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ARHEOLOŠKA ISTRAŽIVANJA U LIMSKOM KANALU 2016. LOKALITETI: ROMUALDOVA PEĆINA, ABRI KONTIJA 002, LIM 001, PEĆINA KOD ROVINJSKOG SELA

ARCHAEOLOGICAL EXCAVATION IN THE LIM CHANNEL IN 2016. SITES: ROMUALD'S CAVE, ABRI KONTIJA 002, LIM 001, CAVE NEAR ROVINJSKO SELO

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Rad donosi rezultate arheoloških istraživanja na četiri lokaliteta na području Limskog kanala provedenih tijekom 2016. godine. Terenska istraživanja dio su projekta "Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala (ARCHAEOLIM)" *financiranog od Hrvatske zaklade za znanost i provedena su na četiri lokaliteta: Romualdovoj pećini, Abri Kontija 002, Pećini kod Rovinjskog Sela i Lim 001.*

This paper presents the results of archaeological excavation conducted in the course of 2016 at four sites in the Lim Channel area. The field excavations were conducted in the frame of the Archaeological Investigations into the Late Pleistocene and Early Holocene of the Lim Channel (ARCHAEOLIM) *project, financed by the Croatian Science Foundation and conducted at four sites: Romuald's Cave, Abri Kontija 002, Cave near Rovinjsko Selo and Lim 001.*

KLJUČNE RIJEČI: *paleolitik, mezolitik, Istra, Hrvatska, ARCHAEOLIM*

KEY WORDS: *Palaeolithic, Mesolithic, Istria, Croatia, ARCHAEOLIM*

UVOD

U razdoblju od 10. srpnja do 20. kolovoza 2016. godine u sklopu projekta Hrvatske zaklade za znanost "Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala (ARCHAEOLIM)" voditelja dr. sc. Ivora Jankovića (Institut za antropologiju) provedena su arheološka istraživanja četiriju lokaliteta na području Limskog kanala: Romualdove pećine, Abri Kontija 002, Pećine kod Rovinjskog Sela i Lim 001. Navedena istraživanja dio su trogodišnjeg projekta kojim se namjerava pokušati proniknuti u pitanja vezana uz razdoblje srednjeg i gornjeg paleolitika te mezolitika na prostoru Limskog kanala i nastavak istraživanja provedenih u 2014. i 2015. godini.

METODOLOGIJA

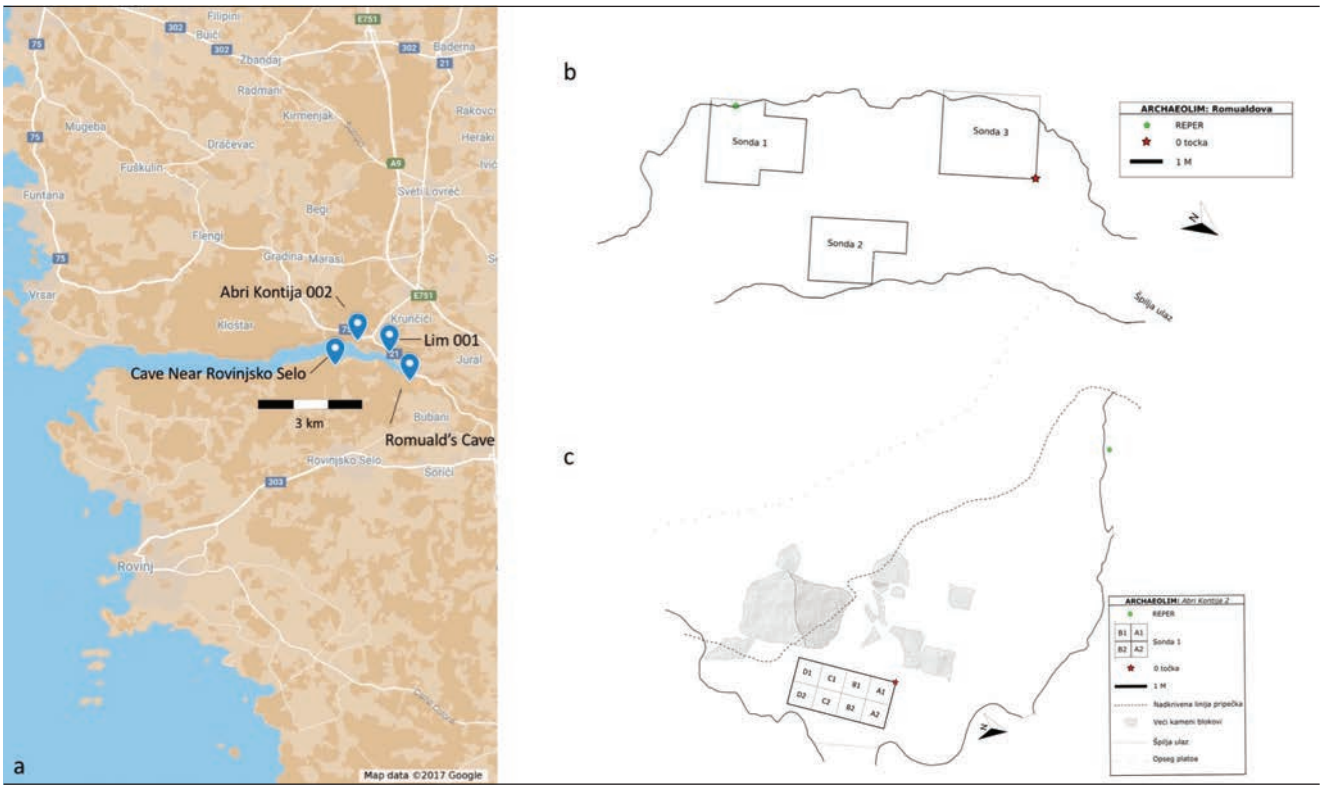
Na svim lokalitetima iskopavanje je provedeno manjim alatom (špahtle i drugi sitan alat) prema horizontalnoj i vertikalnoj stratigrafiji, a sav sediment prosijavan je kroz 3-milimetarsko sito. Vođen je terenski dnevnik, foto i druga dokumentacija. Nadalje, za sve važnije nalaze pronađene *in situ* uzimala se točna pozicija u tri dimenzije. Provedena su i geofizikalna mjerenja te geoarheološko uzorkovanje profila (za detaljniji uvid u metodologiju

INTRODUCTION

Archaeological excavations were led by Ivor Janković (Institute for Anthropological Research) in the period from July 10th to August 20th of 2016 in the frame of the Croatian Science Foundation's *Archaeological Investigations into the Late Pleistocene and Early Holocene of the Lim Channel* project at four sites in the Lim Channel: Romuald's Cave, Abri Kontija 002, Cave near Rovinjsko Selo and Lim 001. The excavations are part of a three-year project that aims to delve into questions related to the period of the Middle and Upper Palaeolithic and Mesolithic in the Lim Channel area, and continue on the excavations conducted in 2014 and 2015.

METHODOLOGY

Excavation at all sites was conducted with small tools (trowels and other small tools), investigating the horizontal and vertical stratigraphy, with all sediments sifted through a 3-millimetre mesh. Field day logs were kept and photographic and other documentation was made. Furthermore, a precise location was taken in three dimensions for all significant finds found *in situ*. Geophysical measurements and geoarchaeological sampling of profiles was conducted (for a more detailed examination of the methodology see Janković et al. 2016;



Sl. 1 Smještaj istraživanih lokaliteta (a) i položaj sondi na lokalitetu Romualdova pećina (b) i Abri Kontija 002 (c).
Fig. 1 The location of the excavated sites (a); the position of the trenches at the Romuald's Cave site (b); and Abri Kontija 002 (c).

vidi Janković et al. 2016; Janković et al. 2017; Becker et al. 2017, i tamo citiranu literaturu).

Lokalitet: Romualdova pećina (KO Sošići, k.č. 312/1, k.č. Lim-Draga)

Smještaj i opis nalazišta

Romualdovu pećinu (sl. 1a) istraživalo je više znanstvenika počevši od kraja 19. st. (vidi Komšo 2003; 2008a; Komšo i et al. 2017, i tamo citiranu literaturu). Šezdesetih i sedamdesetih godina prošlog stoljeća istraživanja M. Maleza ukazala su na ljudsku prisutnost na tom lokalitetu već u razdoblju gornjeg paleolitika (Malez 1987), a tijekom revizijskih istraživanja D. Komše 2007. godine pronađene su i alatke koje je na temelju tipoloških odlika moguće pripisati srednjem paleolitiku, odnosno musterijenskoj kulturi (vidi Komšo et al. 2017; Janković et al. 2016).

