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Romanički mač iz Jošana

Pri iskopnim radovima na sanaciji padine na kojoj se nalazi srednjovjekovna crkva sv. Ivana u selu Jošane na Krbavskom polju, pronađen je 2015. g. u devastiranom grobu dvosječni romanički mač. Prema odlikama datira se u prvu polovicu 13. st. i pripada Oakeshott tipu XIIA ili XI, s glavicom tipa Na i križnicom 1A. Analogni primjerci pronađeni su na širokom prostoru središnje i jugoistočne Europe, od Švicarske do Rumunjske. Proizvodnja takvih mačeva pripisuje se radionicama na području južne Njemačke, a njihovo širenje na istočnu mađarsku granicu povezuje se s djelovanjem teutonskog reda.

Ključne riječi: romanički mač, Jošane, 13. stoljeće, glavica tipa Na, sv. Ivan, Lika.

Romanesque sword from Jošane

During the excavations under the rehabilitation works on the slope on which the mediaeval church of St. John is located in the village of Jošane on the Krbavsko field, a double-edged Romanesque sword was unearthed in 2015 in a devastated grave. According to its features, it is dated to the first half of the 13th century and belongs to the Oakeshott Type XIIA or XI, with the pommel of type Na and the 1A cross-guard. Analogous examples have been found in a wide area of Central and Southeastern Europe, from Switzerland to Romania. The production of such swords is attributed to workshops in southern Germany, and their spread to the eastern Hungarian border is associated with the activities of the Teutonic Order.

Keywords: Romanesque sword, Jošane, 13th century, pommel of Type Na, St. John, Lika.



Sl. 1. Crkva sv. Ivana 2010., pogled s jugozapada (foto: T. Kolak)
Fig. 1 Church of St. John in 2010, view from the south-west (photo: T. Kolak)

Na istočnom rubu Krbavskog polja, podno obronaka Plješevice, uz nedaleke brojne pećinske objekte s iznimnom količinom vode, osobito u kišnim razdobljima, nalazi se selo Jošane, u razvučenom nizu podijeljeno na Gornje i Donje. U srednjovjekovnim ispravama spominje se pod nazivom Jelšane, u ispravi iz 1466. g. koja spominje Andriju Dokmanovića iz Jelšana, jednog od sudaca rotnog stola.¹

Iznad kuća Jošana Donjih, između dviju voderina plješevičkog masiva, na istaknutoj uzvisini Brda Cvijanovića i prirodnom obronku, nalazi se položaj srednjovjekovne crkve sv. Ivana, danas crkve sv. Jovana.² To je jedini sakralni objekt u Krbaui koji nije srušen za dolaska Turaka ili pod njihovom upravom³ (sl. 1).

On the eastern edge of Krbava Field, at the foot of the slopes of Plješevica, close to numerous cave structures with exceptional amounts of water, especially in rainy periods, there lies the village of Jošane, stretching in a long line and divided into two parts – Upper and Lower. In mediaeval documents it is referred to as Jelšane. A document from 1466 mentions Andrija Dokmanović from Jelšane, as one of the judges of the tribunal.¹

Above the houses of Lower Jošane, between two gullies of the Plješevica massif, on a prominent rise of Cvijanović Brdo and its natural slope, there is the location of the mediaeval church of St. John (sv. Ivan, present-day sv. Jovan).² It is the only sacral building in Krbava that was not demolished with the arrival of the Turks or under their administration.³

¹ Kruhek 1997, str.121; Pavičić 1990, str. 80.

² Rješenja Konzervatorskog zavoda u Zagrebu, br. 01-432/1-1966 i Regionalnog zavoda za zaštitu spomenika kulture u Zagrebu, br. 02-76/345-1969. Preregistracija je izvršena rješenjem Uprave za zaštitu kulturne baštine Ministarstva kulture RH 2002. g., br. 532-10-1/8(JB)-02-2 te upisana u Registar kulturnih dobara RH – Listu zaštićenih kulturnih dobara pod brojem Z-328 (Konzervatorski odjel u Gospiću).

³ Na području Like to je crkva sv. Trojice u Podovima kod Perušića. Iznad crkve, na brdu Veljun nalazi se prapovijesno japodsko gradinsko naselje te, prema usmenoj predaji, „grčko groblje“ u vrtači istočno od crkve. To bi mogla biti prapovijesna nekropola uz gradinsko naselje.

¹ Kruhek 1997, p. 121; Pavičić 1990, p. 80.

² Decisions by the Conservation Institute in Zagreb No. 01-432/1-1966, and of the Regional Institute for Protection of Cultural Monuments in Zagreb, No. 02-76/345-1969. The re-registration was made by a decision of the Directorate for the Protection of Cultural Heritage of the Ministry of Culture of the Republic of Croatia in 2002, No. 532-10-1/8(JB)-02-2, and entered in the Register of Cultural Property of the Republic of Croatia, in the List of Protected Cultural Property under number Z-328 (Conservation Department in Gospić).

³ In the Lika area, such is the church of the Holy Trinity in Podovi near Perušić. Above the church, on the



Sl. 2. Sv. Ivan, zapadno pročelje 2009. (foto: T. Kolak)
Fig. 2 St. John, west façade in 2009
 (photo: T. Kolak)

Prostor uokolo crkve bio je ograđen zidom, koji je djelomično očuvan, a sudeći po kamenoj horizontalnoj nadgrobnoj ploči novovjekovnog datuma, tu se nalazilo i recentno groblje (vjerojatno u uporabi do sred. 19. st.) te srednjovjekovno.

Crkva je jednobrodna, orijentirana istok-zapad, s dužim polukružnim svetištem na istoku. Građena je pravilnim, lijepo obrađenim klesancima, u donjem dijelu većih dimenzija, a prema vrhu manjim. Dužina joj je 18, a širina 7,30 metara.⁴ Iako ima romanički omjer dužine u odnosu na širinu broda, ukupni tlocrt je gotičkog omjera: unutarnji 1 : 3, a vanjski je 2 : 5. Polukružno svetište je u ravnom

⁴ Zorislav Horvat u nekoliko je navrata obradio stilske komponente ove crkve i donosi dimenzije. Vidi: Horvat 2003; Horvat 1997; Kruhek, Horvat 1988. Istom tematikom bavili su se i drugi autori: Kruhek 1997; Horvat 1959; Horvat 1975; Kolak 2004; Kolak 2011, str. 26-130.

The area around the church used to be surrounded by a wall, now partially preserved. Judging by the horizontal tombstone from the modern period, there used to be a recent cemetery (probably in use until the mid-19th century), and a medieval one.

The church is single-naved, oriented in an east-west direction, with an elongated semicircular sanctuary to the east. It was built of regular, smart ashlar masonry, larger in the lower part, and smaller towards the top. It is 18 m long and 7.30 m wide.⁴ Although it has a Romanesque ratio of length to width of the nave, the overall plan is of the Gothic canon, the inner being 1:3, and the outer 2:5. The semicircular sanctuary is enclosed in its straight part because of the niches placed on both sides, which could possibly indicate a transept. The niches in the sanctuary have an analogy in the capitular hall (chapel) of the Pauline monastery at Gvozd.⁵ The straight part of the sanctuary has a pointed barrel vault, and the lintels of the niches are also slightly pointed,⁶ while the nave has a flat ceiling.

