

NESREĆA NA RADU? ISTRAŽIVANJE RIMSKE VAPNENICE NA RTU RASTOVCU NA OTOKU PAGU

U ovom se radu prikazuju rezultati rekognosciranja i istraživanja na rtu Rastovcu kraj Poveljane na otoku Pagu 2015. i 2016. godine. Tom je prilikom pronađeno više arheološki zanimljivih točaka te je istražen pjeskoviti humak u kojem je pronađena vapnenica i ostatci triju skeleta. Na površini humka, u samoj vapnenici i oko nje nalazilo se mnogo ulomaka antičkog građevnog materijala. Budući da je vapnenica iskorištena, ostali su samo ostatci njezine strukture, paljevine i otpadnog kamenog materijala. Unutar vapnenice pronađeno je nekoliko komada fragmentiranih ljudskih kostiju, dok su neposredno uz nju, s južne strane, ukopana još dva pokojnika.

Glavne riječi: otok Pag, Poveljana, antička vapnenica, rimska vila

ACCIDENT AT WORK? EXCAVATIONS AT ROMAN LIMEKILN ON CAPE RASTOVAC ON THE ISLAND OF PAG

This paper presents the results of the survey and excavations carried out on Cape Rastovac near Poveljana on the island of Pag in 2015 and 2016. During this period, several archaeologically interesting locations were found and a sandy mound was investigated in which a limekiln and the remains of three skeletons were discovered. On the surface of the mound, in the limekiln itself and around it, there were numerous fragments of Roman-period construction material. Since the limekiln was used up, only the remains of its structure, traces of burning and waste stone material remain. Several pieces of fragmented human bones were found inside the limekiln, while two more deceased persons were buried right next to it, on the south side.

Key words: Island of Pag, Poveljana, Roman-period limekiln, Roman villa

UVOD

Rt Rastovac nalazi se na južnom dijelu otoka Paga, neda- leko od Poveljane. To je istaknuta strateška točka na zapad- nom segmentu duguljastog, krševitog kamenog bila koji se proteže u smjeru jugoistok-sjeverozapad, s južne strane Poveljanskog polja. Svojim izduženim oblikom oblikuje i štiti zapadnu uvalu Poveljane s jedne te nadgleda prolaz prema Paškim vratima i Podvelebitskom kanalu s druge strane (Sli- ka 1). Taj se prostor odlikuje ljutim kršem, a tek na pojedinim segmentima ima nešto zemlje.¹ Središnji dio rta čini plato koji se strmo spušta na sjeveroistočnu stranu gdje završava oštrim i nepristupačnim obalnim pojasom, dok se na zapa- du obale blago spuštaju prema moru. Upravo je središnji dio, kao i onaj duž zapadne obale, pretežito pokriven gu- stom borovom šumom koja je mjestimično teško prohod- na. Također, to je područje prekriveno debelim slojem iglica i suhog granja te deblima porušenih stabala, pa je gotovo u potpunosti onemogućeno utvrđivanje realne arheološke slike prostora. U samom korijenu rta, s južne strane, prisutan je sloj zemlje, crvenice i crvenice izmiješane s pijeskom.

Na širem području oko rta Rastovca tijekom 2015. godine, kada je započeo arheološki pregled, utvrđeno je postojanje nekoliko gomila.² Niske su i uklopljene u okoliš, stoga slabo i teško primjetljive, a na njihovoj površini nije pronađeno ar- heološkog materijala koji bi bio indikativan. Najvažniji lokalitet



Slika 1. Karta šireg područja Poveljane s označenim položajem rta Rastovca

Figure 1. Map of wider Poveljana area with Cape Rastovac designated on it

izvor / source: Google Earth, uredila / edited by M. Vuković

- 1 D. Magaš 2000, 10–16.
- 2 Arheološki pregled rta Rastovca proveden je u sklopu pripremnih radnji za izgradnju kampa privatnog investitora na tom području. Usput je izveden i kratki pregled okolnog područja u suradnji s Konzervatorskim odjelom u Zadru i kolegom konzervatorom Ivanom Matkovićem koji je obuhvatio prostor istočno od rta Rastovca, gdje je već ranije utvrđeno postojanje više od 120 gomila iz pretpovijesnog razdoblja. Više: R. Jurić, Š. Batović 2007, 335–337.

INTRODUCTION

Cape Rastovac is located on the southern part of the is- land of Pag, not far from Poveljana. It is a prominent strate- gic point on the western segment of an elongated rocky crest that extends in a southeast-northwest direction, on the southern side of the Poveljana field. The long and nar- row cape shapes and protects the western cove of Povel- jana on one side and overlooks the strait to the Pag Gate and the Velebit Channel on the other (Figure 1). This area is characterized by a rocky expanse and soil is found only in places.¹ The central part of the cape consists of a plateau that slopes steeply to the northeast and ends with a sharp and inaccessible coastal zone. In the west, the coast gently slopes towards the sea. The central part, as well as the one along the western coast, is mostly covered with dense pine forest which is impassable in some places. Also, the area is covered with a thick layer of pine needles and dry branch- es, as well as the trunks of fallen trees, making it almost impossible to obtain a realistic archaeological picture of the area. At the very root of the cape, on the southern side, a layer of red soil and red soil mixed with sand can be seen.

In 2015, when the archaeological survey began, several mounds were identified in the wider area around Cape Rastovac.² Being low and integrated into the environment, they are difficult to notice. No significant archaeological material was found on their surface. The most important site in the immediate vicinity are the remains of a Roman villa, at the Obatnica location in Šepurinac Cove. During a series of earlier surveys of the terrain and small-scale ar- chaeological excavations, the existence of Roman-period architecture was established and a number of fragments of various pottery and construction material fragments from the same period were found. Given the distribution, quantity and nature of the finds, everything points to the possibility that a Roman villa rustica was located there.³

During the survey in the area of Cape Rastovac, a to- tal of thirty-six (36) archaeologically interesting locations were identified (Fig. 1. Tab 1), the most prominent being alterations in the area such as stone structures and cuts in the bedrock, along with which a few pottery fragments were found (Fig. 3). However, establishing their nature and dating them is difficult, particularly due to the weath- ering factors that are very pronounced in that area. Two smaller earthen mounds without finds were also observed,

- 1 D. Magaš 2000, 10–16.
- 2 The archaeological survey of Cape Rastovac was carried out as part of the preparatory work for the construction of a private investor's camp in the area. A brief survey of the surrounding area was also carried out in cooperation with the Conservation Department in Zadar and our colleague conservator Ivan Matković. The survey included the area east of Cape Rastovac, where the existence of more than 120 prehistoric mounds had already been established. For more on this, see R. Jurić, Š. Batović 2007, 335–337.
- 3 R. Jurić, Š. Batović 2007, 335–337; R. Jurić 2008, 403; A. Kurilić 2011a, 552–553; A. Kurilić 2011b, 81; I. Oštarić, A. Kurilić 2013, 267.