U sklopu projekta ARCHAEOLIM u Romualdovoj pećini su u 2014. i 2015. godini provedena sondažna istraživanja (Janković et al. 2016). Tijekom terenskih istraživanja u 2014. godini očišćena je sonda iz istraživanja M. Maleza (sl. 1b, sonda 2) te otvorena nova sonda u prvoj pećinskoj dvorani (sl. 1b, sonda 3). Tijekom istraživanja pronađeni su nalazi iz razdoblja pleistocena (fauna i kameno oruđe) i holocena (keramika, faunalni nalazi te ljudski kosturni ostaci iz brončanog i željeznog doba) (Janković et al. 2015; Franković i Mihelić, 2017; Franković, et al., u tisku). Pleistocenska sekvenca datirana je metodom radioaktivnog ugljika na oko 50 000 godina starosti, što potvrđuje tipološki smještaj nalaza u razdoblje srednjeg paleolitika, odnosno musterijenske kulture. Romualdova pećina time je za sada najstarije apsolutno datirano nalazište na prostoru Istre. Nalazi pokazuju da su lokalitet posjećivale skupine neandertalskih lovaca i sakupljača, kao i lovaca i sakupljača kasnog pleistocena (gornji paleolitik), a korišten je i u kasnijim razdobljima prapovijesti (brončano i željezno doba). U terenskim istraživanjima u 2016. godini nastavljeno je istraživanje u sondi 3 u jugozapadnom dijelu ulazne dvorane pećine (sl. 1b). Nadalje, provedena su i geoarheološka uzorkovanja stratigrafskih jedinica. U sondi 3 završeno je istraživanje brončanodobnih slojeva te nastavljeno vertikalno spuštanje prema stratigrafskim jedinicama (SJ). Do kraja istraživanja u sondi 3 dosegnuta je razina matične stijene (sl. 2).

Stratigrafija

SJ 15: uglavnom rahli crvenkastosmeđi sediment koji sadrži manja područja glinastijeg sedimenta. Boja prema Munsell tablici 5YR 3/3 - 5YR ¾ dark reddish

Janković et al. 2017; Becker et al. 2017 and the literature cited therein).

Site: Romuald's Cave (Cadastral Municipality Of Sošići, Cadastral Plot No. 312/1, Lim-Draga)

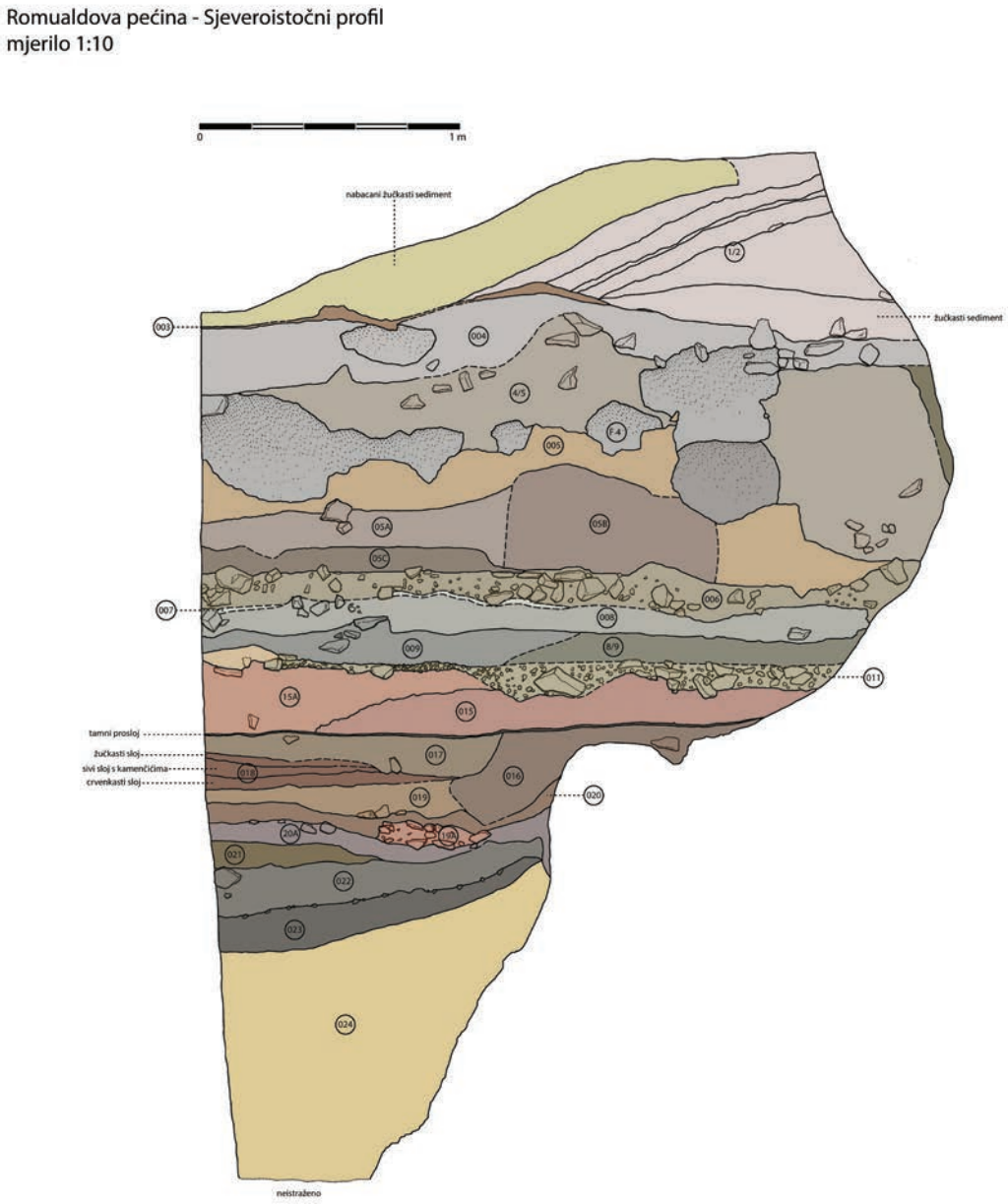
Location and Description of the Site

Romuald's Cave (Fig. 1a) has been studied by a number of researchers since the end of the nineteenth century (see Komšo 2003; Komšo 2008a; Komšo et al. 2017 and the literature cited therein). In the 1960s and 1970s the excavations of M. Malez pointed to a human presence at the site as early as the Upper Palaeolithic (Malez 1987), while a reexcavation conducted by D. Komšo in 2007 yielded finds of tools that, based on their typological characteristics, are attributable to the Middle Palaeolithic, i.e. the Mousterian culture (see Komšo et al. 2017; Janković et al. 2016).

Trenches were excavated at Romuald's Cave in 2014 and 2015 (Janković et al. 2016) in the frame of the ARCHAEOLIM project. One of the trenches excavated by M. Malez was cleaned in the course of the field excavations of 2014 (Fig. 1b, Trench 2) and a new trench was opened in the first cave chamber (Fig. 1b, Trench 3). The excavations yielded finds from the Pleistocene (fauna and lithics) and Holocene periods (pottery, faunal finds and human skeletal remains from the Bronze and Iron Ages) (Janković et al. 2015; Franković and Mihelić 2017; Franković et al. in print). The Pleistocene sequence was dated using the radioactive carbon method to an age of about 50 000 years, which corroborates the typological attribution of the finds to the Middle Palaeolithic period, i.e. the Mousterian culture. This makes Romuald's Cave Istria's currently oldest site by absolute dating - the finds indicate that the site was visited by a group of Neanderthal hunter-gatherers and by hunter-gatherers of the Late Pleistocene (Upper Palaeolithic), and that it was used in later prehistoric periods (the Bronze and Iron Ages). The field excavations of 2016 continued on the excavation of Trench 3 in the southwest section of the cave's entrance chamber (Fig. 1b). Also conducted was geoarchaeological sampling of the stratigraphic units. Excavation of Bronze Age layers was completed in Trench 3, and the vertical descent by stratigraphic units (SU) was continued. The end of the excavations in Trench 3 attained the level of the bedrock (Fig. 2).

Stratigraphy

SU 15: Predominantly loose reddish-brown sediment with some areas of clayey sediment. The colour as per the Munsell table is 5YR 3/3 - 5YR 3/4 dark reddish



Sl. 2 Stratigrafski slijed u sjeveroistočnom profilu sonde 3 u Romualdovoj pećini (crtež: D. Maršanić).
Fig. 2 The stratigraphic sequence in the northeast profile of Trench 3 in Romuald's Cave (drawing by: D. Maršanić).

brown. Pri vrhu sadrži fragmente gara i malo kamenja manjih dimenzija (puno manje od prethodne SJ). Nalazi životinjskih kostiju, uglavnom u gornjem dijelu. Pri dnu SJ 15 i 15A javlja se tanak taman prosloj koji možda predstavlja kratkotrajnu epizodu naplavine organskog materijala (lišće?).

