments of manual rotary grinders from Velika Mrdakovica. Their deposits have been recorded in Italy: Mount Etna in Sicily, the

slojevima stvaraju kalcifikat na površini koji se mukotrпно uklanja. Tek nakon provedenog konzervatorskog zahvata i detaljne analize znat ćemo o čemu je točno riječ.

I prije spomenuti ručni žrvnjevi kriju svoju priču. Dok oni sedlastog oblika mogu biti rađeni od kamena pješčenjaka, druga su dva tipa pravljena isključivo od vulkanskog kamena, odnosno magmatskih stijena. Na osnovi tek nekoliko ulomaka nad kojima je dr. sc. Sanja Šuica, viši specijalist petrologije, obavila petrografsku analizu dobili smo zanimljive rezultate. Oni nam govore o izvoru sirovine. Magmaške stijene nisu uniformne. Sastoje se od različitih vrsta kamena koji se pri erupciji topi i formira hlađenjem lave. Stoga, uopćeno nazvan vulkanski kamen može biti različita sastava. Sastav triju uzorkovanih ulomaka ručnih rotacijskih žrvnjeva s Velike Mrdakovice čine bazalt, trahit i feldspatoidit. Njihova ležišta su evidentirana u Italiji: Etni na Siciliji, Euganejskim brdima u pokrajini Veneto, te s ugašenog vulkana Vulture na jugu Apeninskog poluotoka, u provinciji Bazilikata. Postavlja se pitanje porijekla ostalih mrdakovačkih žrvnjeva. Zasigurno ima i onih čija je sirovina došla s drugih ležišta, što potvrđuje razlika u boji i strukturi uzoraka, no otkuda su „doplovili“, zasad ne znamo.

Da se razmjena dobara i ideja nije odvijala samo morem, jasno je samo po sebi. Iako u manjem opsegu, od prapovijesti su korišteni i kopneni pravci komunikacije. Jednim takvim je na Veliku Mrdakovicu stigao i dio kamene sirovine. Uzorci tri komada definirani kao klastične sedimentne stijene – dva konglomerata i jedan pješčenjak analizirani su u Centralnom ispitnom laboratoriju tvrtke INA d.d. Utvrđeno je da se njihovi najbliži površinski izdanci nalaze na kninskom području te prostoru Muća. To je još jedna potvrda vjerojatno odavno uspostavljenih veza među lokalnim populacijama koje su kontinuirano razmjenjivale potrebne resurse.

I za kraj spomenimo predmet koji možda najviše simbolizira trgovinu i trgovce. To je svakako vaga. Njezina je primjena široka i zadire u sve sfere života. Možemo reći da gotovo nema vida razmjene u kojoj se ne koristi, no čak i unutar konteksta nalaza ponekad je teško utvrditi specifičnu namjenu određenog primjerka, posebice ako je sačuvan tek jedan dio. Na Velikoj Mrdakovici u prostoriji P 10 otkriven je olovni uteg ručne vage težine jedne libre – 328 grama – što je osnovna rimska jedinica mase. To je svakako pokazatelj potrebe za preciznošću koju je zahtijevala razvijena trgovina (sl. 85).

Euganean Hills in the province of Veneto, and the extinct Vulture volcano in the south of the Apennine peninsula, in the province of Basilicata. The origin of the other millstones from Mrdakovica has not yet been established. Some certainly have raw material from other deposits, which is evident from the differences in their colour and structure, but we still do not know anything about their provenance.

That the exchange of goods and ideas did not take place only by sea is self-evident. Although on a smaller scale, land communication routes had also been used since prehistoric times, and part of the stone raw material arrived at Velika Mrdakovica along one of these. Samples of three pieces defined as clastic sedimentary rocks – two conglomerates and one sandstone – were analysed in the Central Testing Laboratory of the company INA d.d. It was determined that their closest surface outcrops are located in the areas of Knin and Muće. This is another confirmation of the probably long-established connections between the local populations, which continuously exchanged the necessary resources.

Finally, one should mention an item that perhaps symbolizes trade and merchants the most: the scale. Its application is broad and touches all spheres of life. It may be said that there is almost no type of exchange in which it is not used, but even within the context of the finds, it is sometimes difficult to determine the specific purpose of a particular specimen, especially if only partially preserved. In Velika Mrdakovica, in Room P 10, a lead weight of a hand scale has been found, weighing one libra (328 grams), which was the basic Roman unit. This is certainly an indication of the need for precision that the developed trade demanded (Fig. 85).



Sl. 85. Olovni uteg ručne vage
| Fig. 85. Lead weight of a hand scale

MEDICINSKO-FARMACEUTSKI I KOZMETIČKI PRIBOR

Medical-pharmaceutical and cosmetic assecoires

Medicina i farmakologija stare su koliko i čovjek. Oduvijek je trebalo liječiti rane, groznice, zubobolje, bolove u trbuhu, trovanja i druge tegobe. Razne masti, napitci, uvarci, prašci i oblozi spravljali su se uglavnom od ljekovitog bilja – korijenja, stabljika, listova i cvjetova. Najvažnije djelo antike o njihovim svojstvima i uporabi *De materia medica* napisao je Pedanije Dioskorid (Πεδάνιος Διοσκουρίδης, oko 40. – 90. poslije Kr.) koji se nastavlja na tradiciju Teofrasta (Θεόφραστος, oko 371. – oko 287. prije Kr.), a slijede ga Plinije Stariji (Gaius Plinius Secundus, 23/24. – 79.) i Galen (Γαληνός, 129. – 216.). Svakako ne smijemo zaboraviti Hipokrata (Ιπποκράτης, oko 460. – oko 370.), „oca medicine“, koji je zauvijek promijenio poimanje uzroka bolesti i način liječenja, Diokla iz Karista (Διοκλής ὁ Καρύστιος, oko 375. – 295. pr. Kr.), pisca prvog anatomskog udžbenika, zatim Aula Kornelija Celza (Aulus Cornelius Celsus, oko 25. prije Kr. – 50.), autora djela *De re medica* i mnoge druge koji su nastojali razdvojiti čaranja od znanosti, mada stara vjerovanja i prakse nikada nisu do kraja uklonjeni. Ovo su najistaknutiji autori u polju medicine, anatomije, farmakologije i botanike, eruditi čiji se spektar interesa često prelio u enciklopedijske tomove. Pripravci su se spravljali i od drugih sastojaka – minerala, metala, organske materije – uključujući životinje i ljude, čak i od same vode iz različitih izvora. Dijagnoza bolesti ili ozljeda te njihovo liječenje često su uključivali različite magijske rituale. Da je magija bila ukorijenjena kod Ilira, znamo iz navoda više antičkih pisaca. Stoga su se za zaštitu koristili razni amuleti. U taj spektar ubrajamo i bule. S Velike Mrdakovice potječu dvije. Prva je svojevrsna brončana kapsula bikonična oblika u kojoj se nalazi nešto što štiti osobu koja je nosi (sl. 86). Na pitanje što je to nešto ne možemo odgovoriti jer bi otvaranje sadržaja ujedno značilo i uništavanje predmeta, no s obzirom na veličinu i ostatak ušice možemo s velikom vjerojatnošću pretpostaviti da je pripadala djetetu i da se nosila na lančiću ili uzici oko vrata. Druga je sačuvana fragmentarno. Na ulomku tankog brončanog lima ugraviran je prikaz falosa u erekciji (sl. 87). Isti se slučaj javlja i na maloj, glinenoj, rudimentarno izrađenoj skulpturi s naglašenim itifaličkim momentom (sl. 88). Fokus je u oba slučaja na muškom spolovilu. Ono, kao motiv, štiti