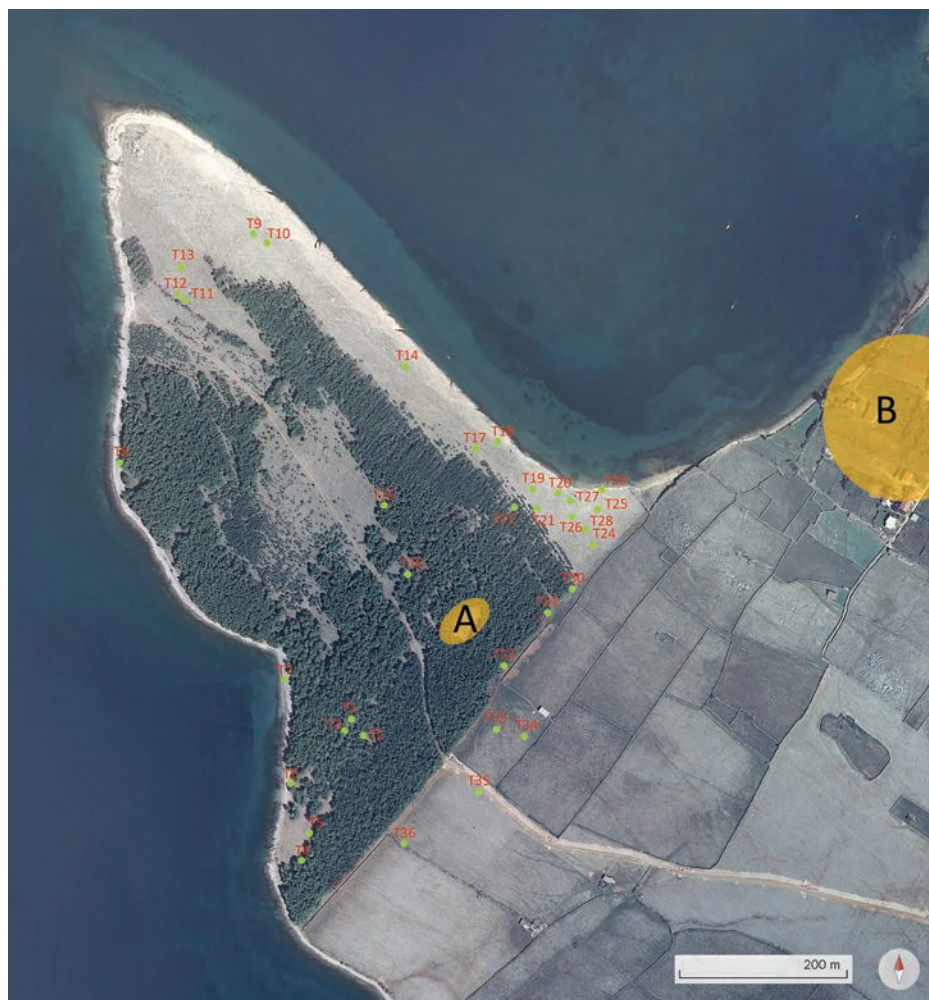
Slika 2. Karta rta Rastovca. Zelenom bojom označene su točke pronađene tijekom rekognosciranja provedenog 2015. godine. Žutom bojom označene su pozicije: A – pjeskoviti humak (vapnenica) i B – ostatci rimske vile na lokaciji Obatnice u uvali Šepurinac

Figure 2. Map of Cape Rastovac. Locations found during 2015 survey designated in green. Locations A – sand mound (limekiln) and B – remains of Roman villa at Obatnice site in Šepurinac Cove designated in yellow

izvor / source: Google Earth, uredili / edited by Robert Maršić, Morana Vuković

u neposrednoj okolici jesu ostatci rimske vile, na položaju Obatnice u uvali Šepurinac. Tijekom niza ranijih pregleda terena i manjeg arheološkog istraživanja utvrđeno je postojanje antičke arhitekture te je pronađen niz ulomaka raznovrsnog antičkog keramičkog i građevnog materijala. S obzirom na rasprostiranje i količinu te narav nalaza, sve upućuje na mogućnost da se tu nalazila rimska *villa rustica*.³

Tijekom rekognosciranja na području rta Rastovca utvrđeno je sveukupno trideset i šest (36) arheološki zanimljivih točaka (Sl. 1, Tab. 1) od kojih se ističu intervencije u prostoru poput kamenih konstrukcija te usjeka u kamen živac, uz koje je pronađen i pokoji ulomak keramike (Sl. 3). Ipak, njihova se narav i vremenska pripadnost teško mogu odrediti, osobito zbog atmosferilija koje su na tom prostoru izuzetno izražene. Uočena su i dva manja zemljana humka bez materijala te jedan veliki pješčani humak po čijoj se površini vidi antički, uglavnom građevni keramički materijal. Sporadični pokretni nalazi, odnosno keramički materijal, rasprostranjeni su diljem rta, a okvirno se mogu smjestiti u prapovijesno te rimsko razdoblje. Osim arheološkog istraživanja na pjeskovitom humku, 2016. godine otvorene su i dvije probne sonde na mjestima koja su rekognosciranjem utvrđena kao potencijalno arheološki zanimljive pozicije. Na obje se lokacije radi o uzdignućima u odnosu na okolni prostor te su bile označene kao potencijalni humci ili nasipi. Na njima su otvorene manje sonde te je izvršen iskop do kamena živca. Utvrđeno je da je sloj sterilan, bez arheoloških struktura ili nalaza.



and one large sand mound on the surface of which some Roman-period finds can be seen – architectural pottery, mostly. Sporadic mobile finds (pottery fragments) are distributed along the entire cape, and can be roughly dated to the prehistoric and Roman periods. In addition to the archaeological excavations at the sandy mound, two test trenches were opened in 2016 at locations that were identified during the survey as potentially archaeologically interesting. As both locations are raised in relation to the surrounding area, they were marked as potential mounds or fills. Smaller trenches were opened on them, reaching the bedrock. The layer was found to be sterile, with no archaeological structures or finds.

EXCAVATIONS AT THE SAND MOUND

During the terrain survey in 2015,⁴ Location 23 (the above-mentioned sand mound – Fig. 4) attracted particular attention. In 2016, Archaeological Museum Zadar carried out excavations at this location, already known to archaeologists and published.⁵

3 R. Jurić, Š. Batović 2007, 335–337; R. Jurić 2008, 403; A. Kurilić 2011a, 552–553; A. Kurilić 2011b, 81; I. Oštarić, A. Kurilić 2013, 267.

4 M. Vuković 2016, 568–569.

5 I. Oštarić, A. Kurilić 2013, 184; M. Vuković 2017, 611–612.



Slika 3. Ulomci pronađeni tijekom rekognosciranja 2015. godine
Figure 3. Fragments found during 2015 surveying

foto / photo by: M. Vuković

ISTRAŽIVANJE PJSKOVITOG HUMKA

Tijekom pregleda terena odrađenog 2015. godine⁴ istaknula se Točka 23, točnije, ranije spomenuti pješčani humak (Sl. 4). Arheološki muzej Zadar 2016. godine proveo je istraživanje na toj lokaciji, već otprilike poznatoj u struci i u literaturi.⁵

Radi se o humku veličine cca 40 x 20 m koji se nalazi u borovoj šumi na samom početku rta Rastovca, bliže sjevernoj obali i uvali Šepurinac. Na površini humka pojavljuje se antički keramički materijal, pretežito ulomci građevne keramike, koji su tu pronalazeni i tijekom ranijih rekognosciranja. Stratigrafija je lokaliteta jednostavna. Humak se sastojao od debelog sloja pjeskovite narančaste zemlje koji naliježe na kamen živac. Takav sloj nije prisutan nigdje drugdje na prostoru rta Rastovca osim na tom mjestu i u njegovoj neposrednoj okolici.