The main portal consists of two parts, indicating a transitional style.⁷ Above the entrance, there is a semicircular lintel whose dimensions correspond to the portals of Gothic churches in Lika, such as the Holy Trinity in Podovi or the Holy Cross in Perušić.⁸ The lunette is seemingly Romanesque and is merely a reminiscence of the original pre-Romanesque and Romanesque arches above flat door lintels. Here it is merely in the role of a decorative element. Such and similar niches can also be found in some other buildings from the 15th century and even later, and it can be assumed that this Romanesque detail was firmly rooted in the building practice of mediaeval Croatia.⁹ Its small and simple rosette is a perforated stone slab with eight segments and is but a provincial echo of large and monumental rosettes on Ro-

hill of Veljun, there is a prehistoric Iapodian hillfort settlement, and, according to oral tradition, a "Greek cemetery" in a sinkhole east of the church. It could be a prehistoric necropolis next to the hillfort settlement.

⁴ Zorislav Horvat has elaborated the stylistic components of this church and published its dimensions on several occasions. Cf.: Horvat 2003; Horvat 1997, Kruhek, Horvat 1988. Other authors have also covered the same topic: Kruhek 1997, Horvat 1959; Horvat 1975, Kolak 2004, Kolak 2011, pp. 126-130.

⁵ Horvat 2003, p. 39.

⁶ Kruhek – Horvat 1988, p. 200.

⁷ Horvat 1975, p. 132.

⁸ Kruhek – Horvat 1988, p. 200.

⁹ Horvat 2003, p. 36.



Sl. 3. Sv. Ivan, 13. 10. 2015., pogled sa sjeverozapada
(foto: T. Kolak)
*Fig. 3 St. John, 13/10/2015, view from the north-west
(photo:T. Kolak)*

dijelu učahureno zbog obostrano postavljenih niša, u čemu bi se eventualno moglo prepoznati transept. Analogiju nišama u svetištu nalazimo u kapitularnoj dvorani– kapeli pavlinskog samostana na Gvozdu.⁵ Ravni dio svetišta ima šiljast bačvasti svod, a i nadvoji niša blago su zašiljeni,⁶ dok je nad brodom strop ravan.

Glavni je portal sastavljen iz dva dijela, što ukazuje na prijelazni stil,⁷ a iznad ulaza nalazi se polukružni nadvoj čije dimenzije korespondiraju s portalima gotičkih crkava u Lici, kao što su Sv. Trojica u Podovima ili Sv. Križ u Perušiću.⁸ Luneta je naizgled romanička i tek je reminiscencija na prvotne predromaničke i romaničke lukove nad ravnim nadvojima vrata; ovdje je samo u ulozi dekorativnog elementa. Takve i slične niše javljaju se i na nekim drugim građevinama tijekom 15. st. pa i kasnije, te se može pretpostaviti da je ovaj romanički detalj čvrsto ukorijenjen u običaje građenja srednjovjekovne Hrvatske.⁹ Mala, jednostavna rozeta perforirana je kamena ploča s osam paoka i tek je provincijalni odjek velikih i monumentalnih rozeta romaničkih crkava 13. st. u Dalmaciji. Zvonik je inkorporiran u pročelje u formi preslice s dva otvora polukružnih nadvoja u kojima su bila smještena zvona (sl. 2).

⁵ Horvat 2003, str. 39.

⁶ Kruhek, Horvat 1988, str. 200.

⁷ Horvat 1975, str. 132.

⁸ Kruhek, Horvat 1988, str.200.

⁹ Horvat 2003, str. 36.



Sl. 4. Južni kanal s označenim ostacima
Fig. 4 Southern trench with marked remains

manesque churches from the 13th century in Dalmatia. The belfry is incorporated in the façade in the form of a gable with two openings and semicircular lintels in which bells used to be placed.

The church was renewed in 1730 for Orthodox worship, and became the church of St. John (Jovan), as mentioned in the Cyrillic inscription on the west façade¹⁰. After World War II, it served as a private sheepfold. The building was in a very poor condition due to negligence. Its roofing was partially collapsed and damaged, while the walls were loose, probably in part due to earth creep. The west façade was affected the most, and there was a possibility of its separation from the main structure. Soon a group of enthusiasts¹¹ started clearing the area, and then the Serbian Orthodox Church in Croatia got involved in the refurbishment and thus a rehabilitation project was started to protect it from further destruction, with the financial support of the Ministry of Culture of the Republic of Croatia.

In August and September 2015, works were carried out to remove the recent, partially preserved cincture, as well as excavations on three sides of the slope¹² in order to erect a new concrete wall to prevent further earth creep.

This undertaking devastated the mediaeval cemetery and resulted in the discovery of a Romanesque sword. Sword finds are certainly not an everyday occurrence. They are mostly unearthed as single

¹⁰ Today it is the temple of St. John the Baptist in the Church Municipality of Korenica.

¹¹ Mostly former residents who occasionally visit Jošane.

¹² The works were carried out without archaeological supervision.

Crkva je od 1730. godine obnovljena u svrhu pravoslavnog bogoslužja te od tada postaje crkva sv. Jovana o čemu govori i ćirilčni natpis na zapadnom pročelju.¹⁰ Nakon II. svjetskog rata služila je kao privatni ovčarnik. Objekt je zbog nebrige bio u vrlo lošem stanju, dijelom urušene i oštećene krovne građe i pokrova dok su zidovi bili rastreseni, vjerojatno i zbog klizanja terena. Osobito je bilo opterećeno zapadno pročelje te je postojala mogućnost njegova odvajanja od korpusa. Uskoro je skupina entuzijasta¹¹ pristupila čišćenju, a potom se uključila i Srpska pravoslavna crkva u Hrvatskoj te započela s projektom sanacije u svrhu zaštite od daljnjeg rušenja, uz financijsku potporu Ministarstva kulture Republike Hrvatske.

U kolovozu i rujnu 2015. izvedeni su radovi uklanjanja recentne, djelomično očuvane cinkture i iskop na tri strane padine,¹² za potrebe podizanja novog betonskog zida u svrhu sprječavanja daljnjeg klizanja terena. Tim zahvatom devastirano je srednjovjekovno groblje i pronađen romanički mač. Nalazi mačeva svakako nisu svakodnevna pojava, većinom se pronalaze kao pojedinačan i slučajan nalaz, što predmnijeva izostanak konteksta. No nalaz pri izvođenju zaštitnih radova vjerojatno je najlošija solucija, kako se dogodilo u slučaju Jošana (sl. 3).