Medicine and pharmacology are as old as humanity. It has always been necessary to treat wounds, fevers, toothaches, stomachaches, poisonings, and other ailments. Various ointments, potions, decoctions, powders, and poultices were made mainly from medicinal plants – roots, stems, leaves, and flowers. The most significant work of antiquity about their properties and use, *De materia medica*, was written by Pedanius Dioscorides (Πεδάνιος Διοσκουρίδης, ca. 40-90 AD). He continued the tradition of Theophrastus (Θεόφραστος, ca. 371 – ca. 287 BC) and was followed by Pliny the Elder (Gaius Plinius Secundus, 23/24-79 AD) and Galen (Γαληνός, 129-216 AD). One should further mention Hippocrates (Ιπποκράτης, ca. 460 – ca. 370), the “Father of Medicine,” who forever changed the understanding of the causes of disease and the treatment methods, Diocles of Karistos (Διοκλής ὁ Καρύστιος, ca. 375-295 BC), the writer of the first anatomy textbook, Aulus Cornelius Celsus (ca. 25 BC – 50 AD), the author of *De re medica*, and many others who tried to separate magic from science, although old beliefs and practices were never completely abandoned. These were the most prominent authors in the fields of medicine, anatomy, pharmacology, and botany, erudites whose insights have found their place in volumes of encyclopaedias. Preparations were also made from other ingredients – minerals, metals, organic matter – including animals and humans, even water from specific sources. Diagnosis of illnesses or injuries and their treatment often involved various magical rituals. Magic was deeply rooted among the Illyrians, as known from various ancient writers. Amulets were used as protection, including bulls. Two have been found at Velika Mrdakovica. The first one is a kind of biconical bronze capsule that contained something that was believed to protect the person who wore it (Fig. 86). However, it cannot be established what it was, since opening the capsule would destroy the object, but considering the size and the rest of the loop, it can be assumed with great probability that it belonged to a child and was worn on a chain or string around the neck. The second is preserved as a fragment of thin bronze sheet with an engraved erect phallus (Fig. 87). The same occurs on a small, rudimentarily wrought clay sculpture with an emphasized ithyphallic moment (Fig. 88). The focus in both cases is on the male genitalia, a motif intended to protect against spells, especially the evil eye, but also other destructive forces. Therefore, this motif appears in different



Sl. 86. Brončana bula
| Fig. 86. Bronze bull



Sl. 87. Ulomak brončane bule
| Fig. 87. Fragment of a bronze bull



Sl. 88. Glinena skulptura s naglašenim itifaličkim momentom
| Fig. 88. Clay figurine with an emphasized ithyphallic element

od uroka, posebno urokljivih očiju, ali i drugih zlih sila, pa se u različitim materijalima i veličinama javlja apliciran ili kao samostalan prikaz na privatnim i javnim mjestima, te u svojstvu amuleta. Stoga nije nezamislivo (već vrlo izgledno) da su veliki i mali Mrdakovčani nosili ovaj danas opsceni i neprimjeren prikaz, uglavnom oko vrata, na način na koji mi danas neopterećeno nosimo i pokazujemo neke druge općeprihvaćene simbole s istom ili sličnom namjenom u domeni nadnaravnoga.

Plinije Stariji u *Prirodoslovlju* (*Naturalis Historia*) među ostalim kompilira znanja više desetaka drugih pisaca. Od 19. do 32. knjige donosi modernom čovjeku nezamisliv dijapazon recepata. Tako npr. možemo pročitati sljedeće: „Odgristi komad drveta pogođen gromom, držeći ruke iza leđa, a zatim ga nanijeti na zub, siguran je lijek, kažu, za zubobolju.“ „Tako i kod kvartanske groznice uzimaju ulomak čavala s križa, ili pak komad ulara koji je služio za razapinjanje, i, nakon što ga umotaju u vunu, pričvršćuju ga za vrat bolesnika; pazeci, čim se oporavi, da ga sakrije u neku rupu do koje svjetlost sunca ne može prodrijeti.“ „Kihanje, izazvano perom, ublažava težinu u glavi; također se kaže da će dodirivanje nosnica mazge usnama zaustaviti kihanje i štucanje.“ „Kad se riblja kost zabode u grlo, odmah će se spustiti, ako osoba zaroni noge u hladnu vodu.“ „Ženska pljuvačka natašte općenito se smatra vrlo učinkovitom za zakrvavljene oči: dobra je i za defluksije tih organa, jer se njome s vremena na vrijeme navlaže upaljeni kutovi očiju; rezultat je, također, još uspješniji, ako se žena suzdržala od hrane i vina dan prije.“



Sl. 89. Brončana pinceta
| Fig. 89. Bronze tweezers



Sl. 90. Brončana sonda
| Fig. 90. Bronze probe



Sl. 91. – 92. Ulomci dvaju staklenih farmaceutskih štapića
| Fig. 91. – 92. Fragments of two pharmaceutical glass sticks

materials and sizes, as an applique or an independent display in private and public places, as well as an amulet. It is quite possible (and even very probable) that the people of Mrdakovica, both children and adults, wore this motif, today considered as obscene and inappropriate, mostly around their necks, in the same way as we nowadays freely wear and show some other generally accepted symbols with the same or similar purpose in the domain of the supernatural.

In his *Naturalis Historia*, Pliny the Elder compiled, among other things, the knowledge of dozens of other writers. From Book 19 to Book 32, he presents a series of recipes that may seem unimaginable to modern readers, such as:

“To bite off a piece from wood that has been struck by lightning, the hands being held behind the back, and then to apply it to the tooth, it is a sure remedy, they say, for toothache.”

“So, too, in cases of quartan fever, they take a fragment of a nail from a cross, or else a piece of a halter that has been used for crucifixion, and, after wrapping it in wool, attach it to the patient’s neck; taking care, the moment he has recovered, to conceal it in some hole to which the light of the sun cannot penetrate.”

“Sneezing, provoked by a feather, relieves heaviness in the head; it is said too, that to touch the nostrils of a mule with the lips, will arrest sneezing and hiccup.”

“When a fish-bone happens to stick in the throat, it will go down immediately, if the person plunges his feet into cold water.”

“A woman’s fasting spittle is generally considered highly efficacious for bloodshot eyes: it is good also for defluxions of these organs, the inflamed corners of the eyes being moistened with it every now and then; the result, too, is still more successful, if the woman has abstained from food and wine the day before.”

