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2009

FILOZOFSKI FAKULTET  
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RADOVI ARHEOLOŠKOG ZAVODA  
PAPERS OF THE DEPARTMENT  
O F    A R C H A E O L O G Y

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Goran BILOGRIVIĆ

## KAROLINŠKI MAČEVI TIPA K<sup>1</sup>

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## TYPE K CAROLINGIAN SWORDS<sup>1</sup>

Izvorni znanstveni rad / Original scientific paper

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Goran Bilogrivić  
Filozofski fakultet Sveučilišta u Zagrebu  
Odsjek za povijest  
Ivana Lučića 3  
HR–10000 Zagreb  
goran.bilogrivic@email.t-com.hr

*Dugi dvosjekli mačevi spadaju među najvažnije karolinške nalaze s područja ranosrednjovjekovne Hrvatske kneževine i susjednih sklavinija. Najveći dio njih, nešto više od polovice ukupnoga broja, pripada tipu K prema Peterse-  
novoj tipologiji. Iako su ti mačevi obrađivani već mnogo puta kako u domaćoj tako i u stranoj literaturi, još uvijek ima mnogo prostora za nov osvrt na njih. U vremenu koje je prošlo od posljednjih radova Z. Vinskoga o toj temi pojavilo se nekoliko važnih stranih djela o ranosrednjovjekovnim mačevima nepravedno zapostavljenih u domaćoj znanstvenoj literaturi. Pojavile su se i važne pojedinosti o pojedinim nalazima iz Hrvatske koje su nepoznate u stranoj literaturi. U ovome su radu na jednome mjestu prikazani svi dosad objavljeni mačevi tipa K sa širega područja ranosrednjovjekovne Hrvatske, kao i dio stranih nalaza skupljenih prema dostupnoj literaturi. Uz pregled istraživanja i tipološku obradu temeljenu na balčacima donosi se osvrt na sjećiva te se raspravlja o podrijetlu i ulozi mačeva, prije svega u ranosrednjovjekovnoj Hrvatskoj.*

*Ključne riječi: mačevi tipa K, rani srednji vijek, Hrvatska, Karolinzi*

*Long double-edged swords are among the most important Carolingian finds from the territory of the early medieval Croatian principality and the neighbouring sclaviniae. Most of them – over half of the original number – are type K according to Petersen's typology. Even though these swords have been examined many times both in the domestic and foreign literature, there is still much room of a new consideration of them. During the time that has elapsed since Z. Vinski published the last works on this topic, several major foreign works on early medieval swords appeared that were neglected in the domestic scholarly literature. Some important details on individual finds from Croatia also emerged which remain unknown in the foreign literature. This work encompasses all previously published type K swords from the wider territory of medieval Croatia, and all foreign finds gathered on the basis of available sources. In addition to an overview of the research and a typological analysis based on sword hilts, there is also a consid-*

<sup>1</sup> Ovaj je rad tek neznatno izmijenjen i dopunjen moj diplomski rad obranjen u listopadu 2008. na Odsjeku za arheologiju Filozofskoga fakulteta u Zagrebu. Rad je napisan pod mentorstvom doc. dr. Mirje Jarak kojoj se i ovim putem iskreno zahvaljujem na podršci pri pisanju i na poticaju za objavljivanje.

<sup>1</sup> This work is a slightly modified and amended version of my graduate thesis defended in October 2008 at the Archaeology Department of the Faculty of Humanities and Social Sciences, University of Zagreb. That work was written under the mentorship of Mirja Jarak, Ph.D., whom I would like to sincerely thank for her support during its writing and for her encouragement to publish it.

## UVOD

Kod germanskih je naroda dugi dvosjekli mač bio posebno cijenjen predmet i zauzimao je visoko mjesto u životu ratnika, pa se zato često spominje u pisanim izvorima – sagama, epskim pjesmama, zagonetkama, oporukama. Osim što je imao praktičnu primjenu u borbi, bio je i ceremonijalni objekt i simbol povezivan s obitelji, dužnostima i odanošću prema vladaru, odrastanjem i pogrebnim običajima (Ellis Davidson 1998: 211–215). U Slavenu je situacija bila drugačija. Tipično su naoružanje činili koplje, luk i strijela te sjekira (Jelovina 1976: 116–119). Krajem 8. i početkom 9. stoljeća u slavenski svijet prodire i mač, prije svega posredstvom Franaka, a dalje na istok i posredstvom sjevernih germanskih naroda. Tako i u tada nastajućoj Hrvatskoj kneževini naoružanje ratnika iz vladajućega sloja čine dvosjekli mač, koplje s krilcima te konjanička oprema (Belošević 1980: 98).

Na teritoriju današnje Hrvatske i Bosne i Hercegovine, a nekoć Hrvatske kneževine i susjednih joj sklavinija te južne Panonije, otkrivena su do danas 24 karolinška mača od kojih čak 13 pripada Petersenovu tipu K, dok se tri mača ne mogu pobliže tipološki odrediti (Vinski 1983–1984; 1985; HiK/katalog 2000).<sup>2</sup> Iako je o hrvatskim nalazima mačeva već više puta pisano kako u domaćoj tako i u stranoj literaturi, mnogošto je i dalje nejasno, a svaki novi rad uz prijedloge rješenja donosi i nova pitanja. U pretprošlom je tisućljeću mač bio predmet staroengleskih zagonetki, a danas je i sam zagonetka, okružen mnogim pitanjima na koja znanstvenici više od stotinu godina daju različite odgovore. Nad mnogim zagonetkama i dalje stoje upitnici, no upravo ih uvijek nova mogućnost rješavanja čini još zanimljivijima. Jednako je tako i s mačevima.

Ovaj rad nema pretenzije da bude sveobuhvatno djelo o mačevima tipa K. U njemu će samo biti istaknuta neka opća (i, nadam se, nova) zapažanja o tome tipu mačeva temeljena na nalazima koji su mi bili dostupni u literaturi koju sam uspio skupiti, a veća će se pažnja posvetiti hrvatskim primjercima.

## O TIPOLOGIJI I ISTRAŽIVANJU

Iako su se mačevima više ili manje bavili i autori prije Norvežanina J. Petersena (1919), on je ustanovio prvu, ali i dalje najčešće korištenu, opsežnu

*eration of blades and a discussion of the origin and role of swords, above all in early medieval Croatia.*

*Key words: type K swords, Early Middle Ages, Croatia, Carolingians*

## INTRODUCTION

Among the Germanic peoples, the double-edged long sword was a particularly valued item and played a major role in the life of a warrior, so it is often mentioned in written sources: sagas, epic poems, riddles and testaments. Besides its practical application in combat, it was also a ceremonial item and a symbol tied to the family, duty and fealty to a ruler, maturation and funeral customs (Ellis Davidson 1998: 211–215). Among the Slavs the situation was different. The typical weapons were spears, bows and arrows and axes (Jelovina 1976: 116–119). At the end of the eighth and early ninth centuries, the sword also penetrated into the Slavic world, above all through the Franks, while farther east through the northern Germanic tribes as well. Therefore, in the Croatian principality just forming at the time, the weapons borne by the warriors of the ruling circle consisted of double-edged swords, barbed spears, and cavalry gear (Belošević 1980: 98).

In the territory of today's Croatia and Bosnia-Herzegovina, formerly the Croatian principality and the neighbouring sclaviniae and Southern Pannonia, 24 Carolingian swords have thus far been discovered, of which 13 belong to Petersen's type K, while three swords cannot be typologically determined with any certainty (Vinski 1983–1984; 1985; HiK/katalog 2000).<sup>2</sup> Although the Croatian sword finds have been discussed on many occasions in both the domestic and foreign literature, much is still unclear, and each new work not only provides possible solutions but also raises new questions. In the first millennia AD, the sword was often the subject of Old English riddles, while today it is a riddle itself, surrounded by many questions to which scholars have given differing answers for over one hundred years. Many riddles still await an answer, but any new possibility for a solution always makes them more intriguing. This applies to swords, as well.

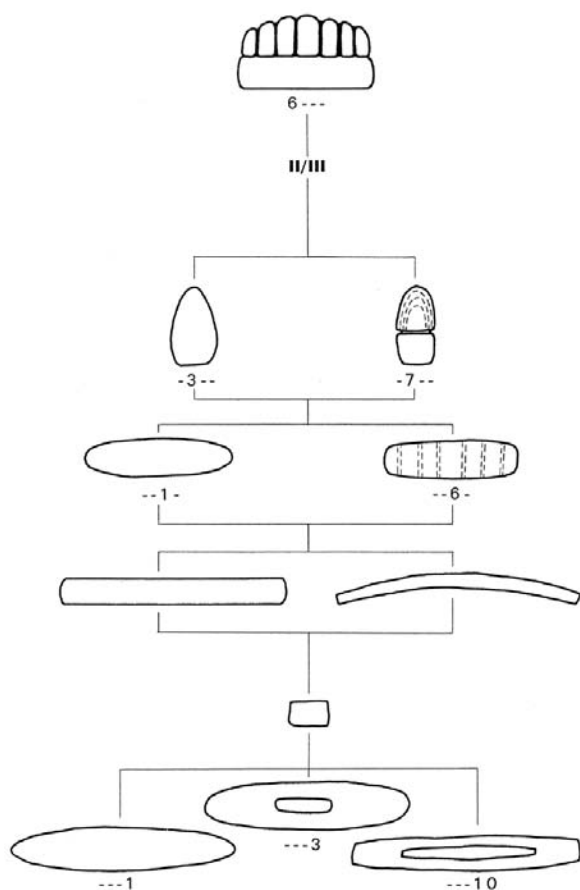
This work has no pretensions to serve as an authoritative text on type K swords. It shall only emphasize some options, and (new, I hope) observations

<sup>2</sup> U ovaj je broj uračunat još neobjavljen mač nedavno otkriven na obali Peručkoga jezera (Belošević 2007: 406).

<sup>2</sup> This number includes the still unpublished sword recently discovered on the shores of Peruča Lake (Belošević 2007: 406).



tipologiju vikinških mačeva.<sup>3</sup> Na temelju karakteristika balčaka mačeve s područja Norveške podijelio je na 26 glavnih (A-Æ) i 20 posebnih tipova (1–20). Od tada do danas mnogi su se autori bavili mačevima, često dopunjujući Petersenovu tipologiju ili pak postavljajući potpuno novu. Ovdje ću navesti samo najvažnije, i to prvenstveno one čiji se radovi tiču Petersenova tipa K. Godine 1927. Wheeler u djelu *London and the Vikings* pojednostavljuje Petersenovu tipologiju i svodi je na sedam tipova (kasnije Oakeshott pridodaje još dva tipa) od kojih tip IV odgovara Petersenovu tipu K (Oakeshott 2002: 3). U novije vrijeme o mačevima tipa K pisali su Menghin (1980) i Müller-Wille (1976; 1982). Početkom devedesetih godina u vrlo kratkome razmaku objavljene su dvije disertacije u kojima se donose dvije nove, različite tipologije: u Njemačkoj ona A. Geibiga (1991), a u Švedskoj M. Jacobssona.<sup>4</sup>



Slika 1. Kombinacijski tip 6 (Geibig 1991: 45).

Figure 1. Combination type 6 (Geibig 1991: 45).

<sup>3</sup> Skandinavski i britanski autori, uz neke druge autore, koriste termin *vikinški mačevi*, dok srednjoeuropski autori govore uglavnom o *karolinškim mačevima*. Iako se vrijeme izrade i korištenja jednih i drugih mačeva djelomično razlikuje, ovo su samo uopćeni nazivi koji ne preciziraju ni podrijetlo ni korisnika mača. U ovome će se radu koristiti u hrvatskoj literaturi uobičajen termin *karolinški*, dok je termin *vikinški* upotrijebljen zbog samoga naziva Petersenove knjige.

<sup>4</sup> Jacobssonovo djelo *Krigarideologi och vikingatida svärdstypologi* (Stockholm, 1992) bilo mi je, nažalost, nedostupno.

on this sword type based on analyses available to me in the literature which I managed to gather, while greater attention shall be accorded to the Croatian examples.

## ON TYPOLOGY AND RESEARCH

Even though other scholars more or less dealt with swords even prior to Jan Petersen of Norway (1919), he established the first, and still most used, extensive typology of Viking swords.<sup>3</sup> Based on the features of sword-hilts, he divided swords from the territory of Norway into 26 main (A-Æ) and 20 distinctive types (1-20). Henceforth until the present, many scholars have dealt with swords, often supplementing Petersen's typology or even setting up an entirely new one. Here I shall cite only the most important of the latter, primarily those whose works pertain to Petersen's type K. In 1927, Wheeler, in his work *London and the Vikings*, simplified Petersen's typology and reduced it to seven types (later Oakeshott added two more), of which type IV corresponds to Petersen's type K (Oakeshott 2002: 3). In more recent times, Menghin (1980) and Müller-Wille (1976; 1982) wrote about type K swords. At the beginning of the 1990s, within a relatively short interval, two dissertations were published which contained two new, differing typologies: by A. Geibig in Germany (1991) and by M. Jacobsson in Sweden.<sup>4</sup> In his analysis of swords, Geibig included constructive and metrical details and separately examined individual components of the hilt, as well as the blade. His typology consists of 19 combinational and constructional types of hilts and 14 blade types, while combination type 6 (Fig. 1) fully corresponds to Petersen's type K (Geibig 1991: 45). Jacobsson, on the other hand, divided hilts into six design principles, of which the third principle roughly corresponds to type K (Jones 2002: 16). Finally, the work by Polish archaeologist L. Marek (2005) should also be mentioned. His brief and easy-to-consult book covers swords from the sixth to twelfth centuries, primarily from Poland, although it does touch upon those from surrounding countries, including Croatia.

<sup>3</sup> Scandinavian and British scholars, and some others, use the term 'Viking swords', while Central European scholars generally speak of 'Carolingian swords'. Although the time of production and use of one and the other partially differ, these are simply generalized terms which specify neither the origin of these swords nor their users. In this work, the term 'Carolingian', customary in the Croatian literature, will be used, while the term 'Viking' will be used simply because of the actual title of Petersen's book.

<sup>4</sup> Jacobsson's work *Krigarideologi och vikingatida svärdstypologi* (Stockholm, 1992) was, unfortunately, unavailable to me.

Geibig u analizu mača uključuje i konstruktivne i metričke detalje te odvojeno analizira pojedine dijelove balčaka, kao i sječivo. Njegova se tipologija sastoji od 19 kombinacijskih i triju konstrukcijskih tipova balčaka te 14 tipova sječiva, a kombinacijski tip 6 (sl. 1) u potpunosti odgovara Petersenovu tipu K (Geibig 1991: 45). Jacobsson pak dijeli balčake na šest načela dizajna od kojih bi treće načelo grubo odgovaralo tipu K (Jones 2002: 16). Na kraju treba spomenuti i djelo poljskoga arheologa L. Mareka (2005). Njegova kratka i pregledna knjiga obrađuje mačeve od 6. do 12. stoljeća, prije svega iz Poljske, no dotiče se i okolnih zemalja, pa tako i Hrvatske.

U Hrvatskoj su karolinški mačevi pronađeni već pri najranijim iskopavanjima nacionalne arheologije krajem 19. stoljeća, no prvu značajniju obradu daje tek Vinski (1955) sredinom prošloga stoljeća u svojem općem radu o mačevima ranoga srednjeg vijeka. Desetak godina kasnije Vinski prvi u Hrvatskoj koristi rendgensko zračenje pri analizi mačeva kojim se otkrivaju važne, dotad nepoznate, pojedinosti (Vinski 1966). U sljedeća dva desetljeća objavio je još nekoliko radova o karolinškim mačevima iz Hrvatske i Hercegovine, često u obliku sinteza (neke i na njemačkome jeziku) te ih tako učinio u potpunosti dostupnima stranim znanstvenicima (Vinski 1977–1978; 1981; 1983; 1983–1984; 1985). O karolinškim je mačevima pisao i Jelovina (1976: 116–118; 1986), no njegovi se radovi uglavnom temelje na onima Z. Vinskoga. Osim Jelovine treba spomenuti Beloševića (1980; 2007) i Tomičića (1978; 1984; 2000), a u novije vrijeme prije svega Miloševića (2000) koji je iznio nove i zanimljive teze o kojima će kasnije biti riječi. Osim spomenutoga Miloševićeva rada među posljednjim radovima o karolinškim mačevima valja spomenuti rad A. Piteše (2001) u kojemu se otkriva nekoliko važnih detalja o maču tipa K iz Zadvarja.

Prije nego što prijedemo na pojedinačne nalaze, valja reći nekoliko rečenica o samome tipu K. Petersen (1919: 105–107) za njega kaže sljedeće:

“Kruna je razdijeljena na pet režnjeva; režnjevi su uspravni, najčešće jednake širine, iako je nerijetko srednji najširi; srednji dio također je najčešće malo viši od bočnih dijelova. Pojedini su režnjevi više ili manje odvojeni. Ovdje inače postoji više varijanata. Između ostaloga, baza i kruna mogu se sastojati od jednoga ili dvaju komada. Nakrsnice su uvijek ravne, s presjekom jednake širine, zaobljene na krajevima, ali nisu zašiljene kao što je, čini se, uobičajeno kod tipa O koji se vjerojatno razvio iz tipa K. U brazdama se ponekad nalazi srebrna ili, rjeđe, brončana žica. Tip nije uniforman. Kod većine su baza

In Croatia, Carolingian swords were discovered already during the earliest Croatian archaeological excavations at the end of the nineteenth century, but the first significant analysis was only conducted by Vinski (1955) in the mid-twentieth century in his general work on early medieval swords. About ten years later, Vinski was the first in Croatia to use X-rays to examine swords, which revealed vital, and until then unknown, details (Vinski 1966). Over the next two decades, he published several more works on Carolingian swords from Croatia and Herzegovina, often as syntheses (some in the German language as well) thereby making them available to foreign scholars as well (Vinski 1977–1978; 1981; 1983; 1983–1984; 1985). Jelovina also wrote about Carolingian swords (1976: 116–118; 1986), but his works are generally based on Vinski's previous articles. In addition to Jelovina, worth mentioning also are Belošević (1980; 2007) and Tomičić (1978; 1984; 2000), and, above all in more recent years, Milošević (2000), who made some intriguing assertions of which more shall be said subsequently. Besides Milošević, among the more recent works one worth mentioning as well is by A. Piteša (2001), who uncovered several important details about a type K sword from Zadvarje.

Before turning to individual finds, it would be worthwhile to say a few words on type K itself. Petersen (1919: 105–107) said the following of it:

“The pommel crown is divided into five lobes; the lobes are parallel, most often equal in width, although the middle one is not rarely wider; the central section is also most often slightly higher than the lateral sections. Individual lobes are more or less separate. Here there are otherwise several variants. Among other things, the base and the crown may consist of one or two pieces. The cross-guard is always straight, with a cross-section of equal width, rounded at the ends, and not tapered as, it would appear, is customary with type O, which probably grew out of type K. There is sometimes a silver or, more rarely, bronze wire set in the grooves. The type is not uniform. In most cases, the base and crown are divided into two parts, both coated with metal. (...)

(...) The pommel and cross-guard are normally silver Pl.d, tapped into iron as fine bands.”<sup>5</sup>

Besides the typical five-lobed pommel, there is also a seven-lobed variant, while the variant with six lobes is the rarest. Petersen had already noted that it is often difficult to distinguish between swords of

<sup>5</sup> The citation was translated from Norwegian by the author.

i kruna ipak podijeljene u dva dijela, oba pre-svučena metalom. (...)

(...) Jabučica i nakrsnica obično su ukrašene srebrnom oplatom, ukucanom u obliku finih traka u željezo.”<sup>5</sup>

Uz tipičnu petodijelnu jabučicu postoje i sedmo-dijelne, dok je varijanta sa šest reznjeva najrjeđa. Već Petersen napominje da je često teško razlikovati mačeve treće varijante tipa O (O III) od onih tipa K, a glavna bi razlika bila tek nešto jača razdvojenost reznjeva u prvome tipu. Kasniji su autori te tipove uglavnom promatrali zajedno, pa i imenovali tipom, tj. prijelaznom varijantom K–O(III) (Müller-Wille 1976: 37, 155; Vinski 1977–1978: 174). “Pravi” tip O razlikuje se od varijante III prije svega po obliku nakrsnice koja je u prvome blago povijena prema sječivu, a rubovi su zašiljeni, dok je u drugome često jednaka ili tek neznatno različita od uobičajene nakrsnice u tipu K. Osim toga jabučica varijante III značajno je niža i ukrašena na isti način kao u tipu K (Petersen 1919: 126–129). Upravo zbog navedenih razloga Geibig varijantu III tipa O priključuje kombinacijskomu tipu 6, tj. tipu K (Geibig 1991: 47; Martens 2004: 133–134). Drugi je prijelazni tip, koji navodi Vinski, posebni tip 1 – tip K, međutim i njega treba pripisati tipu K, iako postoje određene razlike. Sličnosti su pak neizbježne jer oba tipa, kao i mnogi drugi, vuku podrijetlo od merovinških mačeva sa završecima jabučica u obliku životinjskih glava među kojima ima i primjera podijeljenih na pet dijelova (Menghinova grupa 7) (Petersen 1919: 201; Menghin 1983: 81–82). Teško je reći vuče li tip K podrijetlo izravno od posebnoga tipa 1, no postoje određene tipološke sličnosti (prije svega dužina, ali i oblik nakrsnice u ranijih primjeraka tipa K) i vremensko preklapanje koje je, doduše, relativno kratko (Geibig 1991: 46–47).

Što se podrijetla i datacije tiče, Petersen je smatrao da je tip K izvorno franački, najvjerojatnije s rajnskoga područja, da je nastao krajem 8. stoljeća i proširio se u prvoj polovici 9. stoljeća, a da se u drugoj polovici i prema kraju 9. stoljeća razvio u tip O karakterističan za 10. stoljeće (Petersen 1919: 110). Unatoč razlikama u pojedinim detaljima i iznimkama to je mišljenje i dalje općeprihvaćeno.

Ukupan broj pronađenih mačeva tipa K povećava se praktički sa svakim novim radom o njima. Najprije Müller-Wille (1976: 155) donosi popis od 58 mačeva (jabučice s pet i sedam reznjeva, kao i tip K–O(III)). Menghin (1980: 272) zatim obrađuje samo mačeve s pet reznjeva na jabučici i navodi 28 primjeraka. Ubrzo Müller-Wille (1982: 153) nadopunjuje Menghinov popis s još devet primjeraka, a potom Geibig (1991)

the third variant of type O (O III) from those of type K, and the principal difference would be the somewhat greater separation between the lobes on the former type. Later scholars generally viewed these types together, and even designated it as a type, i.e. transitional type K–O(III) (Müller-Wille 1976: 37, 155; Vinski 1977–1978: 174). The “real” type O differs from variant III above all by the shape of the cross-guard, which is slightly curved toward the blade on the first type, with tapered edges, while on the second it is the same or only negligibly different from the customary cross-guard on type K. Besides this, the pommel on variant III is considerably lower and adorned in the same fashion as type K (Petersen 1919: 126–129). This is precisely the reason why Geibig included type O’s variant III in combination type 6, i.e. type K (Geibig 1991: 47; Martens 2004: 133–134). The other transitional type cited by Vinski is distinctive type 1/ type K. However, it should also be ascribed to type K, even though there are certain differences. The similarities are nonetheless incontrovertible, for both types, like many others, have their origins in the Merovingian swords, with pommels ending in animal heads, among which there are also examples divided into five lobes (Menghin’s group 7) (Petersen 1919: 201; Menghin 1983: 81–82). It is difficult to say whether type K originated directly from distinctive type 1, but there are certain typological similarities (primarily the length, but also the shape of the cross-guard in earlier examples of type K) and a chronological overlap which, to be sure, was relatively brief (Geibig 1991: 46–47).

As to origins and dating, Petersen believed that type K was originally Frankish, probably from the Rhine region, that it appeared at the end of the eighth century and expanded in the first half of the ninth century, and then toward in the latter half and toward the end of the ninth century it transitioned into type O, characteristic of the tenth century (Petersen 1919: 110). Despite differences in individual details and exceptions, this view is still generally accepted.

