

Maja Miše, Vedran Barbarić, Asja Zec, Branko Kirigin

Salamandrija on Palagruža:
site formation from the Early
Neolithic to the present day

Maja Miše
Marie Curie Research Fellow
UCL Institute of Archaeology
31-34 Gordon Square, London, WC1H 0P
UK
m.mise@ucl.ac.uk

Vedran Barbarić
University of Split
Faculty of Humanities and Social Sciences
Teslina 12
CROATIA, 21000 Split
vedbarba@ffst.hr

Asja Zec
Independent Researcher
Via Vincenzo Monti 17, 35125 Padova
Italy
zec.asja3@gmail.com

Branko Kirigin
Vinka Pribojevića 4
CROATIA, 21450 Hvar
branko.kirigin@st.t-com.hr

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Salamandrija na Palagruži:
formiranje nalazišta od ranog
neolitika do danas

Maja Miše
Istraživački suradnik Marie Curie
UCL Institut za arheologiju
31-34 Gordon Square, London, WC1H 0PY
UK
m.mise@ucl.ac.uk

Vedran Barbarić
Sveučilište u Splitu
Filozofski fakultet u Splitu
Teslina 12
HR, 21000 Split
vedbarba@ffst.hr

Asja Zec
Neovisni istraživač
Via Vincenzo Monti 17, 35125 Padova
Italija
zec.asja3@gmail.com

Branko Kirigin
Vinka Pribojevića 4
HR, 21450 Hvar
branko.kirigin@st.t-com.hr

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Abstract

The authors are presenting the results and interpretation of archaeological excavations spanning two decades on the small island of Palagruža situated in the centre of the Adriatic Sea. Palagruža attracted the attention of researchers when the cult site of the Greek hero Diomedes was discovered in 1994. However, archaeological excavations yielded numerous artefacts and architectural remains, which have shown that Palagruža was visited in different historic periods, in the Early Neolithic and the Late Copper/Early Bronze Age, from the Archaic to Early Roman Imperial Period, in Late Antiquity, the Early Middle Ages and from the 19th century to the present. Analysis of the archaeological artefacts unearthed on Palagruža has shown that this small island was utilized for different purposes: it was used as a staging post, an orientation and observation point, a sacred place, a fort and as a lighthouse. The interpretation of cultural layers presented here demonstrates that Palagruža was in the focus during the main turning points in human history, testifying to its importance in Adriatic and Mediterranean seaborne traffic.

Key words: Adriatic Sea, Palagruža, Salamandrija, stratigraphy, seaborne traffic

Sažetak

Autori donose rezultate i interpretaciju dvaju desetljeća arheoloških iskopavanja na Palagruži, otočju koji se smjestio na sredini Jadrana. Palagruža je privukla pozornost istraživača kada je godine 1994. ondje otkriveno svetište grčkog junaka Diomeda. No arheološka iskopavanja iznjedrila su brojne artefakte i arhitektonske ostatke koji pokazuju da je Palagruža bila posjećivana u različitim povijesnim razdobljima: ranom neolitikumu i kasnom bakrenom/ranom brončanom dobu, od arhajskog do ranorimskog carskog razdoblja, u kasnoj antici, ranom srednjem vijeku te od 19. stoljeća do danas. Analiza arheoloških artefakata iskopanih na Palagruži pokazala je da je ovaj mali otok korišten u različite svrhe: služio je kao odmorište, orijentacijska točka i promatračnica, svetište, utvrda i svjetionik. Ovdje iznesena interpretacija kulturnih slojeva pokazuje kako je Palagruža bila u žarištu kada su se događali glavni preokreti u povijesti čovječanstva, što dokazuje njezinu važnost u pomorskom prometu na Jadranu i Sredozemlju.

Ključne riječi: Jadran, Palagruža, Salamandrija, stratigrafija, pomorski promet



Fig. 1. Map of the Adriatic Sea with the Central Dalmatian islands
Sl. 1. Zemljovid Jadrana i srednjodalmatinskih otoka

Introduction

The small archipelago of Palagruža is situated in the centre of the Adriatic Sea: approximately half way between Venice and Corfu, and between the Gargano peninsula on the Italian coast and the inhabited Croatian islands of Svetac, Biševo, Vis, Hvar, Sušac, Korčula and Lastovo (Fig. 1). The main island of the archipelago is Velo Palagruža, or just Palagruža. It is 1,460 m long and 320 to 60 m wide with the highest point at 87 m (Fig. 2). Geologically Palagruža is mostly formed of dolomites (with some limestone, clay and breccia), and these represent the oldest rock formations on both Adriatic coasts. The results of the geological survey have shown that Palagruža is slowly rising and that in the last 8,000 years its height has increased by approximately 8 m.¹

Due to sudden and often daily changes in winds, strong currents, summer mists and the presence of shallow rocks and islets, it is difficult to land on Palagruža, especially during the winter. There are no natural or constructed harbours or piers, and there are only two places where landings are possible: the wide pebble beach called Žolo on the southern steep

Uvod

Malo otočje Palagruža smjestilo se na sredini Jadrana, otprilike na pola puta između Venecije i Krfa, odnosno između poluotoka Gargano na talijanskoj obali i naseljenih hrvatskih otoka Svetac, Biševo, Vis, Hvar, Sušac, Korčula i Lastovo (sl. 1). Glavni otok otočja je Velo Palagruža ili samo Palagruža. Dužine je 1460 m, a širine 320 do 60 m, s najvišom točkom na 87 m (sl. 2). Geološki, Palagruža je većim dijelom izgrađena od dolomita (uz nešto vapnenca, gline i breče), koji predstavljaju najstarije formacije stijena na obje obale Jadrana. Rezultati geoloških ispitivanja pokazali su da se Palagruža polako uzdiže i da se u zadnjih 8.000 godina povisila za kakvih 8 m.¹

Zbog naglih i često svakodnevnih promjena vjetera, jakih struja, ljetnih sumaglica i prisutnosti plitkih hridi i otočića na Palagružu je teško pristati, osobito zimi. Nema prirodnih ili izgrađenih luka ili molo-va i moguće je pristati na samo dva mjesta: širokoj šljunčanoj plaži zvanoj Žolo na južnoj strmoj strani i u uskoj uvali Stora Vloka na sjeverozapadnom kraju. Veoma mala količina padalina tijekom godine, nedostatak izvorske vode i velika vlaga omogućuju rast

1 Korbar *et al.* 2009.

1 Korbar *et al.* 2009.



Fig. 2. Aerial photograph of the archipelago of Palagruža. Velo Palagruža is in the background (photo: M. Miše)
Sl. 2. Zračna snimka otočja Palagruža. Velo Palagruža u pozadini (foto: M. Miše)

side, and Stora Vloka, a narrow bay on the north-west end. Very low rainfall during the year, no freshwater springs and high humidity are conducive to the growth of only low vegetation, grass and bushes of certain endemic plants. These natural conditions largely influenced human occupation of the island throughout history. However, it is interesting to note that there is ca. 7 ha of shallow arable land on Palagruža. Archival documents from the 17th and 18th centuries AD inform us that the Commune of Hvar, to which Palagruža belonged since the Middle Ages, leased Palagruža for wheat cultivation.²

The first scholars who visited the island of Palagruža were Carlo de Marchesetti and Richard F. Burton. They were invited in 1875 by the Austro-Hungarian Maritime Authority, seated in Trieste, for the opening ceremony of Palagruža's lighthouse – still the largest and highest lighthouse on the Adriatic. On that occasion, Marchesetti and Burton recorded prehistoric tools and Roman artefacts on the island, most likely collected on the central plateau on Palagruža, called Salamandrija.³

Long after Marchesetti and Burton, archaeologists collaborating under the Adriatic Islands Project visited Palagruža in 1992, when a limited survey was conducted. Early Bronze Age, Greek and Roman artefacts were collected during this brief visit.⁴ In 1993 and 1994, a detailed survey and small excavation were conducted at Salamandrija,⁵ on its northern slope and



Fig. 3. Aerial photograph of Salamandrija excavation site (photo: M. Miše)
Sl. 3. Zračna snimka nalazišta na Salamandriji (foto: M. Miše)

tek niskog raslinja, trave i grmova nekih endemskih biljaka. Ti su prirodni uvjeti tijekom cijele povijesti uvelike utjecali na ljudsko naseljavanje otoka. Međutim, zanimljivo je primijetiti kako na Palagruži postoji oko 7 ha obradive zemlje. Arhivska građa iz 17. i 18. stoljeća po. Kr. govori nam da je hvarska komuna, kojoj je Palagruža pripadala od srednjega vijeka, davala Palagružu u zakup radi uzgoja pšenice.²

Prvi znanstvenici koji su posjetili otok Palagružu bili su Carlo de Marchesetti i Richard F. Burton. To se dogodilo godine 1875., kada ih je austrougarska Pomorska uprava sa sjedištem u Trstu pozvala na svečano otvorenje palagruškog svjetionika – još uvijek najvećeg i najvišeg svjetionika na Jadranu. Tom prilikom Marchesetti i Burton zabilježili su na otoku prapovijesne alatke i rimske artefakte, najvjerojatnije pronađene na središnjem platou Palagruže zvanom Salamandrija.³

Dugo vremena nakon Marchesettija i Burtona arheolozi uključeni u *Projekt Jadranski otoci* posjetili su Palagružu 1992. godine, kada je proveden manji terenski pregled. Tijekom tog kratkog posjeta prikupljeni su ranobrončanodobni, grčki i rimski artefakti.⁴ Godine 1993. i 1994. proveden je detaljan terenski pregled i manje iskopavanje na Salamandriji,⁵ njezinoj zapadnoj padini i najistočnijem dijelu otoka zvanom *Jankotova njiva*,⁶ 550 m istočno od

2 Kirigin 2012, p. 108.

3 Marchesetti 1876; Burton 1879.

4 Forenbaher *et al.* 1994, pp. 36-45.

5 Site code in Kirigin, Gaffney 2006 is VS 1228.00. All the site codes further in the text refer to the same source.

2 Kirigin 2012, str. 108.

3 Marchesetti 1876; Burton 1879.

4 Forenbaher *et al.* 1994, str. 36-45.

5 Oznaka lokaliteta u Kirigin, Gaffney 2006 je VS 1228.00. Sve oznake lokaliteta u nastavku teksta odnose se na isti izvor.

6 Oznaka lokaliteta VS 1226.00.

in the easternmost area of the island, called Jankotova njiva⁶ 550 m east of Salamandrija.⁷ During that time, researchers learned of the existence of a private collection of artefacts from Palagruža owned by Jadranko Oreb, the lighthouse keeper's son. Among the shards of Attic Black and Red-figure vases in the Oreb Collection, today in Vela Luka on the island of Korčula, there is one fragment of kylix with the incised name, graffito, of the Greek hero Diomedes. This fragment, together with other potsherds unearthed during the excavation campaigns, which have the letters of Diomedes' name carved onto them, and the interpretation of Classical literary sources helped to identify the island of Palagruža as the island of Diomedes, a maritime sanctuary where the Greek hero was honoured.⁸

Archaeological excavations

The small and nearly inaccessible island of Palagruža is very narrow. Its southern shore is a cliff that drops almost vertically into the sea; its north shore is a steep slope. The only flat area of the island, where it was possible to ascertain archaeological deposits, is the above-mentioned central plateau of Salamandrija (Fig. 3). Within this area, covering approximately 900 m², 320 m² were excavated. Traces of human activity can be followed in shorter and longer intervals from the Early Neolithic period until the present day.

As mentioned above, the excavations on Salamandrija began in the early 1990s and continued in 1996. Although these campaigns were short, they yielded numerous artefacts dated to different periods: Early Neolithic, Late Copper/Early Bronze Age, Archaic, Classical, Hellenistic, Roman and Early Mediaeval. Besides artefacts, the architectural remains of a Roman fort and the 19th Century Church of St. Michael were also unearthed.⁹ The results of these excavations raised many questions and led to more thorough excavations that were conducted from 2002 to 2009 and in 2012.¹⁰

The results

Excavations in the 2000s were conducted in several targeted areas at Salamandrija: on the southern and northern slope of the plateau, beneath the plateau's

Salamandrije.⁷ U to vrijeme istraživači su doznali kako postoji privatna zbirka artefakata s Palagruže, a u vlasništvu je Jadranka Oreb, svjetioničarova sina. Među ulomcima antičkih crnofiguralnih i crvenofiguralnih vaza iz Zbirke Oreb, koji se danas čuvaju u Velloj Luci na otoku Korčuli, jedan je ulomak kiliksa s urezanim imenom – grafitom – grčkog junaka Diomeda. Taj ulomak, zajedno s drugim ulomcima keramike koji su pronađeni tijekom iskopavanja i na kojima su urezana slova Diomedova imena, kao i interpretacija klasičnih književnih izvora, pripomogli su prepoznavanju Palagruže kao Diomedova otoka, pomorskog svetišta gdje se štovao taj grčki junak.⁸

Arheološka iskopavanja

Malen i gotovo nepristupačan otok Palagruža vrlo je uzak. Njegovu južnu obalu čini litica koja se gotovo okomito spušta u more, a sjevernu mu obalu čini strma padina. Jedini plato prostor na otoku gdje je bilo moguće pronaći arheološke slojeve ranije je spomenuti plato Salamandrija (sl. 3). Unutar tog područja, koje se prostire na nekih 900 m², istraženo je 320 m². Tragovi ljudske aktivnosti mogu se pratiti u kraćim i dužim intervalima od ranog neolitika do današnjeg dana.