For the preparation of medicines, operations, and minor surgical procedures, one generally had to have specialized equipment. Greek and Roman medicine and pharmacology knew different types of grinders/mortars, pestles, saws, probes, tongs/tweezers, spoons, clamps, etc., made of glass, metal, bone, or stone. Naturally, the population of Velika Mrdakovica was not immune to injuries and diseases, and these kinds of accessories were indispensable for their treatment, but could also be used

Za pripravu medikamenta, operacije i manje kirurške zahvate uglavnom je trebalo imati specijaliziranu opremu. Grčka i rimska medicina i farmakologija su poznavale različite vrste tarionika/mužara, tučaka, pila, sondi, hvataljki/pinceta, žličica, stezaljki itd., izrađenih od stakla, metala, kosti i kamena. Ni stanovništvo Velike Mrdakovice nije bilo imuno na ozljede i bolesti za čije su tretmane nezaobilazne bile razne vrste pribora. On se mogao rabiti i u kozmetičke svrhe za pohranu, vađenje, doziranje i miješanje preparata za uljepšavanje te mirisa. Dio sastojaka biljnog porijekla nalazio je široku primjenu pa je shodno tome korišten u različite svrhe. Najbolji primjer je perunika (*Iris Illyrica*) od koje se radio otrov, protuotrov, parfemi, ali je služila i kao dodatak vinu. Stoga pribor s Velike Mrdakovice možemo uopćeno opisati kao medicinsko-farmaceutski i kozmetički. Tom „asortimanu“ pripisujemo staklene balzamarije. Iako su u grobovima čest prilog, na naselju ih zbog fragilnosti materijala nalazimo u ulomcima. Najbolje sačuvani primjerak dolazi iz sonde 3 gdje je nađena i brončana pinceta (*volsella*) širokog završetka (sl. 89). Unutar prostorije P 10 otkrivena je brončana sonda (*auriscalpia*), jedan od glavnih alata za pregled tjelesnih otvora i rana te nanošenja medikamenata na ozlijeđeno područje (sl. 90). Dva manja staklena ulomka tordiranih štapića korištenih za miješanje ljekovitih pripravaka nalazila su se na istom mjestu, (sl. 91 – 92) dok iz prostorije P 8 dolazi koštana žlica (*ligula*) namijenjena preciznom doziranju sastojaka (sl. 93). Zanimljivo, u prostoriji P 10 su otkriveni ostaci vjerojatno drvene škrinje za čuvanje dragocjenosti (sl. 94 – 99). Njoj pripada manji brončani okov brave, ukrašen koncentričnim urezanim kružnicama, te niz brončanih i mjedenih dekorativnih elemenata koji su pojačavali vizualni dojam i naglašavali važnost škrinje i samog sadržaja. A što je on obuhvaćao, možemo pretpostaviti. Među najvrjednijim su stvarima zasigurno i gore navedeni primjerci medicinsko-farmaceutskog i/ili toaletnog pribora koji su osobi koja ih je posjedovala jamčili status, a kućanstvu dobar glas.



Sl. 93. Koštana farmaceutska žlica
| Fig. 93. Pharmaceutical bone spoon



Sl. 94. – 99. Elementi vjerojatno drvene škrinje
| Fig. 94. – 99. Probably parts of a wooden chest

for cosmetic purposes, such as preserving, extracting, dosing, and mixing beautifying preparations and fragrances. Certain vegetal ingredients were used widely and for different purposes. The best example is the iris (*Iris Illyrica*), which was used to make poison, antidote, and perfume, but also served as an additive to wine. Therefore, the accessories from Velika Mrdakovica can generally be described as medical-pharmaceutical and cosmetic. A fine example is the glass unguentaria, which were a common grave good and are mostly found in fragments due to their fragility. The best-preserved specimen comes from trench 3, where bronze tweezers (*volsella*) with a wide end were also found (Fig. 89). A bronze probe (*auriscalpia*), one of the main tools for examining body openings and wounds and for applying medication to the injured area, was discovered inside Room P 10 (Fig. 90). Two small fragments of twisted glass sticks used for mixing medicinal preparations were identified in the same location (Fig. 91 – 92), while a bone spoon (*ligula*) intended for precise dosing of ingredients was found in Room P 8 (Fig. 93). Interestingly, remains of what was likely a wooden chest for storing valuables were also discovered in Room P 10 (Fig. 94 – 99). The chest had a small bronze lock fitting, decorated with incised concentric circles, and a series of bronze and brass ornaments that enhanced its visual impression and emphasized its importance and that of its contents. It can be presumed that the chest contained, among the most valuable items, the aforementioned medical-pharmaceutical and/or toiletry accessories, which showed the status of their owner and enhanced the reputation of the household.

NOŠNJA, NAKIT I UKRAŠAVANJE

Costumes, jewellery and ornaments

O odjeći Liburna iz povijesnih izvora znamo vrlo šturo. Od 1. stoljeća većina se ljudi u gradovima odijevala na rimski način, dok su se ruralne zajednice duže držale tradicije. Tek dva antička pisca koje dijeli pet stoljeća – Marko Valerije Marcijal i Stjepan Bizantinac donose marginalne napomene o njihovoj nošnji. Tako iščitavamo upotrebu kratkog kabana s kapuljačom, modrozeleno boje (*Cuculli liburnici*) i neopisanog, tek spomenutog komada robe naziva *mandya*. Jesu li nosili opanke, možemo tek nagađati, no sigurno je da su se pastiri služili savinutim štapom (*pedum*) kakav prepoznamo na kulturnim spomenicima posvećenima Silvanu – Panu. Za izradu odjevnih predmeta su zasigurno upotrebljavali prirodne materijale – kožu, lan i vunu o kojoj Plinije govori da je kod Liburna jako gruba. Na Velikoj Mrdakovici su otkrivena dva željezna šila i čekić manjih dimenzija – alat koji je među ostalim služio pri obradi kožne odjeće i obuće (sl. 100 – 102). Tkanje je bilo dio svakodnevice, o čemu svjedoče keramički utezi tkalačkog stana. Mrdakovački primjerci su oblika krnje piramide (sl. 103 – 104). Oni su svojom težinom zatezali niti razvučene niz pravokutni okvir razboja. Poprečne grede su razmicale osnovicu u koju su se umetale vodoravne niti i češljem zbijale u gotov proizvod. Tako ispređeni komadi tkanine dobivali su konačan oblik spajanjem i šivanjem, za što su korištene igle različitih veličina i materijala izrade, ovisno o svojoj namjeni. Brončana igla iz sonde 3 s pravokutnom ušicom služila je provlačenju debljih niti ili za pletenje vunom (sl. 105). Vjerojatno je svako domaćinstvo, ili barem većina žena tkala odjeću za svoje potrebe. Za pričvršćivanje su se umjesto dugmadi rabile brončane i srebrne fibule. Kroz njihovu tipologiju možemo pratiti trgovinu i utjecaje raznih kulturnih krugova,



Sl. 100. Željezni čekić
| Fig. 100. Iron hammer



Sl. 101. – 102. Željezna šila
| Fig. 101. – 102. Iron awls



Sl. 103. – 104. Keramički utezi oblika krnje piramide
| Fig. 103. – 104. Ceramic weights in the form of a truncated pyramid

Very little is known about Liburnian clothing from historical sources. From the 1st century AD, most people in cities dressed in Roman fashion, while rural communities kept to their traditions for a longer time. Only two ancient writers, separated by five centuries – Marcus Valerius Martial and Stephan of Byzantium – made marginal notes about their costumes. Thus, we read about the use of a short-hooded coat, blue-green in colour (*Cuculli liburnici*), and an undescribed, merely mentioned piece of garment called *mandya*. One can only speculate whether they wore *opanci*, but it is certain that the shepherds used a bent *pedum* staff as seen on the cult monuments dedicated to Silvanus-Pan. They certainly used natural materials to make clothes: leather, linen, and wool, about which Pliny wrote that it was very coarse in Liburnia. In Velika Mrdakovica, two iron awls and a small hammer have been discovered – tools that were used, among other things, for processing leather clothing and footwear (Fig. 100 – 102). Weaving was part of everyday life, as evidenced by the ceramic weights of the loom. The specimens found at Mrdakovica are in the shape of truncated pyramids (Fig. 103 – 104). Such weights were used to tighten the warp threads stretched across the rectangular frame of the loom. Transverse beams separated the base into which the horizontal threads were interlaced and pressed together with a comb. The fabric pieces produced in this manner were given their final shape by joining and sewing, for which needles of different sizes and materials were used depending on the purpose. A bronze needle from trench 3 with a rectangular eyelet was used for threading thicker threads or for knitting with wool (Fig. 105). Probably every household, or at least most women,