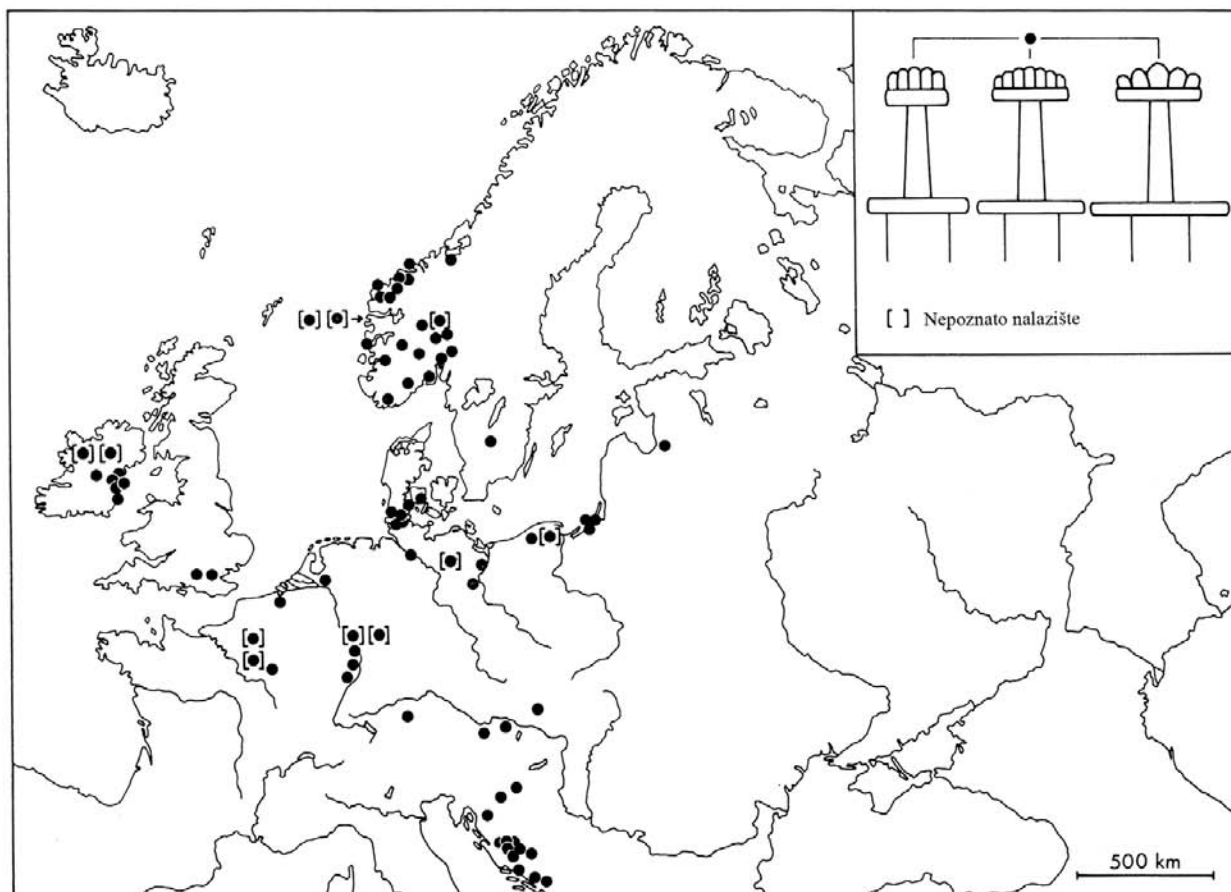
The total number of type K swords found practically increases with each new work on them. First Müller-Wille (1976: 155) provided a list of 58 swords (pommels with five and seven lobes, as well as type K–O(III)). Menghin (1980: 272) then examined only swords with five lobes on the pommel and cited 28 examples. Soon afterward Müller-Wille (1982: 153) supplemented Menghin’s list with nine more examples, and then Geibig (1991) compiled a list of swords of his combination type 6, which largely corresponds to Müller-Wille’s first list, but contains as many as 73 examples. If one more sword form cited

<sup>5</sup> Citat je s norveškoga jezika preveo G. Bilogrivić.



donosi popis mačeva svojega kombinacijskog tipa 6 koji uvelike odgovara prvomu Müller-Willeovu popisu, ali sadrži čak 73 primjerka. Ako se tomu broju pridoda još jedan mač iz Francuske koji navodi Peirce (2002: 70–71), zatim mač iz Turaide u Latviji (Ebert 1913: 554)<sup>6</sup> i novootkriveni mač iz Hrvatske (Belošević 2007: 406), ukupan se broj penje na 77 primjeraka,<sup>7</sup> iako je već i taj podatak možda “zastario”.

by Peirce (2002: 70–71), as well as the sword from Turaida in Latvia (Ebert 1913: 554)<sup>6</sup> and the newly-discovered sword from Croatia (Belošević 2007: 406) are all added to the list, then the total number climbs to 77 examples<sup>7</sup>, although even this figure is perhaps “outdated”.



Karta 1. Karta rasprostranjenosti mačeva tipa K (modificirano prema Müller-Wille 1976: 49).

Map 1. Distribution map of type K swords (modified according to Müller-Wille 1976: 49).

## MAČEVI IZ HRVATSKE I BIH

U ovome će se poglavlju sumarno, kataloški obraditi mačevi s područja Hrvatske i Bosne i Hercegovine, dakle mačevi vezani uz nekadašnju Hrvatsku kneževinu.<sup>8</sup> Šira analiza tih mačeva, zajedno s pojedinim europskim primjercima, bit će iznesena u sljedećemu poglavlju. Nažalost, dostupni metrički

## SWORDS FROM CROATIA AND BOSNIA-HERZEGOVINA

This section contains a summary, catalogued examination of swords from the territory of Croatia and Bosnia-Herzegovina, i.e. those swords associated with the former Croatian principality.<sup>8</sup> A more extensive analysis of these swords, together

<sup>6</sup> Lokalitet je ovdje označen njemačkim imenom Treyden.

<sup>7</sup> Uračunat je i mač s lokaliteta Fetter Lane u Londonu koji Geibig ne donosi u svojem popisu. Za pojedine nalaze usp. Müller-Wille (1976: 155) i katalog u Geibig (1991).

<sup>8</sup> Vidi i tab. 1 u ovome radu. Za ostale nalaze usp. literaturu, n. 7.

<sup>6</sup> The site is here denoted by its German name Treyden.

<sup>7</sup> Also counted is the sword from the Fetter Lane site in London, which Geibig did not include in his list. For individual finds, cf. Müller-Wille (1976: 155) and the catalogue in Geibig (1991).

<sup>8</sup> See also table 1 in this work. For remaining finds, cf. n. 7.

podaci nisu jednaki za sve mačeve, pa će biti određenih nedosljednosti u njihovu iznošenju za pojedine nalaze.<sup>9</sup> Uz opis svakoga mača bit će navedena i važnija literatura.

## BISKUPIJA – CRKVINA

Mačevi tipa K obično se rijetko pojavljuju u više primjeraka na istome lokalitetu. Jedini su lokaliteti s većom koncentracijom Haithabu, Wiskiauten, Kilmainham i Biskupija – Crkvina. Na Crkvini su mačevi tipa K pronađeni u trima od deset poznatih grobova u lijesovima južno od crkve Sv. Marije i ujedno su jedini mačevi s lokaliteta.

### Grob 1 (T. I)

Dvosjekli mač ima donekle kratku nakrsnicu i jabučicu s pet režnjeva međusobno odijeljenih rovašenom srebrnom žicom koja dijeli i krunu od baze jabučice. Na sječivu je rendgenskim postupkom na području plitkoga kanala ustanovljena signatura ULFBERHT. Samo sječivo najvjerojatnije nije damascirano (Geibig 1991: 123). Mač je na nekim dijelovima znatno nagrižen oksidacijom, osobito na nakrsnici i na oksidacijom suženome gornjem dijelu sječiva, a ponešto je deformiran. Uz mač su u grobu pronađeni: garnitura mača, bojni nož, par ostruga s garniturama, drvena vjedrica, bakrena tava, bizantski solid.

Ukupna duljina: 94 cm.

Duljina balčaka: 13,5 cm.

Nakrsnica: d. 10,5 cm; š. ± 2,2 cm.

Sječivo: d. 79 cm; š. ± 5 cm.

Literatura: Radić (1897: 32–33); Vinski (1966: 72–78; 1981: 20–22); Jelovina (1976: 116; 1986); Müller-Wille (1976: 42); Menghin (1980: 254, 260 i d; 1982: 142); Geibig (1991: 122–123); HiK/katalog 2000: IV.39.

### Grob 6 (T. II/1–2)

Dvosjekli mač ima masivnu nakrsnicu i jabučicu s pet režnjeva međusobno odijeljenih pletenom mjedenom žicom. Baza jabučice i bočne strane nakrsnice ukrašene su tauširanjem gusto ukovane pozlaćene mjedene žice, dok su gornja i donja strana nakrsnice ukrašene platiranom pozlaćenom mjedi. Damascirano sječivo po sredini ima kanal. Mač je djelomice nagrižen hrdom i oštećen, naročito donji dio sječiva. Uz mač su u grobu nađeni dijelovi nje-

with individual European examples, is provided in the following section. Unfortunately, the available measurements are not the same for all swords, so there will be some inconsistencies in this data for individual finds.<sup>9</sup> The description of each sword will be accompanied with citations of the more important literature.

## BISKUPIJA-CRKVINA

Type K swords rarely appear in several examples at the same site. The only sites with a larger concentration are Haithabu, Wiskiauten, Kilmainham and Biskupija-Crkvina. At Crkvina, type K swords were found in three of the ten known graves in coffins south of the Church of St. Mary, and these are also the only swords from that site.

### Grave 1 (Pl. I)

The double-edged sword has a rather short cross-guard and a pommel with five lobes mutually divided by notching with a silver wire which separates the crown from its base. Using X-ray techniques, the inscription ULFBERHT was ascertained in the narrow fuller. The blade itself was probably not damascened (Geibig 1991: 123). The sword is rather corroded by oxidation at some parts, particularly on the cross-guard and on the oxidised tapered upper portion of the blade, and it is somewhat deformed. Found together with the sword in the grave were: sword-belt gear, combat dagger, pair of spurs with fittings, small wooden receptacle, copper pan, and Byzantine solidus.

Total length: 94 cm.

Length of hilt: 13.5 cm.

Cross-guard: l. 10.5 cm; w. ± 2.2 cm.

Blade: l. 79 cm; w. ± 5 cm.

References: Radić (1897: 32-33); Vinski (1966: 72-78; 1981: 20-22); Jelovina (1976: 116; 1986); Müller-Wille (1976: 42); Menghin (1980: 254, 260 and *passim*; 1982: 142); Geibig (1991: 122-123); HiK/katalog 2000: IV.39.

### Grave 6 (Pl. II/1-2)

The double-edged sword has a massive cross-guard and pommel with five lobes separated from each other by a braided brass wire. The base of the pommel and the sides of the cross-guard are inlaid with Pl.d gilded brass. A fuller runs down the middle of the damascened blade. The sword is partially cor-

<sup>9</sup> Legenda: d.= duljina, š.= širina, v.= visina.

<sup>9</sup> Legend: l.= length, w = width, h.= height.

gove pojasne garniture, par ostruga s garniturama, drvena vjedrica i bizantski solid.

Ukupna duljina: 92 cm.

Duljina balčaka: 14 cm.

Nakrsnica: d. 10 cm; š. ± 3,3 cm.

Sječivo: d. 76,5 cm; š. ± 6 cm.

Literatura: Radić (1895: 243–245; 1897: 32); Müller-Wille (1976: 42); Vinski (1977–1978: 173; 1981: 22); Menghin (1980: 254, 261); Jelovina (1986); Szameit (1986: 395); HiK/katalog 2000: IV.44.

### Grob 8 (T. II/3–4)

Dvosjekli mač ima nešto dužu nakrsnicu i oštećenu jabučicu za koju se pretpostavlja da je imala pet ili šest režnjeva. Eventualni ukras nije sačuvan. Damascirano sječivo po sredini ima kanal. Uz mač su u grobu pronađeni dijelovi njegove pojasne garniture, kresivo i drvena vjedrica.

Ukupna duljina: 93,3 cm.

Duljina balčaka: 15 cm.

Nakrsnica: d. 11,5 cm; š. ± 2 cm.

Sječivo: d. 78,3 cm; š. ± 5,7 cm.

Literatura: Vinski (1981: 20); Jelovina (1986); Zekan (1990: 135); HiK/katalog 2000: IV.46; Milošević (2000: 130); Piteša (2001: 354).

### CIRKOVLJAN – DIVEN (T. III)

Dvosjekli mač ima petodijelnu krunu jabučice s najvećim srednjim režnjem, dok su krajnji režnjevi vrlo mali. Režnjevi su međusobno odijeljeni tankom naroskanom srebrnom ukovanom žicom. Nakrsnica je kratka i, kao i baza jabučice, ima blagi središnji greben. Sječivo je damascirano, s jasnim ukrasom u obliku borove grančice, tj. riblje kosti koji se izmjenjuje s lučnim koncentričnim ukrasima.<sup>10</sup> Najveća posebnost ovoga mača jest gotovo potpuno sačuvana oplata drška balčaka načinjena od bukova drva i omotana lanenom vrpcom širine oko 2 cm. Uz mač je pronađen i stremen kapljastoga oblika. Oba pojtuču najvjerojatnije iz uništenoga groba razorene avaro-slavenske nekropole kod Preloga.

Ukupna duljina: 94,3 cm.

Duljina balčaka: 15,2 cm (od čega držak 9,7 cm).

Nakrsnica: d. 7,7 cm; š. 2,8 cm.

Sječivo: d. 79,1 cm; š. 4,6 cm.

Masa nakon konzerviranja: 1200 g.

rod by rust and damaged, particularly the lower section of the blade. Besides the sword, the grave also contained parts of its belt gear, a pair of spurs with fittings, a small wooden receptacle and a Byzantine solidus.

Total length: 92 cm.

Length of hilt: 14 cm.

Cross-guard: l. 10 cm; w. ± 3.3 cm.

Blade: l. 76.5 cm; w. ± 6 cm.

References: Radić (1895: 243–245; 1897: 32); Müller-Wille (1976: 42); Vinski (1977–1978: 173; 1981: 22); Menghin (1980: 254, 261); Jelovina (1986); Szameit (1986: 395); HiK/katalog 2000: IV.44.

### Grave 8 (Pl. II/3–4)

The double-edged sword has a somewhat longer cross-guard and damaged pommel, which is assumed to have had five or six lobes. Any possible ornamentation has not been preserved. A fuller runs down the middle of the damascened blade. Also found with the sword in the grave were components of its belt gear, a fire-steel and a small wooden receptacle.

Total length: 93.3 cm.

Length of hilt: 15 cm.

Cross-guard: l. 11.5 cm; w. ± 2 cm.

Blade: l. 78.3 cm; w. ± 5.7 cm.

References: Vinski (1981: 20); Jelovina (1986); Zekan (1990: 135); HiK/katalog 2000: IV.46; Milošević (2000: 130); Piteša (2001: 354).

### CIRKOVLJAN-DIVEN (PL. III)

The double-edged sword has a five-lobed pommel crown on which the middle lobe is largest, while the peripheral lobes are very small. The lobes are separated from each other by a thin furrowed, wrought silver wire. The cross-guard is short and, like the pommel base, it has a slight central ridge. The blade is damascened, with a discernable ornamentation in the shape of pine branch or fishbone, which alternates with arched concentric ornaments.<sup>10</sup> The most notable aspect of this sword is the almost completely preserved cover for the hilt grip made of beechwood and bound in a 2 cm wide flaxen ribbon. Besides the sword, a teardrop stirrup was also found. Both probably came from a devastated grave in the destroyed Avaro-Slav necropolis at Prelog.

<sup>10</sup> I jedan i drugi ukras zapravo su varijante uvijenoga damasciranja (*Torsiondamast*) koje je ovdje izvedeno u uzorku SZ, a razlika je rezultat nejednakoga brušenja i poliranja na različitim dijelovima sječiva (usp. Ypey 1983).

<sup>10</sup> Both ornaments are actually variants of torsion damask (*Torsiondamast*) which is here rendered in an SZ pattern, the difference resulting from unequal grinding and polishing at different parts of the blade (cf. Ypey 1983).

Literatura: Tomičić (1978: 212, 215–217; 1984; 2000: 153–154); Vinski (1977–1978: 176, n. 192; 1981: 15); Szameit (1986: 394–395); Geibig (1991: 46–47); HiK/katalog 2000: II.27.

#### KNINSKO POLJE – GUGINE KUĆE (T. IV)

Za ovaj se mač, pronađen još početkom 20. stoljeća, dugo smatralo da potječe s lokaliteta Orlić, no dokazano je da je pravo nalazište ipak lokalitet Gugine kuće u Kninskome polju (Zekan 1990: 131–132). Dvosjekli je mač slučajno pronađen u grobu u prostoj zemljanoj raci uz ostruge koje su kasnije nestale. Ima jabučicu podijeljenu na sedam reznjeva, a metalna žica koja se nalazila među njima nije sačuvana. Damascirano sječivo nagrizenom je korozijom i u gornjem je dijelu prelomljeno. Po sredini ima kanal.

Ukupna duljina: 96 cm.

Duljina balčaka: 15 cm.

Nakrsnica: d. 10 cm; š.  $\pm$  2 cm.

Sječivo: d. 81 cm; š.  $\pm$  5,8 cm.

Literatura: Vinski (1981: 20); Jelovina (1986); Zekan (1990: 131–132); HiK/katalog 2000: IV.149.

#### KOLJANE GORNJE – VUKOVIĆA MOST (T. V)

Dvosjekli mač ima jabučicu s pet nešto jače odijeljenih reznjeva među kojima je rovašena srebrna žica. Kruna jabučice na isti je način odijeljena od baze. Nakrsnica je nešto duža, lagano zašiljenih krajeva. Sječivo po sredini ima kanal i u prilično je dobro me stanju, osim u donjoj trećini gdje je oštećeno i probušeno oksidacijom te blago otklonjeno od centralne osi mača. U grobu u lijesu pronađena je i garnitura za nošenje mača, par ostruga s dijelovima garniture za zakopčavanje, kresivo i valjkasti željezni ulomak, možda dio korica mača.

Ukupna duljina: 95 cm.

Duljina balčaka: 14 cm.

Nakrsnica: d. 12,5 cm; š. 1,8 cm.

Sječivo: d. 81 cm; š. (pri nakrsnici) 5,2 cm, (pri vrhu) 2,7 cm.

Literatura: Radić (1897a: 99–100); Müller-Wille (1976: 42); Vinski (1977–1978: 173; 1981: 20); Jelovina (1984: 230, 240; 1986); Menghin (1980: 261); Geibig (1991: 46–47); HiK/katalog 2000: IV.159; Milošević (2000: 118 i d).

#### MOGORJELO (T. VI/1)

Dvosjekli mač ima sedmodijelnu krunu jabučice. Ni jabučica ni nakrsnica nisu ukrašene. Sječivo

Total length: 94.3 cm.

Length of hilt: 15.2 cm (of which the grip is 9.7 cm).

Cross-guard: l. 7.7 cm; w. 2.8 cm.

Blade: l. 79.1 cm; w. 4.6 cm.

Mass after conservation procedures: 1200 g.

References: Tomičić (1978: 212, 215–217; 1984; 2000: 153–154); Vinski (1977–1978: 176, n. 192; 1981: 15); Szameit (1986: 394–395); Geibig (1991: 46–47); HiK/katalog 2000: II.27.

#### KNINSKO POLJE-GUGINE KUĆE (PL. IV)

This sword, discovered already at the beginning of the twentieth century, was long thought to have originated at the Orlić site, but it has been proven that its find-site is actually Gugine kuće in the Knin field – Kninsko polje (Zekan 1990: 131–132). The double-edged sword was discovered by chance in a grave made in a simple earthen pit together with spurs that were later lost. It has a pommel divided into seven lobes, while the metal wire between them has not been preserved. The damascened blade is corroded and broken in its upper section. A fuller runs down its middle.

Total length: 96 cm.

Length of hilt: 15 cm.

Cross-guard: l. 10 cm; w.  $\pm$  2 cm.

Blade: l. 81 cm; w.  $\pm$  5.8 cm.

References: Vinski (1981: 20); Jelovina (1986); Zekan (1990: 131–132); HiK/katalog 2000: IV.149.

#### KOLJANE GORNJE-VUKOVIĆA MOST (PL. V)

The double-edged sword has a pommel with five somewhat more prominently separated lobes with a notched silver wire running between them. The cross-guard is somewhat longer, with lightly tapered ends. The blade has a fuller down its middle and it is in rather good condition, except the lower third, where it is damaged and pierced by oxidation and deviates slightly from the sword's central axis. Also found in the coffin in the grave were the gear for wearing the sword, a pair of spurs with parts of their fastening gear, a fire-steel and a cylindrical iron fragment, possibly part of the sword's sheath.

Total length: 95 cm.

Length of hilt: 14 cm.

Cross-guard: l. 12.5 cm; w. 1.8 cm.

Blade: l. 81 cm; w. (at cross-guard) 5.2 cm, (at tip) 2.7 cm.

References: Radić (1897a: 99–100); Müller-Wille (1976: 42); Vinski (1977–1978: 173; 1981: 20); Jelovina



je damascirano i s obiju strana ima plitki kanal. Vjerojatno je grobni nalaz, možda s kopljem s krilcima pronađenim također u Mogorjelu i s izgubljenom bojnom sjekirom.

Ukupna duljina: 94,4 cm.

Nakrsnica: d. 9,4 cm.

Literatura: Vinski (1966: 80–82; 1981: 20; 1985: 67); Zekan (1994: 56, 71); HiK/katalog 2000: IV.171; Milošević (2000: 114 i d.).

#### PODGRADINA – REŠETARICA (T. VI/2)

Dvosjekli mač ima sedmodijelnu krunu neukrašene jabučice i relativno dugu nakrsnicu. Damascirano sječivo ima kanal i oštećeno je korozijom, naročito pri vrhu. Uz mač su u grobu pronađena i dva jezičca, par ostruga, nož, britvica i kresivo.

Ukupna duljina: 92,2 cm.

Duljina balčaka: 15,2 cm (od čega držak 10,2 cm).

Jabučica: d. 7,5–7,9 cm; v. (najveća) 3,7 cm; š. 2,2 cm.

Nakrsnica: d. 10,8 cm; v.  $\pm$  1,32 cm; š. 2,3 cm.

Sječivo: d. 77,5 cm; š.  $\pm$  5,5 cm.

Literatura: Vrdoljak (1988: 146–147, 153, 187–188); Zekan (1994: 56, 71); HiK/Katalog 2000: IV.213; Piteša (2001: 354).

#### PODSUSED KRAJ ZAGREBA (T. VII/1–2)

Dvosjekli mač ima jabučicu s pet reznjeva odijeljenih srebrnom naroskanom žicom. Nakrsnica lagano zašiljenih krajeva djelomično je oštećena. Sječivo ima kanal, damascirano je i prilično oštećeno korozijom. Mač je pronađen u pojedinačnome uništenom grobu na brežuljku pod samim Susedgradom. Uz njega je u grobu bila i njegova pojasna garnitura.

Ukupna duljina: 94,3 cm.

Duljina drška (balčaka?): 13,7 cm.

Nakrsnica: d. 9,5 cm.

Sječivo: d. 79 cm.

Literatura: Šeper (1944: 204–209); Vinski (1955: 44; 1960: 53; 1981: 32); Müller-Wille (1976: 42); Menghin (1980: 254–255); HiK/katalog 2000: II.25; Tomićić (2000: 160); Piteša (2001: 354).

#### PROZOR – GORNJA LUKA (T. VII/3–5)

Dvosjekli mač ima jabučicu s pet reznjeva odijeljenih nepravilno rovašenom srebrnom žicom. Ista

(1980: 230, 240; 1986); Menghin (1980: 261); Geibig (1991: 46–47); HiK/katalog 2000: IV.159; Milošević (2000: 118 ff.).