Taj pjeskoviti sloj u najvećem je dijelu u potpunosti sterilan, dok se na njegovoj najvišoj točki, gdje je otprilike i njegovo središte, počinje pojavljivati nakupina kamena. U južnom kvadrantu sloj te pjeskovite zemlje sivo-crne je boje i očigledno upućuje na gorenje, a vrlo se brzo na tom prostoru počinje pojavljivati neravnomjerni sloj stvrdnutog vapna površine cca 5 m², a debljine oko 10 cm. Prokopom je utvrđeno da nema arheoloških ostataka unutar tog sloja ili ispod njega.

It is a mound measuring approximately 40 x 20 m, located in a pine forest at the very beginning of Cape Rastovac, closer to the northern coast and Šepurinac Cove. Roman-period finds can be seen on its surface – mainly architectural pottery fragments which were also found there during earlier surveying. The stratigraphy of the site is simple. The mound consisted of a thick layer of sandy orange soil resting on the bedrock. Such a layer is not present anywhere else on Cape Rastovac except at this location and in its immediate vicinity.

This sandy layer is mostly completely sterile. At its highest point, which is approximately its center, a cluster of stones begins to appear. In the southern quadrant, the layer of this sandy soil is gray-black in color and clearly indicates burning. Very quickly, an uneven layer of hardened lime begins to appear in this area, approximately 5 m² in area and about 10 cm thick. By digging through this layer, it was established that there are no archaeological remains within or below it.

In the center of the mound, a stone structure approx. 13 m long and approx. 1.5–4.5 m wide was found, extending in a northeast–southwest direction. The stones that make up this structure are amorphous and piled up in an irregular manner. They are mixed with the soil that contains pieces of burnt earth, soot, lime and, in places, some amorphous pottery fragments. The structure found in the mound can be divided into three segments (Fig. 5).

By removing one layer of amorphous stone at a time, a circular stone structure was revealed on the northeastern side. During further excavations it was established that it was a limestone pit with a diameter of approx. 4.5 m and a depth of approx. 1.5 m (Segment 1) (Fig. 6). The bedrock was used as its foundation. The masonry walls were built on it and the central part of the limekiln was carved into it. However, the structure is very simple. It has a one-row wall with an inner face that looks quite fragile considering its purpose. There is no indication that this wall had an outer face. In the space inside the limekiln, at a depth of about 80 cm from its top, in a layer of sea sand, sporadic fragments of bones, possibly human, were found.

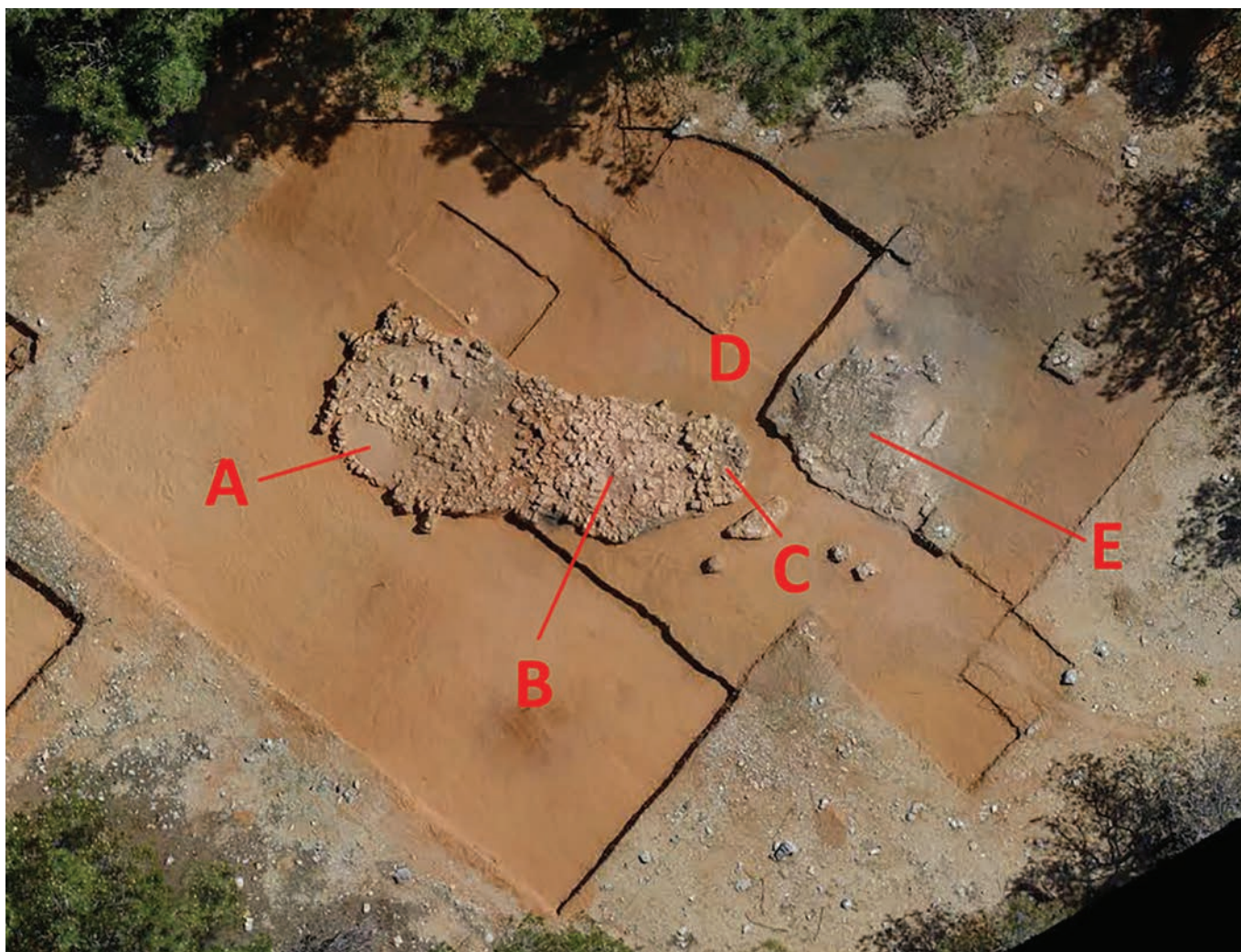


Slika 4. T23 – pješčani humak u korijenu rta Rastovca
Figure 4. T23 – sand mound at the root of Cape Rastovac

foto / photo by: M. Vuković

4 M. Vuković 2016, 568–569.

5 I. Oštarić, A. Kurilić 2013, 184; M. Vuković 2017, 611–612.



Slika 5. Snimka pješčanog humka iz zraka s oznakama A: segment 1 – vapnenica, B: segment 2 – otpadni kamen, C: segment 3 – grob 2, D: grob 1, E: sloj razlivenog gašenog vapna