Sl. 105. Brončana igla | Fig. 105. Bronze needle

a posredno i vrstu odjeće, s obzirom na masivnost fibule koju je trebalo pričvrstiti (*pallia fibulata* ili *saga fibulatoria*). Tu je uglavnom riječ o plaštevima, tunikama i lakšim pokrivalima, a osim funkcionalnog značenja, jednako je važno i ono dekorativno, pa ih pripadnice ljepšeg spola često nose kao ukras i na prsima. Na naselju je utvrđeno šest različitih tipova nastalih kroz period od 1. stoljeća prije Krista do 1. stoljeća poslije Krista, uz ostatke jednog primjerka koji vjerojatno pripada još ranijoj fazi željeznoga doba (sl. 106). Tako od kraja 2. i tijekom 1. stoljeća prije Krista sjevernoitalske i jugoistočnoalpske radionice plasiraju fibule tipa Jezerine, proizvođene i u nizu lokalnih centara (sl. 107). Ove jako popularne spone podjednako su prihvaćali muškarci i žene. Njima bliske i gotovo istovremene su fibule tipa Gorica koje se koriste do Augustova doba, (sl. 108 – 110) a u vremenski srodnu skupinu uključujemo nešto masivnije i raščlanjenije fibule tipa Almgren (sl. 111). Oko 15. godine prije Krista intenzivnija prisutnost rimske vojske očituje se pojavom *Aucissa* fibula (sl. 112 – 114). One u sljedećih 100 godina doslovno preplavljaju tržište, što je razvidno i iz materijala s Velike Mrdakovice gdje čine više od 90 % ukupnog broja ove vrste nalaza s nekropole i naselja. Smatraju se dijelom legionarske nošnje, ali su dokazano upotrebljavane i izvan vojnih struktura kod oba spola. Iz kasnolatenske tradicije se razvijaju snažno profilirane fibule, a osobito lijep primjerak koji datiramo u vrijeme julijevsko-klaudijevske dinastije je pronađen na zaravnanoj litici prostorije P 8 (sl. 115). Zadnja u kronološkom nizu jest kružna pločasta fibula ukrašena jednostavnim geometrijskim motivima iz druge polovine 1. stoljeća (sl. 116).

Želja za uljepšavanjem i ljepotom je univerzalna. Složenije frizure mrdakovačkih gospođa pridržavale su koštane ukosnice (sl. 117 – 118). Staklene i koštane perle nizane u ogrlice ukrašavale su vrat, naušnice uši, a jedan mali brončani dekorativni dodatak iz sonde 3 s motivom Heraklova čvora mogao se naći na prstu ili upleten u kosu nekog djeteta. Na naselju je utvrđeno ponešto od svega navedenoga, dok je većina u cijelosti sačuvanog nakitnog repertoara „preživjela“ u zatvorenim grobnim cjelinama na nekropoli (sl. 119). Među mnoštvom ukrasnog materijala iz posljednjega i prvoga stoljeća s prijelaza era ističe se jedan koji, ako i nije nastao u ranijem razdoblju, svakako pripada naslijeđu te tradicije. Riječ je o već spominjanoj školjki – srčanki iz porodice *Cardiidae* (sl. 120). Ova je za razliku od ostalih primjeraka s naselja probušena s namjenom samostalnog privjeska ili jednog u nizu na narukvici ili ogrlici nekog pojedinca. Školjke u svojstvu svakodnevnog ukrasa i izrazitog



Sl. 106. – 116. Fibule otkrivene tijekom arheoloških istraživanja naselja
| Fig. 106. – 116. Fibulae discovered during archaeological excavations at the settlement

wove clothes for their own needs. Bronze and silver fibulae were used for fastening instead of buttons. Their typology allows us to trace the trade and influences of various cultural circles, and indirectly the type of clothing, depending on the massiveness of the fibula to be attached (*pallia fibulata* or *saga fibulatoria*). Clothing mainly consisted of cloaks, tunics, and lighter mantles, and apart from the function, fibulae also had to be pleasing to the eye, so the fairer sex often wore them as chest ornaments. Six different types dating from the 1st century BC to the 1st century AD have been identified at the settlement, along with the remains of a specimen that probably belongs to an even earlier phase of the Iron Age (Fig. 106). Thus, from the end of the 2nd and through the 1st century BC, northern Italian and southeastern Alpine workshops marketed fibulae of the Jezerine type, produced also in a number of local centres (Fig. 107). These very popular fastenings were worn by men and women alike. Close to them and almost contemporaneous are fibulae of the Gorica type, which were used until the Augustan era (Fig. 108 – 110), and this chronologically related group also includes the somewhat more massive and dissected fibulae of the Almgren type (Fig. 111).

Around 15 BC, the more intense presence of the Roman army was manifested by the appearance of the *Aucissa* fibulae (Fig. 112 – 114). Within the following hundred years, they literally flooded the market, which is also evident from the finds discovered in Velika Mrdakovica, where they make up more than 90% of the total number of this type of finds from the necropolis and the settlement. They are considered part of the legionary costume, but were provenly also used outside of the military by both sexes. Strongly profiled fibulae developed from the Late La Tène tradition, and a particularly beautiful specimen dated to the Julian-Claudian era was found on the levelled cliff of Room P 8 (Fig. 113). The last in the chronological sequence is a circular plate fibula from the second half of the 1st century, decorated with simple geometric motifs (Fig. 116).

The desire for embellishment and beauty is universal. The more complex hairstyles of women from Mrdakovica were held together with bone hairpins (Fig. 117 – 118). Necklaces made of glass and bone beads adorned their necks, earrings their ears, and the small bronze decorative accessory from trench 3, with a Heracles knot motif,



Sl. 117. – 118. Ulomci dviju koštanih ukosnica
| Fig. 117. – 118. Fragments of two bone hairpins

kulturnog simbola u grobnim cjelinama nalazimo posebice od neolitika na istočnojadranskim liburnskim naseljima i nekropolama. Taj se običaj nastavlja sve do željeznoga doba, čijem utjecaju pripisujemo i ovaj nalaz. Željeznodobnoj tradiciji pripada i perforirani novac kao dekorativni element nošnje. Iako je tek jedan takav primjerak – Tiberijeva asa – otkriven na nekropoli navodimo ga kao ilustraciju nesumnjivog načina dotjerivanja Mrdakovčanki.

Već spominjani stakleni balzamariji su služili za čuvanje raznih mirisa i pomada, a ogledala kojima su se koristili žene i muškarci kao pomoć pri dotjerivanju. Fragment ogledala iz prostorije P 12 pripada jednom od najzastupljenijih tipova diljem Rimskoga Carstva (sl. 121). Sačuvana četvrtina zrcalnog diska dekorirana je urezanim koncentričnim kružnicama i perforiranim kružnim otvorima na rubu a datira se u 1. stoljeće poslije Krista. Istodobni je i mnogo luksuzniji držak ogledala iz prostorije P 10 (sl. 122). Izrađen većim djelom od bronce, sa željeznim i srebrnim inkrustacijama, obiluje nizom vegetabilnih motiva, dok krakove uobličuju dva realistično izvedena dupina. Disk, nažalost, nije nađen, a svakako bi svojom impozantnom veličinom (promjer oko 22,5 cm) i bogato ukrašenom pozadinom,



Sl. 120. Školjka srčanka u svojstvu privjeska
| Fig. 120. Lagoon cockle used as a pendant



Sl. 119. Izbor staklenih perli s nekropole i naselja
| Fig. 119. Selection of glass beads from the necropolis and the settlement

Sl. 121. Ulomak zrcalnog diska ručnog ogledala
| Fig. 121. Fragment of a disc of a hand mirror



Sl. 122. Držak luksuznog ručnog ogledala
| Fig. 122. Handle of a luxury hand mirror

možda mitološkim scenama, postao jedan od prepoznatljivijih predmeta ovog lokaliteta. Najbližu i zasad jedinu analogiju mrdakovačkom primjerku nalazimo u ostavi srebrnih predmeta iz Hildesheima (Njemačka). Riječ je, dakle, o izrazito rijetkom tipu ogledala, čija je proizvodnja, vjerojatno zbog pojave puno jeftinijih tipova, prestala, a držak s Velike Mrdakovice je njegov najljepši i najbolje izveden uradak.