Kako je već spomenuto, iskopavanja na Salamandriji započela su početkom devedesetih godina minuloga stoljeća, a nastavila su se godine 1996. Premda su ta istraživanja bila kratka, iznjedrila su brojne artefakte koji se smještaju u različita razdoblja: rani neolitik, kasno bakreno/rano brončano doba, arhaisko, klasično, helenističko i rimsko razdoblje te rani srednji vijek. Uz artefakte, otkriveni su i arhitektonski ostaci rimske utvrde i crkve sv. Mihovila iz 19. stoljeća.⁹ Rezultati tih istraživanja nametnuli su mnoga pitanja i doveli do još temeljitijih iskopavanja koja su provedena od 2002. do 2009. te u 2012. godini.¹⁰

Rezultati

U dvijetisućitim godinama istraživanja su provedena na više ciljnih područja Salamandrije: na južnoj i sjevernoj padini platoa, ispod kamenog pločnika¹¹ platoa te istočno i zapadno od kamenog pločnika (sl. 4).

6 Site code VS 1226.00.

7 Kirigin, Gaffney 2006, p. 75.

8 Detailed discussion in Kirigin, Čače 1998.

9 Kirigin, Katunarić 2002.

10 Summary of excavation reports in Kirigin *et al.* 2010, pp. 65-91; Kirigin 2012.

7 Kirigin, Gaffney 2006, str. 75.

8 Iscrpna rasprava u Kirigin, Čače 1998.

9 Kirigin, Katunarić 2002.

10 Sažetak izvješća s iskopavanja u Kirigin *et al.* 2010, str. 65-91; Kirigin 2012.

11 Kameni pločnik izgrađen je tijekom austrijskih građevinskih aktivnosti za potrebe sakupljanja kišnice.

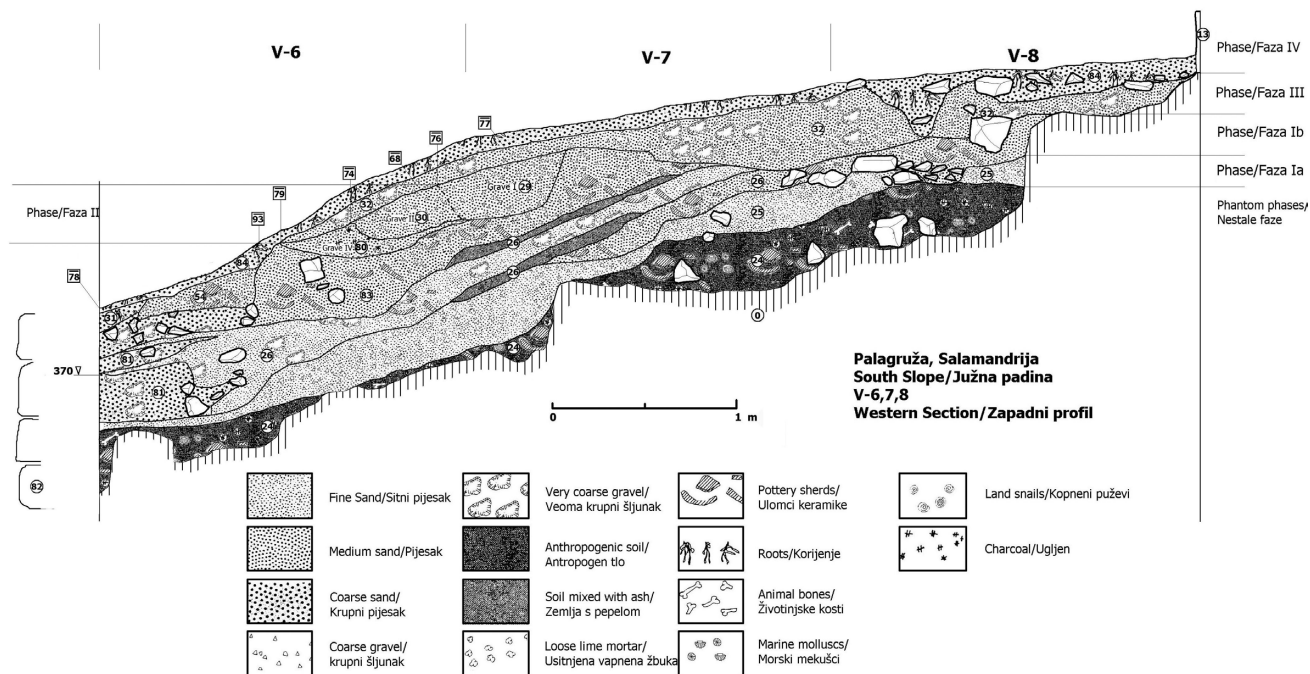


Fig. 5. Western cross-section of trenches V6-8 on the southern slope (Archives of the Archaeological Museum in Split; prepared by V. Barbarić)

Sl. 5. Zapadni profil sondi V6-8 na južnoj padini (Arhiv Arheološkog muzeja u Splitu; izradio V. Barbarić)

stone pavement,¹¹ and east and west of the stone pavement (Fig. 4). The objectives of these excavations were to identify the remains of the Diomedes sanctuary on Palagruža; to identify the outline of the Roman fort; and to define the relationship between the sanctuary and the fort.

The flat area of Salamandrija sharply descends in two steep slopes on the north and south. Despite the steepness, earthquakes and natural erosion that have played an important role in depositional processes, the unearthed layers on both slopes present a valuable source of information about past human activities on Palagruža. The southern slope is retained by the stacked-stone wall flanking the path that runs from Žolo beach to the lighthouse. The gradient of this slope prevents any retention of soil except on the part retained by the stacked-stone wall (Fig. 5). The less inclined northern slope is partly covered with the stone pavement that prevented erosion, and hence the layers here are thicker than on the southern slope (Fig. 7). Unlike layers on both slopes, layers preserved beneath the stone pavement are very thin and deposited above bedrock (Fig. 6). Here, the presented profiles show the cross section through the investigated area of Salamandrija. The relationships between unearthed

Cilj tih iskopavanja bio je pronaći ostatke Diomedova svetišta na Palagruži, odrediti konture rimske utvrde i utvrditi odnos između svetišta i utvrde.

Plato Salamandrije naglo se spušta niz dvije strme padine na sjeveru i jugu. Unatoč strmim, potresima i prirodnoj eroziji koja je odigrala važnu ulogu u depozicijskim procesima, iskopani slojevi na obje padine predstavljaju dragocjen izvor informacija o negdašnjim ljudskim aktivnostima na Palagruži. Južnu padinu pridržava suhozid koji se pruža uz put što vodi od plaže Žolo do svjetionika. Nagib ove padine priječi bilo kakvo zadržavanje tla osim na dijelu koji pridržava suhozid (sl. 5). Blaže nagnuta sjeverna padina djelomice je prekrivena kamenim pločnikom koji je spriječio eroziju, tako da su slojevi ovdje deblji negoli na južnoj padini (sl. 7). Za razliku od slojeva na obje padine, slojevi sačuvani ispod kamenog pločnika vrlo su tanki i nataloženi iznad živca (sl. 6). Ovdje se donose profili koji prikazuju presjek istraženog područja Salamandrije. Odnosi između neiskopanih stratigrafskih cjelina na cijelom prostoru Salamandrije prikazani su na odabranim presjecima s južne padine (sl. 5), središnjeg platoa (sl. 6) i sjeverne padine (sl. 7). Ti slojevi, zajedno sa stratigrafskim jedinicama iskopanim na drugim dijelovima Salamandrije, prikazani su na Harrisovoj matrici¹² (prilog I). Zbog složenosti

11 The stone pavement was laid during Austrian construction activities for the collection of rainwater.

12 Paice 1991.

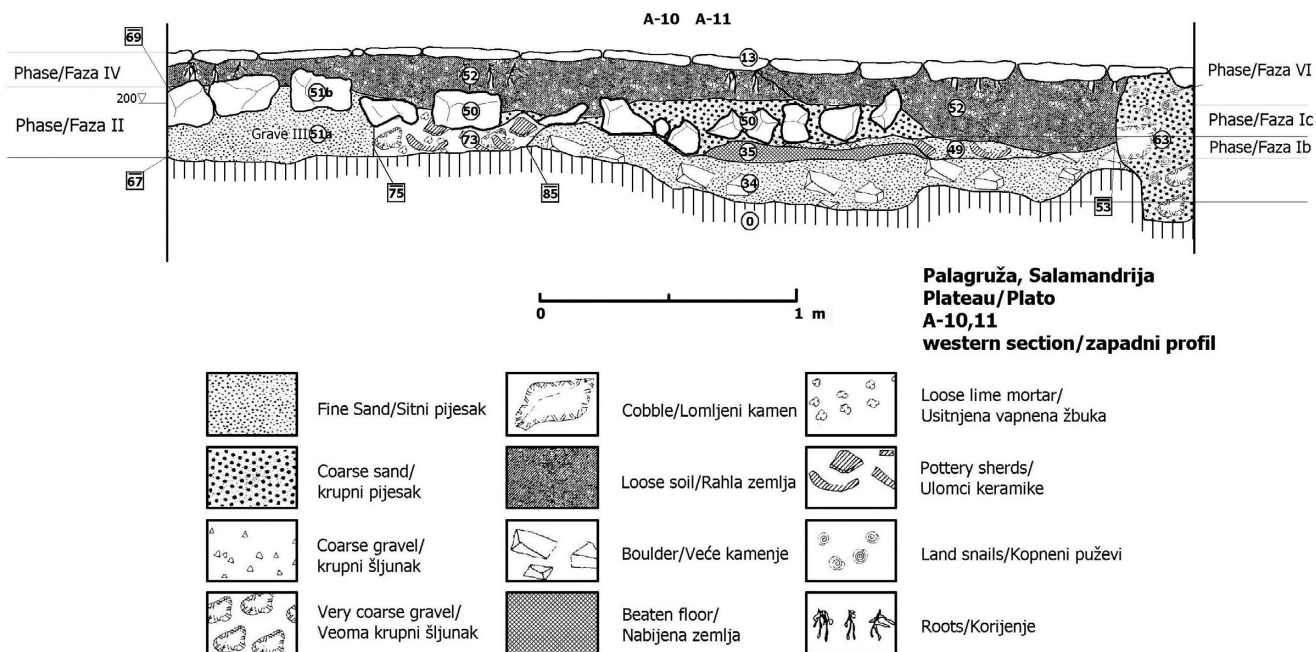


Fig. 6. Western cross-section of trenches A 10-11 on the central plateau (Archives of the Archaeological Museum in Split; prepared by V. Barbarić)
Sl. 6. Zapadni profil sondi A 10-11 na središnjem platou (Arhiv Arheološkog muzeja u Splitu; izradio V. Barbarić)

stratigraphic units across Salamandrija are shown on selected cross-sections from the southern slope (Fig. 5), central plateau (Fig. 6) and northern slope (Fig. 7). These layers together with units unearthed from other parts on Salamandrija are presented in the Harris matrix¹² (Appendix I). Due to the complexity of the excavated area we here present a brief description of excavated units that lead us to the interpretation of the site.

The stratigraphic units (hereafter SU) above bedrock on both slopes (SU 2 on the northern and SU 24 on the southern slope) consisted of the same, very dark soil matrix and artefacts from different historical periods. It mostly consisted of potsherds: a high number of fine ware potsherds from the Classical Greek, Hellenistic to Early Imperial Roman periods, and fewer potsherds from the Early Neolithic and Late Copper/Early Bronze Age.

On the northern slope, above the previously mentioned SU 2, there is a secondary deposit of ground lime mortar (SU 3). This unit was found only on the northernmost part of the excavated trenches.

Above the lowest units on the northern (SU 2 and 3) and southern slope (SU 24), was a layer with small stones/rubble. This unit, marked as SU 25 on the southern and SU 4 on northern slope, did not contain any artefacts.

istraženog područja, ovdje dajemo kratak opis iskopskih jedinica, što nas vodi do interpretacije nalazišta.

Stratigrafske jedinice (dalje u tekstu SJ) iznad žive stijene na obje padine (SJ 2 na sjevernoj i SJ 24 na južnoj padini) činili su ista, vrlo tamna matrica tla i artefakti iz različitih povijesnih razdoblja. Većinom se radilo o ulomcima keramike – velikom broju ulomaka fine keramike od klasičnog grčkog i helenističkog do ranorimskog carskog razdoblja i manjem broju ulomaka keramike iz ranog neolitika i kasnog bakrenog/ranog brončanog doba.

Na sjevernoj padini, iznad ranije spomenute SJ 2, nalazi se sekundarna naslaga zdrobljene vapnene žbuke (SJ 3). Ta cjelina nađena je samo na najsjevernijem dijelu iskopskih sondi.

