

Luka Bekić

Međunarodni centar
za podvodnu arheologiju u Zadru

*International Centre for Underwater
Archaeology in Zadar*
Božidara Petranovića 1, HR – 23000 Zadar
lbekic@icua.hr

Ante Uglešić

Odjel za arheologiju Sveučilišta u Zadru
Department of Archaeology,
University of Zadar
Obala kralja Petra Krešimira IV. 2,
HR – 23000 Zadar
auglesic@unizd.hr

Nalaz ranokarolinškog mača iz Škabrnje

*U radu se prvi put predstavlja ranosrednjovjekovni karolinški mač
pronađen u Škabrnji kod Zadra. Taj slučajni nalaz potječe iz devastira-
noga starohrvatskog groblja o kojem arheološka znanost do danas nema
spoznaja. Neovisno o arheološkom kontekstu, odnosno okolnosti nalaza
taj je mač već sam po sebi vrlo vrijedan prilog arheološkom poznavanju
ranoga srednjeg vijeka i stvaranja srednjovjekovne hrvatske države. Na
ovom se mjestu daje tehnički opis mača, tipološko i datacijsko određenje
kao i pokušaj njegova razmatranja u širem kontekstu ranoga srednjeg
vijeka u Hrvatskoj.*

Ključne riječi: *rani srednji vijek, dvosjekli mač, Karolinzi, spata, sta-
rohrvatsko doba, Škabrnja.*

Early Carolingian sword find from Škabrnja

*The paper presents for the first time an early mediaeval Carolingian
sword found in Škabrnja near Zadar. This chance find originates from
a devastated Early Croatian cemetery, still unknown to archaeological
science. Regardless of the archaeological context, i.e. the circumstances
of the find, this sword is in itself a very valuable contribution to the
archaeological knowledge of the early Middle Ages and the creation of the
mediaeval Croatian state. This work presents a technical description of
the sword, its typology and dating, as well as an attempt to consider it in
the broader context of the early Middle Ages in Croatia.*

Keywords: *early Middle Ages, double-edged sword, Carolingians,
spatha, Early Croatian period, Škabrnja.*



Sl. 1. Karta Hrvatske s položajem Škabrnje u zadarskom zaleđu (izradio: L. Bekić).

Fig. 1 Map of Croatia with the position of Škabrnja in the Zadar hinterland (made by: L. Bekić).

Mjesto i okolnosti nalaza

Mač je pronađen u selu Škabrnji (sl. 1), u zaleđu Zadra, na položaju zvanom Smokva gluvača. Taj se lokalitet nalazi u samom središtu naselja, stotinjak metara sjeverozapadno od župne crkve Velike Gospe, u pravcu zaselka Ambar. Mač je otkriven u devastiranom grobu neposredno nakon Domovinskog rata, pri gradnji temelja i podruma nove obiteljske kuće.¹ Neko vrijeme nalazio se kod vlasnika zemljišta, nakon čega je predan drugoj osobi, koja ga je napisljetu odlučila pokloniti Odjelu za arheologiju Sveučilišta u Zadru.² Pri gradnji kuća na navedenom položaju prema pričanju mještana stalno se nailazilo na grobove, no nalaznici to nisu prijavljili.

¹ Nalaznik je osim mača sačuvao i nekoliko kostiju po-knjika s kojim je mač pokopan, što je omogućilo radiokarbonsku analizu (^{14}C), čije rezultate donosimo u nastavku teksta.

² Na mač nas je upozorio Tomislav Gurlica iz Škabrnje, tadašnji djelatnik Sveučilišta u Zadru, koji je velikim dijelom i zaslužan što je nalaz dospio na Odjel za arheologiju. Osoba koja je predala mač željela je ostati anonimna.

Location and circumstances of the find

The sword was found in the village of Škabrnja (Fig. 1), in the hinterland of Zadar, at the location called Smokva gluvača. This site is located in the very centre of the settlement, about a hundred meters northwest of the parish church of the Assumption of Our Lady, in the direction of the hamlet of Ambar. The sword was discovered in a devastated grave immediately after the Homeland War, during the construction of the foundations and basement of a new family house.¹ It was held by the owner of the land for a while, and then handed over to another person, who finally decided to donate it to the Department of Archaeology of the University of Zadar.² According to the locals, graves were constantly found during the construction of houses at this location, but the finders were not reporting them, except in one case, when a ceramic vessel from an Early Croatian grave was found and later handed over to the Archaeological Museum in Zadar.³

Restoration work

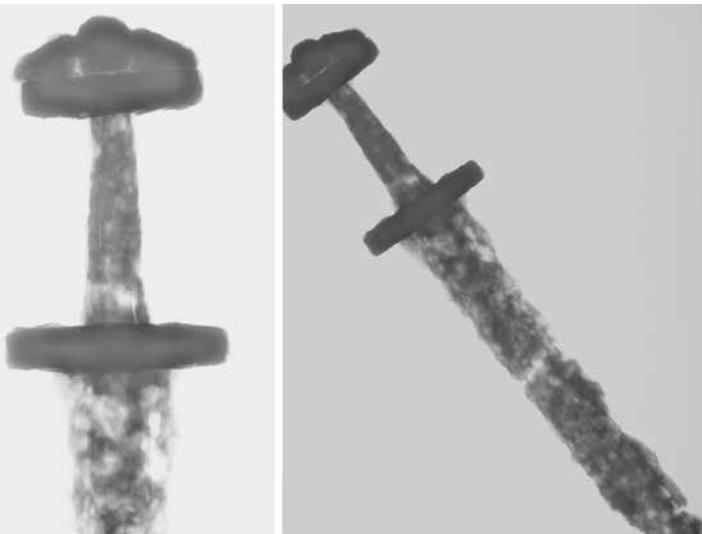
The sword unearthed in Škabrnja is rather poorly preserved. Since the exact circumstances of the find are not known, it cannot be concluded with certainty whether the sword was more damaged by the passage of time while underground or by rapid corrosion after its removal from the ground and storage in inappropriate conditions. In all probability, both factors had contributed to the damage, and thus it was brought in poor condition to the restoration workshop of the International Centre for Underwater Archaeology in Zadar back in 2014.⁴ In addition to corrosion, mechanical damage was noticed in the middle of the preserved part of the blade, which

¹ In addition to the sword, the finder also preserved several bones of the deceased with whom the sword was buried. This enabled radiocarbon analysis (^{14}C), the results of which are presented below.

² Tomislav Gurlica from Škabrnja, an employee of the University of Zadar at the time, told us about the sword. The fact that the find reached the Department of Archaeology is largely due to him. The person who handed over the sword wanted to remain anonymous.

³ The vessel was brought to the then director, Dr. Sc. Radomir (Miro) Jurić, whom we thank for the information on the find. In addition to this vessel, the locals have mentioned several other unearthed ceramic vessels.

⁴ The process of conservation and restoration of the sword was led by Antonija Jozić, an expert in the conservation of metal finds.



Sl. 2. Rendgenske snimke mača (Opća bolnica Zadar)
Fig. 2 X-rays of the sword (General Hospital in Zadar)

vali, osim u jednom slučaju pronalaska keramičke posude iz starohrvatskoga groba koja je predana Arheološkome muzeju u Zadru.³

Rad na restauriranju

Mač pronađen u Škabrnji prilično je slabo očuvan. S obzirom na to da nisu poznate točne okolnosti nalaza, ne može se sa sigurnošću zaključiti je li mač više oštećen protokom vremena u kojem se nalazio pod zemljom ili je korozija ubrzano devastirajuće djelovala tek nakon njegova vađenja iz zemlje i čuvanja u neprimjerenim uvjetima. Vjerojatno su oba čimbenika učinila štetu, tako da je u restauratorsku radionicu Međunarodnog centra za podvodnu arheologiju u Zadru stigao 2014. godine u lošem stanju.⁴ Osim korozije zamijećeno je i mehaničko oštećenje na sredini sačuvanog dijela oštice, koje je vjerojatno nastupilo pri iskopavanju, odnosno vađenju iz groba. Nakon početnog pregleda ustanovaljeno je da se na križnici i jabučici mača nalaze tragovi ukrašavanja poluplemenitim metalom.

Kako bi se dobio što bolji uvid u izgled i sačuvanost nalaza, mač je odmah nakon što je predan Odjelu za arheologiju Sveučilišta u Zadru, odnesen



Sl. 3. Mač iz Škabrnje prije i poslije konzerviranja
(foto: A. Jozić)

Fig. 3 Sword from Škabrnja before and after conservation (photo: A. Jozić)

had probably occurred during excavation or removal from the grave. After the initial examination, it was found that there were traces of decoration with semi-precious metal on the cross-guard and the pommel of the sword.

In order to gain the best possible insight into the appearance and preservation of the find, the sword was X-rayed immediately after it had been handed over to the Department of Archaeology of the University of Zadar.⁵ Having examined the images (Fig. 2), it was decided in the mentioned restoration workshop that the surface corrosion deposits would

³ Posuda je donesena tadašnjem ravnatelju dr. sc. Radomiru (Miro) Juriću, kojemu zahvaljujemo na informacijama o nalazu. Osim te posude mještani spominju nalaze i više drugih keramičkih posuda.

⁴ Postupak konzerviranja i restauriranja mača vodila je Antonija Jozić, stručnjakinja za konzerviranje metalnih nalaza.

⁵ The X-rays were made on 9 April 2014 in the General Hospital in Zadar, for which we would like to extend our most sincere gratitude.

na rendgensko snimanje.⁵ Nakon uvida u te snimke (sl. 2) u navedenoj restauratorskoj radionici odlučeno je da će se najprije očistiti površinske naslage korozije, a tek poslije toga pristupiti odsoljavanju i neutralizaciji klorida. Rendgenska je snimka potvrdila da su križnica i jabučica mača prekrivene poluplemenitim metalima, ali je otkrila i da na maču ne postoje druga mjesta na kojima bi se mogli očekivati ukrasi ili pak natpis. Stoga je započeo dugotrajni proces otklanjanja korozije mehaničkim putem, nakon čega je obavljeno konzerviranje cijelog mača. Nakon tog procesa mač je konzervatorski stabiliziran te je omogućeno njegovo čuvanje i izlaganje.⁶ Usprkos velikim oštećenjima današnje stanje mača daje nam mnogo bolji uvid u njegove karakteristike (sl. 3).