foto / photo by D. Stanin, uredila/ edited by M Vuković

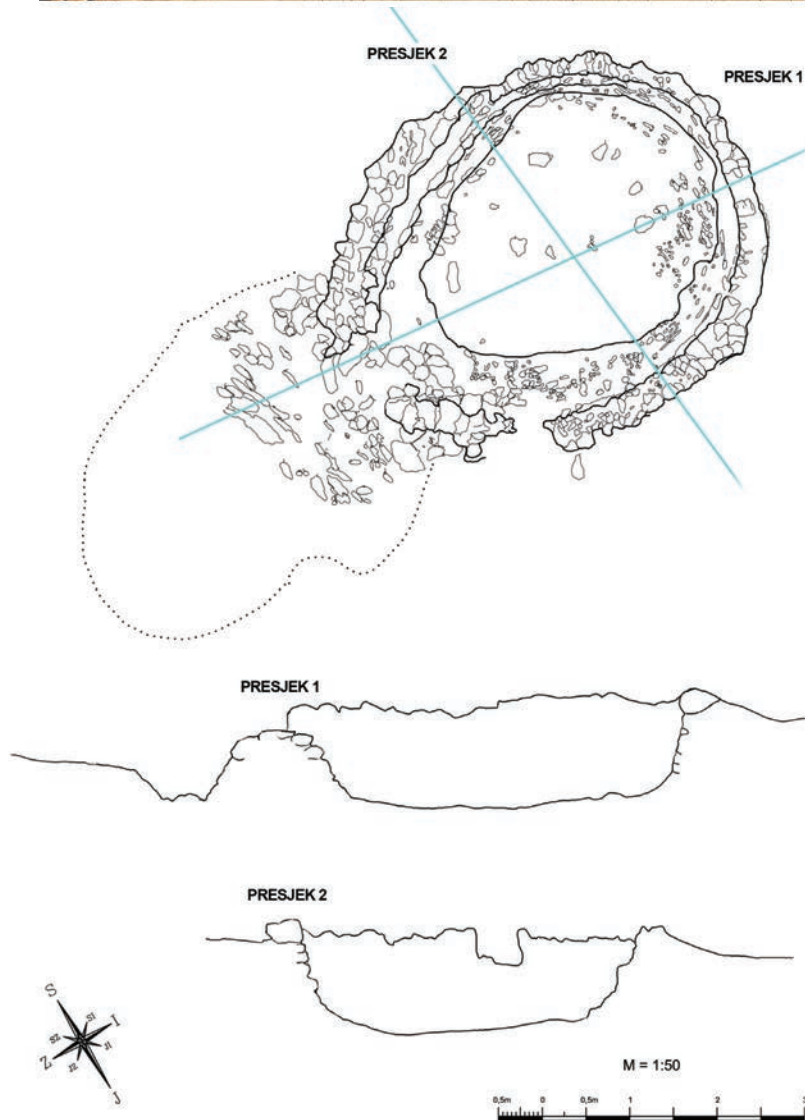
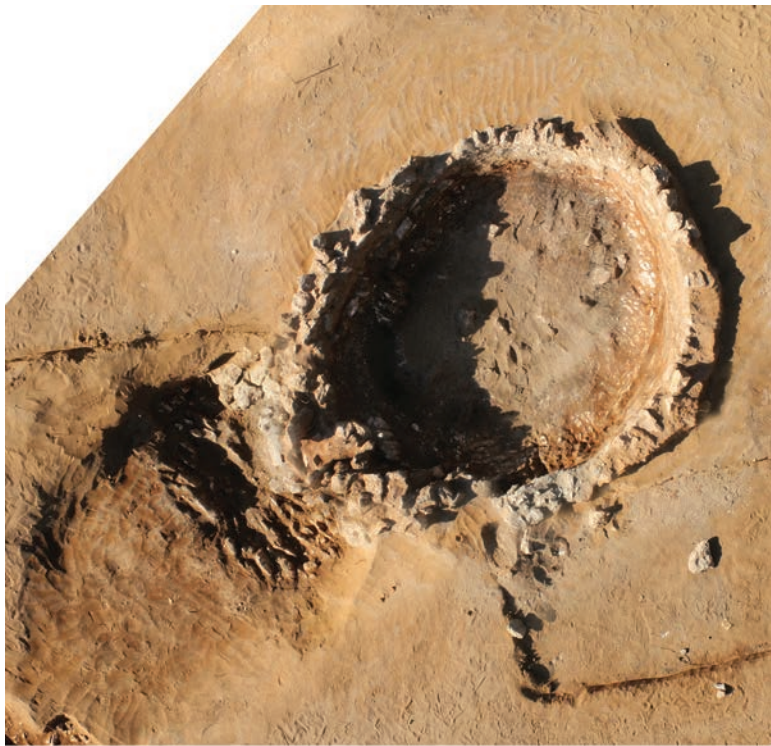
U središtu humka pronađena je kamena struktura dužine cca 13 m i širine od cca 1,5 m do 4,5 m koja se proteže u smjeru sjeveroistok-jugozapad. Kamenje koje tvori tu strukturu amorfnog je oblika i neuredno je nabacano, a u zemlji s kojom je izmiješano pronalaze se komadići spaljene zemlje, gareži i vapna te mjestimično i pokoji amorfnog ulomak keramike. Strukturu pronađenu u humku možemo podijeliti na tri segmenta (Sl. 5).

Skidanjem jednog po jednog sloja amorfnog kamena, na sjeveroistočnoj se strani pokazala kružna kamena konstrukcija, a tijekom daljnjih iskopavanja utvrđeno je da se radi o vapnenici promjera cca 4,5 m, dubokoj otprilike 1,5 m (Segment 1) (Sl. 6). Za temelje njezine strukture iskorišten je kamen živac, na koji su postavljene zidane stijenske, dok je središnji dio vapnenice u njega uklesan. Međutim, ta je konstrukcija vrlo jednostavna, a njezina stijenka zidana je jednostruko, s unutrašnjim licem, i izgleda prilično krhko s obzirom na namjenu. Nema naznaka da je taj zid imao i vanjsko lice. U prostoru unutar vapnenice, na dubini

Figure 5. Aerial photo of sand mound. A: segment 1 – limekiln; B: segment 2 – waste stone; C: segment 3 – Grave 2; D: Grave 1; E: layer of spilled slaked lime

On the southwest side of this structure there is a door, in the form of an opening flanked by two vertically placed stones, and distinct remains of burning and accumulations of waste stone in front of the lime kiln, approx. 6 m long and approx. 3.5 m wide (Segment 2). These stones were probably extracted during the extraction of quicklime and left in a pile. Many fragments of pottery (specifically, Roman-period architectural pottery) were found in this stone fill – mainly tegulae and some amphora fragments. In the southwesternmost part of this accumulation of waste material, a stone structure was found that was only separated after the surface layer of dumped amorphous stones was removed (Segment 3). The size of this structure was approximately 1.8 m x 1.2 m, and was oriented in a northwest-southeast direction.

As has been mentioned before, the only archaeological evidence found at this site is pottery. These are mostly coarse fragments of ceramic structural elements – tegulae and imbrexes. Prominent among them is a partially



Slika 6. Vapnenica nakon čišćenja
Figure 6. Limekiln after cleaning
foto i crtež / photo and drawing by: Robert Maršić

od 80-ak cm od njezina vrha, u sloju morskog pijeska, pronađeni su sporadični fragmenti kostiju, moguće ljudskih.

S jugozapadne strane te strukture nalaze se vrata, u vidu otvora flankiranog s dva vertikalno postavljena kamena, te izraziti ostatci gorenja i nakupina otpadnog kamena ispred vapnenice, u dužini od cca 6 m i širini cca 3,5 m (Segment 2). To je kamenje vjerojatno izvučeno tijekom vađenja živog vapna te ostavljeno tako na hrpi. U tom kamenom nasipu pronađeno je mnogo ulomaka keramike, i to antičke građevne keramike, uglavnom tegula te nešto ulomaka amfora. U krajnjem jugozapadnom dijelu te nakupine otpadnog materijala pronađena je kamena konstrukcija koja se izdvojila tek po skidanju površinskog sloja nabacanog amorfnog kamena (Segment 3). Ta je konstrukcija imala približne dimenzije 1,8 m x 1,2 m, postavljena u smjeru sjeverozapad-jugoistok.