Iznad najnižih cjelina na sjevernoj (SJ 2 i 3) i južnoj padini (SJ 24) bio je sloj malog kamenja / urušenja. Ta cjelina, označena kao SJ 25 na južnoj i SJ 4 na zapadnoj padini, nije sadržavala nikakve artefakte.

Na sjevernoj padini malena je površina zemlje (SJ 5) istog sastava i s istim artefaktima kao i u najnižem naknadno deponiranom sloju (SJ 2).

Također na sjevernoj padini veliko nepravilno kamenje (SJ 6 i 17) uporabljeno je za ispunu jame koju tvore jedinice 3, 4 i 5. To zaravnjenje na sjevernoj padini nastavljalo se manjim neobrađenim kamenjem (SJ 7 i 19), a završavalo je čvrsto nabijenom zemljom (SJ 8 i 20).

Arhitektonski ostaci rimske utvrde na platou leže iznad žive stijene (SJ 36, 37, 38a, 39, 40, 42, 43, 44,

12 Paice 1991.

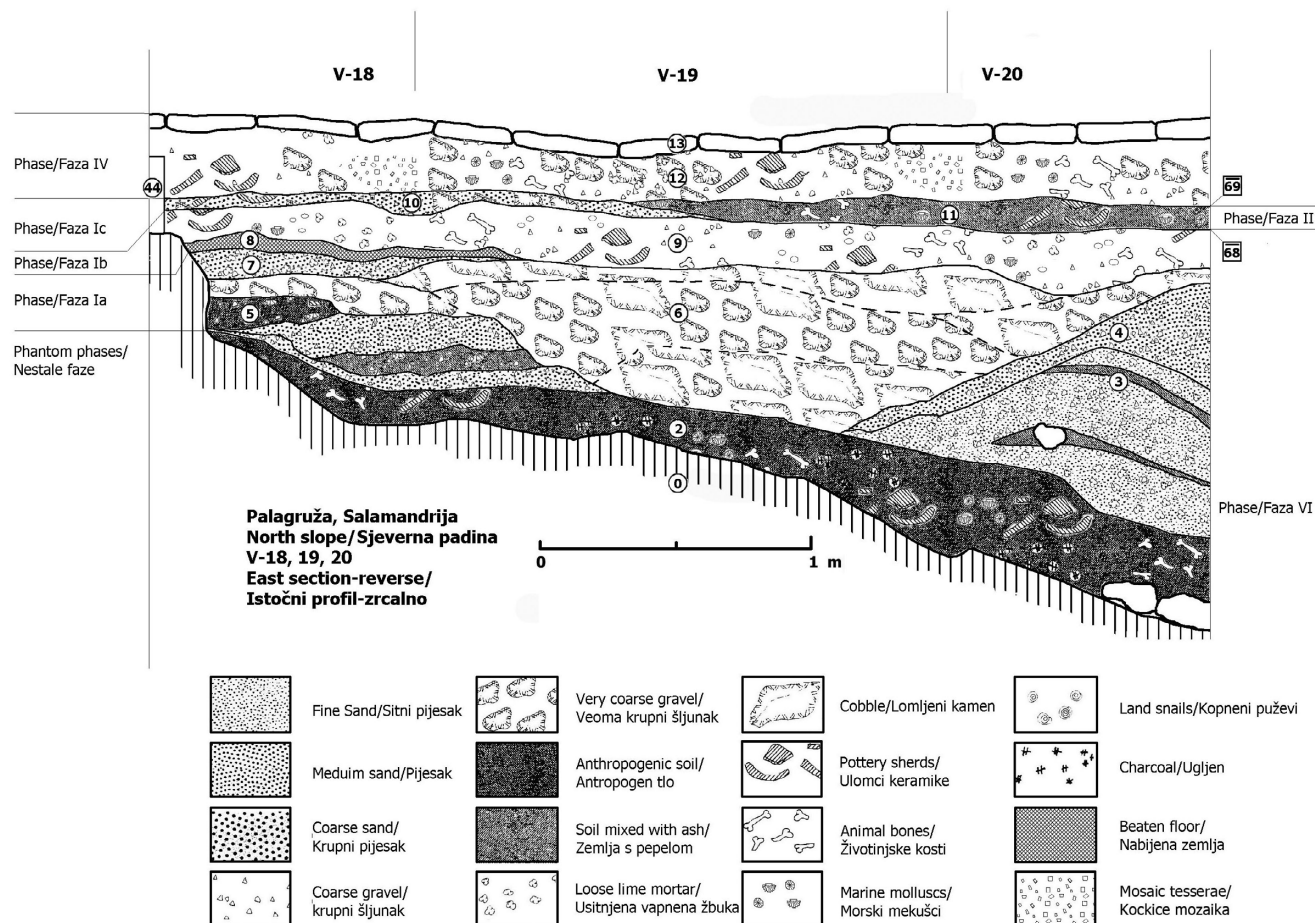


Fig. 7. Eastern cross-section (reverse) of trenches V 18-20 on the northern slope (Archives of the Archaeological Museum in Split; prepared by V. Barbarić)

Sl. 7. Istočni profil (suprotna strana) sonde V 18-20 na sjevernoj padini (Arhiv Arheološkog muzeja u Splitu; izradio V. Barbarić)

On the northern slope, there is a small patch of dirt (SU 5) with the same composition and artefacts as in the lowest re-deposited layer (SU 2).

Also on the northern slope, large irregular stones (SU 6 and 17) were used to fill in the ditch formed by units 3, 4 and 5. This levelling on the northern slope continued with smaller rough stones (SU 7 and 19) and was finished with hard packed dirt (SU 8 and 20).

The architectural remains of the Roman fort on the plateau lay atop the bedrock (SUs 36, 37, 38a, 39, 40, 42, 43, 44, 45, 46, 47 and 48). East of the stone pavement, the walls (SU 42 and 43) are parallel to the walls of the courtyard of St Michael's Church (SU 59 and 59) (Figs. 4 and 8). Inside the fort and atop the bedrock were layers of hard packed dirt (SU 35). They were probably once part of the floor of the fort.

In SU 9 on the northern slope, SU 49 on the plateau, and SUs 26 and 55 on the southern slope have shown consistent unearthened artefacts that can be associated with the lifespan of the Roman fort.

The layers on the northern slope (SU 10), on the southern slope (SU 83) and on the plateau (SU 73 and 50)

45, 46, 47 i 48). Istočno od kamenog pločnika zidovi (SJ 42 i 43) pružaju se usporedno sa zidovima predvorja crkve sv. Mihovila (SJ 59 i 59) (sl. 4 i 8). Unutar utvrde, a iznad žive stijene, nalazili su se slojevi čvrsto nabijene zemlje (SU 35). Vjerojatno se radi o nekadašnjem dijelu podnice utvrde.

SJ 9 na sjevernoj padini, SJ 49 na platou i SJ 26 i 55 na južnoj padini sadržavale su podjednake iskapanne artefakte koji se mogu povezati s vremenom života rimske utvrde.

Slojevi na sjevernoj padini (SJ 10), južnoj padini (SJ 83) i na platou (SU 73 i 50) sadrže građu koja se može povezati s degradacijom utvrde.

Dokumentirano je i dozidavanje (SJ 38b) na jugoistočnom kontraforu utvrde (SJ 38a). Tom je dogradnjom na jugoistočnom uglu utvrde križnom kontraforu oblik promijenjen u kvadratni. Nadalje, apsida (SJ 41) je dograđena uz istočni zid između južnog vanjskog i sjevernog unutarnjeg zida (sl. 4 i 8).

Na južnoj padini prirodna je erozija dokumentirana na najstrmijem dijelu padine, blizu potpornog zida. Na istom dijelu južne padine nađena su tri groba:

contain material that can be associated with the degradation of the fort.

Additional walling (SU 38b) at the south-eastern buttress of the fort (SU 38a) was also documented. This adaptation changed the form of the south-eastern angle of the fort from the angled to the clasping buttress. Further on, the apse (SU 41) was adjoined to the eastern wall between the southern perimeter wall of the fort and the southern inner wall (Figs. 4 and 8).

On the southern slope, natural erosion of the upper layers was documented in the steepest area of the slope, near the retaining wall. Three graves were found in the same area of the southern slope: graves 2 (SU 30) and 4 (SU 80), and grave 1 (SU 29). The grave marked as number 3 (SU 51) was found in the south-eastern part of the fort.

Layers in the centre of the plateau (SUs 12, 23, 52, 28) contained artefacts from all periods of occupation of the site, along with artefacts from the 19th century as the chronologically most recent. The stone pavement (SU 13) was laid above it.

The architectural remains of 19th century Church of St Michael (SUs 57a-f) and its courtyard (SU 58 and 59) extend east to west and are parallel to the inner walls of the fort (SU 42 and 43), as mentioned above. (Fig. 8) Furthermore, the fort's northern inner wall SU 43 and the northern wall of the courtyard SU 59 lay next to each other (see Fig. 4). Although these walls extend in the same direction and have the same width of 60 cm, a difference between their respective construction techniques has been observed; rougher stones were used for construction of the courtyard walls than for the wall of the fort.

West of the stone pavement (SU 13) are the remains of walls (SU 65), built atop the south-west corner of the fort (SU 37 and 39) (see Fig. 4). To clarify this situation and to ascertain the relationship between these walls and the Roman fort, additional excavations were conducted in 2012. The remains of three mutually attached houses (SU 65 and 90) were documented. They extend from south to north along the western edge of the stone pavement. The northernmost house (SU 90), to which the eastern supporting wall of stone pavement belongs, was built above the cistern (SU 88). This area was intensively used in recent times as the lighthouse keeper's garden, and unearthed artefacts did not reveal much information about the date when the houses were built.

The remains of what was probably the fourth house (SU 91) are inside the stone pavement and next to the northernmost house.

One square concrete structure (SU 62) was built inside the ruins of St Michael's Church and another (SU 70) built with stones and plaster was in the south-western corner of Salamandrija.

grobovi 2 (SJ 30) i 4 (SJ 80) i grob 1 (SJ 29). Grob označen kao broj 3 (SJ 51) pronađen je u jugoistočnom dijelu utvrde.

Slojevi u središtu platoa (SJ 12, 23, 52, 28) sadržavali su artefakte iz svih razdoblja naseljenosti lokaliteta, kao i artefakte iz 19. stoljeća kao kronološki najrecentnije. Iznad njega sagrađen je kameni pločnik (SJ 13).

Arhitektonski ostaci crkve sv. Mihovila iz 19. stoljeća (SJ 57a-f) i njezinog predvorja (SJ 58 i 59) pružaju se od istoka prema zapadu usporedno s unutarnjim zidovima utvrde (SJ 42 i 43), kako je već spomenuto (sl. 8). Nadalje, sjeverni unutarnji zid utvrde SJ 43 i sjeverni zid predvorja SJ 59 leže jedan uz drugoga (vidi sl. 4). Premda se ti zidovi pružaju u istom smjeru i oba su široka 60 cm, među njima se uočava razlika u tehnici građenja: za gradnju zidova predvorja rabilo se grublje obrađeno kamenje negoli za zid utvrde.

Zapadno od kamenog pločnika (SJ 13) nalaze se ostaci zidova (SU 65) sagrađenih iznad jugozapadnog ugla utvrde (SJ 37 i 39) (vidi sl. 4). Kako bi se pojašnjala ta situacija i ustanovio odnos između tih zidova i rimske utvrde, godine 2012. provedena su dodatna iskopavanja. Dokumentirani su ostaci triju kuća (SJ 65 i 90) koje se naslanjaju jedna na drugu. Pružaju se od juga prema sjeveru, duž zapadnog ruba kamenog pločnika. Najsjevernija kuća (SU 90), kojoj pripada istočni potporni zid kamenog pločnika, sagrađena je iznad cisterne (SJ 88). Taj se prostor u novije vrijeme intenzivno koristio kao svjetioničarev vrt, a iskopani artefakti ne govore mnogo o tome kada su kuće sagrađene.

Unutar kamenog pločnika i pokraj najsjevernije kuće nalaze se ostaci nečega što je vjerojatno bila četvrta kuća (SJ 91).

Jedan četverokutni betonski objekt (SJ 62) bio je sagrađen unutar ruševina crkve sv. Mihovila, a drugi (SJ 70), zidan s vapnenim mortom, nalazio se u jugozapadnom kutu Salamandrije.

Sustav metalnih vodovodnih cijevi pričvršćenih unutar četvrtastih betonskih stupova (SJ 92), koji je cisternu na Salamandriji povezivao s plažom *Žolo* na jugu i svjetionikom na zapadu, nalazio se na površini i bio je još vidljiv početkom devedesetih godina protekloga stoljeća (sl. 9).

Interpretacija arheoloških zapisa

Rekonstrukcija procesa formiranja nalazišta Salamandrija nije bila laka zadaća jer je malo istraženo područje ispresijecano brojnim građevinama iz različitih razdoblja (zidovi, pločnik, objekti). K tome, prilikom iskopavanja izazov je predstavljala i strmina obiju padina. Nadalje, plato Salamandrije vrlo je plitak jer živa stijena leži tek na nekih 40 cm ispod površine.