SJ 15A: ista horizontalna stratigrafija kao i SJ 15, ograničen na dio sonde u kvadrantu A3 i sjeverostočni profil. Radi se o nakupinama glinastijeg sloja koji se javlja u obliku fragmentiranih komadića gline promjera oko 1 cm, a ne o homogenom sedimentu. Bez nalaza.

brown. Fragments of soot and a small number of small stones near the top (much less than in the previous SU). Finds of animal bones, mostly in the upper area. Near the bottom of SU 15 and 15A we see thin dark interbedding that may indicate a brief episode of flood-deposited organic material (leaves?).

SU 15A: The same horizontal stratigraphy as SU 15, limited to the part of the trench in quadrant A3 and the northeast profile. These are accumulations of a more clayey layer that appears as fragmented bits of clay with a diameter of about 1 cm rather than as homogenous sediment. No finds.

SJ 16: svjetliji sediment od SJ 15. Prisutan u kvadrantima B, u kojima to uglavnom predstavlja i posljednju stratigrafsku jedinicu, te u rubnim dijelovima kvadranata A, dok je u ostatku sonde (veći dio kvadranata A) u istom horizontalnom položaju kao i SJ 17 - 19. U sloju su pronađeni fragmenti životinjskih kostiju i nekoliko litičkih nalaza (Munsell 5YR 4/6 yellowish red). Sediment se lako iskopava, relativno je vlažan i sadrži 30-50% kamenja srednje veličine, posebice u kvadrantima A2 i B1-3.

SJ 17: tvrđi, masniji, pjeskasto-glinast sediment koji je pri iskopavanju kompaktniji od sedimenta iz SJ 16. Sadrži 20-30% kamenja manje i srednje veličine (rijetko većih od 10 cm). Nešto životinjskih kostiju (Munsell 7.5YR 4/6 strong brown).

SJ 18: rahli, malo tamniji, sediment nego SJ 17, umjereno vlažan (Munsell 7.5 YR 4/6 strong brown - 7.5 YR 4/4 brown). Sadrži otprilike 40% kamenja razne veličine. Prisutan u kvadrantima A3 i B3, dok je SJ u ostalim kvadrantima teško pratiti. Par faunalnih nalaza, sporadični tragovi gara i vrlo lijepo maleno poprečno strugalo.

SJ 19: rahli, pjeskasto-glinasti sloj koji sadrži manje kamenja nego SJ 18, uglavnom manjih dimenzija (do 5 cm promjera) i manje količine (cca 10%) srednje veličine (do 10 cm promjera). 7.5 YR 4/6 strong brown. Malo nalaza - nekoliko životinjskih kostiju i jedan litički nalaz.

SJ 19A: nakupina kamenja unutar SJ 19, uglavnom ograničena na dio kvadranta A3 i vidljiva u sjeveroistočnom profilu sonde 3. Unutar SJ pronađeno još jedno malo poprečno strugalo.

SJ 20: rahli, uglavnom pjeskast sloj s primjesama glinastog sedimenta. Sadrži vrlo malo kamenja manjeg promjera (do 3 cm). Sediment je sličan onom iz SJ 19, no s manje kamenja. Lako se iskopava (Munsell 5YR ¾ dark reddish brown - 7.5YR 4/6 strong brown). Jako bogat litičkim nalazima (22 *in situ* mapirana nalaza), dok faunalnih nalaza gotovo uopće nema.

SJ 20A: prosloj s glinastim komadićima poput onog u SJ 15A prisutan je u dijelu kvadranta A3, dok u ostalim dijelovima pratimo SJ 20 i dijelom SJ 21. Sterilan.

SJ 21: pjeskasto-siltasti (dijelom prašinasti) sloj s malom količinom kamenja (uglavnom nekoliko kamena srednje veličine - do 10 cm) u kvadrantu A3. Slična konstitucija kao SJ 20, malo suši. Lako se kopa, Munsell 5YR ¾ dark reddish brown - 7.5YR 4/6 strong brown (isto kao i SJ 20: moguće je da se radi o istom prirodnom sloju). Najbogatiji arheološkim nalazima litike (*in situ* mapirano 87 nalaza), malo faunalnih nalaza (*in situ* mapirano 7).

SJ 22: rahli i nešto tvrđi sediment koji se relativno lako kopa i lako drobi prstima. Suh i sadrži manju

SU 16: Sediment lighter than SU 15. Present in quadrant B in which it is also for the most part the last stratigraphic unit, and at the edges of quadrant A, while in the remainder of the trench (most of quadrant A) it is in the same horizontal position as are stratigraphic units 17-19. Animal bone fragments and a few lithic finds in this layer (Munsell 5YR 4/6 yellowish red). Sediment easily excavated, relatively moist and containing 30 to 50% medium sized stones, especially in quadrants A2 and B1-3.

SU 17: Harder, more unctuous, sandy-clayey sediment more compact when excavated than the sediment of SU 16. Contains 20-30% pebbles and small cobbles (rarely larger than 10 cm). Some animal bones (Munsell 7.5YR 4/6 strong brown).

SU 18: Loose, somewhat darker sediment than SU 17, moderately moist (Munsell 7.5YR 4/6 strong brown - 7.5 YR 4/4 brown). Contains about 40% stones of various sizes. Present in quadrants A3 and B3, while this SU is hard to follow in other quadrants. A few faunal finds, sporadic traces of soot and a very nice small transversal scraper.

SU 19: Loose, sandy-clayey layer containing fewer pebbles than SU 18, predominantly small (diameter up to 5 cm) with some (approx. 10%) medium sized (diameter up to 10 cm). 7.5 YR 4/6 strong brown. Few finds - a couple of animal bones and one lithic find.

SU 19A: Agglomeration of stones within SU 19, largely limited to part of quadrant A3 and visible in the northeast profile of Trench 3. Another small transversal scraper found in this SU.

SU 20: Loose, mostly sandy layer with intermixed clayey sediment. Contains very little stone (gravel up to 3 cm). The sediment is similar to that of SU 19, but contains fewer stones. Easily excavated (Munsell 5YR 3/4 dark reddish brown - 7.5YR 4/6 strong brown). Very abundant lithic finds (22 finds mapped *in situ*) with almost no faunal finds.

SU 20A: Interbedding with clayey bits like those in SU 15A present in part of quadrant A3, while in other parts we follow SU 20 and in part SU 21. Sterile.

SU 21: Sandy-silty (in part dusty) layer with few stones (a pair of mid-sized cobbles of up to 10 cm) in quadrant A3. Constitution similar to SU 20, slightly drier. Easily excavated, Munsell 5YR ¾ dark reddish brown - 7.5YR 4/6 strong brown (same as SU 20: this may be the same natural layer). Most abundant in archaeological lithic finds (87 finds mapped *in situ*), and some faunal finds (7 mapped *in situ*).

SU 22: Loose and somewhat harder sediment that is relatively easily excavated and easily crumbles between the fingers. Dry and containing a small quantity of very small stones (pebbles up to 1 cm). Very few finds outside

količinu vrlo sitnog kamenja (do 1 cm). Uglavnom nema nalaza osim nekoliko kostiju koje su izrazito crne boje (vjerojatno rezultat kemijske reakcije, a ne gorenja), Munsell 7.5 YR ¾ dark brown - 7.5 YR 4/4 brown.

SJ 23: umjereno vlažan, glinasto-pjeskasti do siltasti sediment u kojem su prisutne nakupine erodirane crne boje, vrlo tvrde, što sediment čini izrazito teškim za iskopavanje. U donjem dijelu SJ iskopavanje nije bilo moguće provesti bez upotrebe čekića (Munsell 10YR 4/6 dark yellowish brown). Malo nalaza, nekoliko sasvim pocrnjelih kostiju čija je kemijska struktura izmijenjena i one su mineralizirane (vrlo su teške). Rezultat kemijske reakcije, a ne gorenja.

SJ 24: završni sloj prije matične stijene. U potpunosti sterilan pjeskasti sloj žućkasto-smeđe do crvenkaste boje (Munsell 10 YR 5/4 - 5/6 yellowish brown). Vjerojatno se radi o vodenom nanosu pijeska koji odgovara sterilnom pijesku koji je prisutan i u ranijim sondama.