#### MOGORJELO (PL. VI/1)

The double-edged sword has a seven-lobed pommel crown. Neither the pommel nor the cross-guard are adorned. The blade is damascened and both sides have a shallow fuller. It is probably a grave good, perhaps placed together with the barbed spearhead also found in Mogorjelo and the now lost battleaxe.

Total length: 94.4 cm.

Cross-guard: l. 9.4 cm.

References: Vinski (1966: 80–82; 1981: 20; 1985: 67); Zekan (1994: 56, 71); HiK/katalog 2000: IV.171; Milošević (2000: 114 ff.).

#### PODGRADINA-REŠETARICA (PL. VI/2)

The double-edged sword has a seven-lobed crown on the unadorned pommel and a rather long cross-guard. The damascened blade has a fuller and is damaged by corrosion, especially at the tip. Besides the sword, also found in the grave were two belt tangs, a pair of spurs, a knife, a razor and a fire-steel.

Total length: 92.2 cm.

Length of hilt: 15.2 cm (of which grip is 10.2 cm).

Pommel: l. 7.5–7.9 cm; h. (greatest) 3.7 cm; w. 2.2 cm.

Cross-guard: l. 10.8 cm; h.  $\pm$  1.32 cm; w. 2.3 cm.

Blade: l. 77.5 cm; w.  $\pm$  5.5 cm.

References: Vrdoljak (1988: 146–147, 153, 187–188); Zekan (1994: 56, 71); HiK/Katalog 2000: IV.213; Piteša (2001: 354).

#### PODSUSED, NEAR ZAGREB (PL. VII/1–2)

The double-edged sword has a pommel with five lobes separated by a silver plaited wire. The cross-guard has lightly tapered ends and is partially damaged. The blade has a fuller, it is damascened and considerably damaged by corrosion. The sword was found in an individual destroyed grave on a hillock under the Susedgrad fortification itself. Its belt fittings were with it in the grave.

Total length: 94.3 cm.

Length of grip (hilt?): 13.7 cm.

Cross-guard: l. 9.5 cm.

Blade: l. 79 cm.



se žica vjerojatno nalazila i u žlijebu između baze i krune jabučice. Relativno duga nakrsnica nije ukrašena. Sječivo je damascirano. U kanalu se s jedne strane nalazi damascirana signatura ULFBERHT, tj. njezina prva dva slova i hasta trećega slova, a s druge je strane damasciran ukras u obliku pletenice. Mač je pojedinačan nalaz.

Ukupna duljina: 91,5 cm.

Duljina drška: 9,5 cm.

Nakrsnica: d. 11,5 cm.

Sječivo: d. 77,3 cm; š. (pri nakrsnici)  $\pm$  6 cm, (prije vrha) 3 cm.

Masa nakon konzerviranja: 725 g.

Literatura: Šarić (1972–1973: 229–232); Vinski (1981: 20); Müller-Wille (1982: 142); Geibig (1991: 123); HiK/katalog 2000: IV.220; Milošević (2000: 131); Tomičić (2000: 157).

### STOLAC – ČAIRI (T. VI/3)

Dvosjekli mač ima petodijelnu krunu jabučice. Sječivo s plitkim kanalom relativno je široko, pogotovo pri nakrsnici. Na njemu su također bili jedva primjetni ostaci drvenih korica. Balčak nije ukrašen, iako su na kruni jabučice pri konzerviranju utvrđeni tragovi žice. Mač je grobni nalaz, zajedno s karolinškim kopljem s krilcima.

Ukupna duljina: 89,6 cm.

Nakrsnica: d. 11,6 cm.

Literatura: Vinski (1981: 20; 1985: 67); Atanacković-Slačić (1983: 24–25); Szameit (1986: 395); Zekan (1994: 56, 71); HiK/katalog 2000: IV.237; Piteša (2001: 354).

### ZADVARJE – POLETNICA (T. VIII–IX)

Kao i mač iz Kninskoga polja tako je i mač iz Zadvarja dugo bio smatran nalazom s drugoga lokaliteta – Žeževice, no u ovome je slučaju riječ samo o mikrolokaciji, dok je šira ubikacija u principu ista (Zekan 1990: 136). Kruna je jabučice ovoga dvosjeklog mača petodijelna, a režnjevi su odijeljeni žljebovima u kojima se tek djelomice sačuvala tauširana srebrna žica. Na isti je način kruna odijeljena od baze jabučice. Cijela jabučica bila je ukrašena gusto tauširanom tankom srebrnom žicom, iskovanom i poliranom u jednu, mjestimice sačuvanu, plohu. Na donjoj strani jabučice vidljivi su ostaci spomenutoga ukrasa i utori dviju zakovica. Isti je postupak bio primijenjen i na nakrsnici, no njezina je tauširana ploha zatim dodatno ukrašena urezivanjem. Na du-

References: Šeper (1944: 204–209); Vinski (1955: 44; 1960: 53; 1981: 32); Müller-Wille (1976: 42); Menghin (1980: 254–255); HiK/katalog 2000: II.25; Tomičić (2000: 160); Piteša (2001: 354).

### PROZOR-GORNJA LUKA (PL. VII/3–5)

The double-edged sword has a pommel with five lobes separated by an irregularly notched silver wire. The same wire was probably also in the groove between the pommel's base and crown. The relatively long cross-guard is unadorned. The blade is damascened. The damascened inscription ULFBERHT, or rather its first two letters and the bar of the third letter, are in the fuller to one side, while on the other side there is a damascened ornamentation shaped like a braid. The sword is an individual find.

Total length: 91.5 cm.

Length of grip: 9.5 cm.

Cross-guard: l. 11.5 cm.

Blade: l. 77.3 cm; w. (at cross-guard)  $\pm$  6 cm, (at tip) 3 cm.

Mass after conservation procedures: 725 g.

References: Šarić (1972–1973: 229–232); Vinski (1981: 20); Müller-Wille (1982: 142); Geibig (1991: 123); HiK/katalog 2000: IV.220; Milošević (2000: 131); Tomičić (2000: 157).

### STOLAC-ČAIRI (PL. VI/3)

The double-edged sword has a five-lobed pommel crown. The blade, with shallow fuller, is relatively wide, particularly at the cross-guard. The almost imperceptible remains of a wooden sheath were also on it. The hilt is unadorned, although traces of a wire were ascertained on the pommel's crown during conservation procedures. The sword is a grave good, together with a Carolingian barbed spearhead.

Total length: 89.6 cm.

Cross-guard: l. 11.6 cm.

References: Vinski (1981: 20; 1985: 67); Atanacković-Slačić (1983: 24–25); Szameit (1986: 395); Zekan (1994: 56, 71); HiK/katalog 2000: IV.237; Piteša (2001: 354).

### ZADVARJE-POLETNICA (PL. VIII–IX)

Like the sword from Kninsko polje, this sword from Zadvarje was long considered a find from another site: Žeževice, but in this case it is only a matter of a micro-location, while its broader location is gener-

žim bočnim stranama urezane su vitice s trolistima, na donjoj strani sa svake strane sječiva po jedan sidrasti križ, a na gornjoj strani osobno ime, fragmentarno sačuvano, koje se protezalo s obiju strana trna (...A...ERTU...). Na dvosjeklome su sječivu primjetni tragovi damasciranja u obliku crvotočine (*Wurmbuntklinge*), a s obiju njegovih strana nalazi se plitak kanal. Uz mač je u grobu pronađeno i karolinško koplje s krilcima.

Ukupna duljina: 95 cm.

Duljina balčaka: 15,5 cm (od čega držak 10 cm).

Jabučica: d. 7,5 cm; v. (najveća) 4,1 cm.

Nakrsnica: d. 12 cm; š. (najveća) 2 cm.

Sječivo: d. 79,5 cm; š. (pri nakrsnici) 5,5 cm, (prije vrha) 3 cm.

Literatura: Vinski (1981: 20); Zekan (1990: 136); HiK/katalog 2000: IV.260; Milošević (2000: 131); Piteša (2001).

## O MAČEVIMA

Kao što je već rečeno, Petersenov tip K nije uniforman. I dok općenite postavke vrijede za većinu mačeva, imali oni pet ili sedam režnjeva na jabučici, postoje među pojedinim primjercima veće ili manje sličnosti i određene zajedničke karakteristike koje omogućavaju njihovo grupiranje. Te se sličnosti odnose prije svega na oblikovanje jabučice i na ukras balčaka. Ipak, neću govoriti o nekakvim skupinama (osim u jednome slučaju) jer je materijal koji mi je dostupan preskroman za takvo što. Osim toga često su međusobno slična samo dva ili tri mača, ponekad je riječ i o samo jednome, ali vrlo specifičnome primjerku. To je ipak premalo da bi se govorilo o skupini. U ovome će se poglavlju mačevi iz Hrvatske i inozemstva obraditi pojedinačno, prema međusobnim sličnostima ili pak u sklopu lokaliteta.

### 1. HILTIPREHT

Najveći broj mačeva koji se mogu međusobno povezati, njih ukupno osam, čine primjerci poznati po ukrasu balčaka i natpisima na gornjoj strani nakrsnice. Dio tih mačeva već je obradio Müller-Wille (1982: 137–149), pa će se ovo poglavlje temeljiti na njegovu radu uz dodatak još dvaju mačeva. Dakle od ukupno osam mačeva po dva su iz Irske i Norveške i po jedan iz Hrvatske, Francuske, Njemačke i Nizozemske. Svim je mačevima zajedničko ukrašavanje nakrsnice i petodijelne jabučice gustim tauši-

ally the same (Zekan 1990: 136). The pommel crown on this double-edged sword has five parts, and the lobes are separated by grooves in which only parts of the inlaid silver wire have been preserved. The crown is separated from the pommel base in the same fashion. The entire pommel was ornamented with a densely inlaid, thin silver wire, cast and polished into a single surface, preserved only at a few places. Visible on the lower side of the pommel are the remains of the aforementioned ornamentation and slots for two rivets. The same procedure was observed on the cross-guard, but its inland surface is additionally ornamented by engraving. Tendrils with trefoils are engraved on its longer lateral sides, while on its lower side, to each side of the blade, there is one anchor cross each; on the upper side there is a personal name, fragmentarily preserved, extending from both sides of the tang (...A...ERTU...). Traces of damascening in the form of a wormhole (*Wurmbuntklinge*) are visible on the double-edged blade, which has a shallow fuller on both sides. Also found in the grave with the sword was a Carolingian barbed spear.

Total length: 95 cm.

Length of hilt: 15.5 cm (of which grip 10 cm).

Cross-guard: l. 7.5 cm; h. (greatest) 4.1 cm.

Cross-guard: l. 12 cm; w. (greatest) 2 cm.

Blade: l. 79.5 cm; w. (at cross-guard) 5.5 cm, (before tip) 3 cm.

References: Vinski (1981: 20); Zekan (1990: 136); HiK/katalog 2000: IV.260; Milošević (2000: 131); Piteša (2001).

## ON SWORDS

As already stated, Petersen's type K is not uniform. And while the general features apply to most swords, regardless of whether they have five or seven lobes on the pommel, there are greater or lesser similarities and certain common characteristics among individual examples which allow them to be grouped together. These similarities primarily pertain to the formation of the pommel and the ornamentation of the hilt. Nonetheless, I shall not speak of any groups (except in one case), because the material available is too modest for something like this. Moreover, often only two or three swords resemble each other, and sometimes there is only a single, but very specific example in play. This is therefore too small to speak of any sort of group. In the first section, swords from Croatia and abroad shall be analyzed separately based on mutual similarities or within the context of a site.

ranjem tankom srebrnom žicom. U tako ukrašene duže bočne plohe nakrsnice i baze jabučice urezani su motivi vinove loze, tj. vitice, među kojima se nalaze i grozdovi ili trolisti. Na gornjoj strani nakrsnice, s objiju strana trna, obično se nalazi urezano osobno ime (*ibid.* 137–145).

Mač s nalazišta Ballinderry (Crannog I) u Irskoj (T. X) pronađen je 1928. pri drenažnim radovima u tresetištu, a nalazio se najvjerojatnije na podu nekadašnje kuće. Pronađena su i dva koplja, sjekira i drvena ploča za igru. Uz ranije spomenut ukras na režnjevima jabučice nazire se, iako dosta oštećen, urezani motiv pereca, slično kao na maču iz Kilmainhama. Na gornjoj strani nakrsnice urezano je ime HILTIPREHT, flankirano križem s objiju strana (*ibid.* 137, 139; Peirce 2002: 63–65). Na obama krajevima donje strane nakrsnice nalazi se ukras koji je prema Peirceu (2002: 64) sličan uspravljenim ušima zeca; takav se ukras nalazi i na jednome kraju nakrsnice mača iz kolekcije Wallace. Na prilično širokome sječivu nalazi se u središnjemu kanalu s jedne strane natpis ULFBERHT, a s druge strane tipičan mrežasti uzorak između dviju okomitih linija.

Veliko groblje iz vikinškoga vremena u Kilmainhamu blizu Dublina uništeno je u 19. stoljeću prilikom radova za željezničku prugu. Dio je nalaza spašen, između ostaloga i mnoštvo mačeva. Tri su mača tipa K, a najpoznatiji je onaj pod signaturom WK-5 (T. XI). Ukrašen je na identičan način kao i prethodni mač, uz dodatak dvostruke tordirane srebrne žice između režnjeva te naroskane srebrne žice između baze i krune jabučice. Na gornjoj strani nakrsnice bilo je urezano ime HARTOLFR koje je do danas potpuno nestalo. Sječivo mača sačuvano je u cijelosti, no prelomljeno je na tri dijela.<sup>11</sup>

Mač iz Gravråka (T. XII) blizu Trondheima najsjeverniji je mač iz ove skupine, ali i najsjeverniji mač tipa K uopće. Otkriven je 1864. u paljevinskome grobu ispod humka, a uz njega su pronađeni i nož, škare i željezne osti te dijelovi brončane plitice koja je bila dio precizne vage. Mač je ukrašen tauširanjem i viticama kao i prethodni, no na kruni nema urezanoga ukrasa. Kruna jabučice za bazu je pričvršćena dvjema zakovicama čije su glavice obložene brončanim limom. Na gornjoj strani nakrsnice nalazi se natpis HILTIPREHT, izvorno pogrešno pročitano kao HLITER i tako citirano u ranijoj literaturi. Iza slova T možda je bio urezan i križ. Na obama završecima nakrsnice nalaze se rupe od zakovica. S objiju strana sječivo ima plitak kanal u kojemu se s jedne strane prepoznaju slova LFB, ostatak signature ULFBERHT, dok je na drugoj strani mrežasta

## 1. HILTIPREHT

Most of the swords which can be mutually linked, eight in all, are examples known in terms of the hilt ornamentation and inscriptions on the upper side of the cross-guard. Some of these swords have already been analyzed by Müller-Wille (1982: 137-149), so this section will rest on his work with the addition of two more swords. Thus, out of the total of eight swords, two each are from Ireland and Norway, and one each from Croatia, France, Germany and the Netherlands. All of these swords have in common the ornamentation of the cross-guard and the five-lobed pommels with thickly inlaid thin silver wires. Grape vines, i.e. tendrils, among which there are racemes or trefoils, were engraved onto the lateral surfaces of the cross-guard and the pommel bases ornamented in the latter fashion. The upper side of the cross-guard, on both sides of the tang, normally had a personal named engraved into it (*ibid.* 137-145).

The sword from the Ballinderry (Crannog I) site in Ireland (Pl. X) was discovered in 1928 during drainage of a peatbog, and it was probably on the floor of a former house. Also found were two spears, an axe and a wooden game board. Besides the earlier mentioned ornamentation on the pommel lobes, also discernable, albeit rather damaged, is an engraved pretzel motif, similar to that on the sword from Kilmainham. The name HILTIPREHT is engraved on the upper side of the cross-guard, flanked by crosses on either side (*ibid.* 137, 139; Peirce 2002: 63-65). On both ends of the lower side of the cross-guard, there are ornaments which according to Peirce (2002: 64) resemble upright rabbit ears; such ornamentation can also be found on one end of the cross-guard of the sword from the Wallace Collection. On the rather wide blade, the inscription ULFBERHT is in the middle fuller to one side, while on the other side there is a typical grid pattern between two vertical lines.

The large cemetery in Kilmainham, near Dublin, dating to the Viking era, was destroyed in the nineteenth century during railway construction. A part of the finds were rescued, among them many swords. Three swords are type K, and the best known is recorded under inventory number WK-5 (Pl. XI). It is ornamented in a manner identical to the preceding sword, with the addition of a doubly wound silver wire between the lobes, and a plaited silver wire between the pommel base and crown. The name HARTOLFR was engraved on the upper side of the cross-guard, which has entirely disappeared at this point. The sword's blade has been entirely preserved, although it is broken apart into three pieces.<sup>11</sup>

<sup>11</sup> Iako natpis glasi HARTOIFA, općeprihvaćeno je čitanje HARTOLFR (Müller-Wille 1982: 139; Peirce 2002: 66–67).

<sup>11</sup> Although the inscription reads HARTOIFA, the generally-accepted reading is HARTOLFR (Müller-Wille 1982: 139; Peirce 2002: 66-67).



oznaka između dviju okomitih linija (Müller-Wille 1982: 103, 112–116, 136).

Drugi mač iz Norveške potječe s nalazišta Gjersvik na zapadu zemlje (T. XIII/1–2). Već ga Petersen (1919: 129) navodi u popisu treće varijante tipa O koja se, kako je rečeno, u novije vrijeme priključuje tipu K. Ukraša ga svakako svrstava u istu skupinu s ovdje obrađenim mačevima. Mač je pronađen 1917. u paljevinskome grobu zajedno s kopljem. Osim opisanom ukrasom balčak je ukrašen i tordiranom i naroskanom srebrnom žicom koja se nalazi (ili se nalazila) između reznjeva krune, između krune i baze te na dršku odmah ispod baze jabučice. Sačuvane su i zakovice u krajevima nakrsnice, kao i na donjoj strani baze jabučice. Na gornjoj strani nakrsnice ne nalazi se natpis, nego vitica poput one na bočnim stranama. Na damasciranome sječivu nalazi se signatura ULFBERHT, kao i mrežasti znak (Müller-Wille 1982: 139).

U kolekciji Wallace u Londonu nalazi se mač tipa K (T. XIII/4) za koji ne postoje precizniji podaci o nalazištu, no uvijek se navodi da potječe iz Francuske. Do 1870. bio je dio kolekcije Nieuwerkerke. Između reznjeva krune izvorno se nalazila metalna žica. Nakrsnica je tauširana tankom žicom, no drugoga ukrasa nema. Na donjoj strani nakrsnice nalazi se ukras identičan onomu na maču iz Ballinderryja, a na gornjoj su dvije rupe za zakovice i između njih natpis HLITER koji možda treba čitati HILTIPREHT kao na maču iz Gravråk (Müller-Wille 1976: 156; 1982: 139; Ellis Davidson 1998: 81; Peirce 2002: 63–64).

Pri građevinskim je radovima 1913. na lokalitetu Liepe nedaleko od Berlina pronađen mač (T. XIII/3) kojemu su nakrsnica i baza jabučice ukrašeni na identičan način kao u navedenih primjeraka. Jabučica mača nedostaje, no pretpostavlja se da je izvorno bila tipa K. Za bazu je nekoć bila pričvršćena zakovicama. Na gornjoj strani nakrsnice nalazi se ponešto oštećen natpis HILTIPREHT s križem iza slova T. Sječivo je mača damascirano (Müller-Wille 1982: 139).

Posljednji je slučaj nalaz mača iz Nizozemske (T. XIV) iskopan bagerom pri kopanju pijeska uz Rajnu blizu mjesta Elst.<sup>12</sup> Sačuvan je u cijelosti, no ukras nakrsnice i dijela jabučice teško je oštećen. Jabučica i nakrsnica ukrašene su platiranjem srebrom, a zatim su na bočnim stranama baze i nakrsnice urezane vitice poput onih na ostalim mačevima i ispunjene nijelom. Reznjevi jabučice ukrašeni su urezanim biljnim motivima, a međusobno su odijeljeni dvostrukom tordiranom srebrnom žicom. Između krune i baze jabučice nalazi se naroskana srebrna

The sword from Gravråk (Pl. XII), near Trondheim, is the northernmost sword in this group, and also the northernmost type K sword in general. It was discovered in 1864 in an incineration grave below a mound, and it was found together with a knife, shears and iron trident, and parts of a bronze dish which was part of precise scale set. The sword is adorned by intarsia and tendrils as on the preceding example, although there are no engraved ornaments on the crown. The pommel crown is fastened to the base with two rivets whose heads are Pl.d with bronze sheeting. The upper side of the cross-guard bears the inscription HILTIPREHT, originally incorrectly read as HLITER and cited as such in the earlier literature. After the letter T, a cross may have also been engraved. Both ends of the cross-guard have rivet holes. Both sides of the blade have a shallow fuller, in which, on one side, the letters LFB can be discerned, the remains of the inscription ULFBERHT, while on the other side there is a grid work emblem between two vertical lines (Müller-Wille 1982: 103, 112–116, 136).

The second sword from Norway came from the Gjersvik site in the western part of the country (Pl. XIII/1–2). Petersen (1919: 129) already cited it in his list of the third variant of type O which, as stated, has been joined with type K in recent years. The ornamentation certainly places it within the same group as the swords considered here. The sword was discovered in 1917 in an incineration grave together with a spear. Besides the ornamentation described, the hilt is also ornamented with a twisted and plaited silver wire that is (or was) between the lobes of the crown, between the crown and the base and on the grip immediately below the pommel base. The rivets at the ends of the cross-guard and on the lower side of the pommel base have also been preserved. There is no signature on the lower side of the cross-guard, rather a tendril like those on the lateral sides. The damascened blade bears the inscription ULFBERHT, and a grid work emblem (Müller-Wille 1982: 139).

There is a type K sword in the Wallace Collection in London (Pl. XIII/4), for which there are no precise data on its find-site, but it is always denoted as coming from France. Until 1870 it was part of the Nieuwerkerke Collection. Originally there was a metal wire between the crown lobes. The cross-guard is inlaid with a thin wire, but there are no other ornaments. On the lower side of the cross-guard there is ornamentation identical to that on the sword from Ballinderry, while on the upper side there are two rivet holes, and between them the inscription HLITER, which should perhaps be read as HILTIPREHT as on the sword from Gravråk (Müller-Wille 1976: 156; 1982: 139; Ellis Davidson 1998: 81; Peirce 2002: 63–64).

<sup>12</sup> Za mač iz Hrvatske s lokaliteta Zadvarje v. prethodno poglavlje.

žica, a s donje strane baze vidljive su dvije zakovice. Ukrašenice djelomično je sačuvan, i to na bočnim dužim stranama. Na sječivu se s jedne strane nalazi ostatak damasciranoga ukrasa u obliku obrnutoga slova S (Ypey 1982: 48–50).