Rimske žene i posebice rimski muškarci su osobito voljeli prstenje. Za razliku od zlatnog prstenja (*anulos aureos*) koje je osim pukog ukrasa bilo i statusni simbol namijenjen visokom sloju određenog cenzusa, pučani su uživali u nošenju onoga izrađenog od drugih kovina – željeza i srebra. Manji srebrni prsten, promjera 1,67 cm, iz prostorije P 10, dekoriran je jednostavnim kružnim utorima i urezanim plitkim linijama (sl. 123). Možda je pripadao djetetu. Puno veći zasigurno nije bio ni prsten iz kampanje 2014. od kojeg se sačuvala tek gema od crvenog kalcedona (sl. 124). Na njoj je prikazan orao raširenih krila u trenutku slijetanja i lova.



Sl. 123. Srebrni prsten
| Fig. 123. Silver ring



Sl. 124. Gema s prikazom orla
| Fig. 124. Gem with an eagle

perhaps adorned a lady's finger or a child's hair. Some of the above was found at the settlement, but the majority of the fully preserved jewellery "survived" in closed burial units at the necropolis (Fig. 119). Among the multitude of decorative materials from the last century BC and the first of the new era, one stands out that, even if not created in an earlier period, certainly belongs to the legacy of that tradition. It is made of a shell – the heart cockle from the *Cardiidae* family (Fig. 120). Unlike the other specimens from the settlement, this one was pierced with the purpose of being worn as an independent pendant or as one in a series on a bracelet or necklace. Shells are often found as an everyday decoration and a distinct cult symbol in burial complexes, especially in the Eastern Adriatic Liburnian settlements and necropolises from the Neolithic period. This custom continued until the Iron Age, and this find can be attributed to its influence. Perforated coins as decorative elements on costumes also belong to the Iron Age tradition. Although only one such example – Tiberius's *as* – was discovered in the necropolis, it can be cited as an illustration of the way in which the women of Mrdakovica must have embellished themselves.

The previously mentioned glass unguentaria were used to store various scents and pomades, and mirrors were used by both women and men to aid with their grooming. The mirror fragment from Room P 12 belongs to one of the most common types found across the Roman Empire (Fig. 121). The preserved quarter of the mirror disc is decorated with incised concentric circles and perforated circular

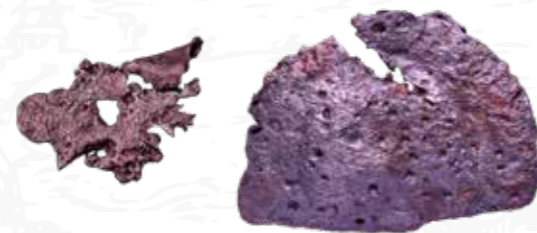
openings along the edge, and is dated to the 1st century AD. The much more luxurious mirror handle from Room P 10 is also contemporary (Fig. 122). Made mostly of bronze, with iron and silver inlays, it features various vegetable motifs and its arms are shaped like two realistically executed dolphins. Unfortunately, the mirror disc has not been found, and with its imposing size (diameter approximately 22.5 cm) and richly decorated background, which possibly depicted mythological scenes, it would have become one of the most recognizable objects from this site. The closest and only known analogy to the Mrdakovica example was found in a hoard of silver objects from Hildesheim (Germany). Therefore, it is a very rare type of mirror, the production of which was probably discontinued due to the emergence of much cheaper alternatives. The handle from Velika Mrdakovica is the most beautiful and best-executed example of this type.

Roman women and especially men had a particular fondness for rings. Gold rings (*annuli aurei*) were not only decorative, but also served as a status symbol for the higher classes of a certain census. Those made of other metals, such as iron and silver, were more common among the lower classes. A smaller silver ring (1.67 cm in diameter) found in Room P 10 is decorated with simple circular grooves and incised shallow lines (Fig. 123). It may have belonged to a child. The ring from the 2014 excavations, of which only the red chalcedony setting was preserved, was hardly any bigger (Fig. 124). It depicts an eagle with spread wings at the moment of landing and hunting.

METALURGIJA I ORUŽJE

Metallurgy and weapons

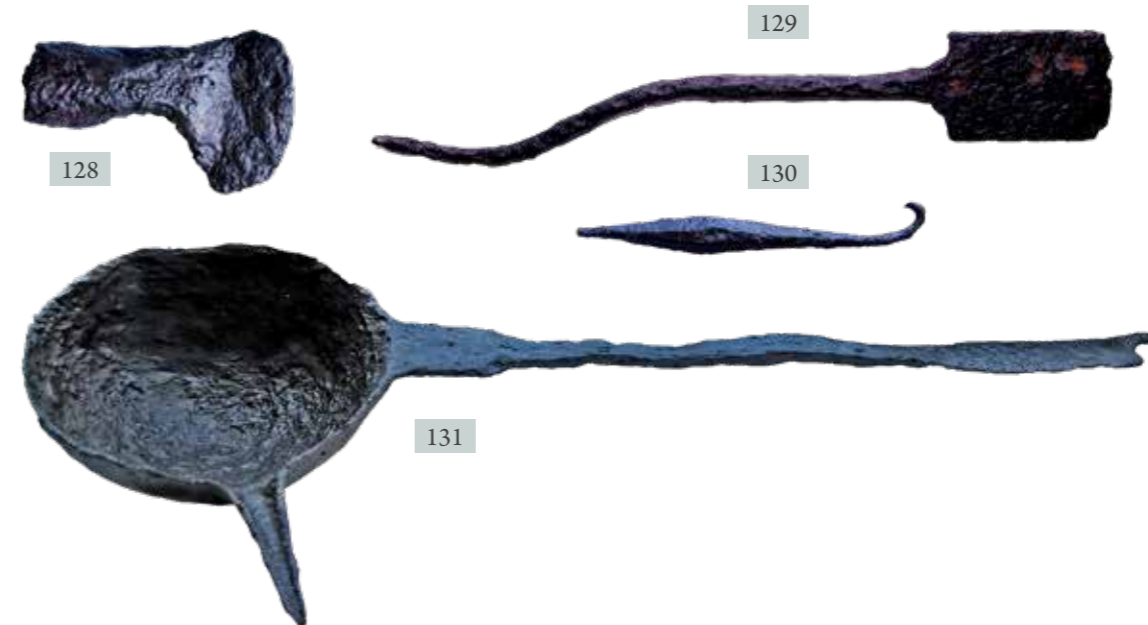
Metal je, kao što smo spomenuli u poglavlju o novcu, bio iznimno cijenjen i stoga više puta recikliran. Osim ukrasnih i usko specijaliziranih artefakata koji su uvoženi, predmeti svakodnevne uporabe poput oruđa proizvođeni su na licu mjesta. Proces metalurgije i upotreba kovina, kojima je prostor rimske provincije Dalmacije obilovao, poznate su na istočnome Jadranu, tako i u Liburniji, od prapovijesnog doba. Bakar, srebro, zlato i željezo, zatim olovo i razne legure, posebice broncu, lokalne zajednice su izrađivale i njome se koristile svakodnevno. Tragovi proizvodnje na naselju Velike Mrdakovice očituju se u mnogobrojnim grumenima željezne troske, ostacima metalnih sirovina – olova, kalupima i namjenskom alatu (sl. 125 – 127). U prethodnom tekstu su spomenute pojedine alatke. Njima pribrajamo još dva komada čija upotreba nije do kraja razjašnjena. Vjerojatno su služili za obradu drva ili kože (sl. 128 – 130). Metalurško znanje je bilo potrebno za neometano funkcioniranje života. Potkivanje konja, izrada i popravci poljoprivrednog i drugog zanatskog pribora, oružja, te niz drugih aktivnosti zahtijevali su metalurga i kovača