Mač je pronađen u južnom profilu sjevernog iskopskog kanala, na 80 do 100 cm dubine. Zajedno s osteološkim nalazima unutar iskopskog kanala ostavljen je u samoj crkvi, a o nalazu je obaviješten korenički paroh. Tijekom nekoliko mjeseci premještan je od Korenice do Karlovca, odnosno Gornjokarlovačke eparhije te je naposljetku došao u ruke restauratora i 26. svibnja 2017. predan Muzeju Like u Gospiću.¹³

Prilikom obilaska lokaliteta, 13. listopada 2015. u iskopskim profilima bilo je jasno vidljivo da se uokolo crkve nalazilo groblje. Nešto deblji kulturni sloj prisutan je s južne i zapadne strane. Također je zamijećeno da su pojedini ukopi imali grobnu



Sl. 5. Izbačena kamena poklopnica u zapadnom kanalu
Fig. 5 Ejected stone cover in the western trench

and chance finds, which implies a lack of context. Discoveries in the course of rescue works are probably the worst circumstance, exactly as in the case of Jošana.

The sword was discovered in the southern profile of the northern trench, at a depth of 80 to 100 cm. Together with the osteological finds discovered in the excavated trench, it was left in the church, and the parish priest of Korenica was informed about the find. Over the course of several months, it was moved from Korenica to Karlovac, i.e. the Diocese of Upper Karlovac. Eventually, it was handed over to the restorers and on 26 May 2017 to the Museum of Lika in Gospić.¹³

During the site visit on 13 October 2015, the excavation profiles clearly showed that there had been a cemetery around the church. A somewhat thicker cultural layer exists on the south and west sides. It was also observed that certain burials had grave architecture in the form of massive square stone lids, some of which had been devastated by excavations.

The sword was found in a relatively good condition, almost complete. It is missing the tip of its blade, probably pointed in shape, presumably about

¹⁰ Danas je to Hram sv. Jovana Krstitelja, Crkvena općina Korenica.

¹¹ Većinom nekadašnji stanovnici koji povremeno dolaze u Jošane.

¹² Radovi su izvedeni bez arheološkog nadzora.

¹³ Autorica rada dobila je obavijest o radovima u Jošanima te nalazu "nekih predmeta i sablje" 6. listopada 2015. Rekonstruirala je slijed događaja, zahvaljujući nalazniku, vozaču koji je upravljao iskopskim strojem i Hrvoju Giaconiju, tadašnjem pročelniku Konzervatorskog odjela u Gospiću. Restauraciju i konzervaciju obavio je Antonio Šerbetić. Inv. br. MLG A-5356.

¹³ The author of this paper was notified of the works in Jošana and the discovery of "some objects and sabres" on 6 October 2015. She reconstructed the sequence of events thanks to the finder, the backhoe operator, and Hrvoje Giaconi, the then head of the Conservation Department in Gospić. The restoration and conservation were carried out by Antonio Šerbetić. Inv. No. MLG A-5356.



Sl. 6. Jošanski mač, 13. 10. 2015. (foto: T. Kolak)
 Fig. 6 Jošane sword, 13/10/2015 (photo: T. Kolak)



Sl. 7. Mač nakon konzervacije, 2017. (foto: T. Kolak)
 Fig. 7 Sword after conservation, 2017 (photo: T. Kolak)

arhitekturu u obliku masivnih četvrtastih kamenih poklopnica, od kojih je dio devastiran iskopom (sl. 4, sl. 5).

Mač je pronađen u relativno dobrom stanju, gotovo cjelovit; nedostaje mu vrh oštrice, vjerojatno šiljaste forme, u pretpostavljenoj dužini od oko 5 cm, kao i recentno prelomljene križnice (sl. 6).

Već na prvi pogled pretpostavljeno je da je riječ o romaničkom maču za jednu ili jednu i pol ruku (*one/one-and-half*) te da, prema oblikovanju, pripada mačevima s glavicom tipa N, što je omogućilo okvirnu dataciju u 13. st.

Dvosječna oštrica dugačka je i vitka, očuvane dužine 87,9 cm; uz trn je neznatno šira, a prema šiljku se kontinuirano i ravnomjerno sužava. Presjek je plosnat i lećast. Žlijeb dužine 69,5 cm zauzima 3/4 sječiva. Dio žlijeba pruža se u dužni 2 cm u trn rukohvata, a širina iznosi 1,2 cm uz križnicu, odnosno 1,1 cm na 40 cm (sl. 7).

S obzirom na oblikovanje oštrice jošanski mač pripada tipu XII,¹⁴ općenito je datiran u 13. stoljeće, iako postoje i raniji ili kasniji primjerci, a na našem primjerku se uočavaju i odlike njegova tipa XI i XIa (uža i vitka oštrica). Oakeshott je također ukazao na poteškoće u razlikovanju ovog tipa od ostalih tipova, a time i na problem njegova preciznog datiranja. Razlika u usporedbi s ranijim tipovima je očito kraći žlijeb, iako postoje iznimke s nešto dužim žlijebom. S druge strane, razlika u usporedbi s kasnijim tipovima je izraženo rebro i dužina žlijeba. Geibig

five centimetres long, as well as the recently broken cross-guard.

Straight away, it was assumed that it was a Romanesque single-handed/hand-and-a-half sword and that, according to the design, it belonged to the swords with pommels of Type N, which facilitated its approximate dating to the 13th century.

Its double-edged blade is long and slender. Its preserved length is 87.9 cm. It is slightly broader close to the tang, and continuously and evenly tapers towards the point. The cross-section is flat and lenticular. The 69.5 cm long fuller runs down three-quarters of the blade length. A part of the fuller extends in the length of two centimetres into the tang of the grip. It is 1.2 cm wide near the cross-guard, and 1.1 cm at 40 cm.

Considering the shape of the blade, the Jošane sword belongs to Type XII.¹⁴ It is generally dated to the 13th century, although there exist earlier and later specimens, whereas our example also shows features of Types XI and XIa (narrower and slender blade). Oakeshott also pointed out the difficulties in distinguishing this type from other types, and thus the issue of its precise dating. The difference compared to earlier types is in a patently shorter fuller, although there are exceptions with slightly longer fullers. On the other hand, the difference compared to later types is in the pronounced rib and fuller length. Geibig designated blades with similar properties as Types 12 and 13, and dated their appear-

¹⁴ Oakeshott 1997, str. 24, 34-35, 37-38.

¹⁴ Oakeshott 1997, pp. 24, 34-35, 37-38.

