



# NA GRANICI DVAJU SVJETOVA – PROJEKT MIGRASSI

On the border of  
two worlds –  
the MIGRASSI project



**N**a krajnjem zapadnom uglu Vranskog jezera, pedesetak metara od njegove obale, nalaze se dvije nekropole odvojene zidom – Crkvina i Maksanova gomila. Po čemu su se za života razlikovali ljudi pokopani na njima da zadnje počivalište nisu mogli naći na istom mjestu? Odgovor na to pitanje u središtu je projekta i istraživanja o kojima je ovdje riječ.

Crkvina je lokalitet poznat još od 19. stoljeća (Bianchi 1879: 411; Jelić 1898: 117–120), a riječ je o crkvi Sv. Marije koja je pripadala srednjovjekovnom selu Zablaće (Baraka 2009: 188). Arheološka su istraživanja pod vodstvom prof. dr. sc. dr. h. c. A. Uglešića započela 2006. godine te je u nizu kampanja do 2016. godine istražena crkva s dijelom dodatnih prostora i objekata te dio groblja, a sve unutar prostora omeđenog ogradnim zidom (Uglešić, Gusar 2014). Tijekom kampanje 2015. godine na obližnjoj parceli vlasnik zemljišta odlučio je ukloniti veliku kamenu gomilu. Sumnjajući kako nanos krije ostatke iz rimskog vremena zbog brojnih ulomaka tegula i amfora na površini gomile zamolili smo vlasnika da nam dopusti nadzor iskopa. No, kako je iskop napredovao, činilo se da smo bili u krivu jer sve do

**T**wo necropolises separated by a wall - Crkvina and Maksanova gomila are located at the westernmost corner of Lake Vrana, about fifty meters from its shore. In what way were the people buried in them different during their lifetime so that they could not find their final repose in the same place? The answer to that question lies at the heart of the project and research discussed here.

The site of Crkvina has been known since the 19th century (Bianchi 1879: 411; Jelić 1898: 117–120), referring to the church of St. Mary which belonged to the medieval village of Zablaće (Baraka 2009: 188). Archaeological research led by prof. ph. d. dr. h. c. Ante Uglešić started in 2006, lasting until 2016 in a series of campaigns. The church with some of additional rooms and buildings and part of the cemetery were investigated, all within the area bounded by the enclosure wall (Uglešić, Gusar 2014). The owner of the land decided to remove a large stone mound from a nearby plot during the 2015 campaign. Suspecting that the stones hide remains from Roman times due to numerous fragments of tegulae and amphorae on the surface of the mound, we asked the owner to allow us to super-



• Nadgrobní monolitni spomenici prije početka istraživanja (foto: J. Šućur)  
• Monolithic tombstones before the excavation (photo: J. Šućur)

samog kraja nije bilo nikakvih arheoloških tragova. Tek se na samom dnu pod sjeveroistočnim dijelom gomile pojavio polukružni niz masivnog neobrađenog kamena, bez ikakvih drugih tragova, bez nalaza koji bi upućivali na karakter nalazišta, a kamoli vrijeme iz kojeg potječe. Kako to često u arheologiji biva, tek kad smo zagreblili pod zemlju, došli smo do konkretnih spoznaja. Pojedinačne ljudske kosti koje smo pronašli i širenje iskopa za krajnji rezultat imali su istraživanje dvaju grobova s brojnim pokojnicima. Antropološka analiza u jednom je grobu otkrila ostatke najmanje deset, a u drugom dvanaest osoba. Od toga je jedna osoba, ona koja je posljednja položena u grob, bila u anatomski ispravnom položaju, dok su kosti ostalih bile izmiješane unutar, ili čak izvan groba. Doznali smo karakter nalazišta – riječ je o groblju, ali iz kojeg su vremena pokojnici i zašto nisu pokopani unutar ograđenog prostora na Crkvini? Pokretni nalazi bili su rijetki, i većinom nisu kronološki osjetljivi, dok oni databilni, poput venecijanskih kovanica nisu pronađeni u grobovima. Jedino je jedan venecijanski denar pronađen među kostima na poklopnici groba 2, ali toliko loše očuvan da se može samo široko datirati između 1369. i 1485. godine. Dva uzorka iz grobova poslana su na radiokarbonsku analizu te su dati-