Kao što je više puta dosad spomenuto, na tom je lokalitetu pronalazena isključivo keramička arheološka građa. Pretežno je riječ o grubim ulomcima keramičkih građevnih elemenata, tegula i imbreksa. Među njima se ističe ulomak tegule s pečatom koji je sačuvan tek djelomično (Sl. 7, 1). Vidljiva su tri slova, od kojih se jasno razaznaje slovo *N* u sredini te dva djelomična slova s lijeve i desne strane, a nazire se i rub kartuše pečata. Nakon usporedbe s poznatim i objavljenim pečatima šireg zadarskog prostora, moguće je taj pečat usporediti s onima sjevernojadranskih radionica imena *Solonas/Solonate* (Sl. 7, 2).⁶

SKELETNI UKOPI UZ VAPNENICU

Južno i jugozapadno od vapnenice pronađena su dva cjelovita groba. Grob 1 (Sl. 5, D; Sl. 8) pronađen je na samom početku istraživanja, vrlo plitko ukopan, netom ispod površinskog sloja. Nalazio se malo dalje od kamene strukture, s njezine južne strane. Radi se o jednostavnom skeletnom ukopu u zemlju, bez grobne strukture i bez priloga. Pokojnik je položen na leđa u smjeru sjeveroistok (glava) – jugozapad, s desnom rukom ispruženom, dok je lijeva položena na prsa, a kosti glave nedostaju. Grob 2 (Sl. 5, C; Sl. 9) pronađen je na jugozapadnoj strani, u produžetku nakupine otpadnog materijala od vapnenice (Segment 3). Tek se skidanjem površinskog sloja otpadnog kamena ukazala struktura koja je jasno odudarala od ostatka nakupine kamenja, a potpunim uklanjanjem te zasebne konstrukcije utvrđeno je da se radi o grobu. Konstrukcija groba sastojala se od kamenja postavljenog na nož u ovalni oblik, a međuprostor je zapunjen manjim i većim nagorenim kamenjem te ulomcima potpuno izgorenog kamena i grumenjem gorene zemlje. Skelet je položen na leđa, s glavom u smjeru sjeverozapada. Jako je loše očuvan,



1



2

Slika 7. Primjer pečata Solonas/Solonate iz fundusa Arheološkog muzeja Zadar (1) i tegula s pečatom (2)

Figure 7. Specimen of Solonas/Solonate stamp from the holdings of Archaeological Museum Zadar (1) and Stamped tegula (2)

preuzeto iz I. Juras, F. Jurković Pešić, 2016, 40, Sl. 2a / from I. Juras, F. Jurković Pešić, 2016, 40, Fig. 2a (1), foto / photo by: M. Vuković (2)

preserved fragment of a stamped tegula (Fig. 7, 1). Three letters can be seen on it: the clearly visible letter *N* in the middle and one partially preserved letter to the left and right of it. The edge of the stamp cartouche is also visible. Based on the comparison with known and published stamps from Zadar's surrounding areas, this stamp can be attributed to the northern Adriatic workshops named *Solonas/Solonate* (Fig. 7, 2).⁶

SKELETAL BURIALS NEXT TO THE LIMEKILN

Two complete graves were found south and southwest of the limekiln. Grave 1 (Fig. 5, D; Fig. 8) was found at the very beginning of the excavation. It was a very shallow grave, just below the surface layer, located a little further from the stone structure, on its southern side. It is a simple skeletal burial in the ground, without a grave structure and without any grave goods. The deceased was buried in a supine position, oriented in a northeast (head) – southwest direction, with his right arm extended and the left one resting on his chest. The head bones are missing. Grave 2 (Fig. 5, C; Fig. 9) was found on the southwestern side, in an extension of the accumulation of limekiln waste material (Segment 3). Only after removal of the surface layer of waste stone did a structure appear that clearly stood out from the rest of the stone pile. When this separate structure

pa mu se osim lubanje i dijela nogu pronalazi tek pokoji komad lijeve nadlaktice, a kosti trupa u potpunosti izostaju, osim u vidu sitnih izmravljenih fragmenata. Priloga nije bilo.

Osteološki materijal tih dvaju grobova podvrgnut je antropološkoj analizi, dok su kosti groba 2 poslane na C14 analizu.⁷ U oba se slučaja radi o odraslim osobama, u sveukupnom rasponu od 25 do 50 godina, dok antropološka analiza implicira da se kod groba 2 radi o ženskoj osobi. Bez obzira na mnogo manje sačuvanog osteološkog materijala, saznanja o pokojnici iz groba 2 izdašnija su te su dobiveni vrijedni podatci o prisutnim patološkim promjenama koje upućuju na niz zaživotnih problema, a dvije se promjene ističu. Prvo, to su promjene na zglobovima koje su sasvim sigurno posljedica svakodnevnih aktivnosti i teškog života. Nadalje, vidljive su promjene na zubima koje upućuju na niz zdravstvenih smetnji od kojih je dotična osoba za života mogla patiti od jakih avitaminoza, neonatalne žutice, anemije, zaraznih bolesti do kronične neuhranjenosti.

Sve navedeno ukazuje prije svega na prilično loše životne okolnosti tih osoba – od neuhranjenosti do teškog rada. Nadalje, sami ukopi, s vidljivo minimalnim uložnim trudom i provedeni na mjestu koje u svojoj biti nije predviđeno za ukapanje, mogu govoriti o manjku sentimentalnog odnosa ili poštovanja ukopanih osoba, ali i nemogućnosti da im se priredi primjeren ukop. Takav odnos govori o očito niskom društvenom statusu pokojnika, međutim pažnja je ukazana barem u tolikoj mjeri da ih se ipak ukopa, i to na mjestu nesretnog događaja.⁸

Kronološka determinacija pokojnice iz groba 2 iskazala je rezultat 1903±27 BP, odnosno 115. godinu (+/- 27 godina) n. e., što označava kraj prvog i prvu polovinu drugog stoljeća kao mogući period kada je ona najvjerojatnije živjela.⁹

KOME JE SLUŽILA VAPNENICA I KOJEM VREMENU PRIPADA?

Osim antičkog materijala na samoj površini i u slojevima istražene vapnenice, ostatci pokojnice koji datiraju u antičko vrijeme potvrđuju da se najvjerojatnije radi o vapnenici koja i sama potječe iz tog vremena.

was completely removed, it turned out it was a grave. The grave structure consisted of stones laid sideways in an oval shape. The space between them was backfilled with smaller and larger burnt stones and fragments of completely burnt stones and lumps of burnt earth. The skeleton was in a supine position, its head facing northwest. It is very poorly preserved. Apart from the skull and fragments of the legs, only a few pieces of the left upper arm have been found. The bones of the torso are all missing, except for some tiny, crushed fragments. No grave goods were found.

The osteological material from those two graves was subjected to anthropological analysis, while the bones of grave 2 were sent for C14 analysis.⁷ Both persons were adults, aged between 25 and 50 years. An anthropological analysis implied that the person from Grave 2 was a female. Notwithstanding the much lower quantity of the osteological material, this female grave offers much more information, including valuable data about the pathological changes that indicate a series of problems that the person faced in her lifetime. Two of these changes are particularly noticeable. First, there are changes in the joints that are most certainly the result of daily activities and a hard life. Second, there are visible changes on the teeth that point to a series of health disorders from which the person in question could have suffered during her life, ranging from severe vitamin deficiency, neonatal jaundice, anemia and infectious diseases to chronic malnutrition.