OA sječivo	Geibig	Duljina ukupna	Tež/g	OA tip glavice	Geibig tip glavice	Glavica š.	Glavica v.	Glavica deb.	Trn duljina
XIIA (XI?)	13	105,5 cm	Oko 1150	Na	16.II/17.1	8,2 cm	3,1 cm	4,5 cm	14,3 cm

Trn š. krž.	Trn š. gl.	Krž. stil	Krž. dulj.	Krž. v. pr.	Sj. dulj.	Sj. š. krž.	Sj. š. na 60 cm	š1:š2	Žlijeb dulj.	Žlijeb š. krž.	Žlijeb š. na 40 cm	ž1:ž2	Žlijeb % sječiva
2,8 cm	1,3 cm	1A	27,2 cm (19,2 + 8 cm)	0,95 cm 0,9 cm	87,9 cm	4,7 cm	4,2 cm	1,11	71,5 cm (69,5+2 cm)	1,2 cm	1,1 cm	1,09	62,85%

Sl.8. Tablica s metrološkim podacima jošanskog mača
Fig. 8. Table with metrological data on the Jošane sword

OA blade	Geibig	Overall length	wt./g	OA type of pommel	Geibig type of pommel	Pommel – W	Pommel – H	Pommel – T	Tang – L	Tang – W at cross-guard	Tang – W at pommel
XIIA (XI?)	13	105.5 cm	Ca. 1150	Na	16.II/17.1	8.2 cm	3.1 cm	4.5 cm	14.3 cm	2.8 cm	1.3 cm

Cross-guard – style	Cross-guard – L	Cross-guard – H, dia	Blade – L	Blade – W at cross-guard	Blade – W at 60 cm	W 1 : W 2	Fuller – L	Fuller – W at cross-guard	Fuller – W at 60 cm	Fuller 1: Fuller 2	Fuller – % of blade
1A	27.2 cm (19.2 + 8 cm)	0.95 cm 0.9 cm	87.9 cm	4.7 cm	4.2 cm	1.11	71.5 cm (69.5 + 2 cm)	1.2 cm	1.1 cm	1.09	62.85 %

označava oštrice sličnih svojstava kao tipove 12 i 13, i datira njihovu pojavu u kraj 12. i trajanje tijekom 13. stoljeća.¹⁵ Oštrica mača iz Jošana ima, prema metrološkim podacima, sličnosti s tipom 13, no širinom pripada tipu 12, odnosno pokazuje odlike dvaju Geibigovih tipova, s time da se glavice njegova tipa 17.I, pojavljuju na mačevima tipa 12, a glavice tipa 16.II kod tipa 13, dok se oba tipa i varijante nalaze i kod sječiva tipa 7, datiranog od kasnog 11. do sredine 12. st. Dužina oštrice, s pretpostavljenim dijelom koji nedostaje, pripadala bi oštricama oko 94 cm duljine, koje se ne pojavljuju prije 1200 godine.¹⁶

U Ruttkayevoj tipologiji, osobito mačeva sa slovačkog prostora, jošanski mač pripadao bi tipu XV.¹⁷

Žlijeb jošanskog primjerka u gornjem je dijelu oštrice, uz križnicu, dosta plitak i nejasnih rubova, no ostatak je pravilan, dublji i posve odsječenih ru-

ance to the end of the 12th century and their use to the 13th century.¹⁵ According to metrological data, the blade of the Jošane sword has similarities with Type 13, but due to its width, it belongs to Type 12, i.e. it has features of two Geibig types; however, the heads of his Type 17 I appear on Type 12 swords, and the pommels of Type 16 II in Type 13, while both types and variants can also be found in Type 7 blades, dated to the period from the late 11th to the mid-12th century. The length of the blade, with the presumed missing part, implies that it belongs to blades of about 94 cm in length, which did not appear before AD 1200.¹⁶

According to Ruttkay's typology, particularly regarding the swords from Slovakia, the Jošane sword would belong to Type XV.¹⁷

The fuller of the Jošane specimen is quite shallow in the upper part of the blade by the cross-guard, and its edges are indistinct, but the rest is regular,

¹⁵ Geibig 1991, str. 72-73, 147-149.

¹⁶ Aleksić 2007, str.128.

¹⁷ Ruttkay 1975, Abb.25/5; Ruttkay 1976, str. 258-259.

¹⁵ Geibig 1991, pp. 72–73, 147–149.

¹⁶ Aleksić 2007, p. 128.

¹⁷ Ruttkay 1975, Fig. 25/5; Ruttkay 1976, pp. 258–259.



Sl. 9. Rašljasti križ u žlijebu jošanskog mača
(foto: T. Kolak)

Fig. 9 Decussate cross in the Jošane sword fuller
(photo: T. Kolak)

bova. Na udaljenosti od 18,1 cm u odnosu na bazu uz križnicu, nalazi se unutar žlijeba kovačka oznaka u obliku štakastog ili rašljastog križa. Oznake na mačevima prema sadržaju su podijeljene u nekoliko skupina te bi jošanski pripadao skupini koja se odnosi na invokacije Boga i Krista, osobito prisutne u razdoblju od 1125. do 1200. g., nešto manje između 1200. i 1400. g. i u ponovnoj uporabi 1440. do 1520. g.¹⁸ Simbolizira pobožnost i Kristovu muku, kao i mogući postupak posvećenja mača. Nalazimo ih na mačevima s oštricama tipa Oakeshott XII, XIII, XIIIa i XVIIa, a njihovo se ishodište pretpostavlja na području južne Njemačke. U neposrednom okruženju ovaj tip oznake na oštrici pronađen je na nekoliko primjeraka različitih morfoloških obilježja i različite datacije¹⁹ (sl. 9).

¹⁸ Bošković, Doračić 2009, str. 25.

¹⁹ To su mač iz rijeke Save kod Jasenovca (prijelaz 12. u 13. st.), mač iz Gornjeg Muća (1250.-1350.), mač iz rijeke Save podno planine Motajice (1475.-1525.), mač iz potoka Česme kod Narte (1475.-1525.) i jedan primjerak bez podataka o okolnostima nalaza (1350.-1425.). Svi primjerci nalaze se u Hrvatskom povijesnom muzeju. Bošković, Doračić 2009, str. 64-65, 84, 129-130, 137-138, 158.

deeper and with completely chamfered edges. At a distance of 18.1 cm from the base next to the cross-guard, there is a blacksmith's mark in the shape of a cross potent or decussate cross inside the fuller. The markings on the swords are divided into several groups according to their content, and thus the Jošane example would belong to the group related to invocations of God and Christ, particularly common in the period from 1125 to 1200, somewhat rarer between 1200 and 1400, and in use again from 1440 to 1520.¹⁸ It symbolizes piety and the Passion of Christ, and possibly means that the sword was consecrated. They can be found on swords with blades of the Oakeshott Types XII, XIII, XIIIa and XVIIa. It is presumed that they originated in the area of southern Germany. In the immediate surroundings, this type of marking on the blade has been found on several specimens, albeit with different morphological features and of varying dates.¹⁹

The length of the tang is 14.3 cm, i.e. between Type XII, of about 12 cm, and type XIIIa, ranging from 16.5 to 23 cm, viz. single-handed or hand-and-a-half. It is rectangular in cross-section, flat and triangular in shape, 2.8 cm wide near the cross-guard and tapered at the top (1.3 cm) for insertion of the pommel.

The cross-guard belongs to the simplest type of straight rod, viz. 1A, with equally wide arms,²⁰ a variant of round cross-section, with an enlargement for the tang. This type of cross-guard was in use from the 11th to the 17th century. The length of the cross-guard proper is 19.2 cm, with additional 8 cm after the bend, i.e. 27.2 cm overall. It is 0.95 cm high, and its diameter is 0.9 cm. They are usually about 25 cm long and originate from the end of the 12th and the 13th centuries.²¹ Geibig also dated the cross-guards longer than 28 cm to the end of the 12th and the whole of the 13th century.²²

The Jošane example is specific for its cross-

¹⁸ Bošković, Doračić 2009, p. 25.