O spomenutim mačevima više je puta pisano i veći dio njih dobro je poznat u literaturi. “Prinova” je svakako mač iz Zadvarja čiji su ukras i natpis otkriveni tek prije nekoliko godina prilikom posljednjega konzervacijskog zahvata (Piteša 2001: 347). Franačko je podrijetlo navedenih primjeraka neupitno. Na njega upućuju i spomenuti ukras i natpisi kako na nakrsnicama tako i na sječivima koji odaju osobna imena s franačkoga područja (Müller-Wille 1982: 144, n. 92a; Steuer 1987: 153). Ukupno se četiri različita imena nalaze na nakrsnicama: HILTIPREHT, HARTOLFR, HLITER i ...A...ERTU..., a jedino je posljednje ime, iako je najvjerojatnije franačko, bilo napisano na latinskome (završetak *-ertus*) (Piteša 2001: 349–352). Imena na nakrsnicama najvjerojatnije predstavljaju majstora koji je izradio balčak ili je s njegovom izradom nekako drugačije bio povezan (Müller-Wille 1982: 145; Ypey 1982: 52; Ellis Davidson 1998: 82; Oakeshott 2002: 4). No neki autori i dalje zastupaju stariju tezu prema kojoj je riječ o imenu vlasnika mača (Vinski 1981: 20; Milošević 2000a: 357; Piteša 2001: 349). U prilog prvoj tezi ide i brončana nakrsnica iz Exetera, vjerojatno iz 10. stoljeća, na čijoj se gornjoj strani nalazi natpis EOFRI MEF(ECIT) (Müller-Wille 1982: 145; Ellis Davidson 1998: 80). Teza o imenu samoga mača uglavnom je odbačena jer bez obzira na to što ime HILTIPREHT znači otprilike ‘sjajan u borbi’, ime bi mača vjerojatno stajalo na donjoj strani nakrsnice, prema sječivu, a i druga imena pokazuju da je riječ o čovjeku (Ypey 1982: 52). Najnovije je mišljenje L. Mareka (2005: 56) koji povezuje element PREHT s njemačkom riječju *Pracht* (‘sjaj, raskoš’) i smatra da se HILTIPREHT odnosi na majstora koji je ukrašio balčak, dok bi HARTOLFA bilo ime obrtnika (iako Marek ne navodi preciznije o kojemu je obrtniku riječ, pretpostavljam da se radi o izrađivaču balčaka). Valja svakako istaknuti i velike sličnosti u obliku pojedinih slova i dijelova natpisa. Tako je na mačevima iz Ballinderryja, Gravråka i Liepe gotovo identičan završetak dijela natpisa s lijeve strane trna gdje je slovo I redovito manje od susjednih mu slova T i P. Slovo je R pak vrlo slično na mačevima iz Liepe, Gravråka i Zadvarja, pogotovo na potonjim dvama mačevima.

Mačeve iz Gravråka, Gjersvika i Ballinderryja Müller-Wille (1982: 147) svrstava među starije primjerke sa signaturom ULFBERHT na sječivu iz vremena oko 800. godine i prve polovice do sredine 9. stoljeća. U prilog ranoj dataciji mača iz Gravråka ide i sam oblik njegove krune koja se sastoji od poviše-

During construction works at the Liepe site, near Berlin, in 1913, a sword (Pl. XIII/3) was discovered on which the cross-guard and pommel base are ornamented identically as on the aforementioned examples. The sword’s pommel is missing, but it is assumed to have originally been type K. It was formerly fastened to the base by rivets. The somewhat damaged inscription HILTIPREHT with a cross after the letter T is on the upper side of the cross-guard. The blade is damascened (Müller-Wille 1982: 139).

The last accidental find is a sword from the Netherlands (Pl. XIV) unearthed by an excavator digging sand on the banks of the Rhine near Elst.<sup>12</sup> It has been entirely preserved, but the ornamentation on the cross-guard and part of the pommel are severely damaged. The pommel and cross-guard are adorned with silver plating, while the lateral sides of the base and cross-guard are adorned with engraved tendrils like those on the remaining swords, and inset with niello. The pommel lobes are adorned with engraved plant motifs, and separated from each other by a double twisted silver wire. There is a plaited silver wire between the pommel crown and base, while two rivets are visible on the lower side. The cross-guard ornamentation is partially preserved on the lateral, longer sides. The remains of a damascened ornament shaped like an inverted letter S are on one side of the blade (Ypey 1982: 48–50).

Much has been written of these swords, and they are well-known in the literature. The “newcomer” is certainly the sword from Zadvarje, with its ornaments and inscription uncovered only a few years ago during the last conservation procedures (Piteša 2001: 347). The Frankish origins of the aforementioned examples are irrefutable. This is indicated by the aforementioned ornamentation and inscriptions on the cross-guards and blades, which indicate personal names from Frankish territory (Müller-Wille 1982: 144, n. 92a; Steuer 1987: 153). There are a total of four different names on the cross-guards: HILTIPREHT, HARTOLFR, HLITER and ...A...ERTU..., and only the last name, although probably Frankish, was written in Latin (with the ending *-ertus*) (Piteša 2001: 349–352). The names on the cross-guards indicate the swordsmiths who either made the hilt or was somehow involved in its production (Müller-Wille 1982: 145; Ypey 1982: 52; Ellis Davidson 1998: 82; Oakeshott 2002: 4). However, some scholars continue to uphold the older view according to which these are the names of the owners of the swords (Vinski 1981: 20; Milošević 2000a: 357; Piteša 2001: 349). The first hypothesis is supported by the bronze cross-guard from Exeter, probably from the tenth century, on which the upper side bears the inscription EOFRI

<sup>12</sup> For the sword from the Croatian Zadvarje site, see previous section.

noga središnjeg režnja, zatim od dvaju uskih te na kraju od dvaju bočnih režnjeva koji još podsjećaju na merovinske završetke jabučica u obliku životinjskih glava (Müller-Wille 1982: 114). O starijoj tradiciji govore i zakovice na nakrsnicama mačeva iz Gravråka, Gjersvika i Francuske (Müller-Wille 1976: 42). Jabučicu oblikovanu slično onoj iz Gravråka ima jedan mač s farme Ostby u Norveškoj (T. XV/1) koji također ide u prilog ranijoj dataciji (Peirce 2002: 68–69). Njegovi su bočni režnjevi izduženi, a gornja im je ploha blago valovito zakrivljena tako da u potpunosti podsjećaju na posebni tip 1.<sup>13</sup> Između njih i središnjega režnja dvije su vrlo tanke plohe, pa se tu radi tek o naznaci podjele krune na pet dijelova kao kod tipa K. Zato smatram da taj mač treba pripisati posebnom tipu 1, što također potvrđuje povezanost tipa K sa starijim tipovima mačeva.

Irski primjerci mačeva tipa K imaju pak relativno čvrsti *terminus ante quem non*, ali samo za vrijeme dolaska u Irsku, ne i za vrijeme proizvodnje. To je godina 795. kad je u pisanim izvorima zabilježen prvi vikinški napad na Irsku, pa su mačevi tamo najvjerojatnije stigli tijekom prve polovice 9. stoljeća sa svojim vlasnicima iz današnje Norveške (Menghin 1980: 260).

Mač iz Zadvarja Vinski je (1983–1984: 189) smatrao mlađim primjerkom tipa K te je cijelu grobnu cjelinu datirao u drugu polovicu 9. stoljeća. Ta je datacija ipak prekasna i treba je pomaknuti na početak 9. stoljeća (Piteša 2001: 354). Iz cijele obrađene skupine najbliža mu je paralela mač iz Ballinderryja. Ista datacija vrijedi i za nizozemski primjerak koji je pri objavi datiran u sredinu i prema drugoj polovici 9. stoljeća (Ypey 1982: 52).

Može se zaključiti da se radi o skupini usko povezanih mačeva ili, bolje rečeno, balčaka koji potječu iz iste franačke radionice ranoga 9. stoljeća. Barem četiri mača (irski i norveški) prošla su kroz vikinške ruke, a s njima se možda mogu povezati i mačevi iz Francuske i Nizozemske. No to su samo nagađanja, naročito kad se radi o prvome maču. Mač iz Njemačke pronađen je na nekadašnjemu zapadnoslavenskom području gdje nisu rijetki karolinški mačevi (Müller-Wille 1982: 139), dok onaj iz Zadvarja potječe s graničnoga hrvatsko-neretljanskog područja. Zanimljivo je da jedna vremenski relativno usko ograničena grupa pokazuje priličnu različitost u oblikovanju jabučica. Tako je kruna jabučice iz Gravråka oblikovana još vrlo arhaično, krune mačeva iz Zadvarja, Irske, Nizozemske i Francuske dosta su slične i predstavljaju “čisti” tip K, dok kruna mača iz Gjersvika ima sličnosti s

MEF(ECIT) (Müller-Wille 1982: 145; Ellis Davidson 1998: 80). The hypothesis on a name for the sword itself was rejected, for regardless of the fact that the name HILTIPREHT roughly means “splendid in battle”, the name of the sword would probably be written on the lower side of the cross-guard, facing the blade, while other names indicate that these are the names of actual people (Ypey 1982: 52). The most recent view was expressed by L. Marek (2005: 56), who linked the element PREHT with the German word *Pracht* (‘splendour, luxury’), and deemed that HILTIPREHT pertained to the artisan who adorned the hilt, while HARTOLFA would be the name of the smith (although Marek did not specify which smith, I assume that he meant the maker of the hilt). It is certainly worth stressing the great similarities in the form of individual letters and parts of inscriptions. Thus, on the swords from Ballinderry, Gravråk and Liepe, there is an almost identical ending to the part of the inscription on the left side of the tang, where the letter I is regularly smaller than the neighbouring letters T and P. The letter R is very similar to the swords from Liepe, Gravråk and Zadvarje, particularly on the latter two swords.

The swords from Gravråk, Gjersvik and Ballinderry were classified by Müller-Wille (1982: 147) among the older examples with the signature ULFBERHT on the blade to the time around 800 and the early to mid-ninth century. The early dating of the sword from Gravråk is also supported by the shape of its crown, which consists of a raised central lobe, and then two narrow ones, and then the lateral lobes at the ends which recall the Merovingian pommel ends shaped like animal heads (Müller-Wille 1982: 114). The rivets on the cross-guards of the swords from Gravråk, Gjersvik and France also speak of an older tradition (Müller-Wille 1976: 42). A pommel shaped similarly to the one from Gravråk can be found on a sword from the Ostby farm in Norway (Pl. XV/1) which also supports an earlier dating (Peirce 2002: 68–69). Its lateral lobes are extended, and their upper surfaces are slightly warped in a wave pattern so that they fully recall distinctive type 1.<sup>13</sup> Between them and the central lobe there are two very thin surfaces, so this is only an indication of the division of the crown into five parts at with type K. This is why I believe this sword should be ascribed to distinctive type 1, which also confirms the link between type K and older sword types.

The Irish examples of type K swords have a relatively firm *terminus ante quem non*, but only for their time of arrival in Ireland, but not their time of production. This is the year 795, when the Vikings first at-

<sup>13</sup> Usp. npr. mač iz Suffelweihersheima u Njemačkoj (Kat. Nr. 98 u Geibig 1991).

<sup>13</sup> Cf. for example, the sword from Suffelweihersheim in Germany (cat. no. 98 in Geibig 1991).



tipom O. Potonji primjer također pokazuje opravdanost vezanja nekadašnje varijante III tipa O uz tip K, kao i nužnost analize svih dijelova mača pri njegovu tipološko-kronološkom određenju, na što upozorava Geibig (1991: 20).

## 2. CIRKOVLJAN – DIVEN

Ranije opisani mač iz Cirkovljana blizu Preloga definirao je Vinski (1977–1978: 176, n. 192) kao “posebni tip 1, prijelazni oblik prema tipu K”. Vrijeme njegove izrade datirao je u drugu polovicu 8. stoljeća, a sam grob s mačem oko 800. godine. Kao najbližu paralelu Vinski (1981: 15, 44, n. 38) navodi mač iz karolinški utjecane slavenske nekropole kod Hainbucha u Donjoj Austriji (T. XV/2–3). Taj je mač unatoč petodijelnoj kruni ipak puno bliži starijim tipovima, poput posebnoga tipa 1 te tipova Haldenegg i Mannheim, dok je s mačem iz Cirkovljana usporediv jedan drugi austrijski primjerak, onaj iz Dietachdorfa (T. XVI/1–2). Mač iz Dietachdorfa ima također krunu jabučice s pet režnjeva od kojih je središnji najveći, dok su krajnji bočni vrlo mali. Baza jabučice i nakrsnica također su vrlo slične cirkovljanskomu maču (iako su mnogo duže), dok je sječivo mača iz Dietachdorfa ipak dosta šire. Prema Szameitu (1986: 394, T. 7) mač iz Cirkovljana kronološki bi stajao između mača iz Hainbucha i onoga iz Dietachdorfa. Uz mačeve iz Crikovljana i Dietachdorfa donekle se može svrstati i mač iz Turaide u Latviji (T. XVI/3) sa slično oblikovanom krunom jabučice (Ebert 1913: 554, Abb. 41). Kao što je već rečeno, prijelazni oblik između posebnoga tipa 1 i tipa K, kako ga navodi Vinski, treba potpuno pripisati tipu K (Geibig 1991: 46), a ovdje spomenuti mačevi samo su jedna od nekoliko njegovih ranijih varijanata. Nastali su krajem 8. stoljeća i vjerojatno ubrzo nakon toga dospjeli u zemlju (Tomičić 1984: 223; Szameit 1986: 396; Geibig 1991: 142).

## 3. HAITHABU

S toga sjevernonjemačkog lokaliteta (u ranome srednjem vijeku danski trgovački grad Hedeby) potječe ukupno tridesetak nalaza srednjovjekovnih mačeva, no većinom je riječ tek o dijelovima balčaka, često loše ušćevanima. Među njima su i dvije željezne, korozijom znatno oštećene, krune jabučica tipa K. Na jednoj se nazire pet režnjeva, a na drugoj sedam. Obje imaju s donje strane vidljive utore za zakovice za spajanje na bazu jabučice (Geibig 1991: Kat. Nr. 284 i 299).

tacked Ireland according to written sources, so the swords probably arrived there during the first half of the ninth century with their owners from today's Norway (Menghin 1980: 260).

Vinski (1983–1984: 189) deemed the sword from Zadvarje a younger example of type K, and he dated the entire grave unit to the latter half of the ninth century. This dating is nonetheless too late and should be moved to the beginning of the ninth century (Piteša 2001: 354). Out of the entire analyzed group, its closest parallel is the sword from Ballinderry. The same dating applies to the Dutch example, which, when published, was dated to the middle and second half of the ninth century (Ypey 1982: 52).

One may conclude that this is a group of closely tied swords or, better stated, hilts which originated in the same Frankish workshop of the early ninth century. A minimum of four swords (Irish and Norwegian) passed through Viking hands, and the swords from France and the Netherlands may be linked to them. But this is only conjecture, particularly in the case of the first sword. The sword from Germany was found in the former West Slav territory, where Carolingian swords are not uncommon (Müller-Wille 1982: 139), while the one from Zadvarje came from the Croatian-Neretva border territory. It is interesting that one chronologically relatively narrow group indicates considerable difference in the formation of the pommel. Thus, the pommel crown from Gravrāk was formed rather archaically, the sword crowns from Zadvarje, Ireland, the Netherlands and France are rather similar and constitute “pure” type K, while the sword crown from Gjersvik bears similarities to type O. The latter example also demonstrates the justification for linking the former variant III of type O with type K, as well as the necessity of analysis of all parts of a sword when making a typological and chronological designation, as pointed out by Geibig (1991: 20).

## 2. CIRKOVLJAN-DIVEN

The earlier described sword from Cirkovljan, near Prelog, was defined by Vinski (1977–1978: 176, n. 192) as “distinctive type 1, transitional form toward type K”. The time of its production has been dated to the latter half of the eighth century, while the grave itself containing the sword to roughly the year 800. Vinski (1981: 15, 44, n. 38) cites as the closest parallel the sword from the Carolingian-influenced Slavic necropolis at Hainbuch in Lower Austria (Pl. XV/2–3). This sword, despite its five-lobed crown, is nonetheless much more akin to the older types, such as distinctive type 1 and Haldenegg and Mannheim types, while the sword from Cirkovljan is comparable to another Austrian type, the one from Dietachdorf

Druga dva nalaza iz Haithabua mnogo su značajnija i poznatija. Riječ je o dvama raskošno ukrašenim mačevima tipa K s petodijelnom jabučicom iz groba u brodu nedaleko od južnih vrata naselja. Ispod broda prekrivenoga tumulom nalazila se grobna komora podijeljena na dva manja dijela (A i B) u kojoj se nalazio jedan ili dva pokojnika. U komori A pronađena su između ostaloga dva mača od kojih je mač Ab tipa K, a u komori B pronađen je jedan mač tipa K označen kao Bb.<sup>14</sup>

Sječivo mača Ab (T. XVII) bilo je pronađeno u više fragmenata kasnije spojenih zajedno, no vrh mu nedostaje. Jabučica je izrađena iz jednoga komada, a kruna i baza odijeljene su tek uskim žlijebom. Donja strana baze te gornja i donja strana nakrsnice obložene su tankim mjedenim limom, dok su bočne strane baze i nakrsnice te režnjevi ukrašeni tauširanjem tankom mjedenom žicom, tek djelomično sačuvanom. Između režnjeva nalazi se dvostruka tordirana mjedena žica (Müller-Wille 1976: 37). Što se tiče ukrasa tauširanjem, paralele maču Ab predstavljaju svi mačevi opisani u prethodnome poglavlju, kao i mač Bb iz Haithabua, no njihov cjelokupni ukras ipak je bitno drugačiji. Najbliža je paralela mač iz groba 6 iz Biskupije čiji je balčak ukrašen na gotovo identičan način (*ibid.* 39, 42). Oba mača također imaju prilično široko sječivo, dok je nakrsnica onoga iz Biskupije tek nešto masivnija. Na ovome mjestu valja spomenuti i mač s nalazišta Stolac – Čairi koji, iako neukrašen, ima slično oblikovanu krunu jabučice s pet režnjeva gotovo jednake visine i prilično široko sječivo. Mač iz Atzenbrugga (T. XVIII) u Austriji ima također gotovo ravnu gornju liniju krune, iako je kod njega podjela na režnjeve tek naznačena plitkim urezima (Szameit 1986: 387, 395, T. 3).<sup>15</sup>

Mač Bb (T. XIX–XX) jedan je od najraskošnijih primjeraka tipa K uopće. Jabučica je izrađena iz jednoga komada, a baza je od krune odijeljena tordiranim srebrnom žicom. I jabučica i nakrsnica u potpunosti su prekrivene tauširanjem tankom srebrnom žicom. Duže strane baze jabučice podijeljene su na pet, a nakrsnice na sedam polja međusobno odijeljenih dvostrukom naroskanom srebrnom žicom. Ista se žica nalazi i među režnjevima krune. Polja su, kao i režnjevi krune te gornja strana nakrsnice, ukrašena različitim urezanim motivima ispunjenima nijelom. Na dršku se nalaze slabo očuvani ostaci drvene oplate, a ispod jabučice te iznad nakrsnice i na proboj ukrašene obloge od pozlaćene bronce. Sječivo je iznimno dugo i široko s ostacima drvenih korica obloženih kožom koja je bila pri-

(Pl. XVI/1-2). The sword from Dietachdorf also has a pommel crown with five lobes, of which the middle lobe is the largest, while those at both ends are very small. The pommel base and the cross-guard are also very similar to the Cirkovljan sword (although much longer), while the blade on the sword from Dietachdorf is nonetheless considerably wider. According to Szameit (1986: 394, pl. 7), the sword from Cirkovljan would chronologically stand between the sword from Hainbuch and the one from Dietachdorf. Besides the swords from Crikovljan and Dietachdorf, one may also include the sword from Turaida in Latvia (Pl. XVI/3) to a certain extent, with its similarly formed pommel crown (Ebert 1913: 554, Abb. 41). As already stated, the transitional form between distinctive type 1 and type K, as specified by Vinski, should be fully ascribed to type K (Geibig 1991: 46), while the swords mentioned here are one of several earlier variants. They emerged at the end of the eighth century and probably made their way into the country soon afterward (Tomičić 1984: 223; Szameit 1986: 396; Geibig 1991: 142).

### 3. HAITHABU

This North German site (the Danish mercantile town Hebedy in the Early Middle Ages) has yielded a total of roughly thirty medieval sword finds, but most of these are only parts of hilts, often poorly preserved. Among them there are two iron, considerably corroded, type K pommel crowns. Five lobes can be discerned on one, and seven on the other. Both have visible slots on the lower sides that were used to fasten them to the pommel base (Geibig 1991: cat. no. 284 and 299).

Two other finds from Haithabu are much more important and much better known. These are two luxuriously ornamented type K swords with five-lobed pommels from the grave in the ship not far from the settlement's southern gate. Beneath the ship, covered by a tumulus, there was a grave chamber divided into two smaller sections (A and B) in which there was one or two deceased individuals. Among other things, two swords were discovered in chamber A, of which sword Ab is type K, while a type K sword designated as Bb was discovered in chamber B.<sup>14</sup>

The blade of sword Ab (Pl. XVII) was found in several fragments that were later re-assembled, but the tip is missing. The pommel was made of a single piece, and the crown and base are only divided by a groove. The lower side of the base and the upper and lower sides of the cross-guard are covered with thin brass sheeting, while the lateral sides of the base and

<sup>14</sup> Za detalje o grobu v. Müller-Wille (1976).

<sup>15</sup> Taj je mač u ranijoj literaturi bio pogrešno klasificiran kao tip D i povezan s mačem iz Blatnice (Friesinger 1972: 46).

<sup>14</sup> For details on the grave, see Müller-Wille (1976).



čvršćena zakovicama (Müller-Wille 1976: 66–67). Iako jabučica mača oblikom podsjeća na onu mača iz Kilmainhama i tauširanje na balčacima mačeva nije rijetkost, cjelokupni ukras ovoga mača ipak je jedinstven. Djelomične paralele nalaze se tek na maču iz Wiskiautena (*ibid.* 78). Milošević (2000: 131) navodi mač Bb kao paralelu maču iz Zadvarja i čak smatra da dolaze iz iste radionice. Ipak, osim tauširanja srebrnom žicom i urezanoga sidrastog križa ta dva mača nemaju mnogo dodirnih točaka. Ukras mača Bb iz Haithabua Müller-Wille (1976: 72, 77) veže uz skandinavski stil Borre, iako postoje mnoge paralele kako u inzularnoj tako i u karolinškoj umjetnosti. Pozlaćena brončana oplata na donjemu i gornjemu dijelu drška toga mača također je jedinstven slučaj među mačevima tipa K. Smatra se da se na njih odnosi pojam *vétrrim* (i možda *valbost*) koji se susreće u staronordijskim tekstovima (Ellis Davidson 1998: 138, 178–180).

Petersen je (1919: 110) mačeve Ab i Bb smatrao franačkima, bliskima tipu O, te ih je datirao oko 900. godine. Dataciju mača Bb Müller-Wille (1976: 77) pomiče u sredinu 9. stoljeća kad se javlja stil Borre te zbog istoga razloga smatra da potječe iz južne ili zapadne Skandinavije, a možda i iz samoga Haithabua. Geibig (1991: 142) drži da je taj mač ipak mlađi, iz druge polovice 9. stoljeća, a vjerojatno čak iz njegove zadnje četvrtine. Pritom je jedna od važnijih odrednica jednodijelna jabučica, što je kasnija varijanta izvorno dvodijelne jabučice kakva je i kod tipa K. Mač Ab Müller-Wille (1976: 43) datira prilično široko, u 9. stoljeće, no zbog srodnih mačeva, prije svega onoga iz Biskupije, vjerojatno je riječ o ranijemu razdoblju 9. stoljeća. Sam se grob pak datira na kraj 9. ili na početak 10. stoljeća (Jankuhn 1976: 143; Müller-Wille 1976: 141).