Sl. 125. – 126. Olovni poluproizvod
| Fig. 125. – 126. Lead semi-product



Sl. 127. Željezna troska | Fig. 127. Iron slag



Metal, as mentioned in the section on money, was highly valued and therefore recycled many times. In addition to decorative and highly specialized artefacts that were imported, objects of daily use, such as tools, were also produced locally. Metallurgical process and the use of metals, which were abundant in the Roman province of Dalmatia, had been known in the Eastern Adriatic, including Liburnia, since prehistoric times. Copper, silver, gold, and iron, as well as lead and various alloys, especially bronze, were produced and used by local communities on a daily basis. Traces of production in the settlement of Velika Mrdakovica are evident in numerous lumps of iron slag, remains of metal raw materials, lead moulds, and special tools (Fig. 125 – 127), some of which were mentioned in the previous section. Two additional pieces, whose use has not been fully clarified, but were probably used for processing wood or leather, can be added to this (Fig. 128 – 130). Metallurgical knowledge was necessary for the smooth functioning of life. Shoeing horses, making and repairing agricultural and other craft tools, as well as weapons, and a number of other activities required a metallurgist and blacksmith, who was one of the most important persons in each community. Such a person may have handled the ladle discovered inside Room P 12

Sl. 128. Alatka za obradu vjerojatno drva
| Fig. 128. Tool probably used for woodworking

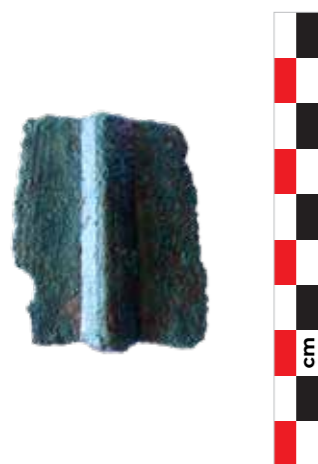
Sl. 129. Alatka za obradu kože ili drva
| Fig. 129. Tool for working leather or wood

Sl. 130. Željezni zubac grablji
| Fig. 130. Tooth of an iron rake

Sl. 131. Željezna ljevačka žlica
| Fig. 131. Iron ladle

kao jednu od najvažnijih figura unutar svake zajednice. Ta osoba je nesumnjivo rukovala ljevačkom žlicom otkrivenom unutar prostorije P 12 2014. godine (sl. 131). Tipološki se ne razlikuje znatno od suvremenih ljevačkih žlica. Dugi držak štiti korisnika od vrućine kojoj je izložen, dok izdužen uski izljev omogućava precizno i dozirano lijevanje u kalup. Izrađena je od željeza, metala čije je talište na 1538 °C. Stoga je mogla služiti za lijevanje, čak i taljenje manjih količina kovina koje prelaze u tekuće stanje pri nižim temperaturama bakra (1084 °C), zlata (1064,18 °C), srebra (961,78 °C), bronce (950 °C), mjedi (900 do 940 °C), olova (327,4 °C), kositra (231 °C). Peći, izrađene od kamena ili gline, često su bile jednostavne konstrukcije, kupolasta oblika i skromnih dimenzija oko 0,40 m × 1 m. Iako još nisu utvrđene, zasigurno su postojale. Proizvodnja oružja je također spadala u domenu samodostatnosti i sigurnosti. Kameni ulomak otkriven prigodom rekognosciranja sjeverne strane tjemena Velike Mrdakovice pokazao se kao dvostrani kalup za jedan veći i dva manja vrha brončanih koplja (sl. 132). S obzirom na oštećenja teško je utvrditi izričiti tip, no vjerojatno je riječ o varijantama oblika lovorova i zaobljenog glatkog lista. Tomu u prilog ide i ulomak brončanog vrha koplja sa središnjim rebrom pronađen 2014. godine u prostoriji 2A (sl. 133). Sve navedene primjere možemo staviti u vremenski okvir od kasnoga brončanoga do kasnoga željeznoga doba. Oružju moramo pridodati i vrh brončane strelice iz prostorije P 19 (sl. 134), a iste su namjene mogli biti i neki od već prije spomenutih noževa.

Sl. 133. Ulomak brončanog vrha koplja
| Fig. 133. Fragment of a bronze spearhead



Sl. 134. Vrh brončane strelice
| Fig. 134. Bronze arrowhead



Sl. 132. Kameni dvostrani kalup
| Fig. 132. Double-sided stone mould

in 2014 (Fig. 131). Typologically, it does not differ much from today's ladles. The long handle protects the user from the heat to which he is exposed, while the elongated, narrow spout enables precise and dosed pouring into the mould. It is made of iron, a metal whose melting point is 1538 °C. Therefore, it could be used for casting and even melting smaller amounts of metals that change to a liquid state at lower temperatures, such as copper (1084 °C), gold (1064.18 °C), silver (961.78 °C), bronze (950 °C), brass (900-940 °C), lead (327.4 °C), and tin (231 °C). Stoves, made of stone or clay, were often of simple construction, dome-shaped and modest in size, approx. 0.40 x 1 metre. Although they have not yet been attested, they certainly existed. Weapons production also fell into the domain of self-sufficiency and security. A stone fragment discovered during the exploration of the northern side of the top of Velika Mrdakovica turned out to be a double-sided mould for one larger and two smaller bronze spearheads (Fig. 132). Due to the damage, it is difficult to determine the specific type, but it is probably a variant of the shape of a laurel and rounded smooth leaf. This is supported by the fragment of a bronze spearhead with a central rib found in 2014 in Room 2A (Fig. 133). All the examples mentioned can be placed within the time frame from the Late Bronze Age to the Late Iron Age. To these, one should add the bronze arrowhead from Room P 19 (Fig. 134), and some of the previously mentioned knives may have served the same purpose.