Rezultati

Ovogodišnja istraživanja u Romualdovoj pećini nastavak su istraživanja iz 2015. godine (vidi Janković et al. 2016). Prvo se pristupilo iskopavanju preostalog sedimenta slojeva 4/5 i ostalih slojeva i stratigrafskih jedinica u kvadrantima C1-C3 kako bi se dostigla horizontalna razina ostatka sonde (kvadranti A1-3 i B1-3 u kojima je do kraja prošlogodišnjih istraživanja dosegnuta razina SJ 15). Kvadranti C nalaze se uz sam pećinski zid i njihova dimenzija ne iznosi 100 x 100 cm već je preostalo puno manje sedimenta. Nakon toga započinje horizontalno spuštanje u svim kvadrantima (za opise SJ 1-14 vidi Janković et al. 2016.). U spomenutim stratigrafskim jedinicama pronađeno je malo nalaza (dva litička i nekoliko faunalnih), no valja uzeti u obzir da je iskopavana površina bila mala. Na razini SJ 15 zid pećine pada prema unutrašnjosti i kvadranti C u potpunosti nestaju. Nadalje, zbog spomenutog pada kvadranti B1-3 također su smanjenog obima, što treba uzeti u obzir pri interpretaciji količine sakupljenog arheološkog materijala.

U ostatku sezone istraživanja u Romualdovoj pećini spuštene su sve stratigrafske jedinice u sondi 3, završno sa sterilnim slojem pijeska (SJ 24). Općenito govoreći, SJ 15 - 19A sadrže nalaze faune i manjeg broja litike, no količina ne sugerira dugotrajan boravak i veću aktivnost na nalazištu, barem na području istraživanja sonde 3. Situacija se mijenja tijekom formacije SJ 20 - 21, koji su izuzetno bogati litičkim nalazima, dok su faunalni puno rjeđi. Spomenuti slojevi najbogatiji su arheološkim pokazateljima ljudskog boravka u Romualdovoj pećini. SJ 22 i 23 sačinjene su od dijelom zabrečanog, vrlo tvrdog

of a couple of bones of very black colour (likely the result of a chemical reaction rather than burning), Munsell 7.5 YR 3/4 dark brown - 7.5 YR 4/4 brown.

SU 23: Moderately moist, clayey-sandy to silty sediment containing agglomerations of eroded black colour, very hard, making the sediment exceedingly difficult to excavate. Excavation at the bottom of this SU was not possible without the aid of a hammer (Munsell 10YR 4/6 dark yellowish brown). Few finds, several entirely blackened bones with altered chemistry that have mineralised (very heavy). The result of a chemical reaction rather than burning.

SU 24: The final layer before the bedrock. An entirely sterile sandy layer of yellow-brown to reddish colour (Munsell 10 YR 5/4 - 5/6 yellowish brown). Likely water-deposited sand that corresponds to the sterile sand also present in earlier trenches.

Results

This year's excavation at Romuald's Cave continues on the excavations of 2015 (see Janković et al. 2016). We first undertook the excavation of the remaining sediment of layers 4/5 and of other layers and stratigraphic units in quadrants C1-C3 in order to achieve the horizontal level of the rest of the trench (quadrants A1-3 and B1-3 in which the level of SU 15 was attained at the close of last year's excavations). The C quadrants abut the wall of the cave and their dimensions are not 100 by 100 cm, rather much less sediment remained. This was followed by the start of horizontal descent in all quadrants (for descriptions of SU 1-14 see Janković et al. 2016). Few finds were discovered in the mentioned stratigraphic units (two lithic and several faunal finds), but we should bear in mind that the excavated surface was small. At the level of SU 15 the wall of the cave drops inward and the C quadrants completely disappear. Furthermore, due to the cited drop quadrants B1-3 are also of reduced scope, which needs to be taken into consideration in the interpretation of the quantity of collected archaeological material.

In the remainder of the excavation season we descended through all the stratigraphic units in Trench 3, terminating with the sterile layer of sand (SU 24). Taken in general stratigraphic units 15 through 19A contain finds of fauna and a small quantity of lithics, but the quantity does not suggest prolonged habitation and great activity at the site, at least in the area excavated in Trench 3. The situation changes in the course of formations SU 20 and 21, which are very rich in lithic finds, while faunal finds are much more rare. The cited layers are richest in archaeological indicators of human habitation in Romuald's Cave. SU 22 and 23 are partially composed of brecciated, very hard

sedimenta i u njima je pronađeno vrlo malo nalaza – nekoliko životinjskih kostiju. SJ 24 u potpunosti je sterilan pijesak koji leži na bazičnoj stijeni i predstavlja posljednju stratigrafsku jedinicu.

Tijekom ovogodišnjih istraživanja u Romualdovoj pećini pronađeni su nalazi koje je moguće podijeliti u dvije glavne kategorije: životinjske kosturne ostatke i litičke nalaze (sl. 3). Nakon završetka terenskog dijela istraživanja pristupilo se pranju i dokumentiranju nalaza te ostalim pripremnim radnjama u laboratoriju; napravljena je i fotodokumentacija, baza podataka te odvojeni uzorci za radiometrijsko datiranje i ostale standardne analize. U tijeku je analiza materijala. Preliminarna analiza litičkih nalaza ukazuje na srednjopaleolitičke odlike pronađenog materijala, što je u suglasju s rezultatima iz ranijih istraživanja (sezone 2014. i 2015., vidi Janković et al. 2016; Barbir et al. 2016). Arheološki najbogatije stratigrafske jedinice su SJ 20 – SJ 21. U njima je *in situ* mapirano ukupno 109 litičkih nalaza što, uzimajući u obzir i prostornu distribuciju nalaza i druge čimbenike (primjerice, vrlo malu količinu faunalnih nalaza u spomenutim stratigrafskim jedinicama), sugerira *in situ* epizodu proizvodnje litike. U tijeku je detaljna analiza nalaza iz SJ 20–21, koja će pomoći razjašnjavanju situacije.

sediment and yielded very few finds – several animal bones. SU 24 is entirely sterile sand lying on the bedrock and is the last stratigraphic unit.

The finds recovered in the course of this year's excavations at Romuald's Cave can be divided into two main categories: animal skeletal remains and lithic finds (Fig. 3). Following the completion of the field segment of the excavations, we undertook the cleaning and documentation of the finds and other preparatory work in the laboratories, creating photographic documentation, a database and singling out samples for radiometric dating and other standard analyses. The materials analysis is ongoing. The preliminary analysis of the lithic finds points to the Middle Palaeolithic characteristics of the recovered material, which is consistent with the results of the earlier excavations (seasons 2014 and 2015, see Janković et al. 2016; Barbir et al. 2016). The archaeologically most abundant stratigraphic units are SU 20 and SU 21. A total of 109 *in situ* lithic finds were mapped in them which, taking into consideration the spatial distribution of finds and other factors (for example the very small quantity of faunal finds in these stratigraphic units), suggest an *in situ* episode of lithic production. A detailed analysis is ongoing of the finds from SU 20 and 21 that will shed light on the matter.

Sl. 3 Litički nalazi iz slojeva gornjeg (lijevo) i srednjeg paleolitika (desno) iz Romualdove pećine.
Fig. 3 Lithic finds from the layers of the Upper (left) and Middle (right) Palaeolithic in Romuald's Cave.

Lokalitet: Abri Kontija 002 (KO Gradina, k.č. 940/2, k.č. Stran)

Smještaj i opis nalazišta

Abri Kontija 002 manji je pripećak na sjevernoj strani Limskog kanala (sl. 1a) koji je otkriven 2007. godine kada su pod vodstvom D. Komše u njoj postavljene dvije manje sonde dimenzija 40x40 cm (Komšo 2008b; Komšo et al. 2017). U sondama su zabilježeni nalazi 20-ak kamenih izrađevina i jedan morski puž. U sklopu projekta ARCHAEOLIM 2014. godine na lokalitetu je postavljena manja sonda (1,5 x 1,5 m), a istraživanja u njoj nastavljena su 2015. i 2016. godine (sl. 1c). U sondi su pronađeni brojni nalazi pleistocenske faune, tragovi gorenja, litički i drugi nalazi. (Janković et al. 2016).

Stratigrafija

U nastavku su opisani slojevi istraženi 2016. godine kao nastavak vertikalnog spuštanja stratigrafskih jedinica u sondi 1, kvadrantima A i B, a za opis ranijih stratigrafskih jedinica vidi Janković et al. 2016:

Sloj 7: suha pjeskasta zemlja puna kamenja veličine 1-10 cm (Munsell 7.5 YR 5/3 brown). Nalazi litike i životinjskih kostiju.

Sloj 7.1: karakteristike sedimenta su gotovo identične onima iz sloja 6. Budući da se nalazi ispod sloja 7, nazvan je 7.1. Tamniji sediment (Munsell 10 YR 4/3 brown do 7.5 5/3 brown). Nalazi litike, nešto životinjskih kostiju i tragova gorenja.