The system of metal water pipes – fixed within square concrete pillars (SU 92) – that connected the cistern on Salamandrija to Žolo beach in the south and the lighthouse in the west, were on the surface and still visible in the early 1990s (Fig. 9).

Interpretation of archaeological records

Reconstruction of the site formation process at Salamandrija was not an easy task, because the small excavated area is transected with numerous structures from different periods (walls, pavement, buildings). Also, the steepness of both slopes made excavation a challenge. Furthermore, the flat area of Salamandrija is very shallow, with bedrock only ca. 50 cm below the surface. Nevertheless, with excavations in targeted areas we were able to reconstruct depositional processes.

The same matrix, dark soil, and the same type of artefacts found in the lowest layers on the northern and southern slopes (SU 2 and 24) suggest that they were both deposited at the same time. Namely, during the preparation on the flat area of Salamandrija for the construction of the Roman fort, the entire area was cleared with the re-deposition of soils down the northern and southern slopes. The layer of ground mortar (SU 3), only documented on the northern slope, was also deposited during the same re-depositional process. After cleaning, the flattening of the plateau began, with levelling of the bedrock and a less inclined northern slope. This process was confirmed with stone layers (SU 4 and 6) that filled the ditch on the northern slope formed during the re-depositing of previous soils from the plateau. The levelling of the northern slope continued with smaller rough stones (SU 7 and 19) and was finished with hard packed dirt (SU 8 and 20). The same levelling was not documented on the steeply inclined southern slope, but parts of cut bedrock were unearthed in the layer (SU 25) above the lowest re-deposited layer (SU 24). The construction of the Roman fort began after flattening of the plateau. The remains of the walls allowed us to determine its layout (Fig. 3). The artefacts unearthed in SU 9 on the northern slope, 49 on the plateau and 26 on the southern slope, also visible in selected cross-sections through the Salamandrija plateau (Figs. 5-7), can be associated with the lifespan of the fort. The additional construction of the apse (SU 41) and reinforcement of the buttress (SU 38a and b) documented on the southeastern corner of the fort (Fig. 8) were made after the fort was abandoned, during the adaptation of part of the remaining wall into the church, probably during

Unatoč tome, iskopavanjima na ciljanim područjima uspjeli smo rekonstruirati depozicijske procese.

Istovjetna matrica – tamno tlo i ista vrsta artefakata nađenih u najnižim slojevima na sjevernoj i južnoj padini (SJ 2 i 24) – daje naslutiti da su oba nastala u isto vrijeme. Naime, prilikom pripreme ravni Salamandrije za gradnju rimske utvrde, cijeli je prostor očišćen redeponiranjem zemlje niz sjevernu i južnu padinu. Tijekom istog procesa redeponiranja nanesen je i sloj smrvljene žbuke (SJ 3), dokumentiran jedino na sjevernoj padini. Nakon čišćenja započelo se s poravnavanjem platoa, uz nivelaciju žive stijene i blaže nagnute sjeverne padine. Taj proces potvrđen je slojevima kamenja (SJ 4 i 6) uporabljenog za ispunu jame na sjevernoj padini formiranoj tijekom redeponiranja nekadašnje zemlje s platoa. Niveliranje sjeverne padine nastavljeno je uporabom manjeg neobrađenog kamenja (SJ 7 i 19), a dovršeno je čvrsto nabijenom zemljom (SJ 8 i 20). Ista nivelacija nije dokumentirana na strmo nagnutoj južnoj padini, ali u sloju (SJ 25) iznad najnižeg redeponiranog sloja (SJ 24) pronađeni su fragmenti nastali priklesavanjem živca. Gradnja rimske utvrde počela je nakon poravnanja platoa. Ostaci zidova omogućili su nam da odredimo njezin plan (sl. 3). Artefakti nađeni u SJ 9 na sjevernoj padini, 49 na platou i 26 na južnoj padini, a koji su vidljivi i na odabranim profilima platoa Salamandrije (sl. 5-7), mogu se povezati s vremenom života utvrde. Dogradnja apside (SJ 41) i ojačanje kontrafora (SJ 38a i b) dokumentirano na jugoistočnom uglu utvrde (sl. 8) obavljani su nakon što je utvrda napuštena, prilikom pregradnje dijela preostalih zidina u crkvu, vjerojatno tijekom ranoga srednjeg vijeka.¹³ U prilog ovoj interpretaciji govore ranosrednjovjekovni ukopi unutar (grob III) i pokraj crkve (grobovi II i IV).

Još jedna faza gradnje na Salamandriji počela je koncem 19. stoljeća (1874.–1875.), prilikom izgradnje svjetionika na najvišoj točki Palagruže. To drugo niveliranje platoa Salamandrija dokumentirano je u SJ 12, 23, 52, 28 i 66. Potonja SJ predstavlja ispunu jama za vapno koje su se koristile za gašenje vapna tijekom građevinskih radova. Kameni pločnik (SJ 13), još uvijek vidljiv na nalazištu, sagrađen je za sakupljanje kišnice. Lagano je nagnut prema cisterni u sjeverozapadnom kutu Salamandrije, koja je još uvijek u uporabi. Možemo pretpostaviti kako je zbog nedostatka izvorske vode na otoku cisterna vjerojatno prvotno sagrađena kao dio rimske utvrde, a onda iznova stavljena u uporabu ili ponovno sagrađena prilikom gradnje pločnika krajem 19. stoljeća. Crkva sv. Mihovila – istočno od pločnika – vjerojatno je sagrađena u istoj fazi gradnje. I dalje zbunjuje to što zidovi

13 Barbarić 2017, str. 627-631.

the Early Middle Ages.¹³ Early mediaeval burials inside (Grave III) and next to this church (Graves II and IV) support this interpretation.

Another construction phase on Salamandrija began in the late 19th century (1874-1875), when the lighthouse was built at the highest point of Palagruža. This second levelling of the Salamandrija plateau is documented with SU 12, 23, 52, 28, and 66. The later SU presents filling of the lime pits used for the mixing of lime during the construction works. The stone pavement (SU 13), still visible on the site, was laid to collecting rainwater. It is slightly inclined toward the cistern on the north-west corner of Salamandrija, which is still in use. We may assume, due to the lack of spring water on the island, that the cistern was probably originally built as a part of the Roman fort and re-used or re-built during construction of the pavement in the late 19th century. The Church of St Michael – east of the pavement – was probably built in the same construction phase. It is still puzzling that the church courtyard walls were built next to the walls of the Roman fort and were not used as foundations for the church (Fig. 8).

However, another situation in the south-western corner of Salamandrija that caught our attention are the remains of three houses (SU 65), built over the south-western corner of the Roman fort (SU 37 and 39) (Fig. 4). In recent times, this area was used for gardening and as a result the layers were disturbed. Yet, through the examination of old Austrian postcards dated before 1914, it was possible to determine when the houses were in use. All three houses are shown on the postcards with the steeple of St Michael's Church in the background and part of the fourth house behind the northernmost house.¹⁴ So, three attached houses were in use at the same time as St Michael's Church, but whether they were built at the same time as the church it is difficult to say. However, the fourth house in the postcard corresponds to the house (SU 91) found in the north-western corner of the stone pavement. We can only assume that it might have been built before the stone pavement but was also in use at the same time as the pavement and the church.

During World War I, in 1915, the Austro-Hungarian Navy bombed Italian soldiers entrenched on Palagruža. Reports in daily Italian newspapers and traces of mortar shells collected and unearthed in the upper layers on Salamandrija (fill of SU 64) vividly inform us about this event. Also, during the bombing, the 19th century St Michael's Church was partly demolished, as well as the cistern.

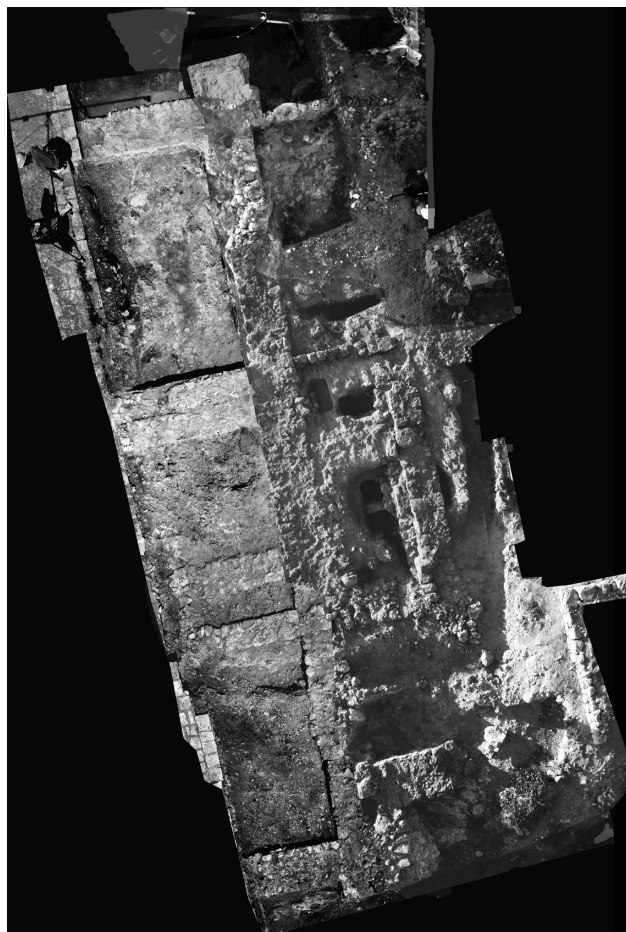


Fig. 8. Eastern part of Salamandrija, remains of the fort's wall and the courtyard walls of St. Michael's Church (photo: J. Burmaz)

Sl. 8. Istočni dio Salamandrije, ostaci zida utvrde i zidova predvorja crkve sv. Mihovila (foto: J. Burmaz)

rimske utvrde nisu iskorišteni kao temelji crkve, već su zidovi crkve izgrađeni uz njih (sl. 8).

Međutim, u jugozapadnom kutu Salamandrije pozornost nam je zaokupila još jedna situacija, a riječ je o ostacima triju kuća (SJ 65) sagrađenih preko jugozapadnog kuta rimske utvrde (SJ 37 i 39) (sl. 4). U novije vrijeme taj se prostor koristio za vrtlarstvo, što je poremetilo slojeve. No ispitivanjem starih austrijskih razglednica iz razdoblja prije 1914. godine bilo je moguće odrediti kada su te kuće bile u uporabi. Na razglednicama se vide sve tri kuće sa zvonikom crkve sv. Mihovila u pozadini i dijelom četvrte zgrade iza najsjevernije kuće.¹⁴ Dakle, tri kuće koje su ležale jedna uz drugu koristile su se u isto vrijeme kao i crkva sv. Mihovila, ali jesu li i sagrađene u isto doba kao i crkva teško je reći. Četvrta kuća na razglednici odgovara kući (SJ 91) pronađenoj u sjeverozapadnom kutu pločnika. Možemo jedino pretpostaviti da je ova

13 Barbarić 2017, pp. 627-631.

14 Kirigin, Katunarić 2002, Fig. 6. 7.

14 Kirigin, Katunarić 2002, sl. 6. 7.



Fig. 9. The water pipe system of the Yugoslav Army (photo: Kirigin 1992)

Sl. 9. Vodovodni sustav Jugoslavenske armije (foto: Kirigin 1992)

In the following construction phase, two structures were built on Salamandrija that are still standing. One is in the south-western corner (SU 70) leaning on the walls of the Roman fort and later house, and the other (SU 62) lies within the ruins of St Michael's Church. They were built during the Italian occupation of the island between the two World Wars. The one in the east functioned as a radio station. The base of the antenna is still visible on top of it and in front of the structure is a ditch with copper wires. The function of the other structure is difficult to determine. It may have been used as sleeping quarters for the radio station crew. The remains of the water pipe system (SU 92) (Fig. 9) on Salamandrija were built by the Yugoslav Army, which was stationed on the island after World War II until the mid-1960s.

The role of Palagruža through Adriatic History

The reconstruction of stratification and the interpretation of cultural layers on the Salamandrija plateau allow for a closer look at the human presence and their activities on Palagruža through different historical periods.

The first traces of human presence on Palagruža are dated in the Early Neolithic period (ca. 6th millennium BC). These are marked by fragments of Impressed Ware pottery¹⁵ that were all found in contexts that do not say much about the circumstances of their use. One fragment was found in the re-deposited lowest layer on the northern slope.¹⁶ Other fragments were found on the surface of Jankotova njiva, a plateau on the eastern part of Palagruža that today, due to

možda sagrađena prije kamenog pločnika, ali se koristila u isto vrijeme kao i pločnik i crkva.

Tijekom Prvoga svjetskog rata austrougarska Ratna mornarica je godine 1915. bombardirala talijanske vojnike ukopane na Palagruži. Napisi iz talijanskog dnevnog tiska i tragovi granata pronađeni na Salamandriji i iskopani iz gornjih slojeva (ispuna SJ 64) živopisno svjedoče o tom događaju. U tom je bombardiranju djelomice uništena i crkva sv. Mihovila iz 19. stoljeća, kao i cisterna.