¹⁹ These are: the sword from the Sava River near Jasenovac (from the turn of the 13th century), the sword from Gornji Muć (1250–1350), the sword from the Sava River at the foot of the Motajica Mountain (1475–1525), the sword from the stream of Česma near Narta (1475–1525), and one specimen without information on the circumstances of the find (1350–1425). All specimens are kept in the Croatian History Museum. Bošković, Doračić 2009, pp. 64–65, 84, 129–130, 137–138, 158.

²⁰ Oakeshott 1997, p. 113, Pl. 31.

²¹ Aleksić 2007, p. 94.

²² Geibig 1991, p. 182.

Dužina trna iznosi 14,3 cm, što je dužina između tipa XII, oko 12 cm, i XIIA, od 16,5-23 cm, za jednu ili jednu i pol ruku. Pravokutnog je presjeka, plosnat i trokutastog oblikovanja, uz križnicu širine 2,8 cm te sužen na vrhu (1,3 cm) za naticanje glavice.

Križnica pripada najjednostavnijem tipu ravne šipke, tipu 1A, jednako širokih krakova,²⁰ varijanti okruglog presjeka, s proširenjem za smještaj trna. Ovaj tip križnica u uporabi je od 11. do 17. st. Sama dužina križnice je 19,2 cm i još 8 cm nakon "koljena", odnosno ukupno 27,2 cm. Visina iznosi 0,95 cm, a promjer 0,9 cm. Uobičajeno su dugačke oko 25 cm i pripadaju kraju 12. i 13. st.²¹ I Geibig križnice duže od 28 cm datira u kraj 12. i cijelo 13. st.²²

Specifičnost jošanskog primjerka jest krak križnice na jednoj strani svijen pod pravim kutom, za što nam nisu poznate analogije i nema uporišta u pojavi zakrivljenosti križnica. Zasad pretpostavljeno objašnjenje jest postojanje određenog deformiteta nositelja mača, a s tim u vezi bi mogao biti i položaj glavice koja nije u osi s oštricom i trnom. Prilikom restauratorsko-konzervatorskog postupka uočeno je da nema naznaka reparacije, niti da je iz sekundarnih razloga došlo do oštećenja, odnosno svijanja, što upućuje na izvorno oblikovanje.

Glavica mača ima čunjasti oblik (*pommel like a boat*) i inačicu ovalno oblikovane baze sa šiljastim završecima te pripada tipu N, datiranom u kraj 12. i prva desetljeća 13. st.²³

Jošanska glavica ima neki prijelazni oblik između Geibigovih tipova 16.II i 17.I.²⁴ I dužinom od 8,2 cm pripadala bi varijanti Na.

Problematikom mačeva s glavicom tipa N u posljednje se vrijeme bavio M. Aleksić povezujući primjerke ne pretjerano brojne, no pronađene na prilično velikom geografskom prostoru srednje i jugoistočne Europe, u pokušaju klasificiranja obilježja ovog tipa, kao i njegovih varijanti.²⁵ Promatrajući te paralele u odnosu na jošanski primjerak, tipološki su to mačevi s oštricom Oakeshott Xa i XI, a od druge četvrtine 13. st. pojava tipa XIII s glavicom tipa N.²⁶

Na području Hrvatske i njezina neposrednog susjedstva analogiju nalazimo u primjerku mača iz

guard arm bent at a right angle on one side, for which there are no known analogies. For the time being, we can presume that the owner of the sword had some sort of deformity, which could also be correlated with the position of the pommel, which is not aligned with the axis of the blade and the tang. During the restoration and conservation procedure, it was observed that there were no indications of repairs or any damage or bending due to secondary reasons, which indicates the original design.

The pommel of the sword is shaped like a boat, and its base is oval with pointed ends. Thus it belongs to Type N, dated to the end of the 12th and the first decades of the 13th century.²³

The Jošane pommel has a transitional form between Geibig types 16 II and 17 I.²⁴ With its length of 8.2 cm, it would belong to the Na variant.

Recently, M. Aleksić has been covering the topic of Type N swords, and associating specimens, though not too numerous, but discovered in a fairly large geographical area of Central and Southeastern Europe, in an attempt to classify the characteristics of this type, as well as its variants²⁵. Observing such parallels in relation to the Jošane specimen, from the typological point of view, they are swords with Oakeshott Xa and XI blades, with Type XIII with the pommel of Type N appearing from the second quarter of the 13th century²⁶.

In Croatia and its immediate neighbourhood, there is an analogy in a sword from a private collection found in a river, with no precise find site information, dated to ca. AD 1250, with a Type XIIIa blade, illegible signs in the fuller, and a pommel of Type N²⁷. Metrologically, the nearest match to this specimen is the Jošane sword, although its fuller is somewhat shorter. Aleksić attributed this find to discoveries from Croatia,²⁸ whereas some authors believed that it was found in the Ljubljana River, with no details on the location of the find²⁹.

²³ Oakeshott 1997, pp. 98–99.

²⁴ Geibig 1991, pp. 147–150.

²⁵ Aleksić 2006, p. 364; Aleksić 2007, pp. 23–24, Fig. 1.

²⁶ Aleksić 2007, p. 128.

²⁷ Kovač 2003, pp. 19–20, Cat. No. 13.

²⁸ 2007:178, Cat. No. 353.

²⁹ Gaspari referred to another river find from the Ljubljana, without additional information about the location of the find. Its blade is broken, perhaps of Type Xa, with no cross-guard, which he nevertheless classified as Type 1(?), and with the pommel of type Na. The sword has been catalogued in the National Museum of Slovenia, under Inv. No. V 4677 (Gaspari 2017, p. 422, Cat. No. 12). Gaspari 2017, p. 425, Cat. No. 38th

²⁰ Oakeshott 1997, str. 113, Pl. 31.

²¹ Aleksić 2007, str. 94.

²² Geibig 1991, str. 182.

²³ Oakeshott 1997, str. 98–99.

²⁴ Geibig 1991, str. 147–150.

²⁵ Aleksić 2006, str. 364; Aleksić 2007, str. 23–24, Fig. 1.

²⁶ Aleksić 2007, str. 128.

privatne kolekcije, pronađenog u rijeci bez točnijeg mjesta nalaza, datiran oko 1250., s oštricom tipa XIIIa i s nečitim znakovima u kanalu te s glavicom tipa N.²⁷ Metrološki je ovaj primjerak najbliži jošanskom, premda mu je žlijeb nešto kraći. Ovaj je nalaz Aleksić pripisao nalazima iz Hrvatske,²⁸ dok neki autori smatraju da je riječ o nalazu iz rijeke Ljubljanice bez potankosti o mjestu nalaza.²⁹

Drugi riječni nalaz, iz rijeke Ljubljanice nedaleko od Crne Vasi, iz privatne kolekcije, ima glavicu tipa Na, križnicu tipa 1, s pretpostavljenom oštricom XI. U gornjem dijelu oštrice s obiju strana ukrašen je motivom križa³⁰ izvedenim tauširanom brončanom žicom i najbliži je upravo maču iz Jošana. Glavica mu je oblikovana jednako nespretno, u nemogućnosti postizanja zaobljene plohe, dok je širina neznatno veća (3 mm).