Sloj F5 tamniji vlažni sediment unutar sloja 7.1 u kojem ima manje kamenja (10-20%). Fragmenti ugljena (Munsell 7.5 YR 2.3/3 very dark brown). Prisutno u kvadrantima A2 i B2.

Sloj 8: sediment koji se sastoji od dijelom vlažnog i glinastijeg, a dijelom rastresito i sušeg sloja smećkasto-narančaste boje (Munsell 7.5 YR 4/6 strong brown). Sadrži 50-70% kamenja dimenzija do cca 10 cm te nekoliko većih kamenih blokova. Prisutno područje gara koje se nastavlja iz ranijih stratigrafskih jedinica (sloj 6 i 7). Litika, životinjske kosti.

Sloj 9: Tamnosmeđi rahli sediment, relativno suh. Sadrži manje kamenja nego sloj iznad (cca 20-30%), većinom manjih dimenzija (1-5 cm) uz nekoliko većih blokova (većih od 20 cm). Sloj 9 predstavlja zadnju stratigrafsku jedinicu u sondi 1 te je prvotno nazvan 8.1.

Kvadranti C i D:

Sloj 1: sivkast i siltast rastresiti sloj s oko 40% kamenja manjih dimenzija. Boja varira od Munsell 10 YR 4/4 dark yellowish brown do 7.5 YR 4/4 brown.

Site: Abri Kontija 002 (Cadastral Municipality of Gradina, Cadastral Plot No. 940/2, Stran)

Location and Description of the Site

Abri Kontija 002 is a small rockshelter on the north side of Lim Channel (Fig. 1a), discovered in 2007, when, under the leadership of D. Komšo, two small 40 by 40 cm trenches were opened in it (Komšo 2008b; Komšo et al. 2017). Found in the trenches were some twenty stone artefacts and one sea snail. A small trench (1.5 by 1.5 m) (Fig. 5) was opened at this site in 2014 in the frame of the ARCHAEOLIM project, with excavation continuing in 2015 and 2016. Numerous discoveries were made in the trench of Pleistocene fauna, traces of burning, lithic and other finds (Janković et al. 2016).

Stratigraphy

Described below are the layers excavated in 2016 - the continued vertical descent of stratigraphic units in Trench 1, quadrants A and B (for a description of earlier stratigraphic units see Janković et al. 2016):

Layer 7: Dry sandy soil full of pebbles and cobbles ranging from 1-10 cm in size (Munsell 7.5 YR 5/3 brown). Finds of lithics and animal bones.

Layer 7.1: The characteristics of the sediment are almost identical to that of layer 6. Being beneath layer 7, it has been designated 7.1. Dark sediment (Munsell 10 YR 4/3 brown to 7.5 5/3 brown). Finds of lithics, some animal bones and traces of burning.

F5: A darker, moist sediment within layer 7.1 with some stones (10-20%). Fragments of charcoal (Munsell 7.5 YR 2.3/3 very dark brown). Present in quadrants A2 and B2.

Layer 8: Sediment consisting of part moist and clayey and part loose and drier layer of brownish-orange colour (Munsell 7.5 YR 4/6 strong brown). Contains 50-70% stones with sizes up to about 10 cm and several boulders. Area of soot present continuing from earlier stratigraphic units (layers 6 and 7). Lithics, animal bones.

Layer 9: Dark brown loose sediment, relatively dry. Contains fewer stones than the preceding layer (approx. 20-30%) most of them pebbles (1-5 cm) along with a few larger cobbles (larger than 20 cm). Layer 9 is the last stratigraphic unit in Trench 1 and was initially designated 8.1.

Quadrants C and D:

Layer 1: Greyish and silty loose layer with about 40% small stones. Colour varies from Munsell 10 YR 4/4 dark yellowish brown to 7.5 YR 4/4 brown.

Layers 2.1, 2.2, 2.3 and layer 3: Same characteristics and same category of finds as the layers in quadrants A and B (for a description of sediments see Janković et al. 2016).

Slojevi 2.1, 2.2, 2.3 i sloj 3: iste karakteristike i iste kategorije nalaza kao slojevi u kvadrantima A i B (za opis sedimenta vidi Janković i et al. 2016).

Sloj 3.1: tamniji, suši sediment, dijelom glinast (Munsell 7.5 YR 5/8 – 7.5 5/6 yellowish brown). Javlja se u južnom dijelu sonde i sličan je sloju 3 te je preliminarno nazvan 3.1.

Sloj 3.2 sediment je sličan sedimentu 3.1, relativno suh (Munsell 7.5 YR 5/6 strong brown). Kao i 3.1, prisutan je u južnom dijelu sonde (uglavnom kvadranti D1 i D2). Dijelom paralelan sa slojem 4, koji je prisutan u sjevernom dijelu sonde (kvadranti C1 i C2), a manjim dijelom se širi pod sloj 4.

Sloj 4: rastresit, dijelom vlažan sediment, s nešto manjom količinom kamenja od ranijih slojeva (30–40%), većinom manjih dimenzija (Munsell 7.5 YR 5/8 strong brown – 10 YR 4/3 brown). Prisutan u sjevernom dijelu sonde. Dodatnom usporedbom treba provjeriti radi li se o istom sloju 4 kao u ostatku sonde iz ranijih istraživanja.

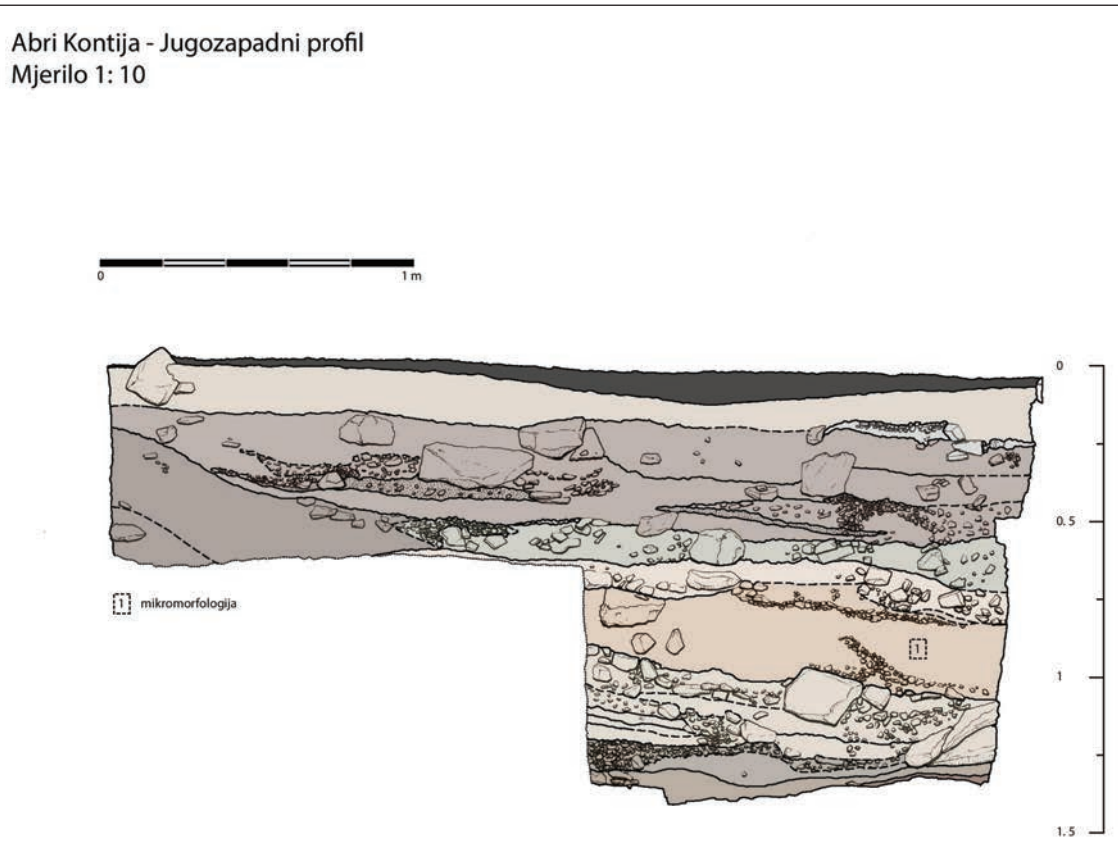
F6: u dijelu sloja 4 na granici između kvadranata C1 i C2 javlja se sediment tamnosmeđe boje (Munsell 7.5 YR 2.5/2 very dark brown). Sadrži puno fragmenata životinjskih kostiju. Vjerojatno je da se radi o nastavku F1 iz kvadranta B2.

Layer 3.1: Darker, drier sediment, partially clayey (Munsell 7.5 YR 5/8 – 7.5 5/6 yellowish brown). Appears in the southern part of the trench and is similar to layer 3, preliminary designation is 3.1.