U sljedećoj fazi gradnje na Salamandriji su sagrađena dva objekta koja su i dandanas tamo. Jedan je u jugozapadnom kutu (SJ 70) gdje se naslanja na zidove rimske utvrde i kasnije kuće, a drugi (SJ 62) leži unutar ruševina crkve sv. Mihovila. Sagrađeni su tijekom talijanske okupacije otoka, između Prvoga i Drugoga svjetskog rata. Objekt na istoku služio je kao radio-stanica. Na vrhu je još uvijek vidljivo postolje antene, a ispred objekta je jarak s bakrenim žicama. Namjenu drugog objekta teško je odrediti. Možda je služio kao spavaonica za posadu radiostanice. Na Salamandriji su i ostaci vodovodnog sustava (SJ 92) koji je sagrađila Jugoslavenska armija jer je na otoku imala bazu od završetka Drugog svjetskog rata do sredine šezdesetih godina.

Uloga Palagruže u povijesti Jadrana

Rekonstrukcija uslojavanja i interpretacija kulturnih slojeva na platou Salamandrija omogućuju pobliže sagledavanje ljudske prisutnosti i aktivnosti na Palagruži tijekom različitih povijesni razdoblja.

Prvi tragovi ljudske prisutnosti na Palagruži sežu u razdoblje ranog neolitika (oko 6. tisućljeća pr. Kr.). O tome svjedoče ulomci *impresso*-keramike,¹⁵ a svi su pronađeni u kontekstima koji ne kazuju mnogo o okolnostima njihove uporabe. Jedan ulomak nađen je u najnižem redeponiranom sloju na sjevernoj padini.¹⁶ Drugi ulomci nađeni su na površini *Jankotove njive*, platoa na istočnom dijelu Palagruže koji danas, zbog prirodne erozije, tvori erodiranu liticu, a u doba ranog neolitika možda je bio kudikamo veći.¹⁷ K tome, jedan ulomak istog tipa neolitičke keramike nađen je prilikom terenskog pregleda na sjevernoj padini otoka ispod svjetionika, nekih 350 m sjeverozapadno od Salamandrije.¹⁸

Otkriće ranoneolitičke keramike na tri lokaliteta na otoku otvorilo je pitanja o ulozi Palagruže u tom razdoblju. S obzirom na to da na otoku nema izvorske

15 Forenbaher, Kaiser 2011.

16 Kirigin *et al.* 2008.

15 Forenbaher, Kaiser 2011.

16 Kirigin *et al.* 2008.

17 Forenbaher, Kaiser 2005; Forenbaher 2008, str. 233.

18 Kirigin *et al.* 2005, str. 258-259.

natural erosion, forms an eroded cliff, and may have been much larger during the Early Neolithic.¹⁷ Also, one fragment of the same type of Neolithic ware was found during the survey on the northern slope of the island below the lighthouse, approximately 350 m north-west of Salamandrija.¹⁸

The discovery of Early Neolithic pottery at three different sites on the island opened questions about the role of Palagruža in that period. Given that there is no spring water on the island, Palagruža was probably not permanently inhabited, but repeatedly visited as a stopping point in trans-Adriatic navigation.¹⁹ The Early Neolithic Impressed Ware on Palagruža, as those found on the neighbouring distant Adriatic islands of Vis, Sušac, Hvar and Korčula in the east and on the Tremiti islands on the western Adriatic coast indicate that the navigation skills and gear of the Neolithic people were sufficient to make these journeys, using the islands as staging posts.²⁰ These people were probably farmers or agricultural immigrants from southern Italy who introduced farming to Central Dalmatia and the Eastern Adriatic during 6th millennium BC.²¹ As Forenbaher's recent comprehensive study of the prehistory of Palagruža has shown, among this small number of pottery finds (a total of 14) dating to the Neolithic, some may belong to the later stages of that period, i.e. the latter half of 6th-4th millennium BC.²² Apart from pottery finds, some chert artefacts found on Salamandrija may also date to these periods.²³

In overall terms, Early Neolithic finds from Palagruža demonstrate the intensification of trans-Adriatic contacts at the time of the transition to farming, highlighting the importance of navigation within that process and clearly showing the colonisation element within that process, which mostly ran from the western to the eastern Adriatic.²⁴

After the Neolithic period, there was a long break in archaeological records until the transitional period from the Copper to Early Bronze Age in the 3rd millennium BC. This period is attested with numerous potsherds of handmade pottery attributed to Ljubljana-Adriatic (first half of the 3rd millennium BC) and Cetina ware (latter half of the 3rd millennium BC) which together account for 95% of all of prehistoric

vode, Palagruža vjerojatno nije bila trajno naseljena, već su je opetovano posjećivali kao postaju pri plovidbi preko Jadrana.¹⁹ Ranoneolitička *impresso*-keramika na Palagruži, poput one nađene na susjednim udaljenim jadranskim otocima, Visu, Sušcu, Hvaru i Korčuli, na istočnoj strani Jadrana, te otočju Tremiti, na zapadnoj, daju naslutiti da su ljudi u neolitiku raspolagali plovidbenim vještinama i opremom dostatnom za upuštanje u ovakva putovanja, uz korištenje otoka kao odmorišta.²⁰ Ti su ljudi vjerojatno bili poljodjelci ili doseljenici iz južne Italije koji su tijekom 6. tisućljeća pr. Kr. uveli poljodjelstvo u srednju Dalmaciju i na istočni Jadran.²¹ Kako je to Forenbaher nedavno pokazao u svojoj sveobuhvatnoj studiji o prapovijesti Palagruže, među ovim malobrojnim nalazima keramike (ukupno njih 14) koji potječu iz neolitika, neki bi mogli pripadati kasnijim fazama tog razdoblja, tj. od 2. polovice 6. tisućljeća do 4. tisućljeća pr. Kr.²² Osim nalaza keramike u ta se razdoblja mogu smjestiti artefakti od rožnjaka nađeni na Salamandriji.²³

Općenito gledano, ranoneolitički nalazi s Palagruže dokaz su jačanja prekojadranskih doticaja u vrijeme prelaska na zemljoradnju, pri čemu ukazuju na važnost plovidbe u tom procesu i jasno pokazuju kolonizacijski element tog procesa koji se uglavnom odvijao sa zapadne jadranske obale na istočni Jadran.²⁴

Nakon neolitika javlja se dugotrajan prekid u arheološkom zapisu sve do razdoblja na prijelazu iz bakrenog u rano brončano doba u 3. tisućljeću pr. Kr. To razdoblje zastupljeno je brojnim ulomcima rukom rađene keramike koja se pripisuje keramici jadranskog tipa ljubljanske kulture (prva polovica 3. tisućljeća pr. Kr.) i cetinskoj kulturi (2. polovica 3. tisućljeća pr. Kr.), koji – zajednički gledano – čine 95 % svih nalaza prapovijesne keramike sa Salamandrije.²⁵ Ti ulomci keramike većinom pripadaju malim zdjelama i loncima, a često su bogato ukrašeni urezanim i utisnutim geometrijskim motivima koji se protežu u vodoravnim pojasevima oko posude. Sudeći po analizi keramike, ovaj cijeli skup nalaza na Palagružu je mogao stići tijekom kraćeg razdoblja oko godine 2500. pr. Kr. (kada se jadranski tip ljubljanske kulture preklapio sa cetinskom) ili tijekom duljeg razdoblja koje

17 Forenbaher, Kaiser 2005; Forenbaher 2008, p. 233.

18 Kirigin *et al.* 2005, pp. 258-259.

19 Kaiser, Forenbaher 2016, p. 159.

20 Forenbaher 2009, pp. 73-87; Forenbaher 2018, p. 103.

21 Forenbaher 1999, pp. 525-528; Forenbaher 2008, pp. 235-237.

22 Forenbaher 2018, p. 20, Fig. 23.

23 Forenbaher 2018, p. 94, Fig. 89.

24 Forenbaher 2018, pp. 116-118.

19 Kaiser, Forenbaher 2016, str. 159.

20 Forenbaher 2009, str. 73-87; Forenbaher 2018, str. 103.

21 Forenbaher 1999, str. 525-528; Forenbaher 2008, str. 235-237.

22 Forenbaher 2018, str. 20, sl. 23.

23 Forenbaher 2018, str. 94, sl. 89.

24 Forenbaher 2018, str. 116-118.

25 Keramika jadranskog tipa ljubljanske kulture nedvojbeno je manje zastupljena u skupu nalaza nego keramika cetinske kulture: Forenbaher 2018, str. 33.

pottery finds from Salamandrija.²⁵ Mostly, these potsherds belong to small bowls and jars, and are often richly decorated with incised-and-impressed geometric designs, running in horizontal bands around the vessel. According to the pottery analysis, the entire assemblage may have arrived on Palagruža during the shorter period around 2500 BC (when the Ljubljana-Adriatic and Cetina styles overlapped), or through the longer period that began before that year and continued through the latter half of the 3rd millennium BC.²⁶ These pottery styles extend across the strategically important region of the eastern Adriatic (both Adriatic-Ljubljana and Cetina), eastern Bosnia, southern Italy and the Peloponnese (Cetina), and are contemporary and closely related to a variety of regional Bell Beaker styles. These potsherds were found along with abundant flaked stone artefacts, the majority of which comes from chert sources on the Gargano peninsula,²⁷ a number of obsidian blades and cores²⁸ and a dozen ground stone archer wrist-guards.²⁹

Finds from Palagruža testify to radical changes in the social landscape of Europe in the 3rd millennium BC, the emergence of elites and, closely related to this, the existence of long-range contacts and exchange networks across the continent. According to Forenbaher, Palagruža was “the keystone in which three European interaction networks come together.” All over Europe these processes are reflected in the deposition of choice artefacts in funeral contexts, but in the case of Palagruža, whose main attraction was its role in the especially significant trans-Adriatic communication, choice artefacts were deposited as ritual offerings. It might be the case that the cessation of these practices on Palagruža was a direct consequence of the introduction of sails, as from that moment on, the ships required fewer stops on their cross-Adriatic route.³⁰

After that intense historical interlude, evidence of human presence on Palagruža during the 2nd and initial centuries of the 1st millennium BC is rather scant,

počinje prije te godine i nastavlja se u 2. polovici 3. tisućljeća pr. Kr.²⁶ Te kulture protežu se čitavim strateški važnim područjem istočnog Jadrana (i jadranski tip ljubljanske kulture i cetinska kultura), istočne Bosne, južne Italije i Peloponeza (cetinska), a vremenski su podudarne i veoma srodne raznim regionalnim kulturama zvonastih pehara. Ti ulomci keramike nađeni su zajedno s obiljem izradevina od cijepanog kamena, od kojeg većina potječe iz nalazišta rožnjaka na polotoku Gargano,²⁷ brojnim sječivima i jezgrama od opsidijana²⁸ i desetak streličarskih štitnika za ruku od glačanog kamena.²⁹

Nalazi s Palagruže svjedoče o korjenitim promjenama u društvenom krajobrazu Europe iz 3. tisućljeća pr. Kr., o pojavi elita i, u tijesnoj vezi s time, doticajima između udaljenih mjesta i mrežama razmjene na cijelom kontinentu. Prema riječima Forenbahera Palagruža je bila “čvorište u kojem su se doticale tri europske interakcijske mreže”. Po čitavoj Europi ti procesi ogledaju se u polaganju odabranih artefakata u grobne cjeline, ali u slučaju Palagruže – koja je bila najprivlačnija zbog svoje uloge u osobito značajnoj transjadranskoj komunikaciji – odabrani artefakti polagani su kao obredne žrtve. Može biti da je prestanak tih običaja na Palagruži bio izravna posljedica pojave jedra jer se od tog trenutka nadalje brodovi više nisu trebali tako često zaustavljati na svom putu preko Jadrana.³⁰

Nakon ove intenzivne povijesne epizode, dokazi ljudske prisutnosti na Palagruži tijekom 2. tisućljeća i početnih stoljeća 1. tisućljeća pr. Kr. vrlo su oskudni, uz tek desetak prepoznatljivih ulomaka rukom rađene keramike³¹ koji ukazuju na povremene posjete Palagruži.

Nakon te duge stanke Palagruža je tijekom kasnog arhajskog razdoblja postala važnom točkom na grčkim plovidbenim putovima prema sjevernome Jadrano. Artefakti iz kasnog arhajskog, klasičnog, helenističkog i ranorimskog razdoblja nađeni su u najnižim redeponiranim slojevima na južnoj i sjevernoj padini Salamandrije. Većinom se radi o ulomcima (njih više od nekoliko tisuća) fine keramike kao što je atička crnofiguralna i crvenofiguralna te južnoitalska

25 Undoubtedly identifiable Ljubljana-Adriatic ware is less present than Cetina ware in the assemblage: Forenbaher 2018, p. 33.

26 Forenbaher 2018, p. 33.

27 Flakes and flake fragments constitute a majority of the assemblage, while blades constitute 70% of all tools. According to the analysis, bifacial points and micro-lithic crescents were identified with them. See more details in: Forenbaher 2018, pp. 71-83.