234 |

Opis mača

Mač je sačuvan u ukupnoj dužini od 50,6 cm (sl. 3, T. I).⁷ Balčak je dužine 15 cm. Baza jabučice izduženo je ovalnog oblika bez ispupčenja, dužine 8 cm, širine 3,3 cm i visine 1,4 cm. Kruna jabučice dužine je 8 cm, širine 2,3 cm i visine 2,7 cm. Podjeljena je u tri dijela: središnji najviši, te dva niža bočna dijela. Baza i kruna nisu povezane zakovicama. Trn je vidljiv u dužini od 9,6 cm, a njegova širina u korijenu je 3,1 cm i pri vrhu 1,9 cm. Debljina trna je 0,4 cm. Križnica je duljine 9,8 cm, širine 2,8 cm i visine 1,9 cm. Poput baze jabučice izduženog je ovalnog oblika, bez ispupčenja i proširenja. Jabučica i križnica ukrašene su tauširanjem (sl. 4). Što se tiče sječiva, ono je veoma oštećeno i sačuvano samo u dužini 35,6 cm. Širina u korijenu je 5,7 cm, a najveća debljina je 0,6 cm. Na njemu zbog korozijskih oštećenja uopće nije vidljiv žlijeb. Na rendgenskoj snimci vide se tragovi nekih uzdužnih crta uz rubove sječiva, ali ih je teško odrediti kao ostatke žlijeba. Moguće je da žlijeba nije ni bilo, što je u nekim slučajevima već zabilježeno.

be removed first, followed by desalination and neutralisation of chlorides. The X-ray confirmed that the cross-guard and the pommel of the sword were covered with semi-precious metals, but it also revealed that there were no other surfaces on the sword where decorations or inscriptions could be expected. Therefore, a long process of corrosion removal by mechanical means began, after which the whole sword was conserved. Conservators finally stabilised the sword, and its storage and display were enabled.⁶ Despite the considerable damage, the current condition of the sword provides a much better insight into its characteristics (Fig. 3).

Description of the sword

The sword is preserved in a total length of 50.6 cm (Fig. 3, Pl. I).⁷ The hilt is 15 cm long. The base of the pommel is elongated and oval-shaped, without lobes, 8 cm long, 3.3 cm wide and 1.4 cm high. The pommel crown is 8 cm long, 2.3 cm wide and 2.7 cm high. It is divided into three parts: the highest central, and two lower side sections. The base and crown are not connected by rivets. The tang is visible in the length of 9.6 cm. It is 3.1 cm wide at its root, and 1.9 cm at the top. The tang is 0.4 cm thick. The cross-guard is 9.8 cm long, 2.8 cm wide and 1.9 cm high. Like the pommel base, it is elongated and oval-shaped, with no lobes and extensions. The pommel and the cross-guard are damascened (Fig. 4). As to the blade, it is rather damaged and preserved only in the length of 35.6 cm. The width at its root is 5.7 cm, while its maximum thickness is 0.6 cm. Due to corrosion damage, its fuller is totally imperceptible. The X-ray shows traces of some longitudinal lines along the edges of the blade, but they are difficult to identify as remnants of the fuller. It is possible that there never was any fuller at all, which has already been noted in some cases.

Grave find

As already pointed out, the sword was found in a devastated grave, next to the body of an interred person, from whom the finders have preserved several bone fragments. The buried person was a dignitary

⁵ Rendgenske snimke napravljene su 9. travnja 2014. u Općoj bolnici Zadar, na čemu ovim putem najsrdičnije zahvaljujemo.

⁶ Mač je trenutno izložen u studijskoj zbirci Odjela za arheologiju Sveučilišta u Zadru, gdje se i čuva.

⁷ Mjere su uzete po uzoru na rad G. Bilogrivića, koji je posvećen mačevima tzv. posebnog tipa u Hrvatskoj. Usp. Bilogrivić 2011, str. 106, tablice 1 i 2.

⁶ The sword is currently on display in the study collection of the Department of Archaeology, University of Zadar, where it is kept.

⁷ The measures are in line with G. Bilogrivić's work dedicated to special-type swords in Croatia. Cf. Bilogrivić 2011, p. 106, Tables 1 and 2.



Sl. 4. Detalj balčaka mača (foto: A. Jozić)
*Fig. 4 Detail of the hilt of the sword
 (photo: A. Jozić)*

Grobni nalaz

Kako je to već istaknuto, mač je pronađen u devastiranom grobu, uz tijelo pokojnika od kojeg su nalaznici sačuvali nekoliko ulomaka kostiju. Riječ je o pokopu dostojanstvenika – ratnika i po svoj prilici to nije bio i jedini nalaz u grobu. U tijeku početnog čišćenja na maču su ustanovljeni tragovi organskih materijala koji su bili konzervirani željeznom korozijom. To je trag tkanine koji je bio prihvaćen korozijom na jednom manjem dijelu križnice mača (sl. 5: A). Tkanina je veličine nešto više od centimetra četvornog i relativno grubo tkana. Uz to, odmah ispod križnice zamijećen je još jedan organski detalj. Na samom korijenu oštice mača vidljiv je trag raspadnutog drva, koje je jamačno ostatak korica mača (sl. 5: B), što ukazuje na to da je mač bio položen u zemlju u svojim koricama. Na trnu

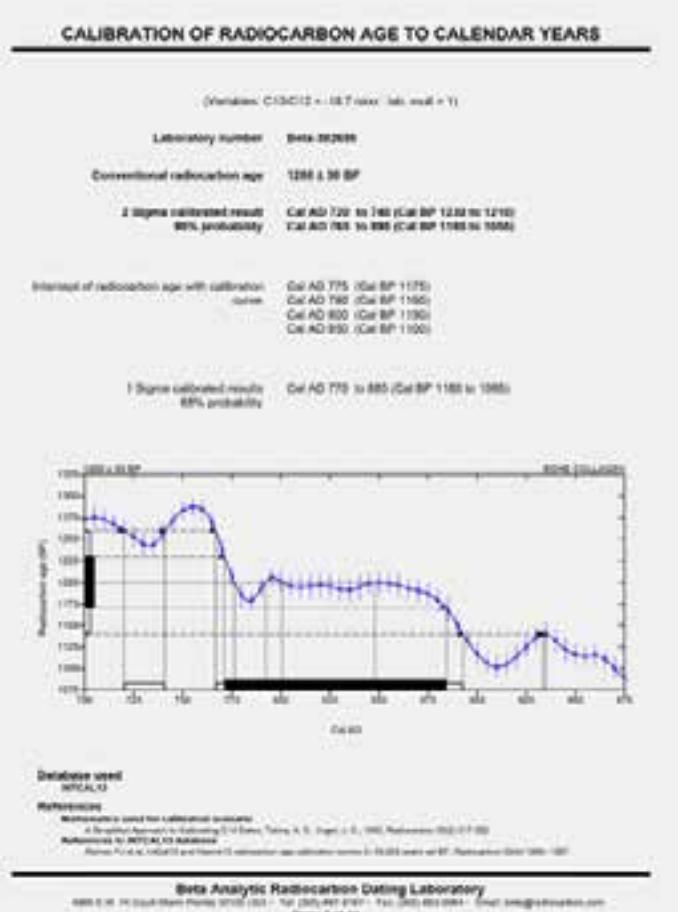


Sl. 5. Detalj križnice mača s organskim ostacima
 (foto: A. Jozić i L. Bekić)
Fig. 5 Detail of the sword's cross-guard with organic remains ((photo: A. Jozić and L. Bekić)

– warriors. In all likelihood, this was not the only find in the grave. During the initial cleaning, traces of organic materials were found on the sword, preserved by iron corrosion. It is a trace of fabric stuck in corrosion on one small part of the cross-guard (Fig. 5: A). The fabric is just over a square centimetre in size and relatively coarsely woven. In addition, another organic detail was noticed just below the cross-guard. At the very root of the sword blade, a trace of decayed wood is discernible, indubitably the remnant of the sword's scabbard (Fig. 5: B), indicating that the sword was placed in the ground in its scabbard. Remains of a wooden cladding of the grip are also visible on the tang. Swords as grave finds often have remnants of scabbards, belts, buckles and strap-ends. The fabric may indicate that the sword had been placed on the body of the interred person or next to it, because the corrosion of iron was much faster than the decay of the fabric itself, due to the decomposition of the body. In this way, this piece of fabric was preserved by corrosion.

Since some minor skeletal remains were also brought to the Department of Archaeology of the University of Zadar together with the sword, a part of a leg bone was sent as a sample for radiocarbon analysis (^{14}C).⁸ Due to the fact that this bone was not contaminated, the analysis was successful, and this method dated the grave in which the sword had been found to the period from 720 to 895 (Fig. 6).

⁸ The ^{14}C analysis of the sample age was performed at the *Beta Analytic Radiocarbon Dating Laboratory* (Miami, USA).



Sl. 6. Rezultati radiokarbonske analize osteoloških ostataka iz groba u kojem je pronađen mač iz Škabrnje

Fig. 6 Results of radiocarbon analysis of osteological remains from the grave where the Škabrnja sword was found (Beta Analytic Radiocarbon Dating Laboratory)

balčaka također su vidljivi ostaci drvene obloge drške. Mačevi kao grobni nalazi često imaju uza se ostatke korica, remena i pripadajućih kopči te jezičaca. Tkanina može ukazivati da je mač bio položen na tijelo pokojnika ili sasvim uz tijelo pokojnika, jer se korozija željeza zbog raspadanja tijela odvijala bržim tempom nego samo propadanje tkanine. Na taj je način dijelić tkanine ostao očuvan u koroziji.

S obzirom na to da su uz mač na Odjel za arheologiju Sveučilišta u Zadru dospjeli i manji ostaci skeleta, na radiokarbonsku analizu (^{14}C) poslan je kao uzorak dio kosti noge.⁸ Zahvaljujući činjenici

⁸ Analiza ^{14}C starosti uzorka provedena je u *Beta Analytic Radiocarbon Dating Laboratory* (Miami, SAD).