Layer 3.2 Sediment similar to the sediment of 3.1, relatively dry (Munsell 7.5 YR 5/6 strong brown). Like 3.1 it is present in the southern part of the trench (for the most part quadrants D1 and D2). Partially parallel to layer 4, which is present in the northern part of the trench (quadrants C1 and C2), and to a lesser extent extends beneath layer 4.

Layer 4: Loose, partially moist sediment with somewhat fewer stones than previous layers (30–40%), mostly small (Munsell 7.5 YR 5/8 strong brown – 10 YR 4/3 brown). Present in the northern part of the trench. Further comparative analysis is required to determine if this is the same layer 4 from the remainder of the trench from previous excavations.

F6: Dark brown sediment (Munsell 7.5 YR 2.5/2 very dark brown) appears in a part of layer 4 at the border between quadrants C1 and C2. Contains a large number of animal bone fragments. Likely the continuation of F1 from quadrant B2.



Sl. 4 Jugozapadni profil sonde na lokalitetu Abri Kontija 002 (crtež: D. Maršanić).
Fig. 4 The southwest profile of the trench at the Abri Kontija 002 site (drawing by: D. Maršanić).

Sloj 5: suh i siltast sediment koji se počeo javljati u sjevernom dijelu sonde (kvadranti C1 i C2). Više većih kamenih blokova, a manje kamenja manjih dimenzija. Vjerojatno se može korelirati sa slojem 5 iz kvadranata A i B. Ovogodišnja istraživanja u novom dijelu sonde stala su na razini sloja 3.2 (kvadranti D1 i D2) odnosno sloja 5 (kvadranti C1 i C2).

Rezultati

Tijekom istraživanja u 2016. godini nastavljeno je vertikalno spuštanje slojeva u postojećoj sondi (vidi Janković et al. 2016)., no budući da je tijekom istraživanja dosegnuta matična stijena u kvadrantima A i B, postojeća sonda je proširena u pravcu juga (sl. 1c, sl. 4). Novi kvadranti nastavljaju se na kvadrante B1 i B2 te se nazivaju C i D. Dimenzije novog dijela sonde su 150 x 150 cm, tako da cijela sonda iznosi 300 x 150 cm (kvadranti A1, A2, B1, B2, C1, C2, D1, D2 dimenzija 75 x 75 cm). Nakon završetka ovogodišnjih istraživanja sonda je zaštićena geotekstilom i zapunjena vrećama u kojima se nalazi prosijani sediment, kako bi se lokalitet zaštitio i omogućio jednostavan nastavak istraživanja.

Tijekom sezone istraživanja 2016. godine pronađen je jako velik broj nalaza (mapiran je 951 nalaz, a prosijavanjem sedimenta sakupljeno je nekoliko tisuća dodatnih nalaza). Najbrojniji su nalazi litike i životinjskih kostiju (razni sisavci) (vidi Weinstock 2017). Konzistentno su prisutni i tragovi gorenja. To govori o izuzetno bogatom i kontinuirano naseljenom nalazištu, s potencijalom da postane ključni lokalitet za proučavanje kasnog pleistocena na ovom području. Nije primijećen hijatus u korištenju prostora, a dodatno širenje sonde u budućim istraživanjima, kao i precizniji kronološki reperi (rezultati apsolutne datacije na temelju poslanih uzoraka) u kombinaciji s rezultatima geoarheoloških analiza omogućit će precizniju kronološku, arheološku i ekološko-klimatsku sliku ovog prostora tijekom navedenog razdoblja.

Lim 001 (KO Gradina, k.č. 940/32)

Smještaj i opis nalazišta

Lim 001 je manji pripećak u podnožju velikih stijena na sjevernoj strani Limskog kanala (sl. 1a). Ulaz je maksimalne visine 2 m, dužine 8 m (Komšo 2008a). Ranija istraživanja D. Komše ukazala su na vjerojatnu prisutnost kasnog mezolitika, temeljeno na nalazima trapeza, probušenih morskih pužića (*C. rustica*), ribljih kostiju te veće količine morskih školjaka (Komšo 2008a; Janković et al. 2016; Komšo et al. 2017). U sklopu projekta ARCHAEOLIM 2015. godine započeta su manja sondažna istraživanja lokaliteta

Layer 5: Dry and silty sediment that begins to appear in the northern part of the trench (quadrants C1 and C2). More boulders and fewer stones of smaller size. Can likely be correlated with layer 5 from quadrants A and B. This year's excavations in the new part of the trench terminated at the level of layer 3.2 (quadrants D1 and D2) and layer 5 (quadrants C1 and C2).

Results

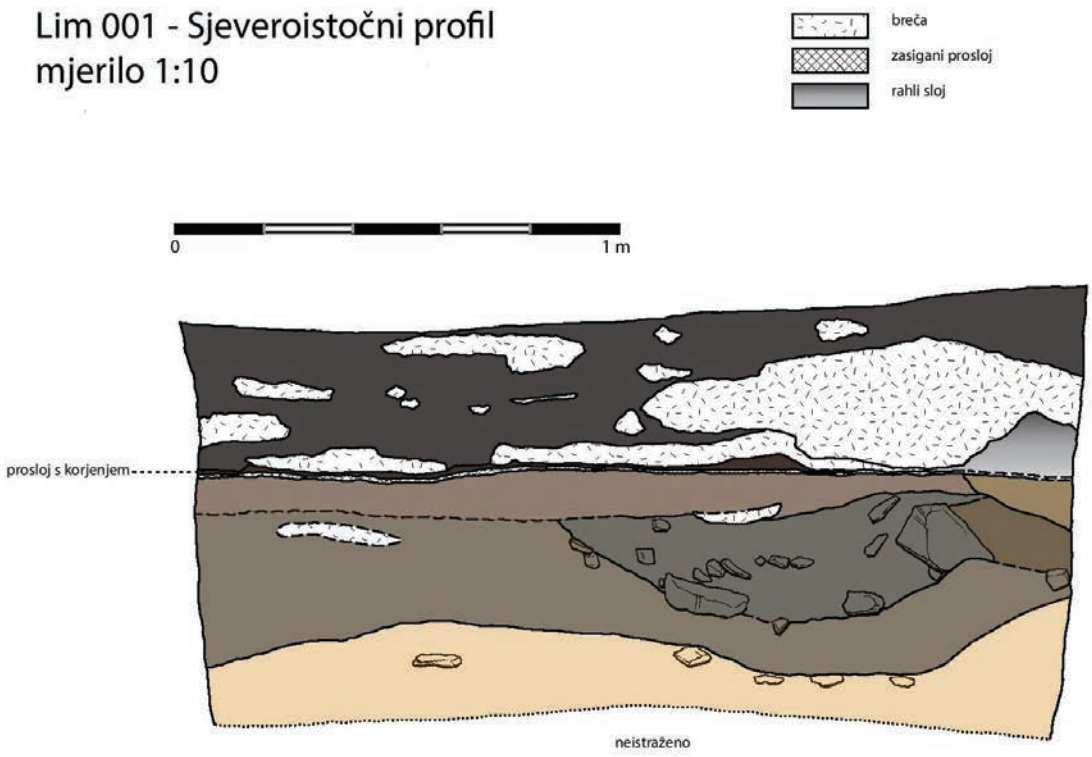
In the course of the 2016 excavations we continued the vertical descent through layers in the existing trench (see Janković et al. 2016). Given, however, that the excavations reached the bedrock in quadrants A and B the existing trench was broadened southwards (Fig. 1c, Fig. 4). The new quadrants continue on quadrants B1 and B2 and are designated C and D. The dimensions of the new part of the trench are 150 by 150 cm, such that the entire trench measures 300 by 150 cm (quadrants A1, A2, B1, B2, C1, C2, D1, D2 dimensions 75 by 75 cm). Upon completion of this year's excavations the trench was protected with geotextile and filled with bags containing sifted sediment to protect the site and to simplify the future continuation of excavations.

A very large quantity of finds was recovered in the course of the 2016 season excavations (951 finds were mapped and a further several thousand finds were recovered by sifting the sediment). The most numerous are lithic and animal bone (various mammals) finds (see Weinstock 2017). Traces of burning are consistently present. This speaks to a very rich and continual habitation of the site with the potential of becoming the key site in the study of the Late Pleistocene in this area. No hiatus was observed in the use of the space, and the further broadening of the trenches in future excavations, and more precise chronological benchmarks (the results of absolute dating on the basis of submitted samples) in combination with the results of geoarchaeological analyses, will provide for a more precise chronological, archaeological and ecological-climatic picture of this space in the course of the cited period.