#### 4. BISKUPIJA – CRKVINA I MAČEVI TIP A K U HRVATSKOJ

Mačeve iz grobova 1 i 6 s Crkvine u Biskupiji kod Knina Vinski je (1981: 20–21) smatrao starijim oblicima mačeva tipa K proizvedenih u kasnijemu 8. stoljeću, a u grob dospjelih početkom 9. stoljeća. Mač iz groba 8 zbog duže nakrsnice drži mlađim te ga datira prema sredini 9. stoljeća. Menghin (1980: 254) pak govori o horizontu “Biskupija – Crkvina” koji datira u prvu polovicu 9. stoljeća. Međutim mač iz groba 6, a uz njega i mač iz Koljana, datira nakon 820. godine na temelju slikovnih prikaza mačeva u karolinškim minijaturama. Naime oba ta mača pronađena su s djetelinastim okovima garniture za nošenje mača, a takvi se okovi pojavljuju primjerice u Lotarovu evanđelistaru s kraja prve po-

cross-guard, and the lobes, are adorned with a thin, inlaid brass wire, only partially preserved. A twisted brass wire is set between the lobes (Müller-Wille 1976: 37). As to the inlay ornamentation, a parallel to sword Ab includes all of the swords described in the preceding section, and sword Bb from Haithabu, but their overall ornamentation is nonetheless essentially different. The closest parallel is the sword from grave 6 in Biskupija, on which the hilt is almost identically ornamented (*ibid.* 39, 42). Both swords also have a rather wide blade, while the cross-guard on the one from Biskupija is only slightly more massive. At this point it would be worthwhile also mentioning the sword from the Stolac-Čairi site, which, although unadorned, has a very similarly formed pommel crown with give lobes of almost equal height and a rather wide blade. The sword from Atzenbrugg (Pl. XVIII) in Austria also has an almost flat upper line on the crown, although on it the division into lobes is only indicated by shallow incisions (Szameit 1986: 387, 395, pl. 3).<sup>15</sup>

Sword Bb (Pl. XIX-XX) is one of the most luxurious examples of type K in general. The pommel is made of a single piece, while the base is separated from the crown by a twisted silver wire. Both the pommel and the cross-guard are fully covered by a thin inlaid silver wire. The longer side of the pommel base is divided into five, while the cross-guard into seven fields separated from each other by a doubly plaited silver wire. The same wire can be found among the crown lobes. The fields are, like the crown lobes and the upper side of the cross-guard, ornamented with variously engraved motifs inset with niello. There are poorly-preserved remains of a wooden grip cover, while below the pommel and above the cross-guard there are repoussé ornamented covers made of gilded bronze. The blade is exceptionally long and wide with the remains of a wooden sheath covered with leather that was fastened by rivets (Müller-Wille 1976: 66–67). Although the shape of the sword’s pommel recalls the pommel on the sword from Kilmainham, and intarsia on hilts is not rare, the overall ornamentation is nevertheless unique. Partial parallels can only be found on the sword from Wiskiauten (*ibid.* 78). Milošević (2000: 131) cited sword Bb as a parallel to the sword from Zadvarje, and even believed that they came from the same workshop. Even so, besides the inlaid silver wire and the engraved anchor cross, these two swords do not have much in common. The ornamentation on sword Bb from Haithabu was linked by Müller-Wille (1976: 72, 77) to the Scandinavian Borre style, even though there are many parallels

<sup>15</sup> In the older literature, this sword was mistakenly classified as type D and associated with the sword from Blatnica (Friesinger 1972: 46).

lovice 9. stoljeća, ali ih nema u Stuttgartscome psaltiru koji se datira oko 820. godine (Menghin 1980: 261, 266–267). Slikovni prikazi ipak ne mogu služiti za precizno kronološko određivanje, nego samo kao *terminus ante quem* za pojavu određenih karakteristika (Geibig 1991: 143), a to što određeni detalj nije na njima prikazan ne znači nužno da tada nije postojao. Usput treba napomenuti da se prikazi koje Menghin spominje mogu odnositi na okove mača iz Koljana, dok su od okova iz biskupijskoga groba 6 sasvim različiti. U novije se vrijeme mač iz groba 8 u Biskupiji, kao i mač iz Koljana, datiraju u rano 9. stoljeće (Milošević 2000: 130; Piteša 2001: 354), dok se trajanje horizonta Biskupija – Crkvina izjednačava s horizontom Blatnica – Mikulčice i datira u zadnju trećinu 8. i prvu trećinu 9. stoljeća (Petřinec 2006: 26). To samo potvrđuje ranu dataciju mačeva tipa K iz Dalmacije koji su prema tome jedni od najstarijih mačeva tipa K uopće. Iz toga slijedi da se isto može reći i za mačeve iz Prozora i Podsuseda čije jabučice pokazuju zajedničke karakteristike s mačem iz groba 1 u Biskupiji, dok dio reznjeva podsusedskoga mača pokazuje sličnosti i s koljanskim reznjevima. Preciznije uspoređivanje prvih triju mačeva ipak je otežano zbog dosta lošega stanja njihovih jabučica.

Valja spomenuti i mač iz groba 90 južno od druge crkve u Mikulčicama koji se također veže za spomenuti horizont. To je, prema dostupnoj mi literaturi, jedini mač tipa K s krunom jabučice razdijeljenom na šest reznjeva (T. XXI). Riječ je također o jedinome maču tipa K s područja nekadašnje Velikomoravske države.<sup>16</sup> Ukraš balčaka, ako ga je i bilo, nije sačuvan, dok je prilično dobro očuvana oplata drška mača od bukova drva omotanoga platnom i kožom. Poulik (1957: 271–274) datira taj grob i mač iz njega u drugu četvrtinu 9. stoljeća.

Od datacije i podrijetla vjerojatno je teže odrediti način na koji je neki mač stigao na područje na kojemu je pronađen i svaki odgovor na to pitanje, bio on više ili manje vjerojatan, uvijek će ostati samo u domeni pretpostavke. Najčešće se spominju trgovina, pljačka, darovi i slično. Trgovinu oružjem, barem što se vikinškoga područja tiče, osporava jedino A. Stalsberg (2008: 21–23) koja smatra da su vjerojatnije opcije krijumčarenje, pljačka, plijen i otkupnina jer za trgovinu nema potvrde (vjerojatno pismene?), a i zabranjuje ju nekoliko karolinških

<sup>16</sup> Marek (2005: 24) spominje i mač iz Detve u Slovačkoj kao primjerak tipa K pozivajući se na Ruttkaya (1975: 136–138; 1976: 248–250). U ranijoj je pak literaturi ovaj mač bio klasificiran kao tip H. Međutim Ruttkay nigdje ne spominje tip K, nego ističe nemogućnost preciznije klasifikacije toga mača prema Petersenu navodeći tek sličnost krune jabučice s Petersenovim tipom Y. U klasifikaciji koju sam predlaže Ruttkay (1976: 250) taj mač svrstava u tip IV označavajući ga kao lokalni proizvod druge polovine 9. stoljeća.

both in insular and Carolingian arts. The gilded bronze plating on the lower and upper portions of the grip on this sword is a unique case among type K swords. It is believed that the term *vétrim* (and perhaps *valbost*), which can be found in Old Norse texts (Ellis Davidson 1998: 138, 178–180) apply to them.

Petersen (1919: 110) considered swords Ab and Bb Frankish, akin to type O, and he dated to roughly 900. Müller-Wille (1976: 77) moved the dating of sword Bb to the mid-ninth century, when the Borre style appeared, and for this same reason he believed that it originated in southern or western Scandinavia, and perhaps from Haithabu itself. Geibig (1991: 142) holds that this sword is nonetheless somewhat younger, from the second half of the ninth century, and probably even from its last quarter. Here one of the most important determinants is the single-piece pommel, which is a later variant of the originally two-piece pommel as with type K. Müller-Wille (1976: 43) dated sword Ab rather broadly, to the ninth century, but due to similar swords, above all the one from Biskupija, it probably belongs to an earlier period of the ninth century. The grave itself dates to the end of the ninth or early tenth century (Jankuhn 1976: 143; Müller-Wille 1976: 141).

#### 4. BISKUPIJA-CRKVINA AND TYPE K SWORDS IN CROATIA

The swords from graves 1 and 6 in Crkvina, at Biskupija near the town of Knin, were considered by Vinski (1981: 20–21) older forms of type K swords produced in the late eighth century, and they made their way into the graves in the early ninth century. He considered the sword from grave 8 younger due to its longer cross-guard, and dated it to the middle of the ninth century. Menghin (1980: 254), on the other hand, spoke of the “Biskupija-Crkvina” horizon, which he dated to the first half of the ninth century. However, he dated the sword from grave 6, and alongside it the sword from Koljani, to the time after 820 based on pictorial portrayals of the swords in Carolingian miniatures. Namely, both of these swords were found with cloverleaf fitting mounts for holding the sword, and such mounts appeared in the Gospels of Lothair from the end of the first half of the ninth century, while there are none in the Stuttgart Psalter, dated to about 820 (Menghin 1980: 261, 266–267). The illustrations may not, however, serve the purpose of precise chronological determination, rather only as a *terminus ante quem* for the appearance of certain features (Geibig 1991: 143), and the fact that a given detail is not on them does not mean that it did not exist. It should be noted that the portrayals mentioned by Menghin may

kapitulara i edikata između 779. i 864. godine. Neki su od njih općeniti, dok se neki precizno odnose na Slavene, Avare, odnosno Normane. Suprotno tomu mišljenju više autora smatra da je oružje bilo jedan od najvažnijih trgovačkih artikala, posebno franačko oružje kojim se trgovalo na sjeveru još od merovinških vremena (Jankuhn 1976: 206; Steuer 1987: 155; Martens 2004: 136). Pritom valja računati i na “crno tržište”, mogućnost koju ostavlja i A. Stalsberg unatoč negiranju postojanja legalne trgovine. Ipak, kvalitetnije oružje, poput nekih raskošnije ukrašenih mačeva ili sječiva sa signaturem ULFBERHT, vjerojatno se nije uvozilo pa potom slobodno prodavalo na sajmištima u trgovačkim središtima poput Birke ili Haithabua, nego ga je vladar uvezio za sebe i svoju pratnju jednako kao i neke druge luksuzne predmete s karolinškoga područja, naprimjer staklo (Steuer 1987: 194). Uz trgovinu i pljačku, odnosno ratni plijen, svakako valja računati i na domaću proizvodnju oružja na sjeveru, prije svega u Norveškoj gdje je pronađeno oko 3000 mačeva iz vikinškoga razdoblja, od čega 23 mača tipa K (Martens 2004: 127).

Na hrvatskome je području situacija ipak ponešto drugačija. Nađena su ukupno, kao što je ranije rečeno, samo 24 karolinška mača, iako ni teritorij na kojemu su nađeni nije posebno velik. Osim u Hrvatskoj veća koncentracija mačeva tipa K nalazi se još u Norveškoj (23 komada), Njemačkoj (14 komada) i Irskoj (8 komada).<sup>17</sup> Razlika je međutim u činjenici da u Hrvatskoj mačevi tipa K čine nešto više od polovice ukupnoga broja karolinških mačeva. Vinski je (1981: 37, 53, n. 123) karolinške mačeve u Hrvatskoj smatrao darovima vladajućemu sloju ili dragocjenom trgovačkom robom. Spominje također mogućnost postojanja putujućih kovača – oružara koji su možda slijedili rane franačke misionare i onda izrađivali dio mačeva i na hrvatskome tlu, a zbog nekoga su razloga davali prednost tipu K. Mogućnost plijena drži malo vjerojatnom. Mač iz Podsuseda isti autor dovodi u vezu s onima u Dalmaciji, no drži da je u grob vjerojatno dospio u vrijeme Ljudevita Posavskoga ili Ratimira. Mač iz Cirkovljana pak gleda odvojeno od navedenih, a zajedno s mačem označenim kao posebni tip 1 iz Medvedičke. Oba primjerka veže uz pohode Karla Velikoga protiv Avara krajem 8. stoljeća (Vinski 1981: 26, 32). Valja spomenuti i tezu T. Aralice (2006: 66) koji u maču iz Podsuseda vidi odraz širenja Hrvatske u vrijeme kralja Tomislava. Također smatra da je taj mač, kao i koljanski, izrazito kasnoga obilježja i oba datira na početak 10. stoljeća. Međutim autor ne navodi nikakve argumente u prilog svojoj tvrdnji niti podrobnije objašnjava što smatra “kasnim obilježjem”. Isto

pertain to the sword mounts from Koljani, while the mounts from Biskupija grave 6 are entirely different. In more recent times, the sword from grave 8 in Biskupija, like the sword from Koljani, have been dated to the early ninth century (Milošević 2000: 130; Piteša 2001: 354), while the duration of the Biskupija-Crkvina horizon is equated with the Blatnica-Mikulčice horizon and dated to the last third of the eighth and the first third of the ninth century (Petrinec 2006: 26). This only confirms the early dating of type K swords from Dalmatia, which are therefore some of the oldest type K swords in general. It thereby follows that the same may be said of the swords from Prozor and Podsused, with pommels exhibiting common features with the sword from grave 1 in Biskupija, while a part of the lobes on the Podsused swords indicate similarities with the Koljani lobes. A more precise comparison of the first three swords has nonetheless been rendered difficult due to the rather poor condition of their pommels.

Also worth consideration is the sword from grave 90 south of the second church in Mikulčice, which is also associated with the aforementioned horizon. According to the literature available to me, this is the only type K sword with pommel crown divided into six lobes (Pl. XXI). This is also the only type K sword from the territory of the former Great Moravia.<sup>16</sup> The hilt ornamentation, if it even existed, has not been preserved, while the grip cover made of beechwood wrapped in canvas and leather has been relatively well preserved. Poulik (1957: 271-274) dated this grave and the sword from it to the second quarter of the ninth century.

Possibly even more difficult than ascertaining the dating and origins of a sword is determining how it came to be where it was discovered, and any response to that question, regardless of how credible, will always remain within the realm of speculation. Most often trade, looting, gifts and or something similar are mentioned as possibilities. The weapons trade, at least where the Viking territories are concerned, is contested only by A. Stalsberg (2008: 21-23), who asserted that more probable options are smuggling, plunder and ransom, for there is no confirmation (probably written?) of trade, and it was banned by several Carolingian capitularies

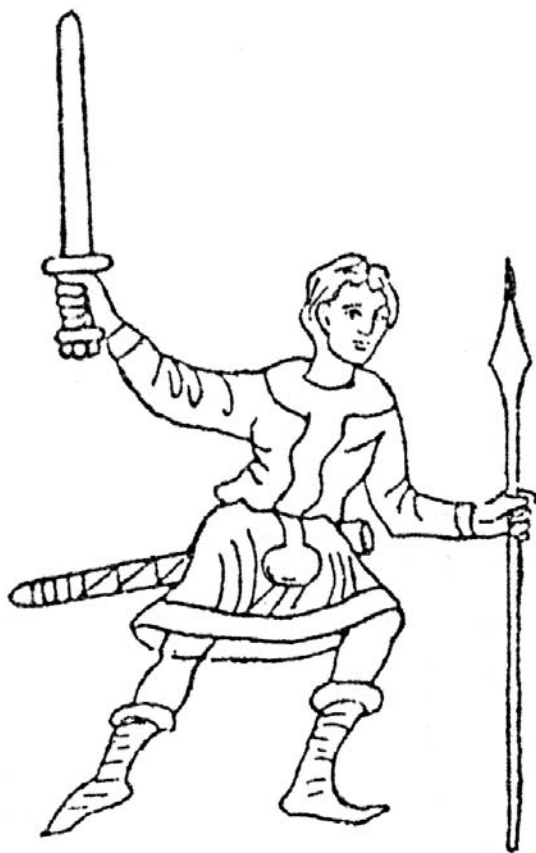
<sup>16</sup> Marek (2005: 24) mentioned a sword from Detva in Slovakia as an example of type K, citing Ruttikay (1975: 136-138; 1976: 248-250). In the earlier literature, this sword was classified as type H. However, Ruttikay nowhere mentioned type K, rather he stressed the possibility of more precise classification of this sword according to Petersen, citing only the similarity between the pommel crown with Petersen's type Y. In the classification he proposed himself, Ruttikay (1976: 250) classified this sword as type IV, denoting it as a local product of the latter half of the ninth century.

<sup>17</sup> Prema katalogu u Geibig 1991.



je tako prilično nevjerojatno očekivati da bi u vrijeme Tomislava, prisutnoga uostalom i na splitskim crkvenim saborima, pripadnik vladajućega društvenog sloja bio pokopan na poganski način. Tako ipak ostaje vjerojatnija teza Z. Vinskoga.

Milošević je toj temi pristupio na drugačiji način. Koristeći se slikovnim izvorima, pokušao je odgovoriti na pitanje o ulozi mača tipa K. Naime na nekoliko karolinških minijatura iz pojedinih evanđelistara i psaltira, kao i na jednoj fresci, prikazani su između ostaloga i mačevi s više ili manje naznačenom podjelom jabučice, često u rukama vojnika. Prikazane mačeve Milošević (2000: 129) smatra tipovima K ili Mannheim koji su tipološki međusobno povezani, pa pripadaju istoj skupini, a to bi bili "službeni mačevi" franačke vojske. Njima bi tada bili opremljeni i pojedini hrvatski ratnici za koje drži da su sudjelovali na franačkoj strani u ratu protiv Avara. Milošević ne precizira koji bi od prikazanih mačeva pripadali tipu K, a koji tipu Mannheim, no na to se već ranije osvrnuo Vinski (1981: 18–19) koji mogućim tipom K smatra jedino mač u ruci mladoga viteza u jednoj sceni tzv. Stuttgartskoga psaltira (sl. 2) i mačeve za pojasima vojnika u sceni opsade grada prikazanoj u Zlatnome psaltiru iz Sankt Gallena (sl. 3).



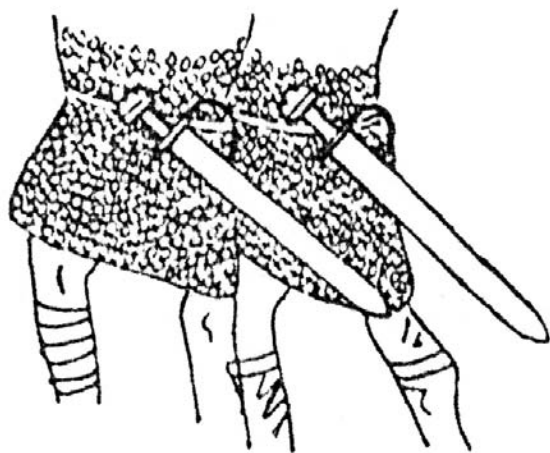
Slika 2. Detalj iz Stuttgartskoga psaltira (Vinski 1981: 36).

Figure 2. Detail from the Stuttgart Psalter (Vinski 1981: 36).

and edicts issued between 779 and 864. Some of them are general in character, while others specifically refer to Slavs, Avars and Normans. By contrast, a number of scholars believe that weapons were among the most important articles of trade, particularly Frankish weapons, which were traded in the north since Merovingian times (Jankuhn 1976: 206; Steuer 1987: 155; Martens 2004: 136). Also worth considering here is the "black market", a possibility even Stalsberg left open, despite her denial of any legal trade. Nonetheless, higher-quality weapons, such as some of the more resplendently adorned swords or blades bearing the inscription ULFBERHT, were probably not imported and then freely sold at fairs in market towns like Birka or Haithabu, rather the ruler imported them for himself or his entourage in the same manner as other luxury goods from Carolingian territory, such as glass (Steuer 1987: 194). Together with trade and plunder, i.e. war booty, some consideration should certainly be accorded to domestic weapons production in the north, first and foremost in Norway, where approximately 3,000 swords from the Viking era were found, 23 of them type K (Martens 2004: 127).

The situation was somewhat different in Croatian territory, however. As noted earlier, only 24 Carolingian swords have been found, even though the territory in which they were discovered is not particularly large. Besides Croatia, a higher concentration of type K swords can be found in Norway (23), Germany (14) and Ireland (8).<sup>17</sup> The difference lies in the fact that in Croatia, type K swords constitute slightly over half of the total number of Carolingian swords. Vinski (1981: 37, 53, n. 123) considered the Carolingian swords in Croatia gifts presented to the ruling class or precious trade goods. He also mentioned the possible existence of itinerant weaponsmiths who may have followed the routes of earlier Frankish missionaries and then produced some of the swords on Croatian soil, according priority to type K for some reason. The possibility of booty is deemed highly unlikely. The sword from Podsused was associated by Vinski with those in Dalmatia, but he insisted that it probably ended up in the grave during the time of Ljudevit Posavski or Ratimir. The sword from Cirkovljan is considered apart from the others, together with the sword designated as distinctive type 1 from Medvedička. Both examples are associated with Charlemagne's campaign against the Avars at the end of the eighth century (Vinski 1981: 26, 32). Notable also is the hypothesis of T. Aralica (2006: 66), who saw in the Podsused sword a reflection of Croatia's expansion

<sup>17</sup> According to the catalogue in Geibig 1991.



Slika 3. Detalj iz Zlatnoga psaltira (Vinski 1981: 36).

Figure 3. Detail from the Golden Psalter (Vinski 1981: 36).

Na prikaze u minijaturama osvrnuo se i Geibig (1991: 142). On ističe jedan tip mača karakterističan po pojednostavljeno prikazanoj jabučici i detaljnome prikazu korica s remenjem koji se pojavljuje na šest različitih prikaza. Na četirima se prikazima nalazi ista greška, a to je pomak balčaka u odnosu na uzdužnu os mača. To bi značilo da je riječ o kopiranju prema jednome starijem predlošku koji je već imao istu grešku. Ni brojnost mača u slikovnim prikazima ne mora odgovarati brojnosti mača u stvarnosti, kao ni njegovoj važnosti. Paralele u prikazima imaju Geibigovi kombinacijski tipovi 2, 3, 4 i 6 kojima je zajedničko vertikalno raščlanjenje krune i horizontalno raščlanjenje krune i baze jabučice, a tip 6, tj. Petersenov tip K, bio bi prikazan, iako pojednostavljeno, jedino u Zlatnome psaltiru. Ondje prikazan mač ima jabučicu s trima režnjevima jednake visine, a to je karakteristika jedino toga tipa mača (*ibid.* 143). Iako Geibigova tvrdnja svakako stoji, mnogo je mačeva tipa K kojima su bočni dijelovi krune jabučice niži od središnjega dijela, pa ne bi trebalo olako odbaciti prikaz mača iz Stuttgartskega psaltira koji navodi Vinski, ali ni mač prikazan u sceni borbe Davida i Golijata (sl. 4) koji donosi Milošević (2000: 129, sl. 32).

Međutim neovisno o tome je li mač tipa K prikazan samo u jednoj sceni, a ostalo su mačevi tipa Mannheim ili njemu srodni tipovi, smatram malo vjerojatnom tezu da su ti mačevi bili službeno oružje franačke vojske. Prije svega, teško je na isti način objasniti mačeve u drugim europskim državama, a osim toga očekivao bi se i veći broj tih mačeva, kao i njihova veća distribucija povezana s područjima na kojima su Franci vodili ratove. Kao što je Geibig pokazao, nekoliko prikaza u minijaturama potječe od

during Tomislav's reign. He also deemed that this sword, like the one from Koljani, has extremely late features and he dated both to the early tenth century. However, Aralica did not cite any arguments to back these assertions nor did he explain in any detail what he meant by "late features". By the same token, it is rather difficult to expect that during Tomislav's time – for he also attended the church synods in Split – a member of the ruling class would be buried in pagan fashion. Thus, Vinski's hypothesis is more likely.

Milošević approached this topic differently. Using pictorial sources, he attempted to answer the question on the role of the type K sword. Several Carolingian miniatures from individual editions of the gospels or psalters, and on one fresco, show, among other things, swords with more or less indicated divisions of the pommel, often held by soldiers. Milošević (2000: 129) considered these swords types K or Mannheim, which are typologically linked, so they belong to the same group, and these were the "official swords" of the Frankish armies. At the time, individual Croatian warriors would be equipped with them, as it was believed that they participated in the war against the Avars on the Frankish side. Milošević did not specify which of the swords shown would have belonged to type K, and which to Mannheim type, although this was already considered earlier by Vinski (1981: 18–19), who considered as type K only the sword in the hand of a young knight in a scene on the so-called Stuttgart Psalter (Fig. 2) and the swords on the belts of the soldiers in the siege scene on the Golden Psalter from Sankt Gallen (Fig. 3).

Geibig (1991: 142) also considered the portrayals on these miniatures. He stressed one type of sword characterized by the simplified portrayal of the pommel and the detailed depiction of the sheath with belts, which appears in six different illustrations. The same error appears on four portrayals, and this is the shift of the hilt in relation to the sword's lengthwise axis. This would mean that they were copied from an older model which already had that same error. The number of swords in illustrative portrayals need not correspond to the number of swords in reality, nor their importance. Parallels to the portrayals can be found in Geibig's combination types 2, 3, 4 and 6, which have in common the vertically articulated crowns and horizontally articulated pommel crowns and bases, while type 6, i.e. Petersen's type K, would be shown, albeit in simplified form, only in the Golden Psalter. The sword shown there has a pommel with three lobes of equal height, and this is a feature only of this sword type





Slika 4. Prikaz borbe Davida i Golijata u Stuttgartske psaltiru (Milošević 2000: 129).

Figure 4. Scene of the confrontation between David and Goliath in the Stuttgart Psalter (Milošević 2000: 129).

istoga predloška, dok je mač prikazan na tome predlošku mogao biti naprimjer tek mač koji je izrađivač minijature vidio u svojoj opatiji, kraju u kojemu je živio i slično, a bez nekoga posebnog značenja.