vised the excavation. However, as the excavation progressed, it seemed that we were wrong because there were no archaeological traces until the very end. Only at the bottom, under the north-eastern part of the mound, did a semicircular row of massive unworked stones appear, without any other traces, or finds that would indicate the character of the site, let alone the time from which it originates. As it often happens in archaeology, only when we scratched the ground, we obtained some useful information. Individual human bones we found and the expansion of the excavation resulted in the investigation of two graves with a number of buried individuals. Anthropological analysis revealed the remains of at least ten people in one grave, and twelve in the other. Of these, one person, the one who was laid last in the grave, was in an anatomically correct position, while the bones of the others were commingled inside, or even outside the grave. We found out the character of the site – it was a cemetery, but from what time were the deceased and why were they not buried inside the enclosed area in Crkvina? Small finds were rare, and mostly irrelevant in terms of chronology, while datable ones, such as Venetian coins, were not found in graves. Only a Venetian



• Grob 3 s brojnim ukopima odmah po otvaranju (foto: J. Šućur)  
• Grave 3 with numerous burials immediately after opening (photo: J. Šućur)





Iskopavanje, definiranje, dokumentiranje i planiranje – sve na istom mjestu (foto: J. Šučur)  
Excavating, defining, documenting and planning - all in one place (photo: J. Šučur)

rala ukope od 15. do 16. stoljeća. Uzimajući sve ovo u obzir, ali i povijesne okolnosti, grobovi su pripisani Vlasima koji su se u turbulentnim vremenima kraja srednjeg i početka novog vijeka po osmanskim osvajanjima doselili na ovaj prostor. U prilog tomu idu i nadgrobni spomenici, kamici (stećci), masivno monolitno kamenje drukčijeg karaktera od onog postavljenog nad grobove na Crkvini. Brojne patološke promjene i traume na kostima pokojnika svjedoče o teškim životnim prilikama i nasilnim događajima kakve nam oslikavaju povijesni izvori na granici Mletačke Republike i Osmanskog Carstva (Šučur et al. 2020).

Kako bismo pokušali dobiti nove podatke i primjenom dodatnih analiza provjerili navedene hipoteze, formiran je projektni prijedlog koji je Sveučilište u Zadru prihvatilo za financiranje u dvogodišnjem razdoblju počevši od 1. rujna 2021., i tako je nastao projekt MIGRASSI, punim imenom *Migracije na razmeđu dvaju svjetova – Mletačke Republike i Osmanskog Carstva – u svjetlu analize stabilnih izotopa*. Osnovni je cilj projekta usporedba dviju populacija pomoću analize stabilnih izotopa. U arheološkim su istraživanjima ove analize dosad primarno primijenjene na dvama poljima – pri rekonstrukciji prehrane i pri rekonstrukciji

denarius was found among the bones on the cover slabs of grave 2, but it is so badly preserved that it can only be broadly dated between 1369 and 1485. Two samples from the graves were sent to radiocarbon analysis which dated the burials to the period from the 15th to the 16th century. Taking all this into account, as well as historical circumstances, the graves are attributed to the Vlachs, who moved to this area during the turbulent times of the end of the Middle Ages and the beginning of the Modern Period after the Ottoman conquests. In support of this, there are specific tombstones, *stećci* or *kamici*, massive monolithic stones different from those placed over graves in Crkvina. Numerous pathological changes and traumas on the bones of the deceased bear witness to difficult life circumstances and violent events as depicted by historical sources on the border of the Venetian Republic and the Ottoman Empire (Šučur et al. 2020).

In order to try to obtain new data and verify the stated hypotheses by applying additional analyses, a project proposal was formed that the University of Zadar accepted for financing in a two-year period starting on September 1, 2021, and thus the MIGRASSI project was born, with the full name *Mi-*

migracija. Kemijski elementi i spojevi iz namirnica i okoliša putem biokemijskih procesa ostavljaju materijalne tragove izotopa koji se razlikuju kod pojedinih namirnica, kao i okoliša u kojem je osoba živjela. Za rezultate istraživanja iznimno je bitna razlika u načinu na koji se formiraju kosti i zubi. Kod kostiju se pri ovim analizama upotrebljava protein kolagen (organski dio kosti), a kod zuba apatit (neorganski dio). Izotopi u zubima upućuju na mjesto gdje je osoba provela mladost (vrijeme dok se zub formirao), dok oni u kostima upućuju na posljednje godine života. Predviđene su analize izotopa kisika ( $^{18}\text{O}$ ), ugljika ( $^{13}\text{C}$ ), i dušika ( $^{15}\text{N}$ ), te stroncija ( $^{87}\text{Sr}/^{86}\text{Sr}$ ) i olova ( $^{208}\text{Pb}/^{204}\text{Pb}$ ).