X-ray fluorescence analyses (XRF)

Before the final removal of deposits from the decorated part, an X-ray fluorescence analysis of the sword was carried out with a portable device.⁹ Such assays are used for *in situ* elemental analyses of objects for their composition. The aim of the analysis was to find out the material the decoration was made, and whether any precious or semi-precious metals had been used in the process. The cross-guard of the sword was analysed. Three measurements were made at the same spot, and each time a part of the corrosion was carefully removed. For this reason, most iron oxides were present in the first measurement, while in the third there were not as many of them (Fig. 7). This last measurement yielded the most important result, that is, it was found that the ornament was made of brass. Brass is an alloy based on copper, with an addition of zinc. The fact that iron was still observed in the alloy in the third measurement, amounting to 10.5%, does not mean that it was part of the alloy, but rather that it had not been thoroughly cleaned.¹⁰ Our brass alloy comprises 70.8% copper, 17.2% zinc, 1.1% lead, and trace levels of iridium, viz. 0.2%. Excluding the 10.5% of iron from the tainted alloy, the share of these elements in the alloy itself would be slightly higher. It is important to point out that there are not even traces of gold or silver, and therefore any gold or silver plating can be ruled out.

The results can be compared with XRF analyses of Carolingian swords from Mikulčice.¹¹ The measurement results for their swords were as follows: 1. (sword type K, No. 90) Fe 43.5%, Cu 42.1%, Zn 14.4%; 2. (sword type H, No. 265) first measurement: Cu 77.4%, Zn 19.4%, Fe 0.9%, Pb 0.1%, second measurement: Cu 56.4%, Fe 27.9%, Zn 13.4%, Pb 1.5%; 3. (sword type K, No. 1750) first measurement: Cu 46%, Fe 34%, Zn 20%, Pb 0.1%, Sn 0.1, second measurement: Cu 65.1%, Zn

⁹ As part of the scientific cooperation between the Roman-German Commission of the German Archaeological Institute (RGK DAI) and the International Centre for Underwater Archaeology, a portable spectrometer for X-ray fluorescence analysis (XRF) was delivered to Zadar in 2016 for a number of analyses. The operator of the device of the *Analyticon XL3 hybrid* type was Roman Scholz, whom we would yet again like to sincerely thank here.

¹⁰ The same was observed in XRF analyses of swords from Mikulčice. Cf.: Хошек, Кошта, Оттенвельтер 2013, p. 58.

¹¹ Хошек, Кошта, Оттенвельтер 2013, p. 59.

da ta kost nije bila kontaminirana, analiza je uspješno provedena, te je tom metodom grob u kojem se mač nalazio datiran u vremenski raspon od 720. do 895. godine (sl. 6).

Rendgensko-fluorescentne analize (XRF)

Na maču je prije konačnog uklanjanja naslaga s ukrašenog dijela napravljena rendgensko-fluorescentna analiza (*XRF = X-ray fluorescence*) prijenosnim uređajem.⁹ Takve analize služe za *in situ* elementnu analizu materijala od kojih je izrađen neki predmet. Analizom se htjelo doznati od kojeg je materijala izrađen ukras, te jesu li pri tom uporabljeni plemeniti ili poluplemeniti metali. Analiza je napravljena na križnici mača. Učinjena su tri mjerenja na istome mjestu, ali je svaki put oprezno uklonjen jedan dio korozije. Iz tog je razloga u prvom mjerenu bilo prisutno najviše željeznih oksida, dok ih u trećem mjerenu nije bilo više toliko puno (sl. 7). U tom zadnjem mjerenu došlo se do najvažnijeg rezultata, to jest ustanovljeno je da je ukras izrađen od mjeti. Mjed je slitina koja se temelji na bakru, uz stanovit dodatak cinka. Činjenica da je i kod trećeg mjerena u slitini još uvijek bilo 10,5 % željeza ne znači da se ono nalazilo u njezinu sastavu već da nije bila sasvim očišćena.¹⁰ U našoj mjedenoj slistini, bakra ima 70,8 %, cinka 17,2 %, nešto malo olova 1,1 % te iridija u tragovima 0,2 %. Kada bi se izuzelo onih 10,5 % željeza iz neočišćene slitine uđio navedenih elemenata u samoj slitini bio bi nešto veći. Važno je naglasiti kako zlata i srebra nema ni u tragovima i stoga ne može biti govora o bilo kakvom pozlaćivanju ili posrebrivanju.

Navedeni rezultati mogu se usporediti sa XRF analizama karolinških mačeva iz Mikulčica.¹¹ Na njihovim su mačevima zabilježeni slijedeći rezultati: 1. (mač tipa K, No. 90) Fe 43,5 %, Cu 42,1 %, Zn 14,4 %; 2. (mač tipa H, No. 265) prvo mjerena Cu 77,4 %, Zn 19,4 %, Fe 0,9 %, Pb 0,1 % i drugo

⁹ U okviru znanstvene suradnje između Rimsko-germanske komisije Njemačkog arheološkog instituta (RGK DAI) i Međunarodnog centra za podvodnu arheologiju, za potrebe izrade većeg broja analiza u Zadar je 2016. godine dopremljen prijenosni spektrometar za rendgensku fluorescentnu analizu (XRF). Operater uređaja tipa *Analyticon XL3 hybrid* bio je Roman Scholz, kojemu i ovom prilikom najiskrenije zahvaljujemo.

¹⁰ Isto je primijećeno kod XRF analiza mačeva iz Mikulčica. Usp.: Hošek, Koštta, Ottewelpter 2013, str. 58.

¹¹ Hošek, Koštta, Ottewelpter 2013, str. 59.

28.4%, Fe 6.6% (sword type K, No. 1750). It can be seen that the share of zinc in copper ranges approximately between 20 and 30%, as in the sword from Škabrnja. The use also depends on the proportions, and therefore brass with these percentages is known as “yellow brass” or “Prince’s metal”. It is characteristic for its colour and lustre of gold, as well as toughness and resistance, and it has good forging properties.

The mentioned swords from Mikulčice are decorated with incrustation/damascening on the pommels and the cross-guards, like the sword from Škabrnja.¹² These are thin brass wires hammered into the iron next to each other, to give the impression of golden sheen (Fig. 8). The beginning of this decoration technique can be traced back to the Merovingian period, and was frequently used from the eighth century. This type of decoration of the whole surface of the pommel and cross-guard was especially prominent from the second half of the eighth century on swords of *Mannheim* and *Mannheim-Speyer* types, swords of special types 1 and 2, and of types H and K according to Petersen.¹³

Typology and dating

The first commonly accepted typology of swords of the early Middle Ages was published by Petersen some hundred years ago.¹⁴ In the last and this centuries, a number of new swords have been found, and many experts have expanded, augmented and upgraded Petersen’s typological concept,¹⁵ but his basics are still valid today.¹⁶ Petersen’s typology has also been used to determine the types of swords in numerous publications of swords unearthed in Croatia, although various authors have classified the same swords as different types. This is partly due to sword damage, and partly because it is difficult to find identical swords that would easily fit into any typology.¹⁷ Such is also the case with the sword from Škabrnja, which resembles some Carolingian swords, but no identical sword has yet been found

¹² Hošek, Koštta, Ottewelpter 2013, p. 66, Fig. 6.

¹³ Hošek, Koštta, Ottewelpter 2013, p. 59.

¹⁴ Petersen 1919.

¹⁵ Oakeshott 1960, Кирпичников 1966, Geibig 1991, Pearce 2002, Westphal 2004, and many others.

¹⁶ Jiri Košta 2015, pp. 248, 249.

¹⁷ “At first glance, there appears to be a near-limitless variety of forms of Viking Age sword hilts, and indeed, as handmade objects, no two are exactly alike.” Jones 2002, p. 15.

mjerenje Cu 56,4 %, Fe 27,9 %, Zn 13,4 %, Pb 1,5 %; 3. (mač tipa K, No. 1750) prvo mjerenje Cu 46 %, Fe 34 %, Zn 20 %, Pb 0,1 %, Sn 0,1 i drugo mjerjenje Cu 65,1 %, Zn 28,4 %, Fe 6,6 %. Očito je da se udio cinka u bakru kreće otrprilike između 20 do 30 %, kao i na maču iz Škabrnje. O tim omjerima ovisi i uporaba pa je mqed s tim omjerima poznata pod nazivima "žuta mqed" ili "prinčev metal". Karakteristika joj je da ima boju i sjaj zlata te ujedno žilavost i otpornost, a dobro se kuje.

Spomenuti mačevi iz Mikulčica ukrašavani su inkrustacijom/tauširanjem na jabučici i na križnici poput mača iz Škabrnje.¹² To su tanke žice mqed koje su bile ukucane u željezo jedna do druge, kako bi ostavile dojam zlatnog sjaja (sl. 8). Takvo ukrašavanje započelo je već u merovinškom razdoblju i od 8. stoljeća često se primjenjivalo. Potpuno ukrašavanje površine jabučice i križnice na ovaj način osobito se javlja od druge polovine 8. st. na mačevima tipa *Mannheim* i *Mannheim-Speyer*, mačevima posebnog tipa 1 i 2 te tipovima H i K prema Petersenu.¹³

Tipologija i datacija

Prvu široko prihvaćenu tipologiju mačeva ranoga srednjeg vijeka objavio je Petersen prije stotinjak godina.¹⁴ Tijekom proteklog i ovog stoljeća pronađeno je više novih mačeva i brojni su stručnjaci Petersenov tipološki koncept proširivali, produbljivali i nadograđivali,¹⁵ ali osnove koje je on postavio vrijede i danas.¹⁶ Petersenova tipologija koristila se za određivanje tipova mačeva i u brojnim objavama mačeva nadenih u Hrvatskoj, iako su razni autori određivali iste mačeve u različite tipove. Dijelom je to zbog oštećenja mačeva, a dijelom stoga što je teško pronaći identične mačeve koji bi se jednostavno uklapali u bilo koju od tih tipologija.¹⁷ Takav je slučaj i s mačem iz Škabrnje, koji nalikuje nekim karolinškim mačevima, ali isti takav mač još nije nigdje pronađen. Uspoređujući ga s mačevima u Petersonovojoj knjizi njegove se osobit-

¹² Хопек, Кошта, Оттенвельтер 2013, str. 66, sl. 6.