Na kraju, smatram da je najvjerojatnija teza Z. Vinskoga o mačevima kao darovima Franaka vladajućemu sloju u Hrvatskoj, uz jedan dodatak. Već je u uvodu rečeno da je mač u germanskih naroda predstavljao, između ostaloga, simbol odanosti prema vladaru, također simbol vlasti i podaništva. Najveću je važnost pritom igrao balčak mača koji je često imao važnu ulogu i pri donošenju zakletvi. O tome postoji više potvrda u pisanim izvorima, prije svega u ranoj nordijskoj književnosti (Ellis Davidson 1998: 185–186). Tako Snorri Sturluson u svojoj *Heimskringli*, djelu o povijesti norveških kraljeva, donosi sljedeći događaj. U 38. poglavlju sage o Haraldju Ljepokosom (*Haralds saga Hárfagra*), norveškome kralju iz kasnijega 9. stoljeća, govori se o poslanicima engleskoga kralja Æthelstana koji dolaze na dvor kralja Haraldja. Donose mu mač s balčakom ukrašenim zlatom i s raskošnim koricom i pružaju mu balčak. Kad je kralj Harald primio balčak, poslanik mu reče:

“Sada si uhvatio mač onako kako je to naš kralj htio i sada ćeš biti njegov podanik jer si primio njegov mač.” (Sturluson 2005: 92).<sup>18</sup>

To je, naravno, samo primjer, ali prilično zorno oslikava značenje mača u germanskome svijetu, a Karlo Veliki bio je pripadnik toga svijeta bez obzira

(*ibid.* 143). Although Geibig’s assertion certainly stands, on many type K swords the lateral sides of the pommel crown are lower than the central portion, so the portrayal of the sword in the Stuttgart Psalter cited by Vinski should not be so easily discounted; the same holds for the sword shown in the scene of David and Goliath in battle (Fig. 4) cited by Milošević (2000: 129, fig. 32).

However, regardless of whether the type K sword was only shown in one scene, while the remaining swords are Mannheim or similar types, I believe it is likely that these swords were the official weapon of the Frankish armies. Above all, it is difficult to explain the swords in other European countries in the same manner, and besides this, a larger number of these swords would be expected, as well as their greater distribution in the territories in which the Franks waged war. As Geibig has shown, several portrayals in miniatures came from the same model, while the sword shown in that model may have been, for example, just a sword the miniaturist saw in his abbey, in the area where he lived, or somewhere else, without any greater significance.

Ultimately, I consider most likely Vinski’s hypothesis on swords as gifts from the Franks to the ruling class in Croatia, with one additional observation. It has already been noted in the introduction that among the Germanic peoples, the sword served as a symbol of loyalty to a ruler, and also as a symbol of authority and fealty. The greatest importance here was accorded to the sword’s hilt, as it played a major role in swearing oaths. There are many confirmations thereof in the sources, above all in Old Norse literature (Ellis Davidson 1998: 185–186). Thus, Snorri Sturluson, in his *Heimskringla*, a history of the Norwegian kings, recounted the following event. In the thirty-eighth chapter of the saga of Harald Fairhair (*Haralds saga Hárfagra*), the Norwegian king in the late ninth century, messengers of the English King Æthelstan come to the court of King Harald. They brought him a sword with hilt adorned with gold and a luxurious sheath, and presented the hilt to him. When King Harald took the sword by the hilt, the messenger says to him:

“Now you seized the sword in the fashion our king desired you would, and now you shall be his liegeman since you seized hold of his sword.” (Sturluson 2005: 92).

This is, to be sure, only an example, but it quite lucidly illustrates the significance of the sword in the Germanic world, and Charlemagne was a member of this world, regardless of his title as Holy Roman

<sup>18</sup> Citat je s engleskoga jezika preveo G. Bilogrivić.

na titulu rimskoga cara i kršćansku vjeru.<sup>19</sup> Einhard (1992: 87–89) u poglavlju XXIII biografije *Vita Karoli Magni* o njemu kaže sljedeće:

“Odijevao se po tradiciji svojih otaca, u franačku nošnju (...) ogrtao se modrim plaštem i uvijek imao pripasan mač čiji su držak i remen bili od zlata ili srebra. Ponekad je upotrebljavao i dragim kamenjem urešen mač, no to samo na velike blagdane ili kad bi došli izaslanici stranih naroda.”

Možda je zlatom ukrašen mač koji spominje Einhard upravo opjevani Joyeuse (Ellis Davidson 1998: 183), no to je ovdje manje važno. Važnija je potvrda značenja mača. Gledano na ovaj način, mačevi pronađeni u grobovima odličnika u Dalmaciji mogli su biti znak podaništva, vazalnoga položaja Hrvata prema Karlu, odnosno njegove vlasti nad njima, bila ona stvarna ili samo teoretska. Važan je čin davanja mača kao simbola toga odnosa. I dok mačevi hrvatskim odličnicima nisu morali predstavljati ono što su predstavljali Germanima, svakako su morali izazivati veliko poštovanje prema njihovim nositeljima u vlastitome narodu i tako ojačati njihov položaj u trenucima političke organizacije nastajuće kneževine. Također nisu morali primiti mačeve od samoga Karla Velikoga; mogli su ih dobiti primjericom od furlanskoga markgrofa ili koga drugoga u franačkoj političkoj, vojnoj ili pak vjerskoj hijerarhiji. I grobovi u Biskupiji idu u prilog toj tezi. Sva tri groba s mačevima imaju vrlo sličan inventar, osim što je u grobu 8 inventar nešto skromniji, a svakako su važne gotovo identične ostruge u grobovima 1 i 6 (Jelovina 1986: T. 1, T. 3). Iz toga slijedi da su pokojnici u grobovima 1, 6 i 8 pokopani otprilike u isto vrijeme, u ranome 9. stoljeću. Bilo bi svakako zanimljivo da su se mogle obaviti bioarheološke analize kostiju pokojnika da se vidi jesu li umrli na sličan način. Mačevi u njihovim grobovima, svi tipa K, bili su kao nov proizvod toga vremena idealan dar stranim vođama (iako su i mačevi drugoga tipa, npr. oni iz Orlića, jednako dobro poslužili svrsi). Oni su, kao i srebrom ukrašene ostruge iz groba 7 (Petrinec 2006: 27), a možda i još neke, vjerojatno dio iste “pošiljke” otprilike u vrijeme Karlova rata protiv Avara ili pak nešto kasnije, za rata s Bizantom. U obama su slučajevima Hrvati kao susjedi i jednih i drugih bili dobar izbor za saveznike. Ovamo treba ubrojiti i druge istodobne mačeve tipa K iz Dalmacije, kao i one iz Bosne i Hercegovine koji su onamo mogli dospjeti i posredstvom Hrvata, ali i izravno od Franaka ili zajedno s njima (Vinski 1985: 64;

Emperor and his Christian faith.<sup>18</sup> Einhard (1992: 87–89) in Chapter XXIII of his biography *Vita Karoli Magni*, said the following of him:

“He used to wear the national, that is to say, the Frankish, dress (...). Over all he flung a blue cloak, and he always had a sword girt about him, usually one with a gold or silver hilt and belt; he sometimes carried a jewelled sword, but only on great feast-days or at the reception of ambassadors from foreign nations.”

Perhaps the gold adorned sword mentioned by Einhard was precisely the acclaimed Joyeuse (Ellis Davidson 1998: 183), but this is less important here. More important is confirmation of the importance of swords. Seen in this manner, swords found in the graves of distinguished individuals in Dalmatia may have signified that the fealty and vassal status of the Croats in relation to Charlemagne, i.e. his suzerainty over them, whether it was real rather or only theoretical. The act of presenting a sword was vital as a symbol of this relationship. And while swords presented to Croatian dignitaries need not have had the same significance that they had for the Germans, they certainly had to elicit great respect for their holders among their own people and thus reinforce their status during the political organization of the emerging principality. Also, it did not necessarily mean that they received the swords from Charlemagne himself; for example, they may have received them from the Friulian margrave or someone else in the Frankish political, military or even religious hierarchy. The graves in Biskupija also support this hypothesis. All three graves containing swords have a very similar inventory, except grave 8, in which the goods were much more modest, while the almost identical spurs in graves 1 and 6 are certainly important (Jelovina 1986: pls. 1, 3). It therefore follows that the deceased in graves 1, 6 and 8 were interred at roughly the same time, in the early ninth century. It would certainly have been interesting if a bioarchaeological analysis of the bones of the deceased could have been conducted to ascertain whether they died similarly. The swords in their graves, all type K, were, as new products, ideal gifts to foreign leaders (even though swords of another type, e.g. those from Orlić, served the purpose equally well). Like the silver-adorned spurs from grave 7 (Petrinec 2006: 27), and perhaps some others, they were probably part of the same “package” roughly at the time of Charlemagne’s wars against the Avars, or possibly somewhat later, during the war with Byzantium. In both cases, the

<sup>19</sup> Engleski je kralj Æthelstan, usporedbe radi, također bio kršćanin (usp. Geibig 1991: 143).

<sup>18</sup> The English King Æthelstan, by way of comparison, was also a Christian (cf. Geibig 1991: 143).

Milošević 2000: 114). Grobovi iz Biskupije, dosta precizno datirani, pokazuju još jednu zanimljivost, a to je različit odnos Slavena prema samome maču u odnosu na Germane. Mačevi su ondje pokopani sa svojim prvim vlasnicima, vjerojatno i nedugo nakon što su proizvedeni, kao vrijedna zagrobna popudbina (ili možda pokazivanje bogatstva i statusa tijekom pogreba). Suprotno tomu u germanskome svijetu mačevi često korišteni generacijama u istoj obitelji, dospijevali su u grob i stoljeće ili više nakon proizvodnje, a znali su biti i izvađeni iz groba nakon dužega vremena pa opet korišteni (Steuer 1987: 153; Geibig 1991: 139; Ellis Davidson 1998: 12–13; Oakeshott 2002: 1–2).<sup>20</sup>

## 5. JABUČICE SA SEDAM REŽNJEVA

Mačevi čije jabučice imaju krunu podijeljenu na sedam režnjeva pripadaju tipu K isto kao i oni s pet režnjeva krune, no zastupljeni su u znatno manjemu broju. Zanimljivo je da svi mačevi tipa K pronađeni u Norveškoj imaju isključivo jabučice s petodijelnom krunom, dok je u drugim zemljama u kojima se nalazi tip K uglavnom prisutna i sedmodijelna varijanta. Tako su od ukupno triju mačeva tipa K pronađenih u Bosni i Hercegovini dva sa sedmodijelnom krunom (Mogorjelo i Podgradina), a u Hrvatskoj je jedini takav mač pronađen u Kninskome polju. Za razliku od mačeva s petodijelnom krunom balčaci mačeva sa sedmodijelnom krunom uglavnom nisu ukrašeni ili se pak ukras nije sačuvao. Ako i jest sačuvan, tada se radi samo o umetanju rovašene žice (uglavnom srebrne) između režnjeva te između krune i baze jabučice. Takav je slučaj s dvama mačevima iz Rajne u Njemačkoj (T. XXII) te s jednim mačem s nepoznatoga nalazišta u Francuskoj (T. XXIII) (Geibig 1991: kat. 102, 105; Peirce 2002: 70–71). Gornja je linija krune tih mačeva uglavnom konveksna nasuprot sječivu ili pak ima oblik krova na dvije vode. U nekim je slučajevima i središnji režanj znatno širi i nešto viši od ostalih (npr. Ludwigshafen am Rhein – Oppau, Podgradina, Francuska) (Geibig 1991: T. 70/1–3; Zekan 1994: T. 1/4; Peirce 2002: 71).

Valja istaknuti još jednu zanimljivost. Jabučica je mača iz Mogorjela šuplja, što se vidi kroz otvor nastao korozivnim djelovanjem. To, naravno, ne mora imati neko posebno značenje, no smatram da treba spomenuti jednu mogućnost namjene šupljih jabučica, a to je držanje amajlija u njima, odnosno relikvija u kršćanskome svijetu. Tako se u *Pjesmi o*

Croats as neighbours to one and the other were a sound choice as allies. The other contemporary type K swords from Dalmatia should be counted here, as well as those from Bosnia-Herzegovina which may have made their way there through the intercession of the Croats, but also directly by the Franks or together with them (Vinski 1985: 64; Milošević 2000: 114). The graves from Biskupija, dated rather precisely, exhibit another interesting feature, and that is the different relationship of the Slavs toward the sword in comparison to the Germans. The swords were buried there with their first owners, probably not long after they were made, as valuable provisions for the afterlife (or perhaps to demonstrate wealth and status during the funeral?). By contrast, in the Germanic world, swords were often used within the same family for generations, and were deposited in a grave as much as a century or more after being made, and were sometimes even removed from graves after extended periods and used again (Steuer 1987: 153; Geibig 1991: 139; Ellis Davidson 1998: 12–13; Oakeshott 2002: 1–2).<sup>19</sup>

## 5. POMMELS WITH SEVEN LOBES

Swords with pommels having crowns divided into seven lobes belong to type K, just as those with five lobes on the crown, but they are present in a considerably lower number. It is interesting that the pommels on all type K swords found in Norway have exclusively five-lobed crowns, while in other countries with type K swords the seven-lobed variant is generally also present. Thus, out of the total of three type K swords discovered in Bosnia-Herzegovina, two have seven-lobed crowns (Mogorjelo and Podgradina), while in Croatia the only such sword was found in Kninsko polje. As opposed to the swords with five-lobed crowns, the hilts on swords with seven-lobed crowns are generally unadorned or their ornaments have not been preserved. Even if preserved, then it is usually inset notched wire (generally silver) between the lobes and between the pommel crown and base. This is the case with two swords from the Rhineland in Germany (Pl. XXII) and one sword from an unknown find-site in France (Pl. XXIII) (Geibig 1991: cat. 102, 105; Peirce 2002: 70–71). The upper line of the crown of these swords is generally convex in opposition to the blade, or even shaped like a double-vaulted roof. In such cases, the central lobe is considerably wider and somewhat higher than the others (e.g. Ludwigshafen am

<sup>20</sup> Usp. mač Ab iz Haithabua i mač iz Ballinderryja datiran na početak 9. stoljeća, a pronađen u naselju iz 10. stoljeća (Müller-Wille 1976: 42).

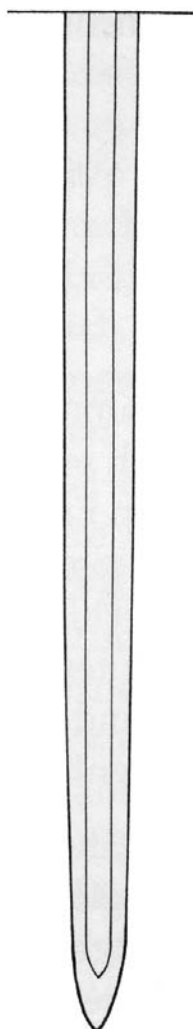
<sup>19</sup> Cf. sword Ab from Haithabu and the sword from Ballinderry, dated to the beginning of the ninth century, and found in a tenth-century settlement (Müller-Wille 1976: 42).



*Rolandu* spominje Durendal, Rolandov mač, čija je pozlaćena jabučica krila nekoliko relikvija, među njima i zub Sv. Petra i dio ogrtača Djevice Marije. U istome se djelu navodi i da je Karlo Veliki u zlatnu jabučicu svojega mača Joyeuse navodno “ugradio” vršak koplja kojim je Krist ranjen na križu (Ellis Davidson 1998: 182–183). Naravno, to mogu biti pjesnička preuveličavanja, prije svega što se tiče samoga sadržaja jabučica, no ona ukazuju na određenu praksu koju ne treba zanemariti.

Na kraju ovoga osvrtu treba još reći ponešto o jednome izuzetnom primjerku, jedinstvenome među mačevima tipa K koji treba svrstati u taj tip, ali opet donekle uvjetno. To je balčak, odnosno 8,7 cm dug sačuvani dio drška mača s jabučicom s nalazišta Fetter Lane u Londonu pronađen za građevinskih radova u 19. stoljeću. Donji dio balčaka i sječivo nisu sačuvani. Kruna je podijeljena na sedam reznjeva od

kojih je središnji znatno širi i viši od ostalih i ukrašen urezivanjem. Spojena je s bazom pomoću dviju masivnih okruglih zakovica. Na bazu se nastavlja oplata (vjerojatno drvenoga) drška, i to vjerojatno samo njezina gornja polovica. Balčak je u potpunosti izrađen od pozlaćenoga srebra, a držak je dodatno ukrašen urezanim i nijeliranim ornamentom. S jedne je strane spirala sastavljena od četiriju zmijsa, dok je na drugoj strani uzorak u obliku orla raširenih krila. Međuprostori su ispunjeni biljnim viticama. Ukrašenja toga mača ima paralele u drugim primjerima kasnijeg 8. stoljeća, a nagoviješta i stil Trewhiddle sljedećega stoljeća. Smatra se anglosaskim radom i datira se u kasno 8. stoljeće (Müller-Wille 1976: 39; Ellis Davidson 1998: 68–69).<sup>21</sup>



## O SJEČIVIMA

Sječiva mačeva tipa K pripadaju Geibigovu tipu 2 (sl. 5) koji se počinje izrađivati sredinom 8.

Rhein-Oppau, Podgradina, France) (Geibig 1991: pl. 70/1-3; Zekan 1994: pl. 1/4; Peirce 2002: 71).

One other interesting aspect bears emphasis. The pommel on the sword from Mogorjelo is hollow, which can be seen through the hole created by corrosion. This, naturally, need not have any particular significance, but I believe that one possible use for the hollow pommel should be mentioned, and that is to hold talismans in them (or relics in the Christian world). Thus, *The Song of Roland* mentions Durendal, Roland's sword, the golden hilt of which concealed several relics, including St. Peter's tooth and some of the robe worn by the Virgin Mary. The same work claims that Charlemagne had “enshrined” underneath the golden hilt of his sword Joyeuse the point of the lance with which Christ was wounded on the cross (Ellis Davidson 1998: 182-183). Certainly, this may be poetic license, particularly concerning the actual content of the pommels, but it does indicate some practices which should not be overlooked.

Something must still be said of one exceptional example, unique among type K swords, which should be classified into this type, albeit conditionally. This is a hilt, the 8.7 cm long preserved part of a sword grip with pommel from the Fetter Lane site in London, found during construction work in the nineteenth century. The lower section of the hilt and blade were not preserved. The crown is divided into seven lobes, of which the central one is considerably wider and higher than the rest (a central arch), and adorned by engraving. It is connected to the base with the help of two massive round rivets. The cover of the (probably wooden) grip continues into the base, and this is probably just its upper half. The hilt is made entirely of gilded silver, while the grip is additionally adorned with an engraved and niellated ornament. On one side the spiral consists of four snakes, while on the other side there is a design shaped like an eagle with wings outspread. The interstices are filled with plant vines. The ornamentation on this sword has parallels in other examples from the late eighth century, and it seems to presage the Trewhiddle style of the subsequent century. It is deemed an Anglo-Saxon work dating to the late eighth century (Müller-Wille 1976: 39; Ellis Davidson 1998: 68-69).<sup>20</sup>

## ON BLADES

The blades of type K swords belong to Geibig's type 2 (Fig. 5), which began to be produced in the mid-

Slika 5. Sječivo tipa 2 (Geibig 1991: 84).

Figure 5. Type 2 blade (Geibig 1991: 84).

<sup>21</sup> Također vidi: [http://www.britishmuseum.org/explore/highlights/highlight\\_objects/pe\\_mla/s/sword\\_grip\\_and\\_pommel.aspx](http://www.britishmuseum.org/explore/highlights/highlight_objects/pe_mla/s/sword_grip_and_pommel.aspx) (datum zadnje provjere: 20. veljače 2009).

<sup>20</sup> See also: [http://www.britishmuseum.org/explore/highlights/highlight\\_objects/pe\\_mla/s/sword\\_grip\\_and\\_pommel.aspx](http://www.britishmuseum.org/explore/highlights/highlight_objects/pe_mla/s/sword_grip_and_pommel.aspx) (last accessed on 20 February 2009).

stoljeća i traje do u prvu polovicu 10. stoljeća. Ta sječiva ostavljaju snažan, težak dojam. Oštrice im se vrlo lagano primiču prema vrhu, jače tek u vršnome dijelu i tvore ponekad tuplji, a ponekad oštrij vrh. Na objema se stranama nalazi plitak kanal, širok najmanje 1,8 cm, ponekad i do 2,7 cm. Do sredine 10. stoljeća sječiva uopće rijetko kada prelaze duljinu od 83 cm (Geibig 1991: 85, 153, 158).

Od signatura se na sječivima kod mačeva tipa K javlja jedino ULFBERHT, i to na ukupno pet primjeraka (Gravråk i Gjersvik u Norveškoj, Ballinderry u Irskoj te Biskupija (grob 1) i Prozor u Hrvatskoj) (Müller-Wille 1982: 112). Uglavnom se smatra da ta signatura, koja se pojavljuje na sječivima od početka 9. do 11. stoljeća, stoji kao znak kvalitete i potječe iz radionica u donjofranačkome Porajnju (Menghin 1980: 229; Geibig 1991: 118–121). Marek (2005: 49) pak smatra vjerojatnom tezu da je riječ o vlasniku mača, pa značenje imena slobodno interpretira kao “mač koji ratnik ULF ima pravo nositi (ili nosi)”. Isti autor u imenu vidi i potencijalni skandinavski *kenning*, kao i moguće magijsko značenje.<sup>22</sup> Postoje i mišljenja da se radi o kovaču ili radionici (Jankuhn 1976: 208; Ellis Davidson 1998: 48), a zanimljivo je i novo tumačenje A. Stalsberg (2008: 17–20) da se možda radi o vođi ili nadgledniku proizvodnje sječiva, osobi unutar crkvene (ili samostanske) hijerarhije zaduženoj za proizvodnju mačeva. Naime ispred svojega potpisa križ stavljaju biskupi, opati i samostani. Budući da se u signaturi ULFBERHT najčešće nalaze dva križa, to bi moglo indicirati neki drugačiji položaj.<sup>23</sup> Osim toga to je ime između 9. i 11. stoljeća nosilo više osoba povezanih s opatijom Sankt Gallen – redovnici, opati, osnivači, dobrotvori.<sup>24</sup> Tko god (ili što god) ULFBERHT bio, riječ je o kvalitetnim sječivima od čelika s udjelom ugljika 0,75–1,5% koji je omogućio prestanak proizvodnje sječiva damasciranjem i izradu još kvalitetnijih proizvoda. Također je primjetna tendencija prema njihovu boljem oblikovanju i balansiranju (Vinski 1966: 74–76; Jankuhn 1976: 208; Ellis Davidson 1998: 47). Tri sječiva sa signaturom ipak su damascirana, a od njih su dva sječiva mačeva tipa K – iz Gjersvika i Prozora. U tim se slučajevima može raditi o kopijama, ali postoji mogućnost i da su najstariji primjerci još uvijek bili rađeni tehnikom damasciranja (Geibig 1991: 120).

<sup>22</sup> Zanimljivo je da Marek (2005: 49–53) također inzistira na nazivu ULFBERTH (dakle na različitome završetku) i ULFBERHT navodi kao varijaciju, iako je prvi način pisanja zabilježen u tek 6 primjeraka, a drugi, uz različito smještanje drugoga križa, u barem 80 primjeraka (Stalsberg 2008: 6).

<sup>23</sup> Autorica navodi pojam *swordmaster* za koji ne nalazim adekvatan hrvatski prijevod.

<sup>24</sup> Ime se susreće u više oblika: *Uolfberht*, *Uolfbernt*, *Uolfbernus*, *Uolfberht/Wolfbert*, *Uolfbertus/Wolfbertus* (Stalsberg 2008: 17).

eight century and endured until the first half of the tenth century. These blades leave an impression of strength and weight. Their cutting edges taper slightly toward the tip, and more notably at the very point, sometimes blunter and sometimes sharper. Both sides have a shallow fuller, with a minimum width of 1.8 cm, and sometimes as much as 2.7 cm. Until the mid-tenth century, blades in general rarely surpassed a length of 83 cm (Geibig 1991: 85, 153, 158).