S obzirom na financijski okvir projekta, odlučili smo uzeti uzorke pet osoba pokopanih na Crkvini i jednako toliko od osoba pokopanih pod Maksanovom gomilom, no kako su pod gomilom istražena samo dva groba, prvi korak bilo je dodatno arheološko iskopavanje. U kasnu jesen 2021. započeli smo s istraživanjem, a zanimljivim tempom završili smo ga u travnju 2022. godine, nakon brojnih dogodovština i peripetija, uz neopisivo vrijedan doprinos studenata arheologije. Na kraju je istražen dodatni 21 grob, svi oni ispod nadgrobničkih monolita, a i neki koji ih nisu imali.

*gration between two worlds - the Venetian Republic and the Ottoman Empire - in the light of stable isotope analysis*. The main objective of the project is to compare two populations using stable isotope analysis. In archaeological research, these analyses have so far been primarily applied in two fields - in the reconstruction of diet and in the reconstruction of migrations. Chemical elements and compounds from food and environment through biochemical processes leave material traces of isotopes that differ in individual foodstuffs, as well as in the environment in which a person lived. The difference in the way bones and teeth are formed is extremely important for the results of the research. For bones, protein collagen (the organic part of the bone) is used in these analyses, and for teeth, apatite (the inorganic part). Isotopes in the teeth indicate the place where the person spent his/her youth (the time when the tooth was formed), while those in the bones are indicative of the last years of life. Analyses of isotopes of oxygen ( $^{18}\text{O}$ ), carbon ( $^{13}\text{C}$ ), and nitrogen ( $^{15}\text{N}$ ), as well as strontium ( $^{87}\text{Sr}/^{86}\text{Sr}$ ) and lead ( $^{208}\text{Pb}/^{204}\text{Pb}$ ) are planned.

Considering the financial framework of the project, we decided to take samples of five individuals buried in the church and the same number of



Istraživanje groba 4 (foto: J. Šučur)  
Excavation of grave 4 (photo: J. Šučur)





Dvije su spoznaje potpuno nove u odnosu na prijašnje. Dio grobova ukopan je u crnu zemlju s brojnim ulomcima gara i ugljena, prosljocima pepela i fragmenata životinjskih kostiju. Čini se kako su stanovnici Crkvine izvan zidina imali otpadnu jamu u koju su bacali ostatke jela (životinjske kosti, školjke) i njihove pripreme (pepeo, ugljen), a onda je dio grobova kasnog srednjeg i ranog novog vijeka ukopan kroz te slojeve. Druga zanimljiva okolnost jest pronalazak ranosrednjovjekovnog groba ispod već poznatog horizonta, što govori o tome kako je ranosrednjovjekovni lokalitet obuhvaćao veću površinu u odnosu na ogradni zid Crkvine.

the deceased persons buried under Maksanova gomila, but since only two graves were investigated under the mound, the first step was additional archaeological excavation. In the late autumn of 2021, we started the excavation, and we finished it at an interesting pace in April 2022, after numerous events and vicissitudes, with immensely valuable contribution of archeology students. Finally, additional 21 graves were investigated, all graves under tombstone monoliths, and some without monoliths.

Two realizations are completely new compared to the previous ones. Some of the graves are buried

Osim arheoloških istraživanja, tijekom prve godine projekta provedena je bioarheološka analiza ostataka iz grobova, analizirali su se pokretni nalazi od kojih je dio metalnih izdvojen i predan na konzervaciju, rezultati su prezentirani putem medija, dva međunarodna znanstvena kongresa i nekoliko pisanih radova. Pred članovima tima još je mnogo posla, ali sav je trud opravdan jer je projekt usmjeren na istraživanje još uvijek arheološki malo poznatih razdoblja (kraja srednjeg i početka novog vijeka), na istraživanje arheološki gotovo neistraženih događaja (migracija izazvanih osmanlijskim pohodima), na istraživanje njihovih aktera (jesu li

in black soil with numerous fragments of soot and charcoal, interlayers of ash and fragments of animal bones. It seems that the inhabitants of Crkvina had a waste pit outside the walls in which they threw the remains of food (animal bones, shells) and of its preparation (ashes, charcoal), and then part of the graves dating to the late Middle Ages and early Modern Period were buried through these layers. Another interesting circumstance is the discovery of an early medieval grave under the already known horizon, suggesting that the early medieval site covered a larger area compared to the enclosure wall of Crkvina.