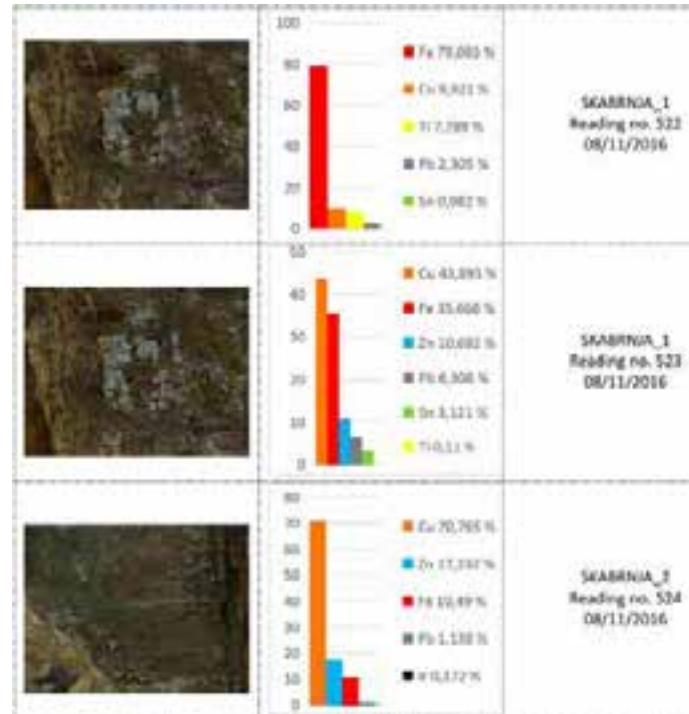
¹³ Хопек, Кошта, Оттенвельтер 2013, str. 59.

¹⁴ Petersen 1919.

¹⁵ Oakeshott 1960, Кирпичников 1966, Geibig 1991, Peirce 2002, Westphal 2004 i mnogi drugi.

¹⁶ Zaključna razmatranja, Jiri Košta 2015, str. 248, 249.

¹⁷ "At first glance, there appears to be a near limitless variety of forms of Viking Age sword hilts, and indeed, as handmade objects, no two are exactly alike." Jones 2002, str. 15.



Sl. 7. Analize XRF tehnikom
(foto: R. Scholz i M. Caleb)

Fig. 7 XRF analyses
(photo: R. Scholz and M. Caleb)



Sl. 8. Detalj mjedenog ukrasa na križnici mača iz Škabrnje (foto: L. Bekić)

Fig. 8 Detail of a brass ornament on the cross-guard of the Škabrnja sword (photo: L. Bekić)

anywhere. Comparing it to the swords in Petersen's book, its features can be identified in several details. The cross-guard is of medium length, with no extensions or lobes at its ends, and it is not curved towards the blade, thus excluding numerous types, especially the later ones. Secondly, the pommel crown is made of three parts, and this division is

ne mogu prepoznati u nekoliko detalja. Križnica je osrednje dužine, nema nikakvih proširenja i zadebljanja na krajevima te nije savijena prema oštici, čime se brojni tipovi, osobito oni mlađi, isključuju. Kao drugo, kruna jabučice izrađena je u tri dijela, a ta podjela je vrlo jasna i vidljiva čak i na rendgenskoj snimci (sl. 2). Podjela tih dijelova krune nije ukoso u odnosu na bazu, već okomito. Kruna je u presjeku polukružna, a ne trokutasta. Kao treće, jabučica i križnica ukrašene su tauširanjem gusto postavljenim usporednim mjedenim žicama. Stoga, ako bi trebalo naći najsličniji među Petersonovim mačevima, to bi bio mač iz Rimstada, koji on pripisuje posebnom tipu 2.¹⁸ Jedina značajnija razlika u odnosu na mač iz Rimstada je u konveksnosti križnice i baze jabučice, koja na maču iz Škabrnje nije vidljiva. Sljedeći sličan mač je onaj nađen u Rajni kod Mannheima, po kojem je poslije cijela skupina mačeva nazvana tipom *Mannheim*.¹⁹ S vremenom su autori često uspoređivali mačeve tipa *Mannheim* s mačevima "posebnog tipa 1 i 2", a na koncu ih gotovo i izjednačuju.²⁰ Među tim mačevima nalaze se i neki koji podsjećaju na mač iz Škabrnje. Tako postoje i drugi slični nalazi s europskog kontinenta. Osobito po kruni jabučice slični su mačevi iz Wijjk bij Durstende, Nizozemska (ima i isti ukras tauširanih okomitih žica) te onaj iz rijeke Escaut kod Termonda u Belgiji.²¹

Sličan mač s trodijelnom jabučicom, određen kao tip *Mannheim*, nađen je i u grobnoj komori A u Haithabu (Hedeby) u Njemačkoj.²² Nadalje, nekoliko mačeva s Gotlanda također ima balčake usporedive s mačem iz Škabrnje. To su primjerak iz Lummelunda, donekle i primjerak iz Gotlanda, oba tauširanih trodijelnih jabučica i križnice. Zanimljiva je i trodijelna jabučica mača iz Hellvija, koja nije tauširana, ali jest slična.²³ Primjeri mačeva s trodijelnom jabučicom s otoka Stora i Lille, a oso-

very clear and visible even on X-ray image (Fig. 2). These parts of the crown are not divided obliquely in relation to the base, but rather vertically. The crown is semicircular in section, rather than triangular. Thirdly, the pommel and the cross-guard are decorated with damascening, viz. densely inlaid parallel brass wires. Therefore, were one trying to find the most similar specimen among Petersen's swords, it would be the sword from Rimstad, which he attributed to special type 2.¹⁸ The only significant difference in relation to the sword from Rimstad is in the convexity of the cross-guard and pommel base, which is not visible on the Škabrnja sword. Another similar sword is the one found in the Rhine near Mannheim, after which a whole group of swords was later named the *Mannheim* type.¹⁹ Over time, authors often compared swords of the *Mannheim* type with those of "special type 1 and 2", and ultimately virtually equated them.²⁰ Among these specimens, there are some that resemble the sword from Škabrnja. There are also other similar finds from the European continent. The swords from Wijjk bij Durstende, the Netherlands (with the same decoration of damascened vertical wires), and the one from the Escaut river near Termonde in Belgium have particularly similar pommels.²¹

A similar sword with a three-part pommel, classified *Mannheim* type, was found in burial chamber A in Haithabu (Hedeby), Germany.²² Furthermore, several swords from Gotland also have hilts comparable to the sword from Škabrnja. These are the sword from Lummelund, and, to some extent, the specimen from Gotland, both with damascened three-part pommels and cross-guards. The three-part pommel of the sword from Hellvi is also interesting and similar, though it is not damascened.²³ The sword specimens with three-part pommels from the islands of Stora and Lille, and especially

¹⁸ Petersen, str. 85, 86, sl. 72, C 120009, nalazište Rimstad, Hedrum.

¹⁹ Tip *Mannheim* u znanost je uveo profesor Jankuhn i taj izraz se zadržao do danas. Dunning, Evison 1961, str. 134, sl. 3:10.

²⁰ Dunning, Evison 1961, str. 131-133; Androshchuk 2007, str. 161, sl. 7.

²¹ Na slici 3 vidljiv je veći broj sličnih balčaka mačeva, a ta dva bi se mogla posebno izdvojiti. Usp.: Dunning, Evison 1961, sl. 3: 11, 12.

²² Arents, Eisenschmidt 2010, Bootkammergrab. Kammer teil A, Schwert Ab1. str. 113, T. 50, str. 348.

²³ Thunmark-Nylen 1999, Lummelund T. 221:1, Gotland T. 221:2, Hellvi, T. 222:1.

¹⁸ Petersen, pp. 85, 86, Fig. 72, C 120009, the site of Rimstad, Hedrum.

¹⁹ The *Mannheim* type was introduced into science by Professor Jankuhn, and the term has survived to this day. Dunning, Evison 1961, p. 134, Fig. 3:10.

²⁰ Dunning, Evison 1961, pp. 131–133; Androshchuk 2007, p. 161, Fig. 7.

²¹ Figure 3 shows a number of similar sword hilts, and these two could be singled out. Cf.: Dunning, Evison 1961, Figs. 3: 11, 12.

²² Arents, Eisenschmidt 2010, Bootkammergrab. Kammer teil A, Schwert Ab1. p. 113, Pl. 50, p. 348.

²³ Thunmark-Nylen 1999, Lummelund Pl. 221:1, Gotland Pl. 221:2, Hellvi, Pl. 222:1.

bito onoga iz Vallstenaruma, sliče jabučici našeg mača iz Škabrnje, no Nørgård-Jørgensenova oba ih pripisuje svom tipu SP7, iz sredine 8. stoljeća, koji izjednačuje s Petersonovim tipom A.²⁴ Mačevi "posebnog tipa 1 i 2" i oni tipa *Mannheim*, uz tipove A i B, predstavljaju ranije tipove mačeva, čija je proizvodnja započela u drugoj polovini 8. stoljeća, a svoju preobrazbu u naslедne tipove doživljavaju u prvoj četvrtini 9. stoljeća,²⁵ pa bi iz tog razloga bilo ispravno datirati izradu mača iz Škabrnje u kraj 8. ili možda početak 9. stoljeća.

Mač iz Škabrnje u kontekstu nalaza karolinških mačeva u Hrvatskoj

U Hrvatskoj i na širem prostoru povijesne ranosrednjovjekovne hrvatske države pronađena su najmanje 24 karolinška mača. Zanimanje za njih bilo je uvek veliko i brojni su hrvatski stručnjaci o njima pisali.²⁶ Među svim tim mačevima nema ni jednog koji bi se mogao uvrstiti u isti tip kao mač iz Škabrnje, ako je za to presudan oblik balčaka, odnosno jabučice. Većina karolinških mačeva s područja ranosrednjovjekovne Hrvatske pripada tipu K, a česti su i oni tipa H. Neki od tih mačeva mogli bi se datirati i u ranije vrijeme, kasno 8. stoljeće, ali većina ih pripada 9. stoljeću. Ipak, s obzirom na to da je mač iz Škabrnje u skupini predčasnika mačeva tipa K, svakako je riječ o nešto starijem maču nego što su to oni dosad poznati mačevi iz Dalmacije.