Sa šireg europskog areala nekoliko primjeraka mačeva tipa N, odnosno podtipa Na, s oštricom tipa Xa, potječe s jugoistočnog ugarskog područja, okolica Sarvasza,³¹ te iz Komarna na jugozapadu Slovačke. Potonji je već spomenut kao Ruttkay tip XV.³² Ovoj se skupini u odnosu na tip glavice može pridružiti i mač iz rijeke Limat blizu Dietikonu u sjevernoj Švicarskoj, no spatulasti vrh oštrice kao i zakrivljena križnica posve odstupaju od jošanskog primjerka.³³ Jedan primjerak s glavicom tipa N, ali oštricom tipa XIIIa, nalazi se u ciriškom Landesmuseumu,³⁴ dok njemački primjerci³⁵ imaju inačicu glavice Nb.

Veći broj primjeraka mačeva pronađen je u Rumunjskoj, datirani su u 13. stoljeće te klasificirani kao tip VI.³⁶ Svih pet rumunjskih mačeva ima gla-

Another river find, from the Ljubljanica River, not far from Crna Vas, from a private collection, has a pommel of Type Na, a cross-guard of Type 1, with a presumed blade XI. In the upper part of the blade, the motif of the cross is inlaid with bronze wire³⁰ on both sides. It is quite similar to the Jošane sword. Its pommel is equally awkwardly shaped, due to inability to make a curved surface, and it is slightly broader (three millimetres).

In the wider European area, several swords of Type N, i.e. Subtype Na, with the blade of Type Xa, originate from southeastern Hungary, in the vicinity of Sarvasz³¹ and from Komárno in southwestern Slovakia. The latter has already been mentioned as Ruttkay's type XV³². In relation to the type of pommel, the sword from the Limat River near Dietikon in northern Switzerland can be included in this group, but its spatulate point and the curved cross-guard completely differ from the Jošane sword³³. One specimen with the pommel of Type N and blade of Type XIIIa is kept in the Zurich Landesmuseum,³⁴ while German examples³⁵ have pommels of Type Nb.

A number of swords have been discovered in Romania. They are dated to the 13th century and classified as Type VI³⁶. All five Romanian swords have pommels of Oakeshott Type N, i.e. Na variants³⁷ or, according to Pinter's classification, Type 5, which corresponds to Aleksić's type Na³⁸.

Their appearance in the area of Transylvania is associated with the arrival of the Teutonic Knights to help protect the eastern Hungarian borders from the invasions of the Cumans after 1211. Although the pommels of Type N are thought to have originated in Bavaria, a number of Romanian examples and their distribution, as well as the discovered blacksmith's workshop in Şelimbăr, imply the existence of domiciliary workshops and are associated with the settlement of the German civilian population accompanying the mentioned knightly

²⁷ Kovač 2003, str.19-20, kat. br. 13.

²⁸ 2007:178, cat.no. 353.

²⁹ Gaspari se referira na još jedan riječni, ljubljanični nalaz, bez dodatnih podataka o mjestu nalaza, odlomljenog sječiva, možda tip Xa, bez križnice, koju ipak kategorizira kao tip I(?) i s glavicom tipa Na te ponavlja Aleksićev kat.br. 370. (?). Mač je inventiran u Narodnom muzeju Slovenije, pod inv. br. V 4677 (Gaspari 2017, str. 422, kat. št. 12). Gaspari 2017, str. 425, kat. št. 38.

³⁰ Aleksić 2007, str. 180, cat.no 370, Pl.12.3; Gaspari 2017, str. 422-423, kat.št.13.

³¹ Aleksić 2006, str. 375, Pl.IV.1.

³² Ruttkay 1976, str. 258.

³³ Aleksić 2006, str. 375, Pl.IV/2.

³⁴ Oakeshott 1997, str. 68, 98.

³⁵ S nepoznatog nalazišta, Seehausena i Passaua (Aleksić 2006, str. 376, Pl.VI,VII)

³⁶ Pinter 1999, str. 86-88.

³⁰ Aleksić 2007, p. 180, Cat. No. 370, Pl. 12.3; Gaspari 2017, pp. 422-423, Cat. No. 13th

³¹ Aleksić 2006, p. 375, Pl. IV.1.

³² Ruttkay 1976, p. 258.

³³ Aleksić 2006, p. 375, Pl. IV/2.

³⁴ Oakeshott 1997:68, 98.

³⁵ From an unknown site, Seehausen and Passau (Aleksić 2006, p. 376, T. VI, VII).

³⁶ Pinter 1999, pp. 86-88.

³⁷ Aleksić 2006. pp. 364-365. The pommel of the sixth specimen is of variant Nb.

³⁸ Pinter 1999, Pl. 32/5.

vice tipa Oakeshott N, odnosno varijante Na³⁷ ili, prema Pinterovoj klasifikaciji, tip 5, koji odgovara Aleksićevu tipu Na.³⁸

Njihova pojava na području Transilvanije povezuje se s dolaskom teutonskih vitezova u svrhu obrane istočne mađarske granice od provala Kumana, nakon 1211. godine. Premda se smatra da su glavice tipa N izvorno nastale na području Bavorske, veći broj rumunjskih primjeraka i njihova distribucija, kao i nalaz kovačke radionice u Šelimbăru, pretpostavljaju postojanje domicilnih radionica te se povezuju s naseljavanjem civilnog germanskog stanovništva koje prati ovaj viteški red.³⁹ Najbliže analogije nalazimo kod primjerka iz Cetatea Neagră Codlea,⁴⁰ kao i kod mača s lokaliteta Vurpăr i spomenutog Šelimbăra te mača iz privatne kolekcije s nepoznata nalazišta⁴¹ (sl. 10).

Jošanski primjerak je zasigurno najjužniji nalaz mačeva s glavicom tipa N. Premda su prisutna neznatna odstupanja, možemo ga pridružiti ovoj široko rasprostranjenoj obitelji. Sječivo jošanskog primjerka odgovara ponajprije tipu XIIA, s elementima tipa XI, dok su kod ostalih primjeraka prisutna obilježja uglavnom Oakeshott tip Xa, a u manjoj mjeri dvojbeni tip XIII ili XI. O njegovoj pojavi na Krbavi, njegovom nositelju i habitusu 13. stoljeća u Lici zasad je teško nešto više reći. Ukoliko je pokojnik bio dešnjak, onda je mač bio obješen s lijeve strane o pojasu u struku.⁴² Kosturni ostaci pokojnika i eventualni drugi nalazi konjaničke/ratničke opreme iz groba iz kojeg mač potječe još uvijek čekaju arheološko istraživanje.