Lim 001 (Cadastral Municipality of Gradina, Cadastral Plot No. 940/32)

Location and Description of the Site

Lim 001 is a small rockshelter (abri) at the foot of large rocks on the northern side of the Lim Channel (Fig. 1a). The entrance has a maximum height of two metres and a length of eight metres (Komšo 2008a). Earlier excavations led by D. Komšo pointed to a likely Late Mesolithic presence, based on finds of trapezes, perforated



Sl. 5 Sjeveroistočni profil sonde na lokalitetu Lim 001 (crtež: D. Maršanić).
Fig. 5 The northeast profile of the trench at the Lim 001 site (drawing by: D. Maršanić).

(Janković et al. 2016) te je nova sonda postavljena kao nastavak na raniju sondu iz iskopavanja D. Komše, istočno od nje i direktno se nastavljajući na njen istočni profil. Ovogodišnja istraživanja nastavila su vertikalno spuštanje sedimenata u sondi 2 te sondi 1 iz istraživanja D. Komše, kako bi se dobio bolji uvid u horizontalnu i vertikalnu stratigrafiju (sl. 5). Budući da je sediment vrlo tvrd i zabrečan, pri istraživanju se koristio sustav arbitrarnih slojeva (AS) i sakupljao sav sediment, koji se potom nosio na laboratorijsku obradu, otapanje i mokro sijanje.

Stratigrafija

Za opis slojeva 1 - 13 vidi Janković et al. 2016.

AS 14: narančasto-smeđi, rahli sediment, s 10-20% manjeg kamenja (do cca 5 cm), Munsell 7.5YR 6/4 light brown.

AS 15 i 16: narančasto-smeđi silt. Prema JI profilu sadrži nešto više kamenja (veličine od 5-20 cm). Prema SZ profilu djelomično zabrečan, tvrđi i kompaktniji sediment (Munsell 7.5 YR 4/6 light brown).

AS 17: svjetlonarančasti rahli sediment (Munsell 7.5 YR 4/6 light brown). Prema JI profilu sonde ima manje kamenja nego u AS15 i 16. Prema zapadnom dijelu sonde sediment je tvrđi i dijelom zabrečan.

sea snails (*C. rustica*), fish bones and a large quantity of sea shells (Komšo 2008a; Janković et al. 2016; Komšo et al. 2017). Small-scale trench excavation at the site was initiated in 2015 in the frame of the ARCHAEOLIM project (Janković et al. 2016) and a new trench was opened as a continuation of the earlier trench opened during the excavations led by D. Komšo, to the east of it and directly continuing off its eastern profile. This year's excavations continued the vertical descent through sediments in Trench 2 and in Trench 1 from the D. Komšo excavations, with the objective of gaining better insight into the horizontal and vertical stratigraphy (Fig. 5). Given the hardness and brecciated nature of the sediment, an arbitrary layer (AL) system was applied in the excavation, collecting all sediment and transporting it for laboratory treatment, dissolution and wet sifting.

Stratigraphy

For a description of layers 1 through 13 see Janković et al. 2016.

AL 14: Orange-brown loose sediment with 10-20% pebbles (up to approx. 5 cm), Munsell 7.5YR 6/4 light brown.

AL 15 and 16: Orange-brown silt. Somewhat more pebbles and cobbles towards the SE profile (sizes from 5

AS 18-20: nešto tamniji, crvenkastiji, siltasto-rahli sediment (Munsell 5YR 4/4 reddish brown). Sadrži manje kamenja od ranijih SJ ovog horizonta. Prema jugu i zapadu još uvijek dijelom zabrečan. Ovogodišnja istraživanja stala su na razini AS 20.

Radi lakše korelacije stratigrafije, temeljeno na osnovnim karakteristikama AJ, moguće je odrediti tri veće stratigrafske cjeline (horizonta). Horizont 1, koji uključuje AJ 1-8; horizont 2, koji uključuje AJ 9-17, te horizont 3 kojem pripadaju AJ 18-20. Daljnja istraživanja i geoarheološke analize profila omogućit će detaljnije određivanje stratigrafskih jedinica te našu podjelu na horizonte valja koristiti kao preliminarnu.

Pećina kod Rovinjskog Sela (KO Rovinjsko Selo, k.č. 446/285)

Smještaj i opis nalazišta

Pećina kod Rovinjskog Sela smještena je na južnim obroncima Limskog kanala (sl. 1a), pod lokacijom Kamenjača. Pred ulazom ima veći natkriveni plato trokutastog oblika, dimenzija 13 x 10 metara i 4 metra visine, na kojem je D. Komšo 2007. godine postavio probnu sondu u kojoj je pronašao nalaze kremenih izrađevina, životinjske kosti te ljušture kopnenih i morskih mekušaca, kao i tragove vatrišta (Komšo 2008b, Janković et al. 2016; Komšo et al. 2017). Na temelju litičkih nalaza Komšo nalazište okvirno datira u razdoblje mezolitika ili u sam kraj gornjega paleolitika (Komšo 2008b). Istraživanja lokaliteta u 2016. godini trajala su od 15. srpnja do 1. kolovoza. Sjeveroistočno od ranije sonde iz 2007. godine postavljena je nova sonda (sl. 6) dimenzija 1 x 1,5 m, podijeljena na dva kvadranta - D6 i D7 - koji su podijeljeni na potkvadrante: D6.1 i D6.2 te D7.1, D7.2, D7.3 i D7.4.

Sl. 6 Položaj sonde na lokalitetu pećina kod Rovinjskog Sela.
Fig. 6 The position of the trench at the Cave near Rovinjsko Selo site.

to 20 cm). Partially brecciated, harder and more compact sediment towards the NW profile (Munsell 7.5 YR 4/6 light brown).

AL 17: Light orange loose sediment (Munsell 7.5 YR 4/6 light brown). Fewer stones towards the SE profile of the trench than in AL 15 and 16. The sediment is harder and partially brecciated towards the western end of the trench.

AL 18-20: Somewhat darker, redder, silty-loose sediment (Munsell 5YR 4/4 reddish brown). Contains fewer stones than earlier stratigraphic units of this horizon. Still partially brecciated to the south and west. This year's excavations terminated at the AL 20 level.

For easier stratigraphic correlation, based on the basic characteristics of the AUs, we can identify three larger stratigraphic contexts (horizons). Horizon 1, which includes AUs 1-8; Horizon 2, which includes AUs 9-17; and Horizon 3, which includes AUs 18-20. Further excavation and geoarchaeological analyses will provide for a more detailed determination of the stratigraphic units and our division of horizons should be taken as preliminary.

Cave Near Rovinjsko Selo (Cadastral Municipality Of Rovinjsko Selo, Cadastral Plot No. 446/285)

Location and Description of the Site

Cave near Rovinjsko Selo is located on the southern slope above Lim Channel, below the Kamenjača location (Fig. 1a). There is a large covered triangular plateau facing the entrance, covering 13 by 10 metres and with an overhead clearance of four metres where, in 2007, D. Komšo opened a test pit yielding finds of flint artefacts, animal bones, the shells of land and marine molluscs, and traces of a fire pit (Komšo 2008b, Janković et al. 2016; Komšo et al. 2017). Based on the lithic finds Komšo proposed an approximate date of the site to the period of the Mesolithic or to the very end of the Upper Palaeolithic (Komšo 2008b). Excavations at this site in 2016 ran from July 15th to August 1st. A new 1 by 1.5 m trench (Fig. 6) was opened to the northeast of the 2007 trench and divided into two quadrants, D6 and D7, further subdivided into sub-quadrants D6.1, D6.2, D7.1, D7.2, D7.3 and D7.4.

Stratigraphy

Layer 0: Surface layer of varying colours, contains fragments of pottery, glass, shells, bones and recent refuse. A mixture of the surface layer and the sediment ejected from the earlier trench.

Layer 1: 4 to 6 cm deep (Munsell 10 YR 3/4 dark

Stratigrafija:

Sloj 0: površinski sloj različit u boji, sadrži fragmente keramike, stakla, školjaka, kostiju i recentnog smeća. Radi se o mješavini površinskog sloja i sedimenta izbačenog iz ranije sonde.

Sloj 1: dubine 4-6 cm (Munsell 10 YR 3/4 dark yellowish brown). Nekoliko nalaza keramike, kostiju i jedna školjka.

Sloj 2: ne radi se o prirodnom sloju već o rupi nastaloj aktivnošću životinja, najvjerojatnije jazavaca.

Sloj 3: glinasto-siltasti sediment (Munsell 10 YR 5/2 yellowish brown). Jedan nalaz litike. Na prijelazu iz sloja 3 u sloj 4 nekoliko litičkih nalaza i fragmenata školjki.