Vremenski i prostorni kontekst nalaza

Grob u kojem je pronađen mač koji se u ovom radu obrađuje, spomenuta neobjavljena keramička posuda koja je dospjela u Arheološki muzej u Zadru, kao i više keramičkih posuda i drugih predmeta koje spominju mještani kao nalaze na položaju Smokva gluvača u Škabrnji, dokaz su postojanja starohrvatske nekropole na tom prostoru. Ta se nekropola uklapa u kontekst starohrvatskih kosturnih groblja na području sjeverne Dalmacije koja se

²⁴ Nørgård-Jørgensen 1999, str. 75, 128, sl. 111, Stora & Lilla, Kat. 315:1, T. 130:1; Vallstenarum, Kat. 328:12, T. 136:12.

²⁵ Prema sintezi promišljanja Petersona, Geibiga, Jakobson, Müller-Wille tablicu izradili Peirce, Oakeshott i Jones. Jones 2002, str. 18-19.

²⁶ Neki od istaknutijih priloga o toj temi su: Belošević 2007; Bilogrivić 2010, 2011, 2013; Jelovina 1986; Jurčević 2011; Milošević 2000, 2012, 2016; Petrinec 2009; Piteša 2001; Tomičić 1985; Vinski 1955, 1981, 1984, 1986, Zekan 1992, 1994. i drugi.



Sl. 9. Datacijska tablica tipova mačeva s uključenim položajem mača iz Škabrnje, označeno narančasto (prema: Jones 2002, str. 18-19)

Fig. 9 Chronology of sword types, including the Škabrnja sword, marked with orange colour (after: Jones 2002, pp. 18–19)

the one from Vallstenarum, resemble the pommel of our sword from Škabrnja, but Nørgård-Jørgensen attributed both to her type SP7, from the mid-eighth century, which she equated with Petersen's type A.²⁴ Swords of "special types 1 and 2" and those of *Mannheim* type, in addition to types A and B, represent earlier types of swords, whose manufacture began in the second half of the eighth century. Their transformation into hereditary types occurred in the first quarter of the ninth century,²⁵ and for this reason it would be correct to date the making of the sword from Škabrnja to the end of the eighth or perhaps the beginning of the ninth century.

Škabrnja sword in the context of Carolingian sword finds in Croatia

At least 24 Carolingian swords have been found in Croatia and in the wider area of the historic early mediaeval Croatian state. They have always generated interest, and many a Croatian expert has written about them.²⁶ Among all these swords, none

²⁴ Nørgård-Jørgensen 1999, pp. 75, 128, Fig. 111, Stora & Lilla, Cat. 315:1, Pl. 130:1; Vallstenarum, Cat. 328:12, Pl. 136:12.

²⁵ The table was made by Peirce, Oakeshott and Jones, based on a synthesis of the reflections of Petersen, Geibig, Jakobson, Müller-Wille. Jones 2002, pp. 18–19.

²⁶ Some of the more prominent contributions on this topic are the following: Belošević 2007; Bilogrivić

okvirno datiraju od konca 7. st. do prve polovice 9. st.²⁷ Na tom su prostoru uglavnom utvrđeni pojedinačni grobni nalazi, manja, djelomice istražena i pretežito uništena starohrvatska groblja; tek su u nekoliko slučajeva provedena njihova sustavna arheološka istraživanja, no i kod takvih je većinom riječ samo o djelomičnoj istraženosti. Iznimka je groblje Ždrijac u Ninu, s ukupno istraženih 334 groba, koje je najveća dosad pronađena starohrvatska nekropola na prostoru južne Hrvatske.²⁸ Nije nam na ovom mjestu namjera pojedinačno se doticati nekih od tih nekropola, nego želimo potaknuti razmišljanja o nekim pitanjima koja do sada nisu dovoljno ili uopće nisu razmatrana u starohrvatskoj arheologiji. Jedno od njih jest pitanje grupiranosti nalaza starohrvatskih grobova kao i grobnih i drugih nalaza na prostorima južne Hrvatske, zapadne i sjeverozapadne Bosne te dijela Hercegovine, na kojima je nastala prvotna rano-srednjovjekovna hrvatska država i koji još uvijek nisu posve precizno definirani, a neki noviji nalazi pokazuju da su zasigurno znatno veći nego se to dosad smatralo.²⁹ Nažalost, istražnost tog prostora potpuno je različita i bila je usredotočena uglavnom na tzv. matično područje, tj. na prostor omeđen rijekama Zrmanjom i Cetinom, a na pojedinim dijelovima kao što je npr. Lika imamo tek pojedinačne nalaze koji su najvjerojatnije iz uništenih grobova, dok groblja toga razdoblja nisu uopće zasad utvrđena ili istraživana. Usprkos tomu prema dosadašnjoj raspoloživoj arheološkoj gradi možemo govoriti o različitom naseljavanju navedenih prostora, a ujedno i o više slavenskih srodnih skupina, odnosno rođova.³⁰ U kontekstu toga kao posebna skupina mogu se izdvojiti starohrvatski grobovi koji se rasprostiru na većem dijelu Ravnih kotara i dijelu Bukovice, preciznije, od južnog dijela otoka Paga do donjeg toka rijeke Krke i šiben-

could be classified in the same type as the sword from Škabrnja, based on the shape of the hilt and pommel. Most Carolingian swords from the area of early mediaeval Croatia are of type K, while those of type H are also common. Some of these swords could also be dated to an earlier period, viz. the late eighth century, but the bulk originates from the ninth century. However, considering that the sword from Škabrnja is in the group of predecessors of type K swords, it is certainly a slightly earlier sword than the other known swords from Dalmatia.

Temporal and spatial context of the find

The grave in which our sword from Škabrnja was found, the mentioned unpublished ceramic vessel brought to the Archaeological Museum in Zadar, as well as a number of ceramic vessels and other items mentioned by the locals as finds at the site of Smokva gluvača in Škabrnja, are proof of the existence of an early Croatian necropolis in this area. This necropolis fits into the context of early Croatian skeletal cemeteries in northern Dalmatia, generally dated to the period from the end of the seventh to the first half of the ninth century.²⁷ In this area, mostly individual grave finds have been identified, i.e. small, partially researched and mostly destroyed early Croatian cemeteries. Only a handful have been systematically archaeologically researched, albeit also mostly only in part. The exception is the Ždrijac cemetery in Nin, with a total of 334 researched graves, as the largest early Croatian necropolis discovered to date in southern Croatia.²⁸ It is not our intention to dwell on some of these necropolises individually, but we would like to encourage reflection on some matters which have hitherto been insufficiently considered or even utterly neglected in early Croatian archaeology. One of them is certain-

²⁷ Najcjelovitije sintetičke podatke o dosad istraženim starohrvatskim grobovima i grobljima od 8. i 9. stoljeća na području rano-srednjovjekovne hrvatske države donosi Petrinec 2009. Raspored starohrvatskih grobnih nalaza od 7. do 9. stoljeća na prostoru omeđenom rijekama Zrmanjom i Cetinom vrlo ilustrativno donosi Belošević 2007a, str. 506 i 543–544, karta 1. U navedenim radovima navodi se sva dotad objavljena relevantna literatura o toj tematiki.

²⁸ Belošević 2007a.

²⁹ U prilog takvim činjenicama ide nedavni nalaz starohrvatskoga groblja Bojna – Brekinjova kosa nedaleko od Gline, na Banovini. Vidi: Madiraca, Koprivnjak, Miletić, Zubin Ferri, Bekić 2017.

³⁰ Takve pojave uočio je i naznačio također Jurčević 2011, str. 139.

2010, 2011, 2013; Jelovina 1986; Jurčević 2011; Milošević 2000, 2012, 2016; Petrinec 2009; Piteša 2001; Tomićić 1985; Vinski 1955, 1981, 1984, 1986, Zekan 1992, 1994, et al.

²⁷ The most complete synthetic information on the hitherto researched early Croatian graves and cemeteries from the eighth and ninth centuries in the area of the early mediaeval Croatian state has been provided by Petrinec 2009. The distribution of early Croatian grave finds from the seventh to the ninth century in the area between the rivers of Zrmanja and Cetina is presented in a quite illustrative manner by Belošević 2007a, pp. 506 and 543–544, Map 1. The mentioned papers list all previously published relevant literature.
²⁸ Belošević 2007a.

skoga Donjeg polja. Na tom je prostoru zasad utvrđeno četrdesetak nalazišta s pojedinačnim grobnim nalazima ili nekropolama. Posebnost nalaza u tim grobovima između ostalog čini izrazita brojnost keramičkih posuda, što kod ostalih prostora, osim nekropole Stranče – Gorica u Vinodolu,³¹ nije slučaj.