Out of the inscriptions on blades, only ULFBERHT appears on type K swords, on a total of five examples (Gravråk and Gjersvik in Norway, Ballinderry in Ireland and Biskupija (grave 1) and Prozor in Croatia) (Müller-Wille 1982: 112). Generally it is believed that this signature, which appeared on blades from the beginning of the ninth to the eleventh century, served as a sign of quality and originated in workshops of the lower Frankish Rhineland (Menghin 1980: 229; Geibig 1991: 118–121). Marek (2005: 49), on the other hand, believes likely the hypothesis that this is the sword's owner, so the meaning of the name is loosely interpreted as “the sword which the warrior ULF is entitled to hold (or carry)”. The same scholar also saw in the name the potential Scandinavian *kenning*, as well as a possible magical meaning.<sup>21</sup> There is also the view that this name denoted the swordsmith or workshop (Jankuhn 1976: 208; Ellis Davidson 1998: 48), while an intriguing new interpretation by Stalsberg (2008: 17–20) is that it may refer to the leader or supervisor of sword production, a person inside the church (or monastic) hierarchy charged with sword production. This is because bishops, abbots and monks put a cross before their signatures. Since two crosses can most often be found in the signature ULFBERHT, this may indicate some different position.<sup>22</sup> Additionally, between the ninth and eleventh centuries, this name was borne by several persons associated with the abbey in Sankt Gallen: monks, abbots, founders and benefactors.<sup>23</sup> Whoever (or whatever) ULFBERHT was, these are quality blades made of steel with a 0.75–1.5% share of carbon, which allowed for a halt in the production of damascened blades and the production of higher-quality products. Also noticeable is the tendency toward better formation and balancing (Vinski 1966: 74–76; Jankuhn 1976: 208;

<sup>21</sup> It is interesting that Marek (2005: 49–53) also insisted on the name ULFBERTH (thus, a different ending), citing ULFBERHT as a variant, even though the first manner of writing was only recorded in six examples, and the latter, with differing placings of the second cross, in a minimum of 80 examples (Stalsberg 2008: 6).

<sup>22</sup> This scholar used the term *swordmaster*, for which there is no adequate Croatian translation.

<sup>23</sup> The names is encountered in several forms: *Uolfberht*, *Uolfbernt*, *Uolfbernus*, *Uolfberht/Wolfbert*, *Uolfbertus/Wolfbertus* (Stalsberg 2008: 17).

Geibig navodi ukupno oko 120 sječiva sa signaturom ULFBERHT, dok A. Stalsberg u svojem radu donosi 135 primjeraka. Najčešći je oblik signature +ULFBERH+T (oko 50 primjeraka), zatim +ULFBERHT+ (oko 20 primjeraka) te još nekoliko varijanata. Na drugoj strani sječiva u pravilu se nalaze geometrijske oznake, najčešće u obliku mrežastoga uzorka između paralelnih okomitih linija, također u više varijanata. Postoji više kombinacija signature i geometrijskih oznaka, a sve su u upotrebi tijekom svih stoljeća proizvodnje (Stalsberg 2008: 7–10). Upravo zbog velike različitosti u pisanju same signature i kombinacija s geometrijskim oznakama, Geibig (1991: 118) smatra da se u velikome broju slučajeva radi o kopijama, tj. natpisima krivotvorenima na manje kvalitetnim sječivima da bi im se podigla trgovinska ili reprezentativna vrijednost. A. Stalsberg (*ibid.* 20–21) pak smatra kako do razlika dolazi zbog činjenice da su kovачi bili nepismeni te da ne treba odmah odbaciti pojedina sječiva kao kopije ili krivotvorine.

Signature na mačevima tipa K jesu sljedeće:<sup>25</sup>

Ballinderry	+ULFBERHT+	mrežasti uzorak
Biskupija	+ULFBERHT+	-
Gjersvik	+ULFBERH┘	mrežasti uzorak
Gravrāk	LFB	mrežasti uzorak
Prozor	ULF	pletunica

Tablica 1. Varijante signature ULFBERHT na mačevima tipa K.

Signature na sječivima iz Biskupije, Gjersvika i Prozora Geibig (1991: 120–122) drži kopijama i zbog damasciranja kod potonjih dviju i zbog nedostatka ili pak neuobičajenoga oblika geometrijske oznake na sječivu iz Biskupije, odnosno Prozora. Biskupijski je natpis također puno kraći od uobičajene duljine. Međutim ako se mač iz Biskupije promatra kao bogati dar nekome od vladajućih ljudi u Hrvatskoj, može se očekivati da će se raditi o kvalitetnome, svakako originalnome, maču, a ne o kopiji. I sam Geibig ostavlja mogućnost damasciranja najranijih sječiva sa signaturom ULFBERHT, pa mislim da, uzmu li se u obzir i argumenti A. Stalsberg, spomenute mačeve ne treba tako olako odbaciti kao kopije. U tome bi slučaju mač iz Biskupije ostao najstariji sigurno datirani primjerak s tom signaturom (Vinski 1966: 78). Iako sječiva u pravilu nisu bila damascirana, same su signature izrađivane upravo na taj način

<sup>25</sup> Usp. literaturu citiranu ranije pri opisu pojedinih mačeva. Geometrijske oznake navedene su opisno jer ne postoje prikazi svih oznaka u dostupnoj literaturi.

Ellis Davidson 1998: 47). Three blades with signatures are nonetheless damascened, and two of these are type K swords: from Gjersvik and Prozor. In these cases they may be copies, although there is a possibility that these are the oldest examples still made using damascening (Geibig 1991: 120).

Geibig cited a total of roughly 120 blades bearing the inscription ULFBERHT, while Stalsberg provided 135 examples in her work. The most frequent form of the inscription is +ULFBERH+T (approximately 50 examples), then +ULFBERHT+ (approximately 20 examples) and several other variants. Generally there are geometric designs on the other side of the blade, most often grid designs between parallel vertical lines, also in several variants. There are several combinations of signatures and geometric designs, and all were in use during all centuries of production (Stalsberg 2008: 7–10). It is precisely due to the great variances in the writing of the actual signature and combinations with geometric designs that Geibig (1991: 118) believes that a large number of cases are copies, i.e. inscriptions forged on lower-quality blades to raise their market or representative value. Stalsberg (*ibid.* 20–21) believes that the differences are due to the fact that the weaponsmiths were illiterate, and that individual blades should not be hastily discarded as copies or forgeries.

The inscriptions on type K swords are as follows:<sup>24</sup>

Ballinderry	+ULFBERHT+	grid design
Biskupija	+ULFBERHT+	-
Gjersvik	+ULFBERH┘	grid design
Gravrāk	LFB	grid design
Prozor	ULF	braid

Table 1. Variants of ULFBERHT inscriptions on type K swords.

The inscriptions on the blades from Biskupija, Gjersvik and Prozor were also deemed copies by Geibig (1991: 120–122) because of the damascening on the latter two and due to the absence of or unusual form of the geometric designs on the blades from Biskupija and Prozor. The Biskupija inscription is also much shorter than the customary length. However, if the sword from Biskupija is viewed as a valuable gift to one of the ruling elite in Croatia, one may expect that it would be a high-quality, certainly original, sword, and not a copy. Geibig himself left open the possibility of damascening of the earliest blades with the ULFBERHT inscription, so I believe

<sup>24</sup> Cf. the literature cited earlier in the description of individual swords. The geometric patterns are cited descriptively because there are no depictions of all symbols in the available literature.



(Jankuhn 1976: 208). Jedino Vinski (1981: 20) pri obradi mača iz Biskupije ističe da je njegova signatura izvedena ecanjem, tj. jetkanjem kiselinom. Međutim na taj bi se način dobilo tek vrlo blago udubljenje koje bi kod sječiva u takvu stanju sačuvanosti potpuno nestalo. Još je važnija činjenica da se ukrašavanje oružja jetkanjem u Europi razvija tek u vrijeme renesanse (Geibig 1991: 123). Jetkanje se ranije koristilo u završnoj obradi damasciranih sječiva gdje bi kiselina željezo ostavila svijetlim, dok bi čelik potamnio te se tako istaknuo damascirani uzorak (Ypey 1983: 193).

## ZAKLJUČAK

Pokušavajući ovim radom obuhvatiti što više pojedinosti vezanih uz mačeve Petersenova tipa K, spomenuo sam tek dio njih, ali se nadam da sam pritom uspio donijeti barem poneku novu ideju. Kako je niz autora više od stoljeća proučavao te mačeve, mnogi su se zaključci s vremenom mijenjali, ali neki vrijede i danas, praktički od vremena J. Petersena. Mačevi su sami po sebi i dalje relativno nepouzdana za preciznije datiranje, pa se valja oslanjati na popratne nalaze ako ih ima. Glede tipoloških obilježja dugo je bilo uvriježeno mišljenje da su stariji primjerci bili kraći, širi i masivniji, dok se s vremenom sječiva i nakrsnice sužuju i produljuju. Ponajprije se dužina nakrsnice uzimala kao važan oslonac pri datiranju. Generalno gledajući, nakrsnice s vremenom jesu postajale duže. Tako su u 8. stoljeću u pravilu duge do 9,5 cm, u 9. stoljeću dosežu 13–14 cm, a u 10. stoljeću i 16 cm (Geibig 1991: 158). Unutar tipa K duljine nakrsnica variraju, osim rijetkih iznimaka, uglavnom od 10 do 12–13 cm. Novije datacije određenih mačeva također pokazuju da su u isto vrijeme mogle nastati nakrsnice i s jednoga i s drugoga kraja tih vrijednosti. Nakrsnica je usto tek jedan od nekoliko elemenata mača, a za precizniju se dataciju u obzir moraju uzeti svi elementi. Slično je i s jabučicama, odnosno krunama. Praktički su svi njihovi osnovni oblici sadržani već u ranoj skupini od osam mačeva s tauširanim balčacima i natpisima na nakrsnicama.<sup>26</sup> Jedino kruna mača iz Gravřaka pokazuje nešto izraženiju vezu sa starijim tipovima mačeva (poseban tip 1, tip Mannheim), no ne znači nužno da je to najstariji mač tipa K. Za detaljniju analizu, pa makar samo mačeva iz Hrvatske, trebalo bi prije svega obaviti nova i opširnija mjerenja mačeva jer su za mnoge od njih dostupni metrički podaci oskudni. I rend-

that, if Stalsberg's arguments are taken into account, these swords should not be written off as copies. In this case, the sword from Biskupija would remain the oldest certainly dated example bearing this inscription (Vinski 1966: 78).

Even though the blades were not as a rule damascened, the signatures themselves were rendered precisely in this manner (Jankuhn 1976: 208). When analyzing the sword from Biskupija, only Vinski (1981: 20) stressed that its signature was rendered by etching, i.e. engraving with the use of acid. However, this technique would only yield a very slight depression which would have entirely disappeared from a blade in its condition. Even more important is the fact that ornamentation of weapons by etching only developed in Europe during the Renaissance (Geibig 1991: 123). Etching was used earlier in the final phase of damascening blades, whereby the acid made iron paler, but steel would become darker, thus emphasizing the damascened pattern (Ypey 1983: 193).

## CONCLUSION

In attempting to encompass as many details pertaining to swords of Petersen's type K in this work, I mentioned only a portion of them, but I hope that in the process I managed to put forth at least a few new ideas. Since an entire series of scholars has studied these swords for over a century, many assessments have changed with time, even though some are still valid today, practically since the time of Jan Petersen. The swords are in and of themselves still relatively unreliable for precise dating, so it is sensible to make use of accompanying finds, if there are any. As to typological features, a long accepted view was that the older examples were shorter, broader and more massive, while blades and cross-guards became narrower and longer with time. Initially the length of the cross-guard was taken as an important basis for dating. From a general standpoint, cross-guards did become narrower over time. Thus, in the eighth century they reached lengths of 9.5 cm as a rule, in the ninth century they reached lengths of 13–14 cm, while in the tenth century they reached lengths of 16 cm (Geibig 1991: 158). Within type K, cross-guard lengths generally vary – with rare exceptions – from 10 to 12–13 cm. New dating of certain swords indicate that cross-guards at both ends of these parameters may have been produced at the same time. The cross-guard is incidentally only one of several elements of a sword, and all elements must be considered for precise dating. Similar guidelines also apply to pommels, or rather, their crowns. Practically all of

<sup>26</sup> Vidi poglavlje "HILTIPREHT".

genska bi snimanja sječiva svakako bila korisna jer su dosad provedena na vrlo malome broju sječiva, a često se i na objavljenim rendgenskim snimkama uopće ne vide detalji izrade, tj. je li pojedino sječivo damascirano ili nije. Sječivima bi uopće trebalo posvetiti veću pozornost, i to ne samo natpisima i ukrasima na njima nego i njihovu obliku, proporcijama, dimenzijama i sl. Uz više takvih podataka mogla bi se upotrijebiti i Geibigova klasifikacija. Iako je ona možda i nepotrebno komplicirana, a u nekim pak aspektima manjkava, u današnje je vrijeme ipak nezaobilazna pri proučavanju srednjovjekovnih mačeva. Nasuprot tomu još donekle egzaktnomu dijelu stoji potpuno spekulativno pitanje: “kako, zašto i odakle” je neki mač došao do svojega konačnog odredišta. Iako se uvijek radi samo o nagađanju, upravo se taj dio analize najviše približava onomu aspektu mača, takoreći njegovoj biti koja ga je činila posebnim i zanimljivim i uzdizala ga iznad ostaloga oružja vjerojatno još od njegove pojave u brončanome dobu, s vrhuncem svakako u ranome srednjem vijeku. U svakome slučaju i dalje ostaje i ostajat će dovoljno prostora i poticaja za nova istraživanja.

their basic forms are already contained in the early group of eight swords with inlaid hilts and signatures on the cross-guards.<sup>25</sup> Only the pommel crown from Gravrâk indicates a somewhat more prominent link to older sword types (distinctive type 1, Mannheim type), but this does not necessarily mean that this is the oldest type K sword. A more detailed analysis, if only of swords from Croatia, would require new and more exhaustive measurement of swords, since for many of them the available measurements are meagre. X-rays of the blades would also certainly be beneficial, as until now they have been done on a very small number of blades, and often even these X-ray images do not show details of rendering, i.e. whether an individual blade is damascene or not. Greater attention in general should be accorded to blades, and not just to the inscriptions and ornaments on them and their shape, proportions, dimensions, etc. With more data like this, Geibig’s classification can also be used. Even though the latter is perhaps needlessly complicated, and even deficient in some regards, currently it is inescapable in the study of medieval swords. In contrast to these still rather precise aspects, there stands the entirely speculative question: “how, why and wherefrom” did a given sword end up in its final destination. Even though this still is nothing more than guesswork, it is precisely this component of analysis which most closely approaches that aspect of the sword, its so-called essence, which made it special and interesting and raised it above all other weapons since its first appearance in the Bronze Age, reaching its pinnacle in the Early Middle Ages. In any case, sufficient room and inspiration for further research remain, and this will continue to be the case in the future.

<sup>25</sup> See the section “HILTIPREHT”.

Nalazište / Site	Balčak / Hilt							Sječivo / Blade					Duljina mača / Sword length
	Ukupna duljina / Total length	Jabučica / Pommel		Držak / Grip	Nakrsnica / Cross-guard		Duljina / Length	Širina / Width	Damasc.	Ime/znak / Name/sign			
		Reznjevi / Lobes	Duljina baze / Base length		Visina / Hight	Duljina / Length					Širina / Width		
A – Atzenbrugg	–	5	7,6	–	9,9	10,5	1,8	51,8	5,4	Da	–/–	66,3	
A – Dietachdorf	±15,5	5	6,2	–	9,2	10,2	±3	53	6,2	Ne	–/ukras –/decoration	70	
BiH – Mogořjelo	–	7	–	–	–	9,4	–	–	–	Da	–/–	94,4	
BiH – Podgradina	15,2	7	7,5–7,9	3,7	10,2	10,8	2,3	77,5	±5,5	Da	–/–	92,2	
BiH – Stolac – Čairi	–	5	–	–	–	11,6	–	–	6,5	Ne	–/–	89,6	
CZ – Mikulčice	15,5	6	8	4,2	9,5	–	–	78,5	6	–	–/–	94	
D – Haithabu, Ab	14,9	5	8,3	3,8	10	11,1	2,7	63,3	±6	Ne	–/–	79	
D – Haithabu, Bb	14,2	5	±7,3	4,2	8,5	13,3	2,7	82,4	6,7	Ne	–/–	96,7	
HR – Biskupija, gr. 1	13,5	5	–	–	–	10,5	±2,2	79	±5	Ne	Ulf/– Ulf/–	94	
HR – Biskupija, gr. 6	14	5	–	–	–	10	±3,3	76,5	±6	Da	–/–	92	
HR – Biskupija, gr. 8	15	5 (6?)	–	–	–	11,5	±2	78,3	±5,7	Da	–/–	93,3	
HR – Ćirkovljan	15,2	5	–	–	9,7	7,7	2,8	79,1	4,6	Da	–/–	94,3	
HR – Knnsko polje	15	7	–	–	–	10	±2	81	±5,8	Da	–/–	96	
HR – Kojane Gornje	14	5	–	–	–	12,5	1,8	81	±5,2	Ne	–/–	95	
HR – Podsused	13,7	5	–	–	–	9,5	–	79	–	Da	–/–	94,3	
HR – Prozor – G. Luka	–	5	–	–	9,5	11,5	–	77,3	±6	Da	Ulf/ukras Ulf/decoration	91,5	
HR – Žadvarje	15,5	5	7,5	4,1	10	12	2	79,5	5,5	Da	–/–	95	
IRL – Ballinderry	–	5	–	–	8,5	11	–	79	–	Ne	Ulf/znak Ulf/sign	92,8	
IRL – Kilmaham	–	5	–	–	9	11	–	78,3	–	–	–/–	93	
N – Gravrāk	14,9	5	6,1	3,8	9,2	11,6	–	67,2	5,8	Ne	Ulf/znak Ulf/sign	82,1	
NL – Elst	±15,2	5	±6,7	–	±9,7	±10,4	±1,4	81,4	±5,2	Ne	–/ukras –/decoration	96,5	

Tablica 2. Metrički podaci o pojedinim mačevima sponjanima u tekstu (vrijednosti su iznesene u centimetrima; širine su uglavnom maksimalne; Ulf = Ulfberht).

Table 2. Metrical data of some swords mentioned in the text (values in centimetres; widths mostly maximum; Ulf = Ulfberht).

## KRATICE / ABBREVIATIONS

HiK	A. Milošević (ed.): <i>Hrvati i Karolinzi (Rasprave i vrele)</i> , Split, 2000.
HiK/katalog	A. Milošević (ed.): <i>Hrvati i Karolinzi (Katalog)</i> , Split, 2000.
SHP	<i>Starohrvatska prosvjeta</i> , Zagreb – Split.

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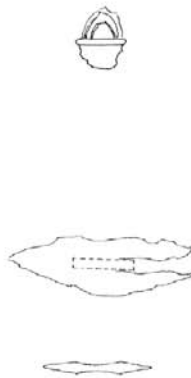
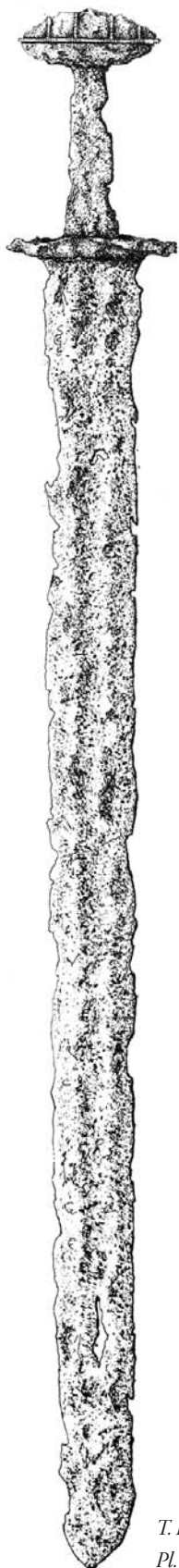


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T. I: 1. Biskupija – Crkvina, grob 1. Mač (HiK/katalog 2000: 210).

Pl. I: 1. Biskupija-Crkvina, grave 1. Sword (HiK/katalog 2000: 210).



T. I: 3. Biskupija – Crkvina, grob 1. Signatura ULFBERHT (Milošević 2000: 130).

Pl. I: 3. Biskupija-Crkvina, grave 1. Signature ULFBERHT (Milošević 2000: 130).

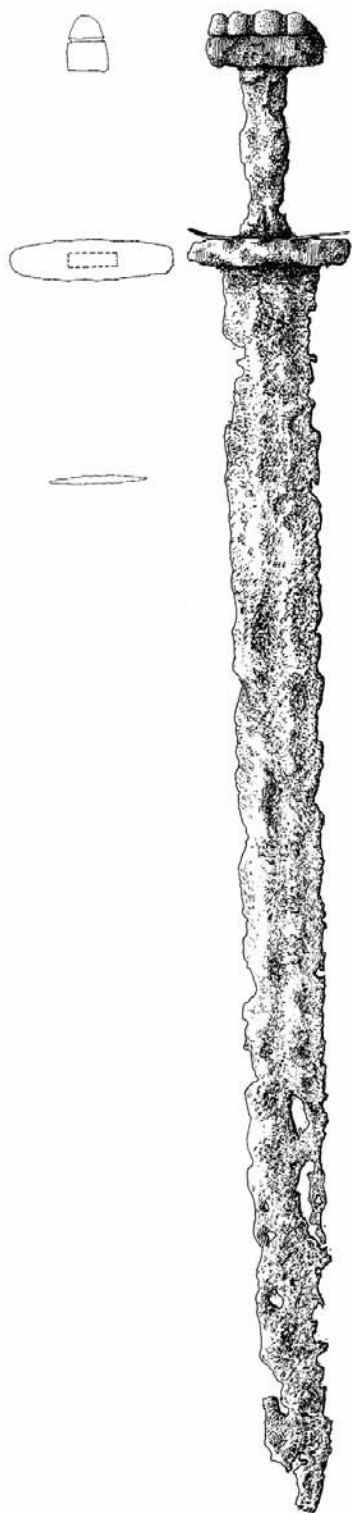
T. I: 2. Biskupija – Crkvina, grob 1. Mač (Jelovina 1986: T. I: 1).

Pl. I: 2. Biskupija-Crkvina, grave 1. Sword (Jelovina 1986: pl. I: 1).