Sloj 4: sediment nešto tamniji od sloja 3 (Munsell 10 YR 5/6 yellowish brown) i malo glinastiji. Nekoliko nalaza litike u kvadrantu D7.3.

Sloj 5: sediment je kompaktniji od onog u sloju 4, siltasto-glinast (Munsell 5 YR 4/6 yellowish red). U dijelu sonde (zapadni dio, kvadranti D6.1, D6) javlja se matična stijena. Jedan nalaz litike.

Sloj 6: relativno kompaktan, slitasto-glinasti sloj (Munsell 10 YR 6/6 brownish yellow). U istočnom dijelu sonde nastavlja se pod slojem 4 (u kvadrantu D7 nedostaje sloj 5). Gotovo u potpunosti sterilan.

Sloj 7: vrlo kompaktan glinasti sloj (Munsell 10 YR 7/6 yellow). Pri iskopavanju se mrvi, za razliku od sloja 6 gdje su prisutne nakupine gline. Sterilan. Sloj 7 predstavlja zadnji sloj iznad matične stijene.

Rezultati:

Tijekom istraživanja u sondi je prikupljeno vrlo malo nalaza, nekoliko komada litike, fragment keramike, fragmenti školjaka i nekoliko životinjskih kostiju. Na temelju nalaza moguće je preliminarno zaključiti da je lokalitet bio posjećivan tijekom prapovijesti, nedostatak veće količine nalaza moguće je objasniti na dva načina. Moguće je da se radi o kratkotrajnoj stanici (što je s obzirom na smještaj i morfologiju nalazišta, posebice vrlo lijep i relativno velik ravan plato pred ulazom u pećinu, manje vjerojatno). Druga je mogućnost da je velik dio sedimenta, a time i nalaza, ispran. Iako lokalitet nije pokazao velik potencijal, uvid u geoarhelogiju nalazišta (posebice sedimentacijske procese), kao i eventualna manja sonda u samoj pećini, mogli bi pomoći u odgonetanju pitanja vezanih uz korištenje prostora na ovom nalazištu. Posebno je važno istaknuti rezultate dobivene geofizikalnim mjerenjima (Becker et al. 2017; Becker 2017), koji su omogućili identifikaciju ranije sonde neinvazivnim metodama, što ukazuje na velik

yellowish brown). A few finds of pottery, bone and one shell.

Layer 2: Not a natural layer, rather a hole created by animal activity, likely a badger.

Layer 3: Clayey-silty sediment (Munsell 10 YR 5/2 yellowish brown). One lithic find. A few lithic finds and shell fragments at the transition from layer 3 to 4.

Layer 4: Sediment somewhat darker than layer 3 (Munsell 10 YR 5/6 yellowish brown) and more clayey. A few lithic finds in quadrant D7.3.

Layer 5: Sediment more compact than in layer 4, silty-clayey (Munsell 5 YR 4/6 yellowish red). Bedrock appears in a part of the trench (western end, quadrants D6.1, D6). One lithic find.

Layer 6: Relatively compact, silty-clayey layer (Munsell 10 YR 6/6 brownish yellow). At the eastern end of the trench this layer runs under layer 4 (in quadrant D7 there is no layer 5). Almost entirely sterile.

Layer 7: Very compact clay layer (Munsell 10 YR 7/6 yellow). Crumbles as excavated, unlike layer 6 where there are agglomerations of clay. Sterile. Layer 7 is the last layer above the bedrock.

Results

Very few finds were recovered in the course of the excavation of the trench - several lithic finds, potsherds, shell fragments and several animal bones. Based on the finds we can draw a preliminary conclusion that the site was visited in prehistory. Two scenarios may explain the lack of a greater number of finds. This may have been a short-term station (less likely given the position and morphology of the site, in particular the very nice and relatively large plateau facing the entrance to the cave). The other scenario has a large quantity of the sediment, and thereby also the finds, having been washed away. Although the site did not show great potential, an examination of the site's geoarchaeology (in particular the sedimentation processes), and a possible smaller trench in the cave itself, could help resolve the questions related to the use of the space at the Cave near Rovinjsko Selo site. It is especially important to highlight the results obtained by geophysical measurements (Becker et al. 2017; Becker 2017), which made possible the identification of the earlier trench by non-invasive methods, which points to the great potential of geophysical measurement in planning excavations and identifying disruptions of the stratigraphy.

potencijal geofizikalnih mjerenja u planiranju istraživanja i identifikaciji poremećaja stratigrafije.

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LITERATURA / LITERATURE

BARBIR, A., KOMŠO, D., JANKOVIĆ, A. 2017. Nalazi litike i kamenih izrađevina / Lithic finds. U: Janković, I., Komšo, D., Mihelić, S., Ahern, J. C. M. (ur.), Projekt ARCHAEOLIM. Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala / The ARCHAEOLIM Project. Archaeological investigations into the Late Pleistocene and Early Holocene of the Lim Channel, 79-97. Zagreb, Arheološki muzej u Zagrebu.

BECKER, R. 2017. Daljinsko istraživanje i geofizika / Remote sensing and geophysics. U: Janković, I., Komšo, D., Mihelić, S., Ahern, J. C. M. (ur.), Projekt ARCHAEOLIM. Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala / The ARCHAEOLIM Project. Archaeological investigations into the Late Pleistocene and Early Holocene of the Lim Channel, 127-146. Zagreb, Arheološki muzej u Zagrebu.

BECKER, R., JANKOVIĆ, I., KOMŠO, D., AHERN, J. C. M., GEROMETTA, K., WEINSTOCK, J. 2017. Earth resistence tomography for detecting previous excavation trenches in cave and rock shelter sites in the Lim Channel, Croatia. *Collegium Anthropologicum* 41 (2), 173-179.

FRANKOVIĆ, F. I MIHELIĆ, S. 2017. Keramički nalazi / Ceramic finds. U: Janković, I., Komšo, D., Mihelić, S., Ahern, J. C. M. (ur.), Projekt ARCHAEOLIM. Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala / The ARCHAEOLIM Project. Archaeological investigations into the Late Pleistocene and Early Holocene of the Lim Channel, 61-77. Zagreb, Arheološki muzej u Zagrebu.

FRANKOVIĆ, F., MIHELIĆ, S., JANKOVIĆ, I., u tisku. Keramički nalazi brončanog i željeznog doba iz istraživanja Romualdove pećine 2014. godine. *Vjesnik Arheološkog muzeja u Zagrebu.*

JANKOVIĆ, I., AHERN, J. C. M. & MIHELIĆ, S., PREMUŽIĆ, Z. 2015. Bronze and Iron Age finds from Romualdo's Cave, Istria: 2014 excavation season. *Collegium Antropologicum* 39 (4), 943-946.

JANKOVIĆ, I., KOMŠO, D., AHERN, J. C. M., BECKER, R., GEROMETTA, K., MIHELIĆ, S., ZUBČIĆ, K. 2016. Arheološka istraživanja u Limskom kanalu 2014. i 2015. Lokaliteti Romualdova pećina i Abri Kontija 002, pećina kod Rovinjskog Sela, Lim 001 i podvodni pregled Limskog kanala. *Histria archaeologica* 46, 5-23.

JANKOVIĆ, I., KOMŠO, D., MIHELIĆ, S., AHERN, J. C. M. (ur.) 2017. Projekt ARCHAEOLIM. Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala / The ARCHAEOLIM Project. Archaeological investigations into the Late Pleistocene and Early Holocene of the Lim Channel. Zagreb, Arheološki muzej u Zagrebu.

KOMŠO, D., CVITKUŠIĆ, B., JANKOVIĆ, I. 2017. Dosadašnja arheološka istraživanja u Limskom kanalu i okolnim područjima / Previous archaeological research in the Lim Channel and adjacent areas. U: Janković, I., Komšo, D., Mihelić, S., Ahern, J. C. M. (ur.), Projekt ARCHAEOLIM. Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala / The ARCHAEOLIM Project. Archaeological investigations into the Late Pleistocene and Early Holocene of the Lim Channel, 21-37. Zagreb, Arheološki muzej u Zagrebu.

KOMŠO, D. 2003. Pećine Istre - mjesta življenja od prapovijesti do srednjeg vijeka. *Histria Antiqua* 11, 41-54.

KOMŠO, D. 2008a. Limski kanal. U: Matica, B. (ur.), Hrvatski arheološki godišnjak 4/2007, 264-268. Zagreb, Ministarstvo kulture.

KOMŠO, D. 2008b. Mezolitik u Hrvatskoj. *Opuscula archaeologica* 30, 55-92.

MALEZ, M. 1987. Pregled paleolitičkih i mezolitičkih kultura na području Istre. *Izdanja Hrvatskog arheološkog društva* 11, 3-47.