Položaj Smokva gluvača u Škabrnji gdje su utvrđeni starohrvatski pokopi, nalazi se neposredno uz dio antičke magistralne ceste koja je Dalmaciju spajala s glavnim prometnim sjecištem u Italiji, Akvilejom (*Aquileia*). Riječ je o segmentu ceste *Senia* (Senj) – *Burnum* (Ivoševci) – *Salona* (Solin), čiji je odvojak iz Burnuma spajao na tu trasu koloniju Jader pravcem *Burnum* – *Alveria* (vjerojatno gradina Jarebinjak/Jarebnjak u Brgudu) – *Asseria* (Podgrađe) – *Nedinum* (Nadin) – *Iader* (Zadar). Trasa te ceste je od Nadina prilično ravnom linijom prolazila uz sjeverni rub sela Prkosa, a zatim oko kilometar južnije od crkve sv. Luke na škabrnjanskom groblju. Nadalje, ta je cesta prolazila sjeverno od današnjeg sela Galovac, između drevnih bunara Kozjak i Zagrljak, i sjeverno od ranokršćanskoga i srednjovjekovnoga sakralnog kompleksa Crkvina te dalje preko današnjeg civilnog aerodroma do Zadra.³² S obzirom na rezultate sustavnih arheoloških istraživanja lokaliteta Crkvina u Galovcu³³ u kojima je kao dio stručne ekipe jedan od autora ovoga rada (A. Uglešić) i osobno sudjelovao u četiri arheološke kampanje (od 1988. do 1991.), mišljenja smo da starohrvatskog naseljavanja tog položaja nije bilo prije 9. stoljeća, tako da bi granica najranijega hrvatskog naseljavanja, koja obuhvaća razdoblje od konca 7. do početka 9. stoljeća, bila zaokružena upravo navedenom cestovnom komunikacijom. Na samoj Crkvini nisu uočeni paljevinski slojevi tog razdoblja, a kontinuitet života potvrđuje i razdoblje predromanike, odnosno njezina prva faza, koju temeljem nalaza kamene plastike i ukrasnih dijelova arhitekture datiramo u posljednja desetljeća 8. ili u sam početak 9. stoljeća.³⁴ Tijekom druge polovice

ly the grouping of discovered early Croatian graves, as well as grave and other finds in southern Croatia, western and northwestern Bosnia and parts of Herzegovina, where the original early mediaeval Croatian state was formed and which are still not fully defined, while some recent finds indicate that they are definitely considerably larger than previously thought.²⁹ Unfortunately, the levels of research in this area are utterly disparate. The focus has been mainly on the so-called territory proper, i.e. the area between the rivers of Zrmanja and Cetina, while in some parts, such as Lika, we have only individual finds, most likely from destroyed graves, whereas cemeteries of that period have not yet been identified or explored. Despite that, based on the available archaeological evidence, it can be said that the mentioned areas were settled differently, and that there were several Slavic related groups, i.e. tribes, at the same time.³⁰ In this context, early Croatian graves can be singled out as a separate group. They can be found over most of Ravni kotari and a part of Bukovica, or, more precisely, from the southern section of the island of Pag to the lower reaches of the river Krka and Donje polje near Šibenik. About forty sites with individual grave finds or necropoli have been identified in this area to date. The hallmark of the finds in these graves, among other things, is a significant number of ceramic vessels, which is not the case in other areas, except for the necropolis of Stranče – Gorica in Vinodol³¹.

The site of Smokva gluvača in Škabrnja, where early Croatian burials have been identified, is located next to a section of the antique trunk road connecting Dalmatia with the main traffic intersection in Italy, Aquileia. This is a segment of the *Senia* (Senj) – *Burnum* (Ivoševci) – *Salona* (Solin) road, whose slip road from Burnum connected the colony of Jader to this route in the direction of *Burnum* – *Alveria* (probably Jarebinjak/Jarebnjak in Brgud) – *Asseria* (Podgrađe) – *Nedinum* (Nadin) – *Iader* (Zadar). A route of that road ran from Nadin in a fairly straight line along the northern edge of the village of Prkos, and then about a kilometre south of the church of Sv. Luke in the Škabrnja cemetery. Fur-

³¹ Cetinić 2011.

³² Miletić 1993, str. 130-131.

³³ Voditelj istraživanja Janko Belošević objavio je niz članaka o etapama istraživanja i o pronađenoj arheološkoj građi. Sintetički podatci o ishodima istraživanja mogu se naći u dva rada: Belošević 1997 i Belošević 1998.

³⁴ I. Josipović te nalaze stavlja u radionički krug koji naziva „Radionica plutejā zadarske katedrale“. Vidi: Josipović 2013, str. 37-56, 256-271, T. VII-X, Galovac I-II.

²⁹ Such facts are supported by the recent discovery of the early Croatian cemetery of Bojna – Brekinjova kosa near Glina, in Banovina. See: Madiraca, Koprivnjak, Miletić, Zubin Ferri, Bekić 2017.

³⁰ Such instances were also noticed and indicated by Jurčević 2011, p. 139.

³¹ Cetinić 2011.

9. stoljeća crkva (sv. Bartolomeja) i posjed kojem je pripadala kao dio srednjovjekovnog naselja Tršci postaju vladarska zadužbina.³⁵ Činjenicom da se nalaz karolinškog mača iz Škabrnje prostorno veže uz rimsku cestovnu komunikaciju, on se u potpunosti uklapa u prostorni raspored nalazišta i nalaza s karolinškim obilježjima na prostorima rano-srednjovjekovne hrvatske države koji su svi smješteni uz antičke cestovne pravce, odnosno uz dominantne položaje uz njih ili uz važnija križanja tih cesta.³⁶

Među pitanja koja se nameću uz nalaz mača iz Škabrnje jest i ono gdje se nalazilo naselje kojem je pripadalo starohrvatsko groblje neosporno utvrđeno tim i drugim spomenutim nalazima. To bi naselje trebalo tražiti na prostoru obližnjeg predjela (zaselka) Ambar, u okolišu današnje crkve sv. Marije u koju su u temeljima uklopljeni ostaci šesterokonhne crkve iz 9. – 10. stoljeća (sl. 10), izgrađene na ruševinama neke rimske građevine. Na mjestu te građevine se u povijesnim izvorima spominje crkva sv. Jurja u srednjovjekovnom selu Kamenjanima, odnosno kasnijim Podbrđanima.³⁷

Zaključak

Mač s lokaliteta Smokva gluvača u Škabrnji, iako znatno oštećen i fragmentarno sačuvan, izuzetno je vrijedan novi nalaz za proučavanje hrvatskog rano-srednjovjekovlja i razdoblja stvaranja srednjovjekovne hrvatske države. Svojim izgledom i karakteristikama izrade uklapa se među pojedine tipove karolinških mačeva na prostoru današnje Hrvatske i Europe općenito, no jednako tako se izdvaja i kao jedini takav dosad pronađen primjerak, a datirali smo ga na kraj 8. ili početak 9. stoljeća. Mač je bio dio grobne cjeline (ukop dostojarstvenika – ratnika) koja se metodom ¹⁴C analize, iako ne apsolutno preciznim datumima, također uklapa u taj vremenski kontekst. Nekropolu kojoj je grob pripadao, sudeći prema dosad poznatim podatcima, nažalost, većim je dijelom uništena. Unatoč tomu,

³⁵ O vladarskoj zadužbini sv. Bartolomeja (Bartula) u srednjovjekovnom selu Tršci: Jakšić 2000.

³⁶ Jurčević 2011, str. 133.

³⁷ Jakšić 1988, str. 117-121; Vežić 2012, str. 46. Istraživanja oko crkve sv. Marije u Ambaru vršena su tijekom 1980. godine. Obavljao ih je Muzej hrvatskih arheoloških spomenika iz Splita pod vodstvom M. Zekana, no nisu dovršena, a rezultati tih istraživanja dosad nisu objavljeni. U kontekstu toga trebalo bi pregledati arheološku dokumentaciju i pokretnu građu s istraživanja, što ćemo svakako nastojati i učiniti.

thermore, this road passed north of today's village of Galovac, between the ancient wells of Kozjak and Zagrljak, and north of the early Christian and the mediaeval religious complex of Crkvina and from thereon through today's civil airport to Zadar.³² Considering the results of systematic archaeological research of the Crkvina site in Galovac³³ in which one of the authors of this paper (A. Uglešić) personally participated in four archaeological campaigns (from 1988 to 1991) as a member of the expert team, we are of the opinion that there had been no early Croatian settlement at this site before the ninth century, meaning that the border of the earliest Croatian settlement, which covers the period from the end of the seventh to the beginning of the ninth century, would be defined by the above-mentioned road communication. The burnt layers of that period have not been observed at Crkvina itself, while the continuity of life is also confirmed by the pre-Romanesque period, i.e. its first phase, which we date to the last decades of the eighth or the very beginning of the ninth century based on discovered stone sculptures and decorative architectural elements.³⁴ During the second half of the ninth century, the church (of St. Bartholomew) and the estate to which it belonged as part of the mediaeval settlement of Tršci became the ruler's endowment.³⁵ The fact that the Carolingian sword from Škabrnja is spatially connected to a Roman road communication means that it completely fits into the spatial layout of sites and finds with Carolingian features in the territories of the early mediaeval Croatian state, all located by antique road routes, or near dominant positions in their vicinity or close to important intersections of such roads.³⁶

Among the questions that arise in connection with the sword from Škabrnja is the one concerning the location of the settlement to which the early

³² Miletić 1993, pp. 130–131.

³³ Janko Belošević, head of the research, published a series of articles on the stages of the research and the unearthed archaeological material. Synthetic information on the results of the research outcomes can be found in two papers: Belošević 1997, and Belošević 1998.

³⁴ I. Josipović classified such finds within a workshop circle he called “the Zadar Cathedral panels workshop”. See: Josipović 2013, pp. 37–56, 256–271, Pls. VII–X, Galovac I–II.

³⁵ For information on the ruler's endowment of St. Bartholomew (Bartul) in the mediaeval village of Tršci, see Jakšić 2000.

³⁶ Jurčević 2011, p. 133.



Sl. 10. Škabrnja – Ambar, crkva sv. Marije s ostacima šesterokonhne crkve sv. Jurja iz 9. - 10. st. (foto: A. Uglešić)

Fig. 10. Škabrnja – Ambar, the church of St. Mary with the remains of the hexaconch church of St. George from the ninth-tenth century (photo: A. Uglešić)

sama ubikacija starohrvatske nekropole u Škabrnji iznimno je važna za određivanje graničnih prostora koje su slavenske/hrvatske populacije osvojile i naselile u razdoblju od konca 7. do početka 9. stoljeća. U kontekstu dosadašnjih arheoloških istraživanja okolnih prostora, ponajprije lokaliteta Galovac – Crkvin, razvidno je da je upravo širi prostor današnje Škabrnje bio u smislu tog naseljavanja granični prema malom prostoru u zaobalju Zadra koji je tada ostao u vlasti Bizanta i bio je dio agera toga grada. Starohrvatsko naselje kojem je pripadalo groblje u Škabrnji zasigurno je bilo u neposrednoj blizini, a kao moguća lokacija nameće se obližnji Škabrnjanski zaselak Ambar i položaj crkve sv. Marije u koju su uklopljeni ostaci crkve sv. Jurja iz 9./10. stoljeća, izgrađene na temeljima građevina, koje su također mogle poslužiti za naseljavanje, kao što je to bio slučaj na više lokaliteta na okolnim prostorima.³⁸ Bilo koje dodatne spoznaje o samoj nekropoli mogla bi pružiti samo arheološka istraživanja, no veliko je pitanje u kojem su opsegom ona moguća s obzirom na izgrađenost prostora gdje se nalazila, ali ostaje nam nada da ćemo ipak uspjeti ući u trag nekom od eventualnih preostalih grobova, što ćemo uskoro i pokušati.