All of the above can be seen as evidence of poor living conditions of these people – from malnutrition to hard work. Furthermore, the burials themselves, reflecting a visibly minimal amount of effort and located in a place essentially not intended for such a purpose, indicate a lack of sentimental relationship or respect for the persons inhumed, as well as the impossibility of organizing appropriate burials for them. Such a treatment suggests a low social status of the deceased. At least they had received that much respect to get buried, which was done at the place of the mishap.⁸

Chronological determination of the female from Grave 2 showed the result 1903±27 BP, or 115 (+/- 27 years) AD. This indicates that she most likely lived in the period spanning the late 1st century and the first half of the 2nd century.⁹

7 Antropološka analiza ovih grobova provedena je u laboratoriju Antropološkog centra Hrvatske akademije znanosti i umjetnosti pod vodstvom prof. dr. sc. Marija Šlause i stručnih suradnika dr. sc. Vlaste Vyroubal, dr. sc. Željke Bedić i Anite Adamić Hadžić. Radiokarbonsku analizu proveo je 14Chrono Centre for Climate, the Environment & Chronology pri Queen's University Belfast u Belfastu, Ujedinjeno Kraljevstvo.

8 Više o pogrebnim običajima kod osoba nižeg statusa vidi u: E.-J. Graham 2006.

9 Radiocarbon Age BP 1903 +/- 27		
Calibration data set: intcal13.14c		
% area enclosed	cal AD age ranges	# Reimer et al. 2013 relative area under probability distribution
68.3 (1 sigma)	cal AD 74- 126	1.000
95.4 (2 sigma)	cal AD 28- 39	0.020
	49- 170	0.958
	194- 209	0.023

7 The anthropological analysis of these graves was conducted in the laboratory of the Anthropological Centre of the Croatian Academy of Arts and Sciences under the leadership of Prof. Mario Šlaus, PhD and expert associates Vlasta Vyroubal, PhD, Željka Bedić, PhD and Anita Adamić Hadžić. The radiocarbon analysis was conducted by 14Chrono Centre for Climate, the Environment & Chronology at the Queen's University Belfast in Belfast, United Kingdom.

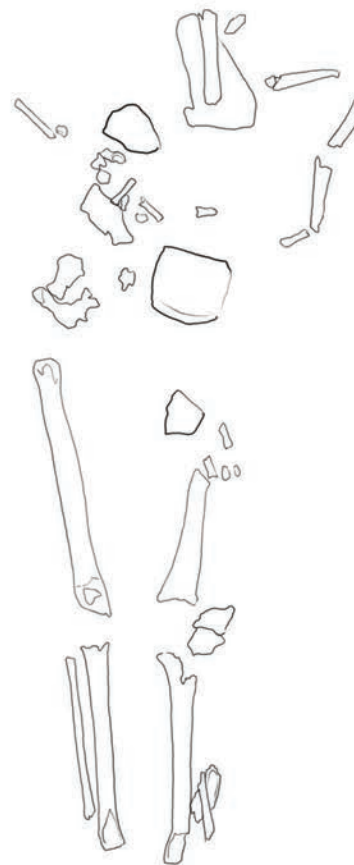
8 For more on funerary practices for persons of a low social status, see E.-J. Graham 2006.

9 Radiocarbon Age BP 1903 +/- 27		
Calibration data set: intcal13.14c		
% area enclosed	cal AD age ranges	# Reimer et al. 2013 relative area under probability distribution
68.3 (1 sigma)	cal AD 74- 126	1.000
95.4 (2 sigma)	cal AD 28- 39	0.020
	49- 170	0.958
	194- 209	0.023



Slika 8. Grob 1
Figure 8. Grave 1

foto i crtež / photo and drawing by: Robert Maršić



M = 1:10



Unatoč činjenici da je uložen izniman trud da se izdubi kamen živac, osigura dovoljno pjeskovite zemlje za zaštitu i za zadržavanje temperature, slabašna konstrukcija same vapnenice ukazuje na najvjerojatniju mogućnost da je ona poslužila u nekom kraćem periodu, za sasvim određenu svrhu ili samo jedanput. Pozicija na kojoj se vapnenica nalazi daje dovoljno kamenog materijala koji je potreban da bi se vapno od njega radilo, a s druge strane, taj je prostor najvjerojatnije u tom periodu bio šumovit,¹⁰ stoga je davao i potrebnu drvenu masu važnu za dugotrajno održavanje

WHO USED THE LIMEKILN AND IN WHAT PERIOD?

Together with the Roman-period finds from the surface and in the layers of the limekiln, it is also the remains of the female dated to the same period that have helped date the limekiln itself to that period with a high probability.

Despite a lot of effort made in cutting the bedrock, providing enough sandy earth for protecting the limekiln and maintaining temperature in it, the weak structure of the kiln suggests that it was probably used over a short period of time, for a particular purpose or only once. At the location there is plenty of stone material required for lime production. On the other hand, the area was most likely forested during that period,¹⁰ so there was enough firewood

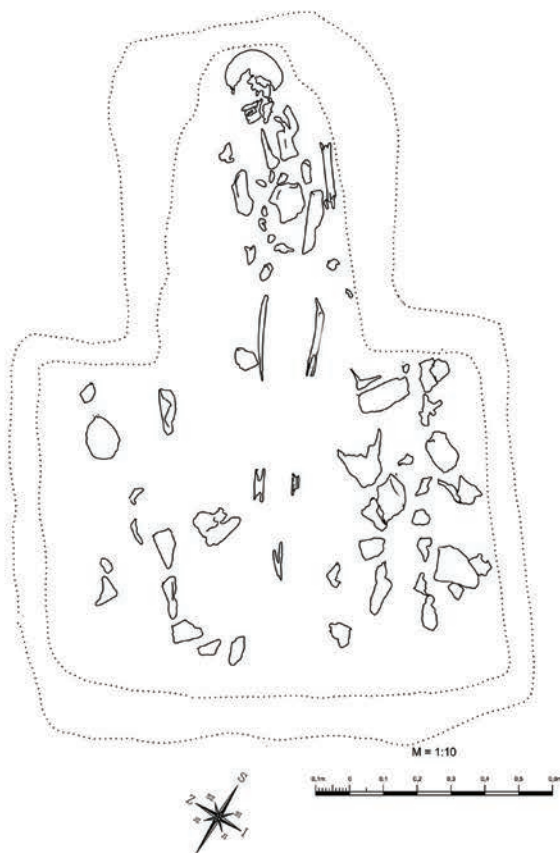
¹⁰ Iako se ne može sa sigurnošću ustvrditi da je rt Rastovac uistinu u rimsko doba bio šumovit, ovaj se zaključak nameće prije svega zbog samog njegova imena. Iako može imati i druga značenja, ime Rastovac ponajviše može ukazivati na vegetaciju prisutnu na predmetnom prostoru u novijoj prošlosti, odnosno vjerojatnu obraslost šumom hrasta po kojoj je mogao dobiti naziv. I donedavno je jedan dio ovog rta bio pokriven šumom, a radilo se o planski zasađenoj borovoj šumi koja je prokrčena radi izrade kampa.

¹⁰ While we cannot positively claim that Cape Rastovac was indeed forested in Roman times, this conclusion is suggested primarily by its name. Although it may have other meanings, the name Rastovac most likely indicates the vegetation present in that area in the recent past, namely an oak forest from which it could derive its name. A part of the cape was still covered with forest very recently. It was a planned pine forest that was cleared for the construction of a campground.