SLOBODNO VRIJEME – DOKOLICA

Leisure time

Kategoriju dokolice je arheološki najteže utvrditi. Za razliku od igre, ples, pjesma i razgovor rijetko ostave materijalni trag. Kralješci – astragali (*ἀστράγαλος*), ponajprije ovaca i koza, od davnina imaju iznimnu ulogu u svakodnevnom životu. Možda već od paleolitika, a zasigurno od mlađega kamenoga doba rabili su se za igre spretnosti i igre na sreću. Nalazimo ih u antičkim hramovima širom Sredozemlja, a replike izrađivane od bjelokosti, srebra, bronce, mramora, kositra, olova, čak i od zlata govore o značenju koje im se pridavalo. Njima se proricala budućnost, a kralješci većih životinja poput krava su upotrebljavani i kao utezi za tkalačke stanove. Stoga su astragali jako česti unutar arheoloških konteksta kako u cijeloj Euroaziji tako i na Velikoj Mrdakovici. Ono malo slobodnog vremena koje su ljudi imali upotpunjavali su i različitim igrama na ploči. Nalazimo ih od 4. do 3. tisućljeća stare ere u Mezopotamiji i Egiptu, a jednako su popularne u Grčkoj i Rimu. Iz antičkih izvora saznajemo imena više različitih igara – *Pente Grammai*, *Polis*, *Ludus Latrunculorum*, *Duodecim Scripta*, *Terni Lapilli*, *Marellus*, itd. Posljednje dvije kod nas su poznate kao Trilja i Mlin, i zbog jednostavnih su ih pravila igrali pojedinci svih uzrasta i dobi. Ostale igre uglavnom sadržavaju elemente sreće, vještine i vojne strategije, ponekad i kultno značenje. Koliko su bile prisutne u javnom prostoru i namijenjene dokolici širokih narodnih masa, vidimo u njihovu postavljanju ispred hramova, na trgovima i ostalim mjestima okupljanja. I Mrdakovčani su očito bili pasionirani igrači. Znamo to posredno. Igraće ploče još nisu nađene, no žetoni za igru jesu. Većina ih je izrađena od kamena, a neki i od crne ili bijele guste staklene paste (sl. 135 – 136). Gdje se igralo? Ne znamo. Vjerojatno svugdje, no imamo indicije o postojanju manje taverne kao mjesta okupljanja. Kada? Nakon završetka radnog dana, u dokolici. To se moglo odužiti i na noć koja je bila osvijetljavana svjetlom lucerni. Utvrđeno ih je više različitih tipova. Nama su najzanimljivije one s pečatima. Oni mahom pripadaju centrima sjeverne Italije, ponajprije okolici današnje Modene, ali su prisutni i žigovi vjerojatno drugih proizvodnih središta – moguće srednje Italije, Germanije, čak i lokalnih dalmatinskih radionica. Tako nalazimo žigove *Fortis*, *Strobili*, *Saturnini*, *Litogene*, *Eucarpi*, *Neri*. Uz te, i keramičke uljne svjetiljke drugih tipova, a vjerojatno i svjetla baklji ili otvorene vatre ljudi su se, kao i danas, opuštali, igrali, pričali i pjevali. Kad otkrijemo što, bit ćemo korak bliže odgovoru na pitanje tko su zapravo bili.



Sl. 135. Igrači žetoni i astragali
| Fig. 135. Game tokens and astragali

The leisure category is the most difficult to determine archaeologically. Dance, singing, and conversation rarely leave material marks, but playing games does. Vertebrae/astragali (*ἀστράγαλος*), primarily of sheep and goats, had played an exceptional role in everyday life since ancient times. Perhaps from the Palaeolithic, and certainly from the younger Stone Age, they were used for games of skill and games of chance. They are found in ancient temples throughout the Mediterranean, and replicas made of ivory, silver, bronze, marble, tin, lead, and even gold attest to the significance attached to them. They were used for divination, and the vertebrae of larger animals, such as cows, were also used as weights for weaving looms. Therefore, astragali are very common in archaeological contexts, in the whole of Eurasia and thus also in Velika Mrdakovica. During the little leisure time that people had, they entertained themselves by playing different board games. These are attested from the 4th-3rd millennium BC in Mesopotamia and Egypt, and they were equally popular in Greece and Rome. Ancient sources mention the names of several different games: *Pente Grammai*, *Polis*, *Ludus Latrunculorum*, *Duodecim Scripta*, *Terni Lapilli*, *Marellus*, etc. The last two are known in our region as Trilja and Mlin, and because of their simple rules, they were played by people of all ages. Other games mostly contained elements of luck, skill, and military strategy, sometimes



Sl. 136. Igrači žeton od bijele staklene paste
| Fig. 136. Game token made of white glass paste

with cultic significance. The extent to which they were present in the public space and their intended use for the entertainment of the broad masses of people can be seen in their placement in front of temples, in squares, and other gathering places. The people of Mrdakovica were obviously passionate players, but this is known only indirectly. No game boards have been found yet, but tokens have. Most of them are made of stone, and some of them of black or white thick glass paste (Fig. 135 – 136). Where were the games played? We do not know. Probably everywhere, but there are indications of the existence of a small tavern as a gathering place. When were they played? At the end of the working day, in spare time. Playing could last well into the night, illuminated by the light of lamps. Several different types have been identified, the ones with stamps being the most interesting. They mostly came from northern Italy, primarily the area around today's Modena, but there are also marks of other production centres – possibly central Italy, Germany, and even local Dalmatian workshops. Thus, one finds the stamps of *Fortis*, *Strobili*, *Saturnini*, *Litogene*, *Eucarpi*, and *Neri*. Along with these and the ceramic oil lamps of other types, people probably also relaxed, played, conversed, and sang to the light of torches or open fires, just like today. When more on this aspect of life is discovered, we will be one step closer to knowing who they really were.