³⁸ Uglešić 2016, str. 169.

Croatian cemetery belonged, indisputably identified by this and other mentioned finds. This settlement should be sought in the nearby area of (the hamlet of) Ambar, in the vicinity of today's church of St. Mary, whose foundations comprise the remains of a hexaconch church from the ninth/tenth century (Fig. 10), itself built on the ruins of a Roman building. Historical sources mention the church of St. George in the mediaeval village of Kamenjani, later Podbrđani, in place of this building.³⁷

Conclusion

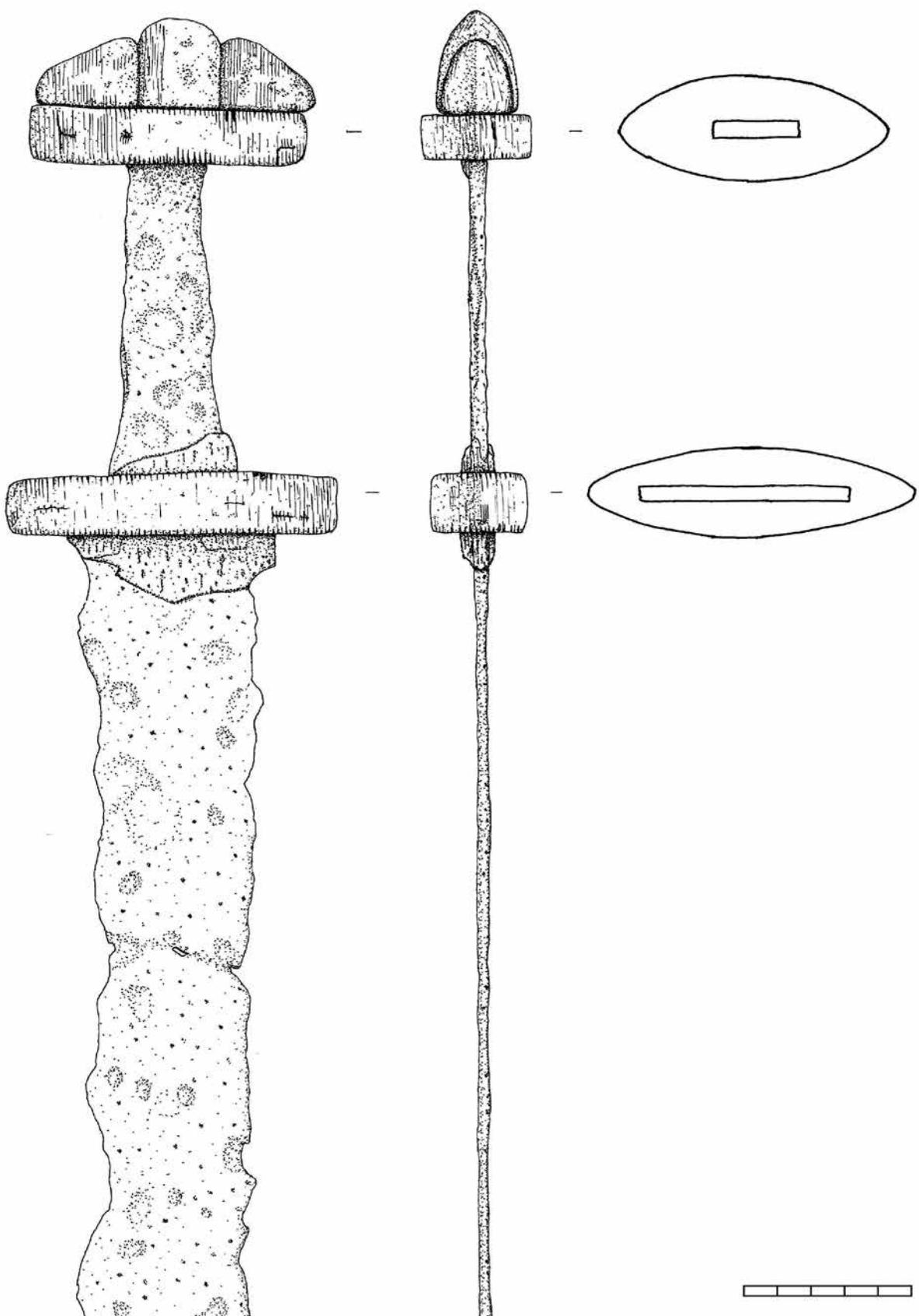
The sword from the site of Smokva gluvača in Škabrnja, though rather damaged and fragmentarily preserved, is an extremely valuable new find for the study of the Croatian early Middle Ages and the period of the creation of the mediaeval Croatian state. With its appearance and attributes, it fits among certain types of Carolingian swords in the territory of today's Croatia and Europe in general. It also stands out as the only such specimen found so far. We dated it to the end of the eighth or the beginning of the ninth century. The sword was part of a grave unit (burial of a dignitary – warrior). The ¹⁴C analysis, albeit without absolutely precise dates, also showed that it fits into said time context. Judging by the known information, the necropolis to which the grave belonged had unfortunately been largely destroyed. Nevertheless, the very location of the early Croatian necropolis in Škabrnja is extremely important for determining the border areas that the Slavic/Croatian populations conquered and settled in the period from the end of the seventh to the beginning of the ninth century. In the context of previous archaeological research of the surrounding territories, primarily Galovac – Crkvin, it is apparent that the greater area of today's Škabrnja, in terms of such settlement, used to be on the border to a small area in the hinterland of Zadar, which remained under Byzantine rule and was part of the town's ager. The early Croatian settlement to which the ceme-

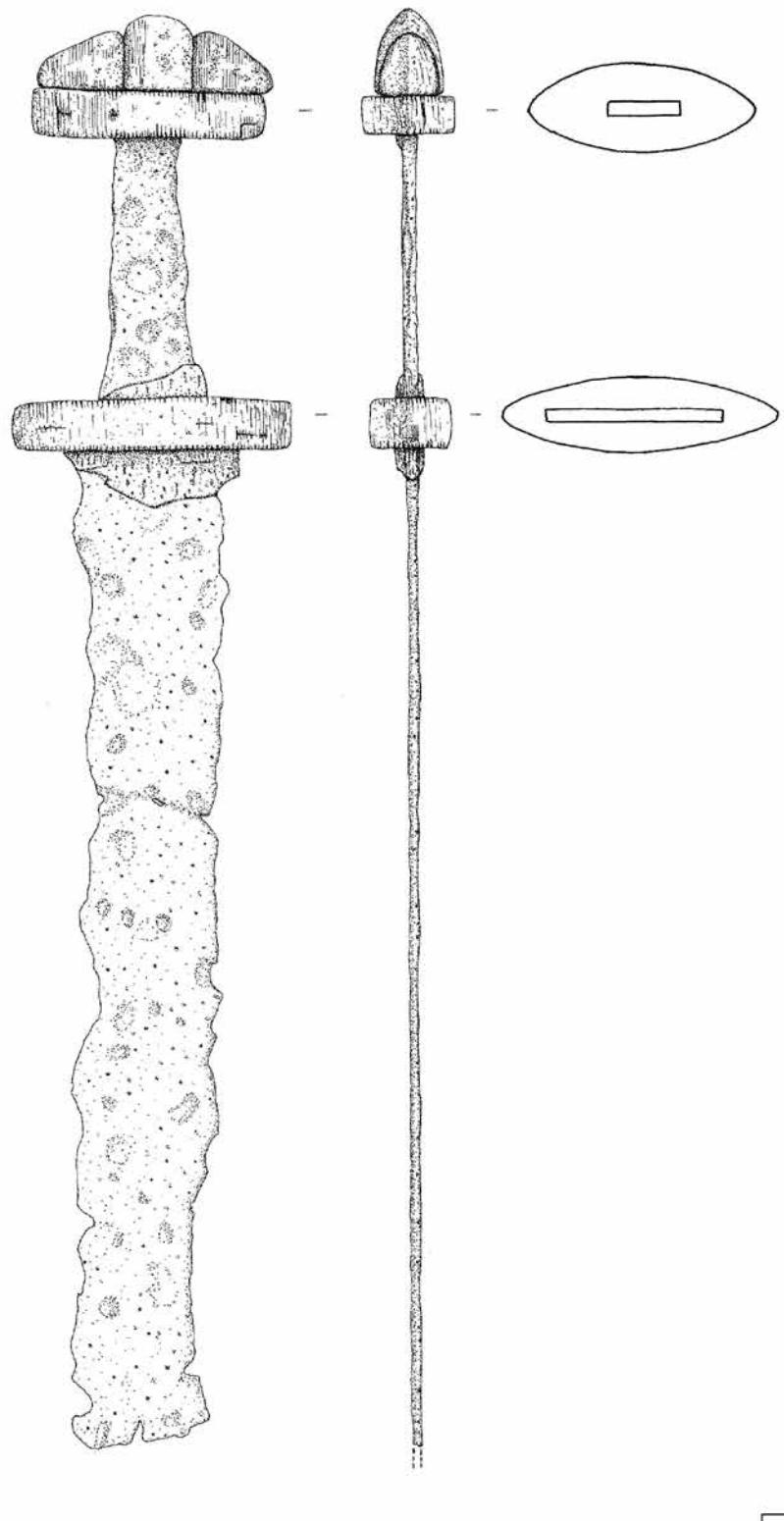
³⁷ Jakšić 1988, pp. 117–121; Vežić 2012, p. 46. The research around the church of St. Mary in Ambar was carried out in 1980. It was performed by the Museum of Croatian Archaeological Monuments from Split, under the direction of M. Zekan, but they have not been completed, and the results of the research have not been published to date. In this context, the archaeological documentation and movable evidence from the research should be reviewed, which we shall certainly attempt to do.

tery in *Škabrnja* belonged must have been in the immediate vicinity. Its possible location could have been the nearby *Škabrnja* hamlet of Ambar and the position of the church of St. Mary incorporating the remains of the church of St. George from the ninth/tenth century, built on the foundations of Roman buildings, which could also have been used for settlement, like in several other sites in the surrounding areas.³⁸ Any additional knowledge about the necropolis itself could be provided only by archaeological research, but the key question concerns the extent in which they are possible, given the building footprint in the area where it was located, but we can still hope that we will ultimately be able to trace some possibly remaining graves, which we shall attempt shortly.