Slika 9. Grob 2
Figure 9. Grave 2

foto i crtež / photo and drawing by: Robert Maršić



visokih temperatura.¹¹ Evidentni je nedostatak pitanje vode potrebne za gašenje vapna, a koje tu nema te se, s obzirom da na samom rtu Rastovcu nema tragova arhitekture, postavlja pitanje – za koju je svrhu to vapno poslužilo? Tu je potrebno vratiti se na ostatke obližnje rimske vile na položaju Obatnice u uvali Šepurinac, koja je toj vapnenici najbliži rimskodobni lokalitet. Vrlo je vjerojatno da je kameni materijal u neposrednoj blizini vile i plodnog polja na kojem je smještena poslužio za gradnju tog objekta. Proizvodnju vapna vjerojatno je bilo jednostavnije organizirati na udaljenijoj poziciji, s osiguranim najvažnijim potrepštinama u izboru – kamenom i drvetom, bilo da se radilo o izgradnji same vile bilo o nekoj kasnijoj nadogradnji ili njezinim popravcima.

Ako bismo se oslonili na mogućnost da je pronađeni pečat na rimskoj teguli zbilja glasio *Solonas/Solonate* i pripadao spomenutoj sjevernojadranskoj radionici, koja je po svemu sudeći bila aktivna tijekom prve polovine 1. stoljeća,¹² a radiokarbonska analiza pokojnice iz groba 2 upućuje na drugu polovinu 1. stoljeća, mogli bismo zaključiti da je uistinu riječ o nekim naknadnim radovima, kasnijim proširenjima ili popravljajima rimske vile. Naime, sav je materijal, pronađen na pjeskovitom humku na rtu Rastovcu, bio u potpunosti fragmentiran i koncentriran na središnjem dijelu humka gdje je bila smještena i sama vapnenica. Moguće je da je taj građevni materijal donesen s područja vile, njezinih priobalnih dijelova, zajedno s dijelom morskog pijeska koji je mogao poslužiti kao dodatna zaštita od eventualnog požara. To bi značilo da je taj građevni materijal već u tom trenutku bio fragmentiran i neupotrebljiv, stoga moguće potvrđuje taj vremenski *hiatus* između nastanka tegule, odnosno mogućeg nastanka vile i upotrebe same vapnenice.

ZAKLJUČAK

Tijekom 2015. godine provedeno je arheološko rekognosciranje, a potom, 2016. godine, arheološko istraživanje na području rta Rastovca kod Poveljane na otoku Pagu. Istraživanje je obuhvatilo najistaknutiju arheološki potencijalnu točku – pjeskoviti humak na samom korijenu rta Rastovca, koji je već otprije bio poznat u relevantnoj literaturi. Arheološko istraživanje ukazalo je na to da se radi o kamenom objektu, vapnenici, uz koju je pronađen otpadni kameni materijal i razliveno gašeno vapno u neposrednoj blizini. Pokretnih nalaza nije bilo mnogo, a većina je pronađena na samoj površini humka i unutar konstrukcije vapnenice te u otpadnom materijalu. Gotovo se sav prikupljeni materijal odnosi na rimski građevni materijal, a uglavnom se

needed for maintaining high temperatures over a long time.¹¹ One obvious flaw of the location is the absence of water, which would be required for slaking lime. Since no traces of architecture have been found on Cape Rastovac, the question is, what was the lime for? The answer could be the remains of a Roman villa at Obatnice site in the nearby Šepurinac Cove – the only Roman-period structure in the immediate vicinity of the limekiln. It is very likely that the stone material in the immediate vicinity of the villa and the fertile field on which it was located was used for its construction. It was probably easier to organize the production of lime at a more remote location, where the most important supplies – stone and wood – were available in abundance, whether it was for the construction of the villa itself or for some subsequent addition or repair.

If the stamp found on the Roman roof tile really reads *Solonas/Solonate* and if it really can be attributed to the above-mentioned north-Adriatic workshop that, by all indications, flourished in the first half of the 1st century,¹² and given the fact that the radiocarbon analysis of the female from Grave 2 dated the remains to the second half of the 1st century, it could be concluded that the limekiln was indeed used for some subsequent work on the Roman villa, like extensions or repairs. The fact is that all the material found on the sand mound on Cape Rastovac was fragmented and concentrated in the mound's central part, where the limekiln itself was located. It is possible that the construction material was brought from the coastal parts of the villa, together with some sea sand that could have served as additional protection against a possible fire. This would mean that the construction material was already fragmented and unusable at that moment. If correct, this fact would substantiate the time hiatus between the production of the roof tile on the one hand and the possible construction of the villa and the use of the limekiln on the other.

CONCLUSIONS

In 2015, an archaeological survey was carried out in the area of Cape Rastovac near Poveljana on the island of Pag. It was followed by archaeological excavations in 2016. The survey included the site that was the most promising in archaeological terms – a sandy mound at the very root of Cape Rastovac, which was already known in the relevant literature. The archaeological excavations indicated that it was a stone structure – a limekiln – in the immediate vicinity of which waste stone material and spilled slaked lime were found. There were not many movable finds,

11 Proizvodnja vapna dugotrajan je i zahtjevan proces koji zahtjeva znanje, razumijevanje kemijskih procesa i vještinu te timski rad. U današnje vrijeme, kada se pomalo gube znanja o starim zanatima, od velikog su značaja inicijative obnove znanja o procesima kao što je proizvodnja vapna. Više: B. Orbanić 2015, 7–16.

12 I. Juras, F. Jurković Pešić 2016, 41.

11 Production of lime is a time-consuming and demanding process that requires skills, knowledge of chemical processes and team work. Nowadays, when knowledge of old crafts is gradually being lost, initiatives to restore knowledge of processes like lime production are of great importance. For more on this, see B. Orbanić 2015, 7–16.

12 I. Juras, F. Jurković Pešić 2016, 41.

radi o ulomcima tegula. Ističe se tek jedan ulomak tegule na kojem je očuvan dio radioničkog pečata. Moguće je da se radi o pečatu sjevernojadranskih radionica imena *Solonas/Solonate*, iz prve polovine 1. stoljeća. U neposrednoj blizini same vapnenice pronađen je jedan skeletni ukop u čistoj zemlji, bez grobne konstrukcije. Drugi ukop bio je uklopljen u krajnji vanjski segment nakupine otpadnog materijala iz same vapnenice, koji je poslužio kao pokrov. Osteološki ostatci podvrgnuti su C14 analizi koja je ukazala na okvirnu starost od 1903±27 BP, što bi smjestilo te pokojnike u kraj 1. stoljeća ili početak 2. stoljeća naše ere. S obzirom na smještaj grobova uz samu vapnenicu, nameće se zaključak da se radi o radnicima koji su bili zaduženi za izradu vapna te su stradali tijekom tog procesa. Razlika u vremenskim odrednicama tegule i pokojnika, iako relativno mala, mogla bi ukazivati na izradu vapna za potrebe naknadnih radova na rimskoj vili u obližnjoj uvali Šepurinac.