ZAKLJUČAK

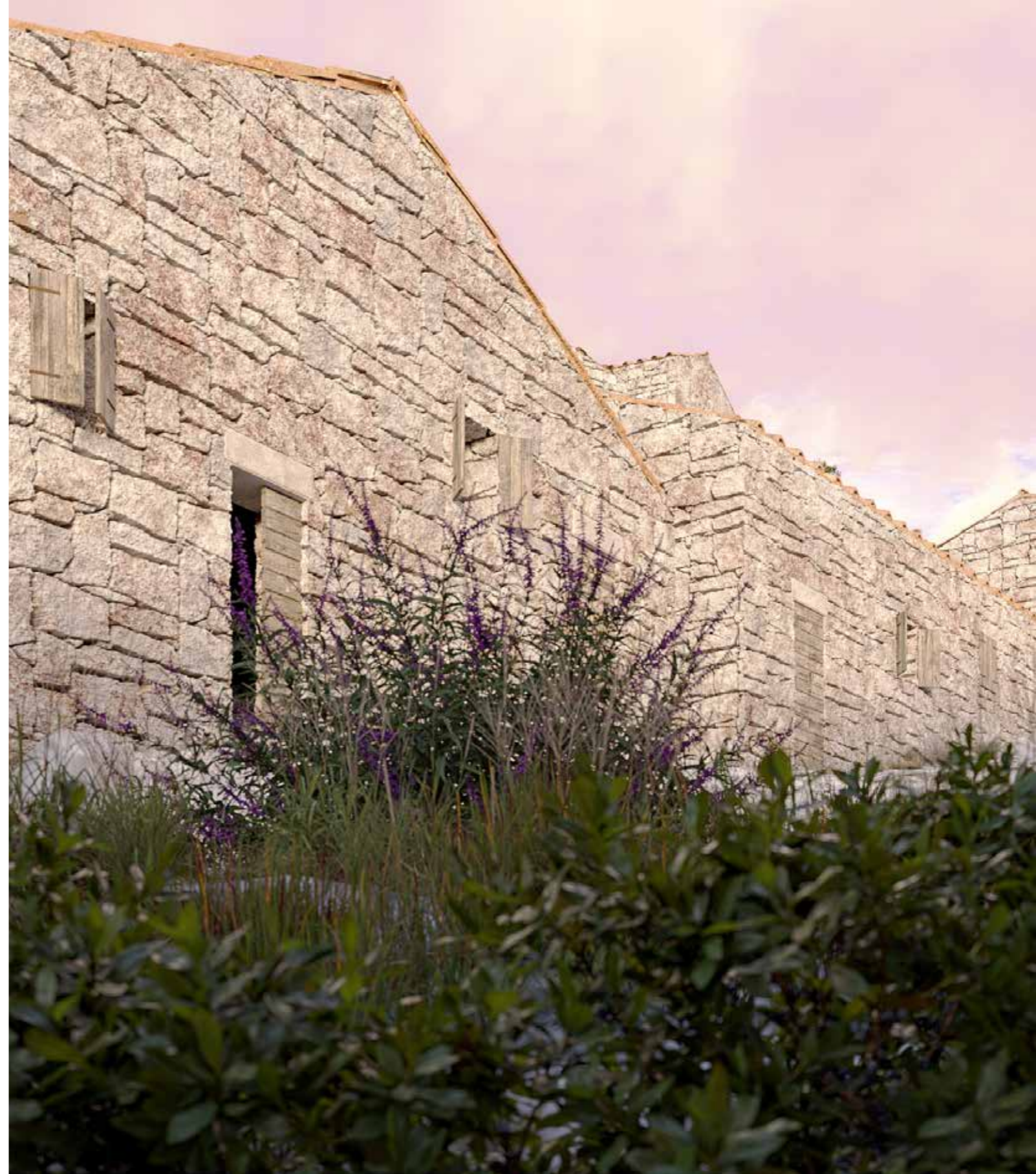
Conclusion

Velika Mrdakovica je nesumnjivo najkompleksniji i najznačajniji arheološki lokalitet vodičkog kraja, ali i znatno širega područja. Pojedini predmeti s ovog nalazišta pripadaju iznimno rijetkim artefaktima, ne samo u Republici Hrvatskoj već i u svjetskim okvirima. Prije svega tu možemo istaknuti već poznati stakleni pužoliki riton iz groba NG 5 i novu „akviziciju“ – brončani držak ručnog ogledala iznimne umjetničke obrade. Za razliku od nekropole na kojoj u grobovima nalazimo više-manje standardizirani materijal, doduše tipološki raznolik, naselje nudi drugačiji uvid u život... naselje govori o životu. Tu zatječemo gotovo tisućljetnu preslojenu arhitekturu koja nam daje sliku o svim izazovima s kojima se domicilno stanovništvo susretalo. Visokim bedemima trebalo je osigurati mir i sigurnost, strmim padinama brda i kršu koji iz njih izviruje trebalo je prilagoditi način stambene gradnje, drenažnim kanalima i cisternama trebalo je odvoditi višak i akumulirati potrebnu vodu, dok je uskim prolazima i ulicama trebalo uspostaviti smislenu vezu komunikacija među različitim etažama „grada“. U ostacima kuća i podruma utvrđen je iznimno raznovrstan materijal – ostaci nakita, oruđe, oružje, tragovi metalurgije, keramičke posude, novac, itd. Najbrojniji su, međutim, ostaci tegula, amfora i ostataka hrane. Više od 60 pečata različitih proizvodnih pogona zorno govori o vezama Velike Mrdakovice s europskim i maloazijskim tržištima. Ako tomu pribrojimo tipološki odredive oblike keramičkih, staklenih i metalnih predmeta, zaključujemo da je raznorodni asortiman stizao na naselje, ovisno o razdoblju, iz jadranskih centara, cijele Italije, posebice središnjega i sjevernoga dijela, Male Azije, galskih radionica, čak i s Baltika. Morske rute su prednjačile, no razmjena dobara se odvijala i kopnenim putovima, pri čemu su Mrdakovčani bili u stalnom kontaktu s ostalim zajednicama dalmatinskog zaleđa. Luksuz pojedinih predmeta i kupovna moć pojedinaca upućuju na razvijeno društvo koje je u potpunosti iskoristilo sve prednosti zemljopisnog položaja. On se odražava i u prehrani za koju možemo reći da je tipično mediteranska. Poljoprivreda, ribarstvo, te zasigurno lov, su punili smočnice i stvarali viškove. Drugi aspekti života govore o tkanju, metalurškoj obradi, drvodjelstvu, tj. o aktivnostima nužnima za određenu razinu samodostatnosti unutar zajednice. Igrači žetoni i kozmetičko-farmaceutski pribor „pričaju“ o razbibrizi i uljepšavanju. Oni usto svjedoče o višku slobodnog vremena i potrebama koje

Undoubtedly, Velika Mrdakovica is the most complex and significant archaeological site in the Vodice region, as well as a much wider area. Certain objects found at this site are extremely rare artefacts, not only in the Croatian context, but also globally. First of all, one should single out the well-known shell-shaped glass rhyton from grave NG 5 and the new “acquisition” – a bronze handle of a handheld mirror, produced with exceptional artistic skill. In contrast to the necropolis, where more or less standardized material is found in the graves, even if typologically diverse, the settlement offers a different insight into life... the settlement speaks about life. There, one finds an almost thousand-year-old, layered architecture that offers an insight into all the challenges that the resident population faced. High ramparts were built to ensure peace and security, the mode of construction had to be adapted to the steep slopes of the hill and the karst rocks protruding from them, drainage canals and cisterns were constructed to drain the excess and accumulate the necessary water, while narrow passages and streets were to create a meaningful network of communication lines between different levels of the “town”. In the remains of houses and basements, extremely diverse material has been found: remains of jewellery, tools, weapons, traces of metallurgy, ceramic vessels, money, etc. The most numerous, however, are the remains of tegulae, amphorae, and food remnants. More than 60 stamps of different production facilities clearly speak of Velika Mrdakovica’s connections with European and Asia Minor markets. If one adds the typologically determinable forms of ceramic, glass, and metal objects to this, it can be concluded that a diverse assortment arrived at the settlement. Depending on the period, the goods came from the Adriatic centres, the whole of Italy, especially the central and northern parts, Asia Minor, Gallic workshops, even from the Baltic. Sea routes took the lead, but the

exchange of goods also took place by land routes, whereby the people of Mrdakovica were in constant contact with other communities of the Dalmatian hinterland. The luxuriousness of certain objects and the purchasing power of individuals indicate a developed society that fully utilized all the advantages of its geographical location. This was also reflected in the diet, which can be described as typically Mediterranean. Agriculture, fishing, and certainly hunting filled the pantries and created surpluses. Other life activities included weaving, metallurgy, and carpentry, all of which were necessary for a certain level of self-sufficiency within the community. Game tokens and cosmetic-pharmaceutical accessories “speak” about entertainment and beautification. At the same time, they bear witness to a certain amount of leisure and the needs that are common to all people, regardless of the epochs to which they belong. Of course, many questions must still remain unanswered, but each new archaeological campaign gives us a clearer insight into the everyday life of the past times in this extremely important locality. For sure, Velika Mrdakovica will “yield” many more great discoveries in the coming years, and we hope it will become one of the recognized pearls of Croatian cultural heritage.

su svojstvene svim ljudima bez obzira na epohe kojima pripadaju. Naravno, na mnoga pitanja još ne možemo odgovoriti, no svaka nova arheološka kampanja nam pruža jasniji uvid u svakodnevicu minulih vremena ovog iznimno važnog lokaliteta. Zasigurno će Velika Mrdakovica u narednim godinama „iznjedriti“ još puno velikih otkrića i, nadamo se, postati jedan od prepoznatih bisera hrvatske kulturne baštine.



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