⋮ Nekropola pri kraju istraživanja (foto: J. Šučur)  
 ⋮ Necropolis at the end of the excavation (photo: J. Šučur)





došli, ili su tu već bili, što su jeli, od čega su bolovali, koliko su patili). Ovaj projekt želi ispričati priču ljudi s granice koji nisu ostavili pisanog traga, ali to ne znači da njihova priča nije bitna. Dapače, bila je bitna onda, bitna je i u sadašnjem svijetu migracija i pandemije, a bitna je i za budućnost, ako se potrudimo pronaći pouku u tragovima koji su ostali za njima.

In addition to archaeological research, during the first year of the project, a bioarchaeological analysis of the remains from the graves was carried out. Small finds were analyzed, and metal artifacts were separated and handed over for conservation. The results were presented through the media, two international scientific congresses and several written papers. The members of the team still have a lot of work to do, but all the effort is justified because the project is aimed at exploring periods (the end of the Middle Ages and the beginning of the Modern Period) and events (migrations caused by the Ottoman raids) that are still poorly known in terms of archaeological research. The research is also aimed at their protagonists (if they came, or they had already been there; what they ate, what diseases they suffered from, how much they suffered). This project aims to tell the story of people from the border who did not leave a written mark, but that does not mean that their story is not important. On the contrary, it was important then, it is also important in the current world of migrations and pandemics, and it is also important for the future, if we try to find lessons in the traces left behind.

---

## LITERATURA / BIBLIOGRAPHY

- BARAKA, J. 2009, Pakoštane – Crkvina, rezultati arheoloških istraživanja, *Zbornik o Luji Marunu*. Zbornik radova sa Znanstvenog skupa o fra Luji Marunu u povodu 150. obljetnice rođenja (1857. – 2007.), Skradin – Knin, 7. – 8. prosinca 2007., Tomičić, Ž., Uglešić, A., (ur./eds.), Gradska knjižnica „Juraj Šišgorić“, Hrvatski studiji Sveučilišta u Zagrebu, Institut za arheologiju, Sveučilište u Zadru – Odjel za arheologiju, Šibenik – Zadar – Zagreb, 182–193.
- BIANCHI, C. F. 1879, *Zara cristiana, Volume II*, Zara: Tipografia Woditzka.
- JELIĆ, L. 1898, Povjesno-topografske crtice o biogradskom primorju, *Viestnik Hrvatskoga arheologičkoga društva*, n. s. 3, 33–126.
- ŠUĆUR, J., BRAJKOVIĆ, D., BEDIĆ, Ž., VYROUBAL, V. 2020, Pakoštane – Maksanova gomila, newly discovered necropolis of kamici (stećci), u/in: *Life and Death in Mediaeval and Early Modern Times*. Proceedings of the 5th International Scientific Conference of Mediaeval Archaeology of the Institute of Archaeology Zagreb, 6th and 7th June 2018 (= Zbornik Instituta za arheologiju Knjiga 14), Krznar, S., Sekelj Ivančan, T., Belaj, J., Tkalčec, T. (ur./eds.), Institut za arheologiju, Zagreb, 215–238.
- UGLEŠIĆ, A. GUSAR, K. 2014, Rezultati dosadašnjih arheoloških istraživanja Crkvine u Pakoštanima (2006. – 2012.), *Glagoljica i glagoljaštvo u biogradskom kraju*: zbornik radova sa znanstvenog skupa Glagoljica na biogradskom području održanoga 17. studenoga 2012. u Biogradu, Ćosić, V. (ur./ed.), Grad Biograd, Ogranak Matice hrvatske u Zadru, Sveučilište u Zadru, Biograd – Zadar, 221–234.