S ličkog područja iz ranosrednjovjekovnog ili romaničkog konteksta potječu dosad svega tri mača (sl. 11). Dva su primjerka pronađena na području Gacke i već su objavljeni u nekoliko navrata. Karolinška spata tipa X⁴³ pronađena je podno građine Korać u Dabru ili preciznije na prijevoju Mala Kapela⁴⁴ i determinirana kao proizvod franačkih radionica Zapadne Europe. Iz Prozora - Gornja Luka potječe karolinška spata tipa K s natpisom

³⁷ Aleksić 2006, str. 364-365. Šesti primjerak ima glavicu varijante Nb.

³⁸ Pinter 1999, Pl.32/5.

³⁹ Crîngaci Țiplic 2011, str. 77-78, 80.

⁴⁰ Pinter 1999, str. 86, Pl. 36/b.

⁴¹ Aleksić 2006, str. 375, Pl.II/2, Pl. III/1, 2; Crîngaci Țiplic 2011, str. 86-88, Pl.1/4, Pl.2/1c, Pl.2/2.

⁴² Tomičić 2002, str. 154.

⁴³ Šarić 1972, str. 232-234; Vinski 1983, str. 10-11, 16.

⁴⁴ U objavama se negdje pogrešno navodi lokalitet Prozorina.



Sl. 10. Glavica rukohvata (foto: T. Kolak)

Fig. 10 Pommel of the grip (photo: T. Kolak)

order³⁹. The closest analogies can be found in the specimen from Cetatea Neagră Codlea,⁴⁰ as well as in the sword from the Vurpăr site and the mentioned Šelimbăr, and the sword in a private collection from an unknown site⁴¹.

The Jošane specimen is certainly the southernmost sword find with the pommel of Type N. Despite slight deviations, it can be associated with this widespread family. The blade of the Jošane sword corresponds primarily to Type XIIA, with certain elements of Type XI, while other specimens possess features mainly of Oakeshott Type Xa, and to a lesser extent, of dubious Types XIII or XI. It is difficult to say more about its appearance in Krbava, its owner and the conditions in the 13th century in Lika. If the owner was right-handed, then the sword would be hung from the left side of his waist-belt (Tomičić 2002, p. 154). The skeletal remains, as well as other possible equestrian gear or warrior equipment from the grave where the sword was found are still due for archaeological research.

So far, only three swords originate from the Lika area within the early mediaeval or Romanesque context. Two specimens were found in the Gacka area and have already been published on several occasions. The Carolingian spata of Type X⁴² was found at the foot of the Korać hillfort in Dabar or, more precisely, on Mala Kapela pass.⁴³ It is identified as a product of Frankish workshops in Western

³⁹ Crîngaci Țiplic 2011, pp. 77-78, 80.

⁴⁰ Pinter 1999, p. 86, Pl. 36/b.

⁴¹ Aleksić 2006, p. 375, Pl. II/2, T. III/1, 2; Crîngaci Țiplic 2011, pp. 86-88, Pl. 1/4, Pl. 2/1c, Pl. 2/2.

⁴² Šarić 1972, pp. 232-234; Vinski 1983, pp. 10-11, 16.

⁴³ Some publications erroneously mention the site of Prozorina.



Sl. 11. Karta nalazišta mačeva ranoga i razvijenoga srednjeg vijeka u Lici (izvor: Google earth)
 Fig. 11 Map of sites with sword finds from the early and high Middle Ages in Lika (source: Google earth)

ULFBERHT.⁴⁵ S obzirom na natpis pripada skupini karolinškog importa kao rad franačkih radionica u Porajnju, premda ga neki autori smatraju krivotvorinom.⁴⁶

Najbliža lička paralela i vremenski nešto bliža je spata tipa *á* datirana u 11./početak 12. st., pronađena u vododerini velebitske padine između sela Divosela i Rizvanuše.⁴⁷

Svi nalazi su slučajni, a dva (Mala Kapela i Velebit) pripadaju lokacijama povezanim s nekadašnjim intenzivno korištenim komunikacijskim pravcima. Mač s oštricom tipa *á* može se dovesti u vezu i sa srednjovjekovnim Počiteljem, kao sjedištem ličke župe, istina potvrđenim ispravom tek u 13. st.⁴⁸

Vodeći se analognim primjercima, jošanski mač pripada prvoj polovici 13. stoljeća, pri čemu zadržavam nešto širi vremenski okvir. Unutar njega možemo promatrati i crkvu sv. Ivana i sve njezine arhitektonski dvojbene elemente kasnoromaničko-

Europe. A Carolingian spata of Type K with the inscription ULFBERHT was found in Prozor – Gornja Luka⁴⁴. In the light of the inscription, it belongs to the group of Carolingian imports as a product of Frankish workshops in the Rhineland. According to some authors, it is a forgery⁴⁵.

The closest parallel in Lika, and somewhat closer in time, is the spata of Type *á*, dated to the 11th century or the beginning of the 12th century, discovered in a gully on a slope of the Velebit Mountain between Divoselo and Rizvanuša⁴⁶.

All finds were accidental. Two of them (Mala Kapela and Velebit) belong to locations associated with former intensively used communication routes. The sword with the blade of Type *á* can also be associated with mediaeval Počitelj as the seat of the Lika parish, albeit confirmed as such by a document only in the 13th century⁴⁷.

Based on analogous specimens, the Jošane sword

⁴⁵ Šarić 1972, str. 229-232; Vinski 1981, str. 20, 38; Bilogrivić 2009, str. 134-135, 152.

⁴⁶ Geibig 1991, str. 120-122.

⁴⁷ Vinski 1983, str. 10, 28, T.V/1; Kolak 2003, str. 165; Tomičić 2002, str. 151, sl. 5.

⁴⁸ Kolak, Šušnjić 2012, str. 91.

⁴⁴ Šarić 1972, pp. 229-232; Vinski 1981, pp. 20, 38; Bilogrivić 2009, pp. 134-135, 152.

⁴⁵ Geibig 1991, pp. 120-122.

⁴⁶ Vinski 1983, pp. 10, 28, Pl. V/1; Kolak 2003, p. 165; Tomičić 2002, p. 151, Fig. 5.

⁴⁷ Kolak, Šušnjić 2012, p. 91.

gotičke datacije te, svakako s oprezom, pretpostaviti i gradnju prvotnoga sakralnog objekta u 13. st. Njegova kasnija adaptacija u smislu povećanja gabarita, s recikliranjem postojeće građe, ali sada pod utjecajem novih gotičkih strujanja, mogao bi biti pretpostavljeni slijed zbivanja.

U nezahvalnim okolnostima nalaza dogodila se djelomična devastacija ovog jedinstvenog lokaliteta na ličkom prostoru, koju treba shvatiti kao upozorenje. Čak i ona kulturna dobra na listi prioriteta koja nisu izravno ugrožena, ne mogu biti zapostavljena. Time ih, prije ili kasnije, dovodimo u stupanj kad istraživanje i zaštita postaje nužnost. To nikako nije i ne smije biti temelj zaštite kulturne baštine u 21. stoljeću.

belongs to the first half of the 13th century, with the proviso that this is a somewhat broader time-frame. It can also serve as a framework for the church of St. John and all its late Romanesque-Gothic architecturally dubious elements. Accordingly, we can assume with caution that the original sacral building was constructed in the 13th century. Its later adaptation in terms of increasing its dimensions, with the recycling of existing material, but under the influence of the new Gothic style, could represent the presumed sequence of events.