28 Most of it originates from Lipari, and a few from Melos: Forenbaher 2018, p. 86, Pl. 13.

29 Forenbaher 2018, pp. 90-93, Figs. 84-86.

30 Forenbaher 2018, pp. 141-148.

26 Forenbaher 2018, str. 33.

27 Većinu ovog skupa nalaza čine odbojci i ulomci odbojaka, dok sječiva čine 70 % svih alatki. Uz njih, analizom skupa nalaza, pronađeni su obostrano retuširani šiljci i polumjesečasti mikroliti. Za iscrpnu raspravu vidi: Forenbaher 2018, str. 71-83.

28 Većina ih potječe s Liparija, a nekoliko s Milosa: Forenbaher 2018, str. 86, T. 13.

29 Forenbaher 2018, str. 90-93, sl. 84-86.

30 Forenbaher 2018, str. 141-148.

31 Forenbaher 2018, str. 34, 37, sl. 50, 98.

with just a dozen identifiable fragments of hand-made pottery³¹ that indicate occasional visits to Palagruža.

After this long hiatus, during the Late Archaic period, Palagruža became an important point on Greek navigational routes toward the northern Adriatic. Artefacts from the Late Archaic, Classical, Hellenistic and Early Roman period were unearthed in the lowest re-deposited layers on the southern and northern slopes of Salamandrija. Most of them belong to potsherds (more than several thousand) of fine ware such as Attic Black and Red-figure and South Italian Red-figure ware, Black-glazed and Gnathia ware, Hellenistic Relief ware and Early Roman Thin-walled and Arretine ware. A high number of fine table ware in a small area such as Salamandrija indicated that this was an important place for Greek and Roman seafarers.³² More than 240 potsherds have incised Greek letters (graffiti) and some of them bear either the full name or a part of the name of the Greek hero Diomedes. Analysis of fine ware from Palagruža and, as already mentioned, the interpretation of ancient written sources suggested that Palagruža was the island of Diomedes and that he was worshiped here.³³ Potsherds of fine Attic black-figure ware suggest that this sacred island was visited in the Late Archaic and Classical periods by Greek seafarers on their way to the northern Adriatic: Numana, Adria and Spina.³⁴ Later, as of the mid-4th century BC Palagruža was visited again for the first time after the Copper/Bronze Age by sailors/merchants from both Adriatic coasts. This was confirmed by analysis of the Gnathia ware that was produced in Apulia on the western Adriatic coast and in Issa, the Greek settlement established in the 4th century BC on the island of Vis, in the eastern Adriatic,³⁵ and by analysis of coins.³⁶ The analysis of fine ware not only provided insight as to whence sailors came to Palagruža, but also helped us determine the utilization of Salamandrija as a sacred place and to trace sacrificial offerings. A large number of wine drinking sets, like kylikes, kantharoi, skyphoi, bowls and kraters, and a much smaller number of cooking ware suggested that drinking and not eating was the main activity at the Diomedes shrine.³⁷ Visitors offered sacrifices with wine – *libations*. The analyses of fine ware also help us set a chronological framework for the functioning of the sanctuary from the

crvenofiguralna keramika, crnopremazana keramika tipa *Gnathia*, helenistička reljefna keramika te ranorimska keramika tankih stijenki i aretinska keramika. Mnogobrojno fino stolno posuđe na malenom prostoru kao što je Salamandrija pokazuje kako se tu radilo o važnom mjestu za grčke i rimske pomorce.³² Na više od 240 ulomaka nalaze se grčka slova (graffiti), a na nekima je ili puno ime ili dio imena grčkog junaka Diomeda. Analiza fine keramike s Palagruže i, kako je već spomenuto, interpretacija antičkih pisanih izvora ukazuju na to da je Palagruža bila Diomedov otok i mjesto njegova štovanja.³³ Ulomci fine atičke crnofiguralne keramike daju naslutiti kako su ovaj posvećeni otok u kasnom arhajskom i klasičnom razdoblju posjećivali grčki moreplovci na svom putu prema sjevernom Jadranu – Numani, Adriji i Spini.³⁴ Nešto kasnije, od sredine 4. stoljeća pr. Kr., Palagružu su prvi put nakon bakrenog/brončanog doba opet počeli posjećivati pomorci/trgovci s obiju jadranskih obala. To je potvrđeno analizom keramike tipa *Gnathia*, koja se na zapadnom Jadranu proizvodila u Apuliji, a na istočnom u Isi, grčkoj naseobini utemeljenoj u 4. stoljeću pr. Kr. na otoku Visu,³⁵ kao i analizom novca.³⁶ Analiza fine keramike ne samo da je pružila uvid u to odakle su pomorci dolazili na Palagružu, već nam je pomogla da odredimo namjenu Palagruže kao svetišta i uđemo u trag žrtvenim prinosima. Iz mnogobrojnog posuđa za konzumaciju vina, poput kiliksa, kantara, skifa, zdjela i kratera, te osjetno malobrojnijeg posuđa za kuhanje dalo se naslutiti kako je glavna aktivnost u Diomedovu svetištu bila konzumacija pića, a ne hrane.³⁷ Posjetitelji su kao žrtvu prinosili vino, tj. žrtvu ljevanicu ili libaciju. Analize fine keramike pomažu nam i da postavimo kronološki okvir za funkcioniranje svetišta od kraja 6. stoljeća pr. Kr. do 1. stoljeća po. Kr.³⁸ Ime Diomedovo uglavnom je urezano grčkim slovima na grčkom posuđu za konzumaciju vina. Dakle, još uvijek je teško reći jesu li istome božanstvu žrtvu kasnije prinosili i rimski pomorci. Na Palagruži su nađene dvije rimske are i fragmentirani rimski natpis sa slovima TEM... (što se tumači kao *templum* = hram), ali to nam ne otkriva kome su bili posvećeni. Marchesetti je našao i stup izrađen od mramora iz Carrare te ukrašeni vijenac.³⁹ Oni su možda pripadali

31 Forenbaher 2018, pp. 34, 37, Figs. 50, 98.

32 Kirigin *et al.* 2010, pp. 92, 100, 105-106.

33 Kirigin, Čače 1998.

34 Kirigin, Čače 1998; Kirigin *et al.* 2009.

35 Miše 2015; Miše 2017.

36 Bonačić Mandinić 2013.

37 Miše 2006; Miše 2017.

32 Kirigin *et al.* 2010, str. 92, 100, 105-106.

33 Kirigin, Čače 1998.

34 Kirigin, Čače 1998; Kirigin *et al.* 2009.

35 Miše 2015; Miše 2017.

36 Bonačić Mandinić 2013.

37 Miše 2006; Miše 2017.

38 Miše, Šešelj 2008; Miše 2006.

39 Marchesetti 1876, str. 290, T. II; Kirigin 2003, str. 370, sl. 5.

late 6th century BC to the 1st century AD.³⁸ The name Diomedes was mostly incised on Greek wine drinking sets in Greek letters. So, it is still difficult to state whether later Roman sailors offered sacrifices to the same deity. Two Roman altars and a fragmented Roman inscription with the letters TEM... (interpreted as *templum* = temple) found on Palagruža do not reveal to whom they were dedicated. Marchesetti also found a column made of marble from Carrara and a decorated cornice.³⁹ These may have belonged to a Roman temple. Unfortunately, the architectural remains of the sanctuary were not found *in situ*. Fragments of tiles found in the lowest re-deposited layers on the southern and northern slope associated with sacrificial rites at the sanctuary could indicate the existence of some type of roofed object belonging to the sanctuary. Furthermore, the layer of ground lime mortar that was deposited during the cleaning of the plateau for the construction of the Late Roman fort could also imply that some structure existed before these works. The latest artefacts in re-deposited layers may be dated to the 1st century AD (potsherds of the Roman Thin-walled and Arretine ware), and they mark the end of the functioning of the sanctuary on Palagruža.

A few artefacts, a bowl of possible Corinthian Relief ware dated to the 3rd century AD found on the surface, a coin of Antoninus Pius (138-161 AD) and a bronze knee fibula – dated to the 1st and 2nd century AD – indicate that Palagruža was occasionally visited during this period.⁴⁰ However, these finds cannot be indicative of how the site was used, nor the purpose of these visits.

The exact date for the construction of the fort is difficult to establish based on the present archaeological evidence. The cooking ware from the 3rd/4th century AD unearthed inside the fort and directly over the bedrock in the kitchen area, and a coin of Licinius (308-324 AD) found in the later fill of SU 32 could mark the lowest possible construction date.⁴¹ Even so, the vast majority of finds belong to the time from the end of 4th through the last quarter of 5th century AD. The size, shape and thickness of walls could indicate that the fort was not built to accommodate a larger military unit, nor that it was a stronghold meant to withstand a potential siege. It probably served as a navigational point, a beacon and/or a control point for maritime traffic. Along with that, Palagruža probably

rimskom hramu. Nažalost, arhitektonski ostaci svetišta nisu pronađeni *in situ*. Ulomci crijepa nađeni u najnižim redeponiranim slojevima na južnoj i sjevernoj padini koja se povezuje sa žrtvenim obredima na svetištu mogli bi ukazivati na postojanje neke vrste natkrivenog objekta koji je pripadao svetištu. Nadalje, iz sloja vapnene žbuke koji je nastao prilikom čišćenja platoa radi gradnje kasnoantičke utvrde također bi se moglo naslutiti kako je prije tih građevinskih radova postojao neki objekt. Najrecentniji artefakti u redeponiranim slojevima mogu se smjestiti u 1. stoljeće po. Kr. (ulomci rimske keramike tankih stijenki i aretinske keramike), a oni obilježavaju i kraj funkcioniranja svetišta na Palagruži.

Nekoliko artefakata – zdjela nađena na površini, koja bi mogla pripadati korintskoj reljefnoj keramici, a smješta se u 3. stoljeće po. Kr., novac Antonina Pija (138.-161.) i brončana koljenasta fibula koja se smješta u 1. i 2. stoljeće po. Kr. – ukazuju na to da je Palagruža povremeno posjećivana tijekom tog razdoblja.⁴⁰ Ti nalazi međutim ne mogu kazati ništa o tome kako se lokalitet koristio niti koja je bila svrha posjeta.

Točno vrijeme gradnje utvrde teško je odrediti na temelju postojećih arheoloških dokaza. Kuhinjsko posuđe iz 3./4. stoljeća po. Kr. iskopano je unutar utvrde i neposredno iznad živca u prostoru kuhinje, a Licinijev novac (308.-324.) nađen u kasnijoj ispuni SJ-a 32 mogao bi označavati najranije moguće vrijeme gradnje.⁴¹ No velika većina nalaza pripada razdoblju od konca 4. do zadnje četvrtine 5. stoljeća. Veličina, oblik i debljina zidova mogli bi ukazivati na to da utvrda nije sagrađena za smještaj neke veće vojne jedinice, niti je bila uporište za odbijanje moguće opsade. Vjerojatno je služila kao navigacijska točka, svjetionik i/ili kontrolna točka u pomorskom prometu. Usto, Palagruža je vjerojatno služila kao vodoopskrbna postaja. Premda na Palagruži nema izvorske vode, izgrađen je sustav za sakupljanje kišnice. Sustav poput onog izgrađenog u 19. stoljeću zasigurno se koristio i u rimskom razdoblju, osobito ako su u utvrdu bili smješteni vojnici i/ili svjetioničar(i). Ovu pretpostavku mogu potkrijepiti ulomci rimske hidraulične žbuke pronađeni na površini Salamandrije, osobito ako imamo na umu da su dvije cisterne – jedna u sjeverozapadnom kutu, a druga u jugozapadnom dijelu Salamandrije – još uvijek u uporabi. Nažalost, baš zato što se obje cisterne još koriste, nismo mogli provesti iscrpno istraživanje. Međutim, najuvjerljiviji dokaz da je Palagruža služila kao vodoopskrbna postaja pružaju ostaci velike rimske cisterne sa širokim