Tko su bili ljudi koji su izrađivali to vapno? Koliko ih je bilo? Jesu li se izmjenjivali ili radili u grupama? Ostaje mnogo neodgovorenih pitanja, no, s obzirom na položaj grobova neposredno uz samu vapnenicu, možemo zamisliti da se tijekom vađenja živog vapna i njegova gašenja doista dogodila tragična nesreća u kojoj je najmanje dvoje ljudi izgubilo život. Zanimljivo je da je samo jedno od njih „dobilo“ grob, i to napravljen u samom dnu i od otpadnog kamena vapnenice. S obzirom na podatke antropološke analize koja govori o narušenom zdravlju i lošim životnim uvjetima te da su oba pokojnika na neki način „ostavljena“ uz samu vapnenicu, može se pretpostaviti da se radi o radnoj snazi najniže klase i upitnog podrijetla, koja nije tražila poštovanje rimskih pogrebnih običaja, a koja je poslužila za građevinske radove na obližnjoj rimskoj vili.

and most of them were discovered on the surface of the mound, in the limekiln and in the waste material. Almost all of the collected material is the Roman construction material – mostly tegula fragments. One of these fragments stands out here – the one containing a preserved part of a workshop stamp. It is possible that the stamp in question belongs to north Adriatic workshops named *Solonas/Solonate* that flourished in the first half of the 1st century. In the immediate vicinity of the limestone quarry itself, a skeletal burial was found in clean soil, without a grave structure. In the vicinity of the limekiln, a skeletal burial was found in earth, without any grave structure. The second burial was found in the outermost segment of the accumulation of limekiln waste material that served as a cover. The osteological remains were subjected to an C14 analysis, which indicated an approximate age of 1903±27 BP, thus dating the remains of both deceased persons to the late 1st or early 2nd centuries AD. The fact that the graves are located near the limekiln itself leads to the conclusion that these were workers who were in charge of making lime and who died during this process. Although relatively small, the difference in the time periods of the tegulae and the deceased could indicate that lime was made for subsequent work on the Roman villa in the nearby Šepurinac Cove.

Who were the people making the lime? How many of them there were? Did they take turns or did they work in groups? Many questions remain unanswered. However given the location of the graves next to the limekiln, we can imagine that, indeed, a tragic accident occurred during the extraction and slaking of quicklime and that at least two people lost their lives. Interestingly, only one of them “deserved” a grave. The grave was dug at the bottom of the limekiln and waste stone from the limekiln was used. As the anthropological analysis that was carried out revealed impaired health and poor living conditions of the deceased and knowing that both of them were somehow “left” at the limekiln, it can be assumed that this was a workforce of the lowest class and of questionable origin, not considered worthy of the Roman funerary customs, that was used for the construction work on a nearby Roman villa.

T 1	Zemljano-kamena gomila u čijoj je neposrednoj blizini pronađen ulomak keramike. / Earth and stone mound in the immediate vicinity of which a pottery fragment was found.
T 2	Zemljano-kamena gomila. Pokretni arheološki nalazi nisu uočeni. / Earth and stone mound. Movable archaeological finds not detected.
T 3 – T 8	Ulomci keramike. / Pottery fragments.
T 9	Kamene konstrukcije. Pokretni arheološki nalazi nisu uočeni. / Movable archaeological finds not detected.
T 10	Kamene konstrukcije. Pokretni arheološki nalazi nisu uočeni. / Stone structures. Movable archaeological finds not detected.
T 11	Jama 1. U kamenu živcu udubljen prostor veličine približno 7 x 4 m, dubine najviše 80 cm. Oko nje je pronađen veći broj ulomaka kućnog lijepa ili troske te sporadično spaljenog kamenja. / Pit 1. A recess, approx. 7 x 4 m and up to 80 cm deep, hollowed out in the bedrock. A number of daub or slag fragments and – sporadically – burnt stones, were found around the pit.
T 12	Jama 2. U kamenu živcu udubljen prostor veličine približno 8 x 5 m, dubine najviše 50 cm. Na prostoru Jame 2 pronađena su dva ulomka kućnog lijepa ili troske. / Pit 2. A recess, approx. 4 x 5 m and up to 50 cm deep, hollowed out in the bedrock. Two fragments of daub or slag found in this pit.
T 13	Jama 3. U kamenu živcu udubljen prostor približne veličine 4 x 3 m i dubine najviše 30 cm. Nema pokretnih nalaza. / Pit 3. A recess, approx. 4 x 3 m and up to 30 cm deep, hollowed out in the bedrock. No movable finds.
T 14	Ulomak keramike. / Pottery fragment.
T 15	Kamene konstrukcije. / Stone structures.
T 16	Ulomak keramike. / Pottery fragment.
T 17	Ulomak antičke tegule. / Fragment of Roman-period tegula.
T 18	Kamene konstrukcije. / Stone structures.
T 19	Ulomak keramike. / Pottery fragment.
T 20	Plato usječen u kamen živac. U neposrednoj blizini, na širem prostoru jugoistočno od ove točke uočeno je i obilježeno više pojedinačnih nalaza ulomaka keramike. / Plateau cut in the bedrock. A number of individual finds of pottery fragments were observed and marked in immediate vicinity, in the area to the southeast of this location.
T 21 – T 22	Ulomci keramike. / Pottery fragments.
T 23	Zemljano-kamena gomila dimenzija približno 39 x 22 m do 1 m visine. Na samoj gomili pronađeni su ulomci keramike na jednoj hrpi te mnoštvo keramičkih nalaza po cijeloj površini gomile i u njezinoj neposrednoj blizini. U najvećem broju slučajeva radi se o ulomcima antičke građevne keramike – tegula. (Ivo Oštarić, Anamarija Kurilić, <i>Arheološka karta otoka Paga, Novalja, 2013.</i>) / Earth-and stone mound, approx. 39 x 22 m and up to 1 m in height. Pottery fragments were found on the mound, accumulated on a single heap. There were also pottery finds throughout the mound's surface and in its immediate vicinity. Roman architectural pottery – tegulae – account for most of them. (Ivo Oštarić, Anamarija Kurilić, <i>Arheološka karta otoka Paga, Novalja, 2013</i>)
T 24	Ulomci keramike. / Pottery fragments.
T 25	Ulomci keramike. Velika koncentracija na vrlo uskom pojasu uz samu obalu. / Pottery fragments. Highly concentrated in very narrow coastal zone.
T 26	Ulomci keramike u blizini rimske vile. / Pottery fragments near Roman villa.

T 27	Ostatci zidova rimske vile na položaju Obatnice u uvali Šepurinac. Dva zida izlaze iz profila okomito odrezane obale te se pružaju u more. Profili su visoki najviše 80 cm te su jasno vidljivi arheološki slojevi i arheološki materijal, pretežito ulomci raznovrsne rimske keramike. (Ivo Oštarić, Anamarija Kurilić, <i>Arheološka karta otoka Paga, Novalja, 2013.</i>) / Remains of Roman villa walls at Obatnice site in Šepurinac Cove. Two walls protrude into the sea from the vertically cut coastline profiles. The profiles are up to 80 cm in height. Archaeological layers and finds (mostly fragments of various Roman-period pottery) can clearly be seen in them. (Ivo Oštarić, Anamarija Kurilić, <i>Arheološka karta otoka Paga, Novalja, 2013</i>)
T 28	Ulomci keramike u neposrednoj blizini rimske vile. / Pottery fragments in Roman villa's immediate vicinity.
T 29	Kamena konstrukcija. Ulomak keramike pronađen je malo dalje na prostoru istog pašnjaka. / Stone structure. Pottery fragment found little further, on the same pasture ground.
T 30 – T 36	Ulomci keramike. / Pottery fragments.

Tablica 1. Popis točaka pronađenih tijekom rekognosciranja 2015. godine

Table 1. Locations found during 2015 survey.

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