(D. G.)

³⁸ Uglešić 2016, p. 169.





T. I. Crtež mača iz Škabrnje (izradio: L. Bekić)
Pl. I. Drawing of the sword from Škabrnja (made by: L. Bekić)

Literatura / Bibliography

- Arents Eisenschmidt 2010
U. Arents, S. Eisenschmidt, *Die Gräber von Haithabu*, 2. Neumünster 2010.
- Androshchuk 2007
F. Androshchuk, Rural Vikings and Viking Helgö, u: *Cultural interaction between east and west. Archaeology, artefacts and human contacts in northern Europe*, u/in: U. Fransson, M. Svedin, S. Bergerbrant, F. Androshchuk (ur./eds.), Stockholm studies in Archaeology 44, Stockholm 2007, 153-163
- Belošević 1997
J. Belošević, Osvrt na konačne ishode istraživanja položaja Crkvine u selu Galovcu kod Zadra, *Diadora*, 18-19, Zadar 1997, 301-350
- Belošević 1998
J. Belošević, Il complesso dell'architettura paleocristiana a Crkvina di Galovac nei pressi di Zadar, *Radovi XIII. međunarodnog kongresa za starokršćansku arheologiju*, 3, Split – Poreč, 25. 9. – 1. 10. 1994., Città del Vaticano – Split, 1998, 69-104
- Belošević 2007
J. Belošević, Osvrt na karolinške mačeve tipa H sa šireg područja Dalmatinske Hrvatske, *Prilozi Instituta za arheologiju u Zagrebu* 24, Zagreb 2007, 405-418
- Belošević 2007a
J. Belošević, *Starohrvatsko groblje na Ždrijacu u Ninu*, Zadar 2007.
- Bilogrivić 2010
G. Bilogrivić, Karolinški mačevi tipa K, *Opuscula archaeologica* 33 (2009), Zagreb 2010, 125-182
- Bilogrivić 2011
G. Bilogrivić, O mačevima posebnog tipa u Hrvatskoj, *Starohrvatska prosvjeta*, s. III, 38, Split 2011, 83-110
- Bilogrivić 2013
G. Bilogrivić, Carolingian Swords from Croatia – New Thoughts on an Old Topic, *Studia Universitatis Cibiniensis, Series Historica*, 10, Sibiu 2013, 67-83
- Cetinić, 2011
Ž. Cetinić, *Stranče – Vinodol. Starohrvatsko groblje na Gorici*, Rijeka 2011.
- Dunning, Evison 1961
G. C. Dunning, V. I. Evison, The Palace of Westminster Sword, *Archaeologia* 98, Cambridgeshire 1961, 123-158
- Geibig 1991
A. Geibig, *Beiträge zur morphologischen Entwicklung des Schwertes im Mittelalter. Eine Analyse des Fundmaterials vom Ausgehenden 8. bis zum 12. Jahrhundert aus Sammlungen der Bundesrepublik Deutschland*. Offa-Bücher 71, Neumünster 1991.
- Хошек, Кошта, Оттенвельтер 2013
И. Хошек, И. Кошта, Э. Оттенвельтер, Новые исследования мечей из Микульчиц. *Археологія і давня історія України* 10, Київ 2013, 56-66
- Jakšić 1988
N. Jakšić, Srednjovjekovne Kamenjane s crkvama Sv. Jurja i Sv. Luke – Problem ubikacije i identifikacije, *Starohrvatska prosvjeta*, s. III, 17 (1987), Split 1988, 111-129
- Jelovina 1986
D. Jelovina, *Mačevi i ostruge karolinškog obižlježja u Muzeju hrvatskih arheoloških spomenika*, Split 1986.
- Jones 2002
L. A. Jones, Overview of Hilt & Blade Classifications, u/in: *Swords of the Viking age* (I. Peirce). Woodbridge 2002, 15-24
- Josipović 2013
I. Josipović, *Predromanički reljefi na teritoriju sklavinije Hrvatske između Zrmanje i Krke do kraja 9. stoljeća*, 1-2, doktorski rad, Zagreb 2013.
- Jurčević 2011
A. Jurčević, Nalazi karolinškog oružja i konjaničke opreme u doba formiranja Hrvatske Kneževine, *Starohrvatska prosvjeta*, s. III, 38, Split 2011, 111-144
- Кирпичников 1966
А. Н. Кирпичников, *Древнерусское оружие 1, мечи и сабли IX—XIII вв.*, Археология СССР Е1–36, Москва – Ленинград 1966.
- Košta 2015
J. Košta, Vývoj bádání nad tříděním mečů z 2. poloviny 8. až přelomu 10. a století. Od Skandzy k

- Dunaji, od Rýna k Pasl  ce, *Sbornik k 70. narozenin  m Lubomíra Ko  nara, Praehistorica* 32-2, Praha 2015, 233-252
- Madiraca, Koprivnjak, Miletic, Zubin Ferri, Bekic 2017
- V. Madiraca, V. Koprivnjak, M. Miletic, T. Zubin Ferri, L. Bekic, Rano-srednjovjekovni nalazi s lokaliteta Brekinjova kosa (rezultati istra  ivanja 2011. i 2015. godine, *Arcaeologia Adriatica*, Zadar 2017, 145-215
- Miletic 1993
Z. Miletic, Rimskie ceste izme  u Jadera, Burnuma i Salone, *Radovi Filozofskog fakulteta u Zadru, Razdrio povjesnih znanosti* 32(19), (1992./1993.), Zadar 1993, 117-149
- Milošević 2000
A. Milošević, Karolinški utjecaji u Hrvatskoj kneževini u svjetlu arheoloških nalaza, u/in: A. Milošević (ur./ed.) *Hrvati i Karolinzi, Rasprave i vrela*, Split 2000, 106-139
- Milošević 2012
A. Milošević, Novi ma   iz Koljana u svjetlu kontakata s nordijskim zemljama u ranom srednjem vijeku, *Histria Antiqua* 21, Pula 2012, 459-470
- Milošević 2016
A. Milošević, Doseљenje Hrvata u Dalmaciju krajem 8. stoljeća: ma   K-tipa iz Koljana kao mogu  i dokaz, *Starohrvatska prosvjeta*, s. III, 43, Split 2016, 239-262
- N  rg  rd-J  rgensen 1999
A. N  rg  rd-J  rgensen, *Waffen und Gr  ber. Typologische und chronologische Studien zu skandinavischen Waffengr  bern 520/530 bis 900 n.Chr.*, Copenhagen 1999.
- Oakeshott 1960
E. Oakeshott, *The Archaeology of Weapons: Arms and Armour from Prehistory to the Age of Chivalry*. London 1960.
- Petersen 1919
J. Petersen, *De norske Vikingsverd. En typologisk-kronologisk studie over vikingetidens vaaben*, Videnskapsselkapete Skrifter II. Hist.-filos. Klasse, No. I, Oslo 1919.
- Peirce 2002
I. Peirce, *Swords of the viking age*, Woodbridge 2002.
- Petrinec 2009
M. Petrinec, *Groblja od 8. do 11. stolje  a na podru  ju ranosrednjovjekovne hrvatske dr  ave*, Split 2009.
- Piteša 2001
A. Piteša, Karolinški ma   s natpisom iz Zadvarja (Žeževica Donja), *Vjesnik za arheologiju i historiju dalmatinsku* 94, Split 2001, 347-360
- Tomi  c 1984
Ž. Tomi  c, Prilog istra  ivanju karolinškog oru  ja u Međimurju i vara  dinskoj regiji, *Starohrvatska prosvjeta*, s. III, 14, 1984, 209-230
- Thunmark-Nylen 1999
L. Thunmark-Nylen, *Die Wikingerzeit Gotlands I: Abbildungen der Grabfunde; II: Typenlafeln*, Stockholm 1999.
- Uglešić 2016
A. Uglešić, Kasnoantička i ranosrednjovjekovna nalazišta na podru  ju Novigrada, u/in: S. Kaštela (ur./ed.) *Novograd nekad i sad*, Zadar 2016, 162-175
- Vinski 1955
Z. Vinski, Osvrt na ma  eve ranog srednjeg vijeka u našim krajevima, *Vesnik* 2, Vojni muzej Jugoslavenske narodne armije, Beograd 1955, 34-51
- Vinski 1981
Z. Vinski, O nalazima karolinških ma  eva u Jugoslaviji, *Starohrvatska prosvjeta*, s. III, 11, Split 1981, 9-54
- Vinski 1984
Z. Vinski, Ponovno o karolinškim ma  evima u Jugoslaviji, *Vjesnik Arheološkog muzeja u Zagrebu* 3., 16-17 (1983-1984), Zagreb 1984, 183-210
- Vinski 1985
Z. Vinski, Marginalia uz izbor karolinškog oru  ja u jugoistočnoj Evropi, *Starohrvatska prosvjeta*, s. III, 15 (1985), Split 1986, 61-117
- Vežić 2012
P. Vežić, Dalmatinski šesterolisti – sličnosti i razlike, *Ars Adriatica* 2, Zadar 2012, 41-73
- Westphal 2004
H. Westphal, Zur Entwicklung mittelalterlicher Waffen, *Soester Beitr  ge zur Arch  ologie* 5, Soest 2004, 47-61
- Zekan 1992
M. Zekan, K novoj atribuciji nalazišta ma  eva ka-

rolinškog obilježja iz Muzeja hrvatskih arheoloških spomenika u Splitu, *Izdanja Hrvatskog arheološkog društva* 15, Zagreb 1992, 131-139

Zekan 1994

M. Zekan, Karolinški i poslijekarolinški nalazi iz Bosne i Hercegovine, u: *Livanjski kraj u povijesti*, Split – Livno 1994, 55-73