38 Miše, Šešelj 2008; Miše 2006.

39 Marchesetti 1876, p. 290, Pl. II; Kirigin 2003, p. 370, Fig. 5.

40 Kirigin *et al.* 2010, pp. 79, 86; Adriatic Islands Project interim report.

41 Kirigin *et al.* 2010, pp. 71, 84.

40 Kirigin *et al.* 2010, str. 79, 86; Projekt Jadranski otoci – privremeno izvješće.

41 Kirigin *et al.* 2010, str. 71, 84.

served as a water supply station. Although Palagruža does not have its own source of fresh water, a system for the collection of rainwater was built. The system, like the one built in the 19th century, must have been used in the Roman period too, especially if the fort accommodated soldiers and/or lighthouse keepers. The fragments of the Roman hydraulic lime mortar found on the surface on Salamandrija may support this hypothesis. Especially if we keep in mind that two cisterns, one in the north-west corner and the other in the south-west part of Salamandrija, are still in use. Unfortunately, because both cisterns are still in use, we were unable to conduct detailed research. However, the most convincing evidence that Palagruža served as water supply station are the remains of the large Roman cistern with wide channels that was found approximately half-way from Salamandrija to Stora Vloka Bay in north-west Palagruža.⁴² Also, fragments of Late Roman 1 and 2 amphorae, dated from the 3rd to 6th centuries AD, were collected during the survey of the island at this site and at Salamandrija as well in 1992 and 1993.⁴³ The same types of amphorae were also found within layers associated with the lifespan of the fort (SU 9, 49, 26). The Phocaeen and African Red Slip ware are also found mostly on the surface on Salamandrija and at the aforementioned cistern on the way to Stora Vloka Bay. These are dated from the late 4th to the end of the 5th century.⁴⁴ As John Hayes has noted, they represent a conspectus of Eastern and Western Mediterranean tableware, cooking ware and amphorae comparable (on a smaller scale) to the 5th century finds from Classe near Ravenna.⁴⁵ All of this indicates the importance of Palagruža as a staging-post on a long distance maritime route from the Eastern Mediterranean to the northern Adriatic. Although we did not find any physical evidence of a lighthouse in the Roman period apart from architectural remains, there are good reasons to suppose that the fort on Palagruža was built mainly for that reason. The study of sailing routes, possibilities of maritime communication and signalization around Palagruža has recently underscored its importance for a vital sea route in the 5th century, one that connects Ravenna, as the capital of the Western Roman Empire, to the east.⁴⁶ Hayes also suggested that the absence of later types of ware

kanalima, koji su pronađeni na otprilike pola puta od Salamandrije do uvala *Stora vloka* na sjeverozapadu Palagruže.⁴² Isto tako, prilikom terenskog pregleda otoka 1992. i 1993. godine, na lom lokalitetu kao i na Salamandriji nađeni su ulomci kasnorimskih amfora tipa 1 i 2, koji se smještaju u razdoblje od 3. do 6. stoljeća po. Kr.⁴³ Amfore istoga tipa nađene su i u slojevima koji se povezuju s vremenom života utvrde (SJ 9, 49, 26). Na površini Salamandrije i kod spomenute cisterne na putu prema uvali *Stora vloka* nađena je fokejska i afrička crvenoglačana keramika. Ti primjerci smještaju se u razdoblje od kasnijeg 4. do konca 5. stoljeća po. Kr.⁴⁴ Kako je primijetio John Hayes, oni predstavljaju konspekt istočnomediterranske i zapadnomediterranske stolne i kuhinjske keramike i amfora, koji se (premda manji) može usporediti s nalazima iz Classe kod Ravenne iz 5. stoljeća po. Kr.⁴⁵ Sve to ukazuje na važnost Palagruže kao odmorišta na dugom pomorskom putu od istočnog Sredozemlja do sjevernog Jadrana. Premda nismo našli nikakve materijalne dokaze postojanja svjetionika u rimsko doba, osim arhitektonskih ostataka, postoje čvrste osnove za pretpostavku da je utvrda na Palagruži sagrađena uglavnom iz tog razloga. Istraživanje plovidbenih pravaca, mogućnosti pomorske komunikacije i signalizacije oko Palagruže nedavno je ukazalo na njezinu važnost za ključni pomorski pravac koji je u 5. stoljeću po. Kr. povezivao Ravennu kao prijestolnicu Zapadnoga Rimskog Carstva s istokom.⁴⁶ Hayes je također napomenuo kako odsutnost kasnijih tipova keramike potvrđuje napuštanje ovog lokaliteta prema kraju 5. stoljeća po. Kr.⁴⁷ Međutim, ulomci kasnorimskih amfora tipa 1 i 2 mogli bi ukazivati na to da je Palagruža zadržala svoju važnost i tijekom dobroga dijela 6. stoljeća po. Kr., barem kao postaja za opskrbu vodom. Kada je i zašto utvrda napuštena, još uvijek je nejasno. Je li uništena prilikom jednog od mnogih sukoba na Jadranu tijekom kasne antike ili je napuštena zbog slabljenja intenziteta pomorskog prometa na velike udaljenosti, tek valja razriješiti.

Točno vrijeme dogradnje i popravaka u jugoistočnom kutu utvrde, gradnje apside i pojačanja ugaonog kontrafora bilo je vrlo teško odrediti zbog nedostatka bilo kakvih povezanih konteksta i artefakata koji bi

42 Kirigin, Gaffney 2006, pp. 75-76, site no. VS 1230.00; Kirigin 2012, p. 90.

43 Hayes 1998, p. 544; Kirigin 1998, pp. 430-431; Adriatic Islands Project interim report.

44 Hayes 1998, p. 544; Kirigin 1998, pp. 430-431; Adriatic Islands Project interim report.

45 Kirigin 1998, p. 430.

46 Barbarić 2017, pp. 620-625.

42 Kirigin, Gaffney 2006, str. 75-76, nalazište br. VS 1230.00; Kirigin 2012, str. 90.

43 Hayes 1998, str. 544; Kirigin 1998, str. 430-431; Projekt Jadranski otoci – privremeno izvješće.

44 Hayes 1998, str. 544; Kirigin 1998, str. 430-431; Projekt Jadranski otoci – privremeno izvješće.

45 Kirigin 1998, str. 430.

46 Barbarić 2017, str. 620-625.

47 Projekt Jadranski otoci – privremeno izvješće; Kirigin 1998, str. 430.

attest to the abandonment of the site near the end of 5th century.⁴⁷ However, the fragments of Late Roman 1 and 2 amphorae may indicate that Palagruža's importance lasted well into the 6th century, at least as a water supply stopover. When and why the fort was abandoned it is still unclear. Whether it was destroyed during one of many conflicts on the Adriatic during Late Antiquity or abandoned due to the loss of intensity of long distance maritime traffic, it remains to be resolved.

The exact time of the additional reconstruction and repairs in the south-eastern corner of the fort, construction of the apse and the reinforcement of the corner buttress was very difficult to date due to lack of any related contexts and artefacts that can ascertain its chronology. Still, it is certain that these were made after the abandonment of the fort/lighthouse, as the wall of the apse contained fragments of mosaic tiles (found also in the degradation phase layers) used as construction material.

While attempting to uncover the nature and date of this reconstruction, the scant evidence of human presence on Palagruža after Late Antiquity was reassessed, including three graves and two artefacts. According to radiocarbon dating, the two graves (SU 30 and 80), found atop the southern slope, have been dated to the 8th and 9th centuries, and the other grave (SU 51), found inside the south-eastern part the former fort (where the apse was added), has been dated from the 11th to 13th centuries⁴⁸. Apart from graves, a fragment of a clay lamp, dated from the 9th to 11th centuries, was found as a secondary deposit in the lime pits (SU 66)⁴⁹ and one gold coin of Roman III Argyros (1028-1034) was purchased for the collection of the Archaeological Museum in Split from the lighthouse keeper in 1895.⁵⁰ All of this evidence, combined with few written and cartographic records point to the fact that these reconstructions were actually made to transform part of the remaining walls into the church, probably of St. Michael (according to the written tradition) that remained in some use during the mediaeval period.⁵¹ From that same period, there is a description of a brief visit by Pope Alexander III to Palagruža in March 1177, but with no reference to any further details.⁵²

mogli potvrditi kronologiju tih događaja. Ipak, sigurno je kako se to dogodilo nakon napuštanja utvrde/svjetionika jer je zid apside sadržavao ulomke mozaika (nađene i u slojevima iz faze njezine degradacije) koji se rabio kao građevinski materijal.

U pokušaju da se razotkriju priroda i vrijeme te pregradnje, iznova su ispitani oskudni dokazi ljudske prisutnosti na Palagruži nakon kasne antike, među kojima su tri groba i dva artefakta. Na temelju radiokarbonskih analiza, dva groba (SJ 30 i 80) nađena na vrhu južne padine smještena su u 8. i 9. stojeće, a treći grob (SJ 51) nađen unutar jugoistočnog dijela nekadašnje utvrde (gdje je dograđena apside) smješta se u razdoblje od 11. do 13. stoljeća.⁴⁸ Osim grobova, u sekundarnom nanosu u jamama za gašenje vapna (SJ 66) nađen je ulomak glinene svjetiljke koji se smješta u razdoblje od 9. do 11. stoljeća (SJ 66),⁴⁹ a od svjetioničara je za zbirku Arheološkog muzeja u Splitu godine 1895. otkupljen jedan primjerak zlatnog novca Romana III. Argira (1028.-1034.).⁵⁰ Svi ti dokazi, u sprezi s malobrojnim pisanim i kartografskim izvorima, ukazuju na činjenicu da su te pregradnje zapravo izvršene kako bi se dio preostalih zidina pretvorio u crkvu, vjerojatno sv. Mihovila (prema pisanoj predaji), koja se u određenoj uporabi zadržala tijekom srednjega vijeka.⁵¹ Iz istog razdoblja je i opis kratkog posjeta pape Aleksandra III. Palagruži u ožujku 1177. godine, ali ondje se ne spominju nikakve pojedinosti vezane uz ovu temu.⁵²

Značajna promjena u krajobrazu otoka nastala je godine 1874.-1875., kada su austrougarske vlasti izgradile svjetionik na Palagruži. Svjetionik podignut na najvišoj točki na zapadnom dijelu Palagruže još uvijek je najveći svjetionik na Jadranu. Njegova gradnja zacijelo je bila složen zahvat jer na otoku nema nikakvog pristaništa ni luke. Kamen je u većem dijelu dopremljen s kopna, a nešto ga je stiglo iz malog kamenoloma sjeverno od Salamandrije. Kako je već spomenuto, tijekom gradnje sagrađen je i kameni pločnik za sakupljanje kišnice te nova crkva sv. Mihovila, a vjerojatno su obnovljene cisterna i kuće za smještaj građevinskih radnika. Još uvijek nije jasno je/jesu li neka/neke od kuća sagrađena/sagrađene prije ovih velikih građevinskih radova. Ako jesu, to se moralo dogoditi nedugo prije kraja 19. stoljeća, a koristili su ih ribari iz Komiže na obližnjem otoku Visu. Ta pretpostavka iznesena je prilikom istraživanja stare tradicije lova na srdele oko Palagruže (poznate iz

47 Adriatic Islands Project interim report; Kirigin 1998, p. 430.

48 Forenbaher *et al.* 2015, pp. 101-102.

49 Kirigin *et al.* 2010, pp. 94-95.

50 Kirigin 1996, p. 20.

51 Barbarić 2017, pp. 627-631.

52 Oreb 1994.

48 Forenbaher *et al.* 2015, str. 101-102.

49 Kirigin *et al.* 2010, str. 94-95.

50 Kirigin 1996, str. 20.

51 Barbarić 2017, str. 627-631.

52 Oreb 1994.

The construction of the lighthouse on Palagruža in 1874-1875 by the Austro-Hungarian government marked a significant change in the landscape of Palagruža. The lighthouse atop the highest point on the western part of Palagruža is still the largest lighthouse on the Adriatic Sea. Its construction must have been a complex project, since there are no piers and harbours on the island. Most of the stone was brought from the mainland, whereas some of it may have come from a small quarry north of Salamandrija. During the construction, as mentioned, stone pavement for collecting rainwater, a new Church of St Michael and, very likely, housing for the workers were built, while the cistern was probably reconstructed. It is still unclear whether or not some house/s was/were built prior to these major construction works. If they were, it must have been done shortly before the late 19th century; such housing would have been used by fishermen from Komiža on the neighbouring island of Vis. This hypothesis was put forward when studying the old tradition of sardine fishing on Palagruža (based on written documents from 16th century onwards).⁵³ However, the excavations in the south-western corner did not show sufficient evidence to support this hypothesis. Be that as it may, old Austrian postcards have shown three attached houses with the entrance to the west at the same place at which we unearthed these walls, and they help us to understand that the church, pavement and houses existed at the same time on Salamandrija.

During the turbulence of the 20th century, Palagruža, strategically located in the middle of the Adriatic Sea, assumed the role of military post. It was held by Italy during World War I and after the Treaty in Rapallo in 1920, and after World War II until the 1960s by the Yugoslav Army. The remains of their activity on Salamandrija are still visible; the Italian radio station and sleeping quarters, and square concrete pillars built by Yugoslav Army that served as supports for metal water pipes that connected the cistern on Salamandrija to Žolo beach and the lighthouse. This system of water pipes still serves as a reminder that water on Palagruža was crucial for any prolonged human stay on this small island. Even today, in the dry season the lighthouse keepers receive additional water supplies from the mainland every few months, since rainwater is not sufficient to sustain two lighthouse keepers and their families, who maintain the lighthouse and the meteorological station.

pisanih dokumenata od 16. stoljeća nadalje).⁵³ No iskopavanja na jugozapadnom uglu nisu dala dostatne dokaze u prilog ovoj pretpostavci. Kako bilo, na starijim austrijskim razglednicama prikazane su tri povezane kuće s ulazom prema zapadu, na istome mjestu gdje smo iskopali te zidove, što nam pomaže u spoznaji da su crkva, pločnik i zgrade stajali na Salamandriji u isto vrijeme.