Due to adverse circumstances, this unique site in the Lika area is now partially devastated, which can serve as a warning for the future. Even the cultural assets in priority lists that are not directly endangered must not be neglected. Otherwise, sooner or later they will reach the stage where research and protection will become a necessity. This is certainly not and must never be the basis for the protection of cultural heritage in the 21st century.

(D. G.)

Literatura/Bibliography

Aleksić 2006

M. Aleksić, Swords with Pommels of Type N, *Slovenska Archeologia* LIV-2, Nitra 2006, 363-388

Aleksić 2007

M. Aleksić, *Mediaeval Swords from Southeastern Europe. Material from 12th to 15th century*, Beograd 2007.

Bilogriović 2009

G. Bilogrivić, Karolinški mačevi tipa K. *Opvscvla archaeologica*, 33 (1), Zagreb 2009, 125-182

Bošković, Doračić 2009

D. Bošković, D. Doračić, *Mačevi viteškog doba u Hrvatskoj: Mačevi razvijenog i kasnog srednjeg vijeka u zbirci oružja Hrvatskog povijesnog muzeja u Zagrebu*, Hrvatski povijesni muzej, Zagreb 2009.

Crîngaci Țiplic 2011

M. E. Crîngaci Țiplic, Weapons and Military Equipment Found in the German Settlement Area from Southern Transylvania (the 12th -13th Centuries) – Some Aspects and Perspectives, u/in: I. M. Țiplic(ur./ed.), *Studia Universitas Cibiniensis. Series Historica VIII. Supplementum No. 1: Proceedings of THE 1th INTERNATIONAL CONFERENCE INTERETHNIC RELATIONS IN TRANSYLVANIA, Militaria Mediaevalia in Central and South Eastern Europe*, Sibiu 2011, 73-104

Gaspari 2017

A. Gaspari, Reka Ljubljanica in fenomen vodnih najdb srednjeveških mečev iz obdobja od 11. do 15. stoeletja, *Arheološki vestnik* 68, Ljubljana 2017, 387-438

Geibig 1991

A. Geibig, *Beiträge zur morphologischen Entwicklung des Schwertes im Mittelalter*, Neumünster 1991.

Horvat 1959

A. Horvat, O spomenicima u Krbavi, *Bulletin*, VII/1, Zagreb, 1959, 1-5

Horvat 1975

A. Horvat, O srednjovjekovnoj sakralnoj umjetnosti Like, u/in: Ž. Rapanić (ur./ed.) *Izdanja Hrvatsko arheološko društvo*, I, Split 1975, 127-141

Horvat 1997

Z. Horvat, Katedrala sv. Jakova u Krbavi kraj Ud-

bine, u/in: D. Pavličević (ur./ed.), *Krbavska bitka i njezine posljedice*, Zagreb 1997, 151-162

Horvat 2003

Z. Horvat, *Srednjovjekovne katedralne crkve Krbavsko-modruške biskupije*, Zagreb-Gospić 2003.

Kolac 2003

T. Kolac, Mač, *Kolomanov put*, kat. jed. 22, u/in: J. Borošak-Marijanović, D. Bošković, M. Bregovac-Pisk, E. Jurdana, A. Pandžić (ur./eds.), *Hrvatski povijesni muzej, katalog izložbe 2002*, Zagreb 2003, 165

Kolac 2004

T. Kolac, Od sv. Ivana do sv. Jovana, *Riječki teološki časopis*, 12/1 (23), Rijeka 2004, 157-168.

Kolac 2011

T. Kolac, *Arheološka sakralna baština srednjovjekovne Krbave*. Doktorska disertacija. Zagreb 2011.

Kolac, Šušnjić 2012

T. Kolac, D. Šušnjić, Novi ranosrednjovjekovni nalaz iz Gacke, u/in: H. Gračan, Ž. Holjevac (ur./eds.), *Gacka u srednjem vijeku*, Zbornik radova, Institut Ivo Pilar – područni centar Gospić, Zagreb – Otočac 2012, 83-94

Kovač 2003

M. Kovač, *Ubojite oštrice: hladno oružje na području Hrvatske od IX. do kraja XVIII. stoljeća: (iz privatne zbirke)*, Gornja Stubica 2003.

Kolomanov put 2003 – Kolomanov put, Hrvatski povijesni muzej, katalog izložbe, Zagreb 2002, autor Ela Jurdana, Zagreb 2003.

Kruhek 1997

M. Kruhek, Topografija krbavske spomeničke baštine, u/in: D. Pavličević (ur./ed.), *Krbavska bitka i njezine posljedice*, Zagreb 1997, 99-129

Kruhek, Horvat 1988

M. Kruhek, Z. Horvat, Sakralna arhitektura Like i Krbave na području Krbavsko-modruške biskupije, u/in: M. Bogović (ur./ed.), *Krbavska biskupija u srednjem vijeku*, Rijeka-Zagreb 1988, 187-234

Oakeshott 1997

R. E. Oakeshott, *The Sword in the Age of Chivalry*, Rochester 1997, f. p. 1964.

Pavičić 1990

S. Pavičić: *Seobe i naselja u Lici*, Gospić, 1990.

Pinter 1999

Z. K. Pinter, *Spada și sabia medievală în Transilvania și Banat /Mediaeval Swords and Sabres in Transylvania and Banat*, Reșița 1999.

Ruttkay 1975

A. Ruttkay, Waffen und reiterastrüstung des 9. bis zur ersten halfte des 14. Jahrhunderts in der Slowakei I, *Slovenska Archeologia*, XXIII-1, Nitra 1975, 119-216

Ruttkay 1976

A. Ruttkay, Waffen und reiterastrüstung des 9. bis zur ersten halfte des 14. Jahrhunderts in der Slowakei II, *Slovenska Archeologia*, XXIV-2, Nitra 1976, 245-395

Šarić 1972

I. Novi nalaz starohrvatskog oružja u Lici, *Vjesnik Arheološkog muzeja u Zagrebu*, vol. 6-7, br. 1, Zagreb 1972, 229-235

Tomičić 2002

Ž. Tomičić, Romanički mač iz rijeke Save kraj Jasenovca, *Prilozi Instituta za arheologiju u Zagrebu*, 19, Zagreb 2002, 149-164

Vinski 1981

Z. Vinski, O nalazima karolinških mačeva Jugoslaviji, *Starohrvatska prosvjeta*, vol. III (11), Split 1981, 9-54.

Vinski 1983

Z. Vinski, Razmatranja o poslijekarolinškim mačevima 10. i 11. stoljeća u Jugoslaviji, *Starohrvatska prosvjeta*, III (13), Split 1983, 7-64