U burnim vremenima 20. stoljeća Palagruža – strateški smještena na sredini Jadranskoga mora – preuzela je ulogu vojne baze: tijekom Prvoga svjetskog rata i nakon sklapanja Rapalskog ugovora 1920. godine za Talijane, a nakon Drugoga svjetskog rata, do šezdesetih godina minulog stoljeća, za Jugoslavensku armiju. Tragovi njihove aktivnosti još uvijek su vidljivi na Salamandriji: talijanska radiostanica i spavonica za posadu te četvrtasti betonski stupovi koje je izgradila Jugoslavenska armija, a služili su kao nosači za metalne vodovodne cijevi koje su cisternu na Salamandriji povezivale s plažom Žolo i svjetionikom. Taj sustav vodovodnih cijevi još uvijek služi kao podsjetnik na to da je voda na Palagruži bila presudna za bilo kakvu dugotrajniju ljudsku prisutnost na tome malenom otoku. Čak i danas svjetioničari u sušnoj sezoni svakih nekoliko mjeseci s kopna dobivaju dodatnu zalihu vode jer kišnica nije dostatna za život dvaju svjetioničara i njihovih obitelji, koji održavaju svjetionik i meteorološku stanicu.

Palagruža – zaključak

Arheološka iskopavanja na Salamandriji otkrila su ne samo nekadašnje ljudske aktivnosti na Palagruži u različitim povijesnim razdobljima nego i različitu namjenu i narav istog prostora tijekom minulih vremena. Taj maleni otok služio je kao odmorište u prekojadranskoj plovidbi i kao orijentacijska točka na dugim plovodbenim putovima od Otranta do sjevernog Jadrana i od Gargana do dalmatinskih otoka i obratno. No, kako smo utvrdili, u određenim razdobljima pomorci su pristajali na Palagružu iz različitih razloga. U ranom neolitikumu Palagruža je služila kao odmorište za morske pustolove i poljodjelske doseljenike na njihovu putu od južne Italije do srednje Dalmacije. Uz svoju ulogu odmorišta, u kasnom bakrenom/ranom brončanom dobu Palagruža je postala svetište za pomorce koji su putovali s obje obale Jadrana. Njezina važnost ponovno dolazi do izražaja kada su Atenjani uspostavili trgovačku rutu prema sjevernom Jadranu. Palagruža je opet imala istu ulogu kao i prije: kao odmorište i svetište. Grčki su pomorci na otoku ustanovili Diomedovo svetište koje su kasnije, u helenističko

53 Novak 1952, pp. 15, 31; Božanić 1996.

53 Novak 1952, str. 15, 31; Božanić 1996.

Palagruža – final remarks

Archaeological excavations at Salamandrija revealed not only past human activities on Palagruža in different historical periods, but also the differing use and character of the same space throughout the past. This small island served as a staging post in trans-Adriatic navigation and as an orientation point on long distance sailing routes from Otranto to the northern Adriatic and from Gargano to the Dalmatian islands and vice-versa. However, in certain periods, as we have established, seafarers landed on Palagruža for different reasons. In the Early Neolithic period, Palagruža served as a stopover for maritime ventures and agricultural immigration on the route from Southern Italy to Central Dalmatia. Besides serving as stopover, in the late Copper/Early Bronze Age Palagruža became a sacred place for seafarers travelling from both Adriatic coasts. Its importance emerges again when Athenians established a trade route with the northern Adriatic. Again, Palagruža had the same role as before, as a stopover and a sacred place. Greek sailors established the shrine of Diomedes on the island that was later, during the Hellenistic era, visited also by sailors from the western and eastern Adriatic coasts. At the turn of the era, Roman sailors and traders also visited the Palagruža shrine, but whether they offered sacrifices to Diomedes or to some other deity remains an open question. The construction of the Late Roman fort/lighthouse on Salamandrija represents the first large construction project carried out on the island. Construction of the fort with a cistern enabled the first permanent human presence on the island, with the main role of maintaining maritime signalisation during the long-distance sailing season. The continuous sacred dimension of Palagruža was once again emphasised during the early mediaeval period, when the small Church of St Michael was built in ruins of the Roman fort/lighthouse. Along with the construction of the new lighthouse in the 19th century on the highest point on the western part of Palagruža, Salamandrija was profoundly re-organized through these largest construction works since the Late Roman period. More than 100 labourers were engaged during this construction for over a year⁵⁴. These included the laying of stone pavement for collecting rainwater, re-construction of the cistern and houses, and the construction of the new Church of St Michael. After that, Palagruža was again permanently occupied by the lighthouse keepers and their families, with longer or shorter military stays.

doba, posjećivali i pomorci sa zapadne i istočne obale Jadrana. Na prijelazu iz stare u novu eru svetište na Palagruži posjećivali su i rimski pomorci, no jesu li Diomedu ili kojem drugom božanstvu prinosili žrtvu i dalje ostaje otvoreno pitanje. Gradnja kasnoantičke utvrde-svjeticionika na Salamandriji prvi je veliki građevinski zahvat izveden na otoku. Izgradnja utvrde s cisternom omogućila je prvu trajniju ljudsku prisutnost na otoku, a glavna joj je uloga bila održavanje pomorske signalizacije u sezoni dugih plovidbi. Dugotrajna sakralna dimenzija Palagruže došla je još jednom do izražaja u ranom srednjem vijeku kada je unutar ruševina rimske utvrde-svjeticionika sagrađena crkva sv. Mihovila. Gradnjom novog svjetionika u 19. stoljeću na najvišoj točki u zapadnom dijelu Palagruže Salamandrija je temeljito reorganizirana slijedom najvećih građevinskih radova od kasnoantičkog razdoblja. U ovom građevinskom zahvatu sudjelovalo je više od 100 radnika, a trajao je više od godinu dana.⁵⁴ Uključivao je i gradnju kamenog pločnika za sakupljanje kišnice, obnovu cisterne i zgrada te gradnju nove crkve sv. Mihovila. Nakon toga na Palagruži su opet trajno boravili svjetioničari i njihove obitelji, uz dužu ili kraću vojnu prisutnost.

Zemljopisni položaj na sredini Jadranskoga mora bio je vrlo bitan i zbog njega maleni otok Palagruža obiluje povijesnim izvorima. Kroz povijest su ga posjećivali pomorci, trgovci, svećenici i redovnici, ribari, gusari i vojnici. Palagruža dobiva na važnosti prilikom svake ključne promjene u ljudskoj povijesti: širenja zemljoradnje u ranom neolitikumu, pojave prvih raslojenih društava u kasno bakreno/rano brončano doba, širenja antičkih Grka u arhajskom razdoblju, propasti antičkog rimskog svijeta u kasnoj antici, industrijske revolucije u 19. stoljeću te vojnih i političkih sukoba u 20. stoljeću. Čak i danas svjedočimo njezinoj ulozi tijekom nedavnih zbivanja vezanih uz izbjegličku krizu na Sredozemlju, kada su na otoku postavljeni uređaji za radarski nadzor u okviru kontrole granica “europske tvrđave”.

Zahvale

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54 Kirigin 2012, p. 122.

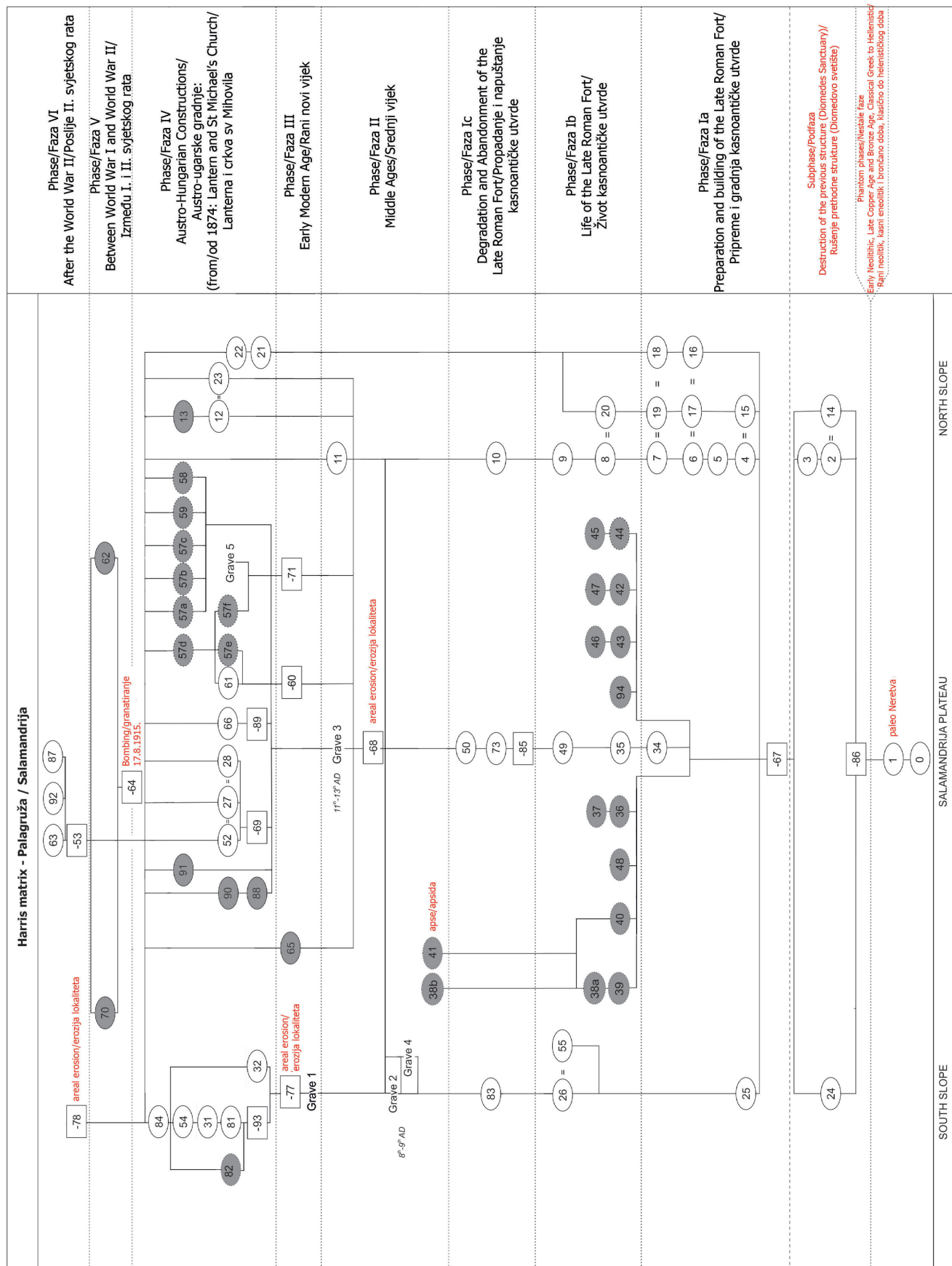
54 Kirigin 2012, str. 122.

The geographic position in the middle of the Adriatic Sea was very significant and made the small island of Palagruža rich in historical records. It was visited by seafarers, merchants, holy men, fishers, pirates and soldiers throughout history. Palagruža gained importance at every crucial change in human history: the spread of agriculture in the Early Neolithic; the emergence of the first stratified societies in the Late Copper/Early Bronze Age; the expansion of the ancient Greeks in the Archaic period; the decline of the ancient Roman world in Late Antiquity; the industrial revolution in the 19th century; and the military and political conflicts of the 20th century. Even today we bear witness to its role during the recent migrant crisis in the Mediterranean, when radar surveillance instruments – a part of the European Fortress border control – were built on the island.

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Appendix I: Harris Matrix (prepared by Asja Zec)
Prilog I: Harrisova matrica (izradila Asja Zec)

EN	IN	EN	IN
9700	1	320	36
9251	2	321	37
13110/120 13100	3	6030	38a
13020 13010	4	6030	38b
9250	5	6010	39
13200 13000 < 12850 12780 12760	6	2160	40
12800	7	7500	41
12720 (9210)	8	2165	42
12485	9	2170	43
(12650) 12490	10	9200	44
12470 < 12700	11	9202	45
12100 =12200= 12300= 12400=		2040	46
12450= 12460= 12461= 12500= 12600	12	220 240 243	48
80	13	6300	49
9710=9310	14	6110= 6115	50
9942 9940 9941 9920 9910	15	grave 3	51a
9620/9390	16	grave 3	51b
9930 9900 9370 9801	17	6100=6020	52
9800	18	2192	-53
9300b	19	5270	54
9300a	20	4057	55
9340	21	9010 9020 9021	56
9100	22	2070a	57a
9033=9190	23	2070b	57b
4051=4056 4050 =8140=8150=670	24	2070c	57c
5400 8210/8200 5300=4040<4057	25	2070d=2060	57d
5325<5310 5320 5500 4030	26	2020	58
6100b <650/651	27	2150	59
4060=6100a=600	28	1052	-71
5250/1	29	1051	72
5250/2	30	6200	73
5291	31	5261	-79
4010=5100=4013b	32a	5260	80
5120	33	5320, 5325, 5500	81
6800a 6800b	34	5290, 5200	83
6400	35	5000=4013a	84

EN = excavation number / terenska oznaka

IN = interpretation number / nova oznaka

Appendix II: Correlation table of excavation vs. interpretation numbers of stratigraphic units

Prilog II: Korelacijska tablica terenskih i novih oznaka stratigrafskih jedinica

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