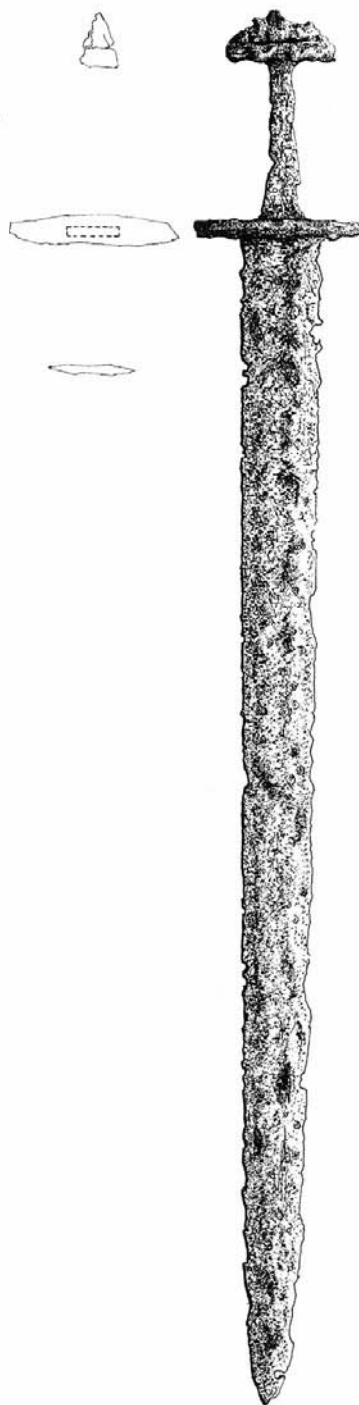
*T. II: 1. Biskupija – Crkvina, grob 6. Mač (HiK/katalog 2000: 215).*

*Pl. II: 1. Biskupija-Crkvina, grave 6. Sword (HiK/katalog 2000: 215).*



*T. II: 2. Biskupija – Crkvina, grob 6. Mač (Jelovina 1986: T. III: 37).*

*Pl. II: 2. Biskupija-Crkvina, grave 6. Sword (Jelovina 1986: pl. III: 37).*



*T. II: 3. Biskupija – Crkvina, grob 8. Mač (Jelovina 1986: T. V: 60).*

*Pl. II: 3. Biskupija-Crkvina, grave 8. Sword (Jelovina 1986: pl. V: 60).*



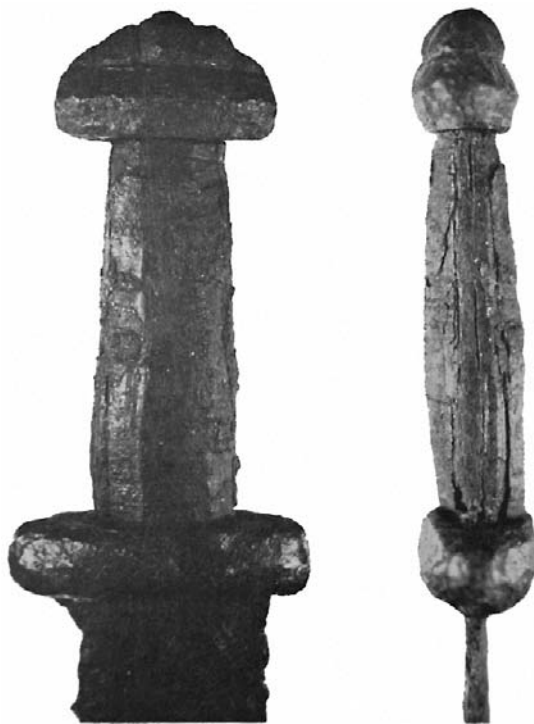
*T. II: 4. Biskupija – Crkvina, grob 8. Mač (Jelovina 1986: T. XXIII: 60).*

*Pl. II: 4. Biskupija-Crkvina, grave 8. Sword (Jelovina 1986: pl. XXIII: 60).*



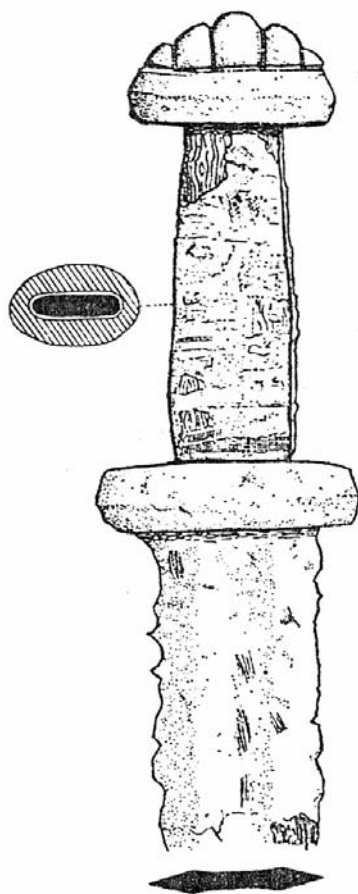
T. III: 1. Cirkovljan – Diven. Mač (HiK/katalog 2000: 100).

Pl. III: 1. Biskupija-Diven. Sword (HiK/katalog 2000: 100).



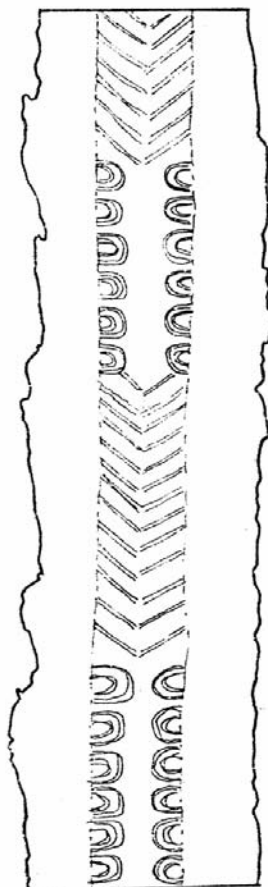
T. III: 2. Cirkovljan – Diven. Balčak (Tomičić 1984: sl. 3).

Pl. III: 2. Biskupija-Diven. Hilt (Tomičić 1984: fig. 3).



T. III: 3. Cirkovljan – Diven. Balčak (Vinski 1981: 14).

Pl. III: 3. Biskupija-Diven. Hilt (Vinski 1981: 14).



T. III: 4. Cirkovljan – Diven. Detalj damasciranoga sječiva (Tomičić 1984: 213).

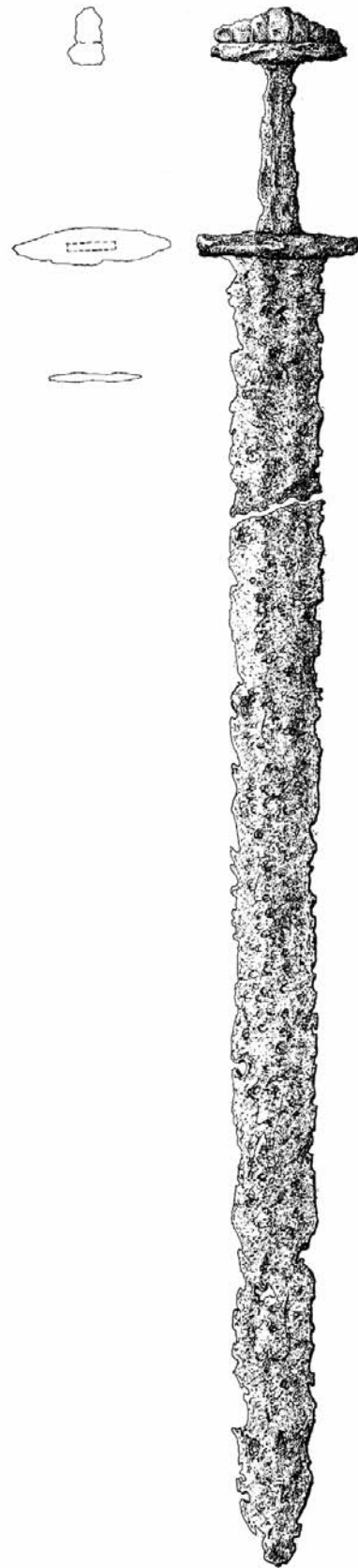
Pl. III: 4. Biskupija-Diven. Detail of damascening on blade (Tomičić 1984: 213).





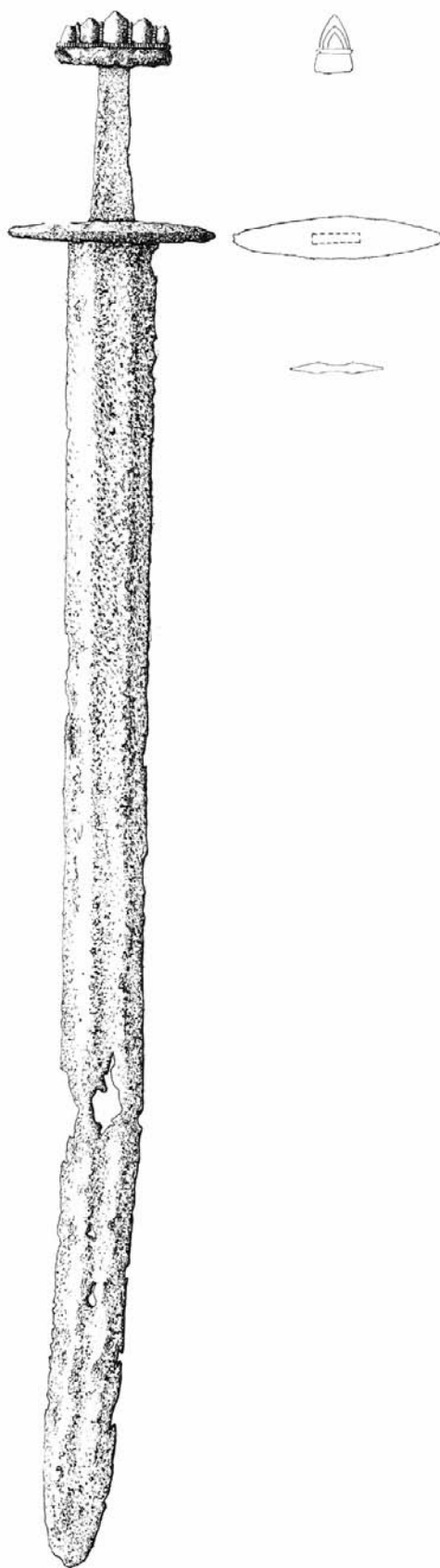
T. IV: 1. Kninsko polje – Gugine kuće. Balčak i dio sječiva  
(Jelovina 1986: T. XXV: 208).

Pl. IV: 1. Kninsko polje-Gugine kuće. Hilt and part of blade  
(Jelovina 1986: pl. XXV: 208).



T. IV: 2. Kninsko polje – Gugine kuće. Mač  
(Jelovina 1986: T. XVIII: 208).

Pl. IV: 2. Kninsko polje-Gugine kuće. Sword  
(Jelovina 1986: pl. XVIII: 208).



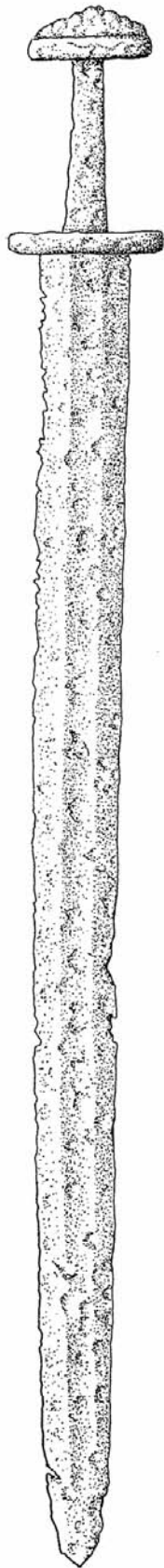
T. V. 1. Koljane Gornje – Vukovića most. Mač (Jelovina 1986: T. XIV: 172).

Pl. V. 1. Koljane Gornje-Vukovića most. Sword (Jelovina 1986: pl. XIV: 172).



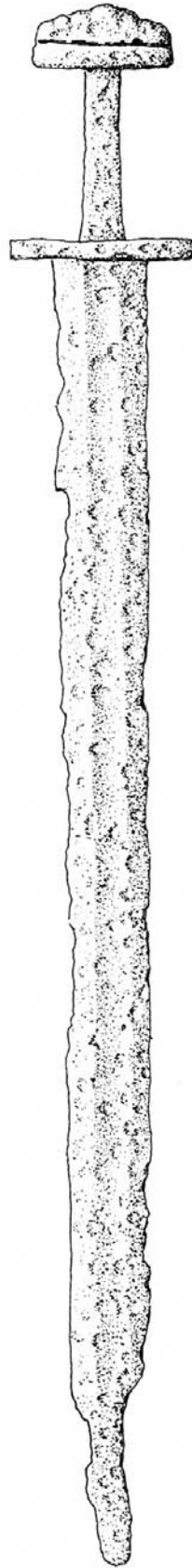
T. V. 2. Koljane Gornje – Vukovića most. Mač (HiK/katalog 2000: 275).

Pl. V. 2. Koljane Gornje-Vukovića most. Sword (HiK/katalog 2000: 275).



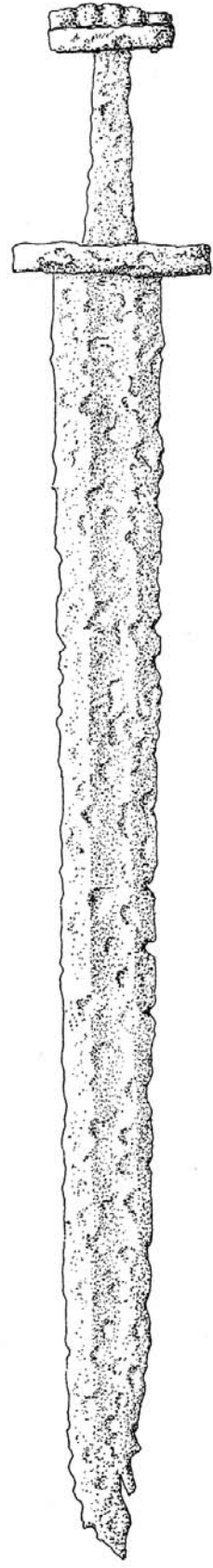
*T. VI: 1. Mogorjelo. Mač (Zekan 1994: 57).*

*Pl. VI: 1. Mogorjelo. Sword (Zekan 1994: 57).*



*T. VI: 2. Podgradina – Rešetarica. Mač (Zekan 1994: 57).*

*Pl. VI: 2. Podgradina-Rešetarica. Sword (Zekan 1994: 57).*



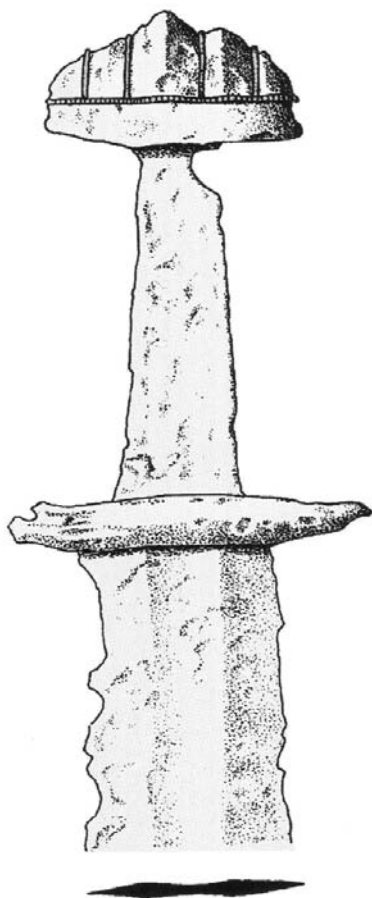
*T. VI: 3. Stolac – Čairi. Mač (Zekan 1994: 57).*

*Pl. VI: 3. Stolac-Čairi. Sword (Zekan 1994: 57).*



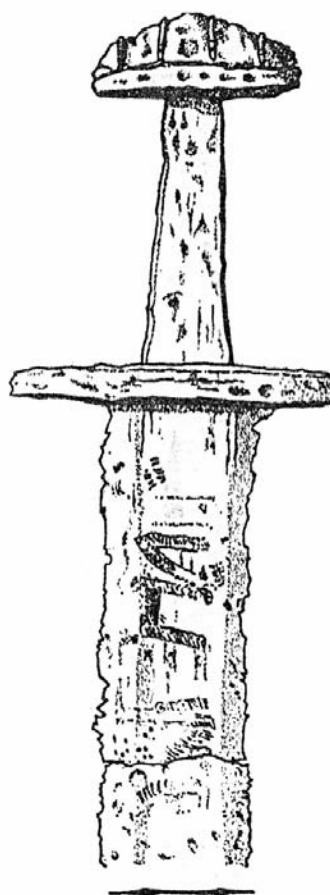
T. VII: 1. Podsused. Mač (HiK/katalog 2000: 97).

Pl. VII: 1. Podsused. Sword (HiK/katalog 2000: 97).



T. VII: 2. Podsused. Balčak i dio sječiva (Tomčić 2000: 160).

Pl. VII: 2. Podsused. Hilt and part of blade (Tomčić 2000: 160).



T. VII: 3. Prozor – Gornja Luka. Balčak i dio sječiva (Vinski 1981: 28).

Pl. VII: 3. Prozor-Gornja Luka. Hilt and part of blade (Vinski 1981: 28).



T. VII: 4. Prozor – Gornja Luka. Signatura ULFBERHT (Milošević 2000: 130).

Pl. VII: 4. Prozor-Gornja Luka. Signature ULFBERHT (Milošević 2000: 130).

T. VII: 5. Prozor – Gornja Luka. Mač (HiK/katalog 2000: 324).

Pl. VII: 5. Prozor-Gornja Luka. Sword (HiK/katalog 2000: 324).







*T. VIII: 1. Zadvarje – Poletnica. Mač (HiK/katalog 2000: 357).*

*Pl. VIII: 1. Zadvarje-Poletnica. Sword (HiK/katalog 2000: 357).*



*T. VIII: 2. Zadvarje – Poletnica. Balčak i dio sječiva (HiK/katalog 2000: 357).*

*Pl. VIII: 2. Zadvarje-Poletnica. Hilt and part of blade (HiK/katalog 2000: 357).*



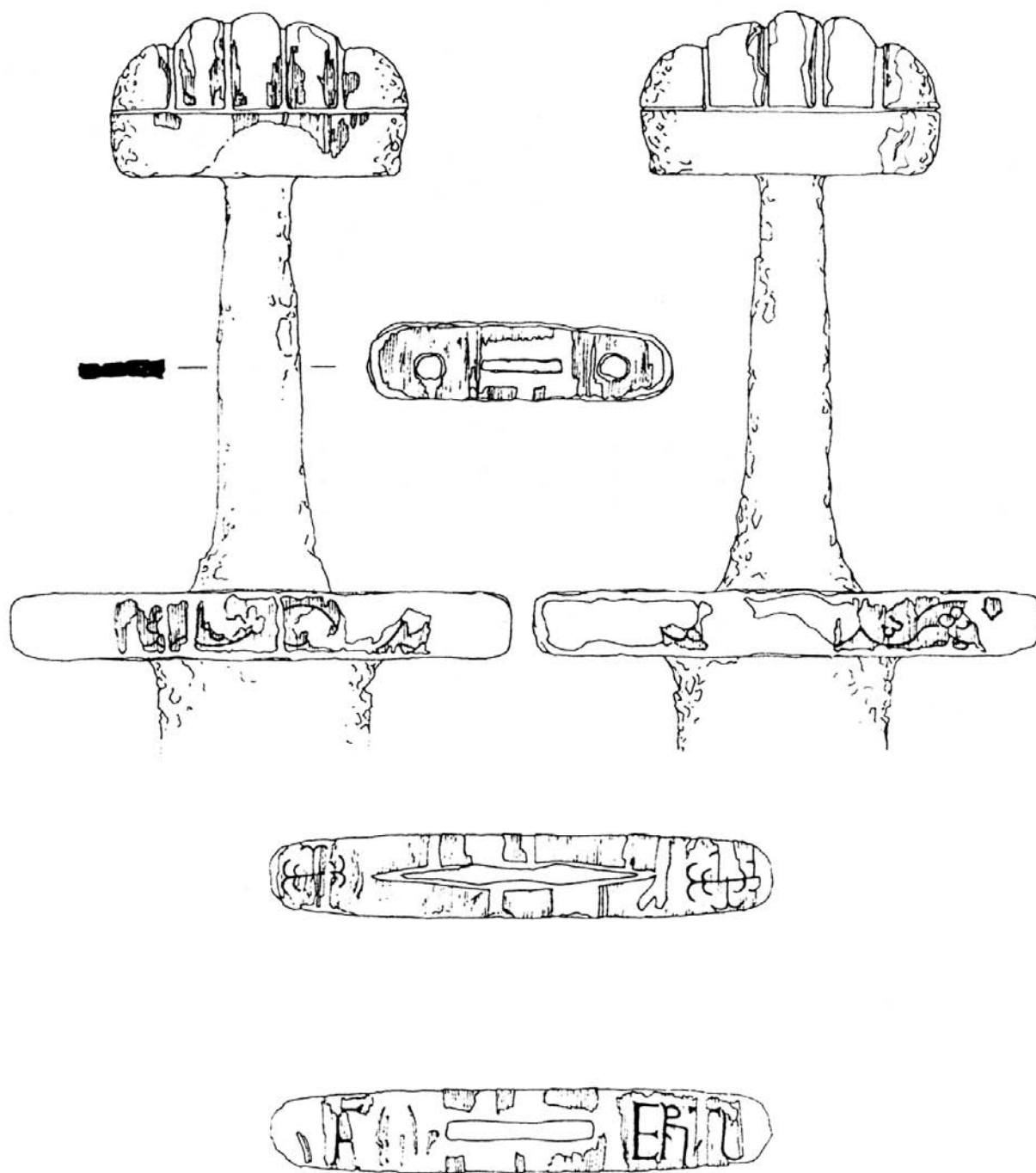
*T. VIII: 3. Zadvarje – Poletnica. Detalj balčaka (HiK/katalog 2000: 357).*

*Pl. VIII: 3. Zadvarje-Poletnica. Hilt detail (HiK/katalog 2000: 357).*



*T. VIII: 4. Zadvarje – Poletnica. Detalj balčaka (HiK/katalog 2000: 357).*

*Pl. VIII: 4. Zadvarje-Poletnica. Hilt detail (HiK/katalog 2000: 357).*



T. IX. Zadvarje – Poletnica. Detalji balčaka (Piteša 2001: 359).

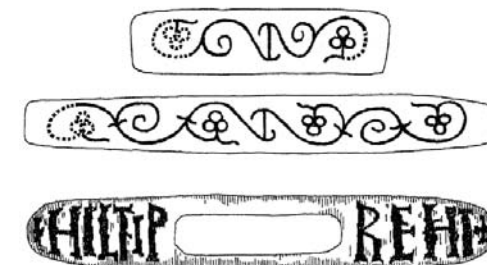
Pl. IX. Zadvarje-Poletnica. Hilt details (Piteša 2001: 359).



T. X: 1. Ballinderry. Mač (Peirce 2002: 63).  
Pl. X: 1. Ballinderry. Sword (Peirce 2002: 63).



T. X: 2. Ballinderry. Donja strana nakrsnice (Ellis Davidson 1998: T. 2: c).  
Pl. X: 2. Ballinderry. Lower part of cross-guard (Ellis Davidson 1998: pl. 2: c).

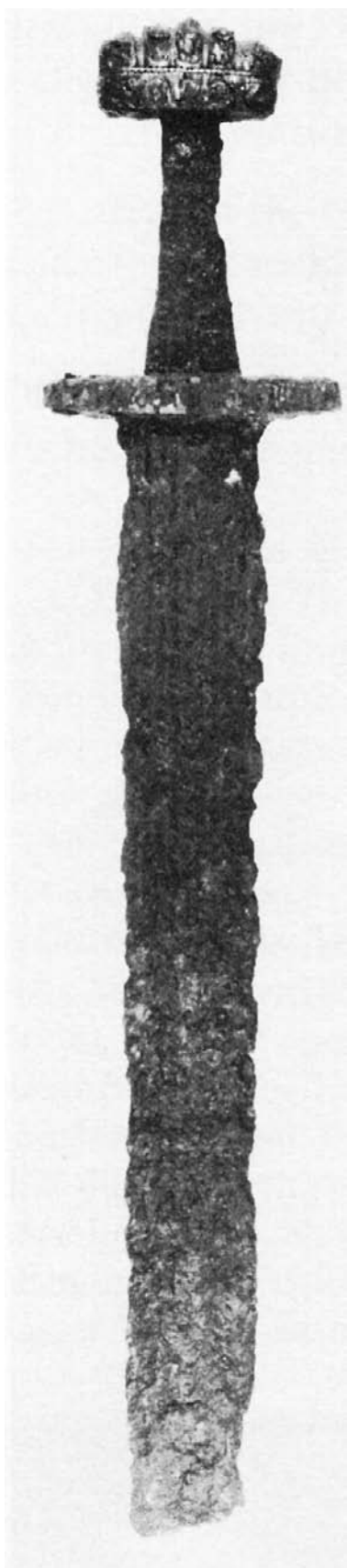


T. X: 3. Ballinderry. Balčak (Müller-Wille 1982: 140).  
Pl. X: 3. Ballinderry. Hilt (Müller-Wille 1982: 140).



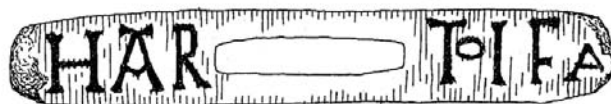
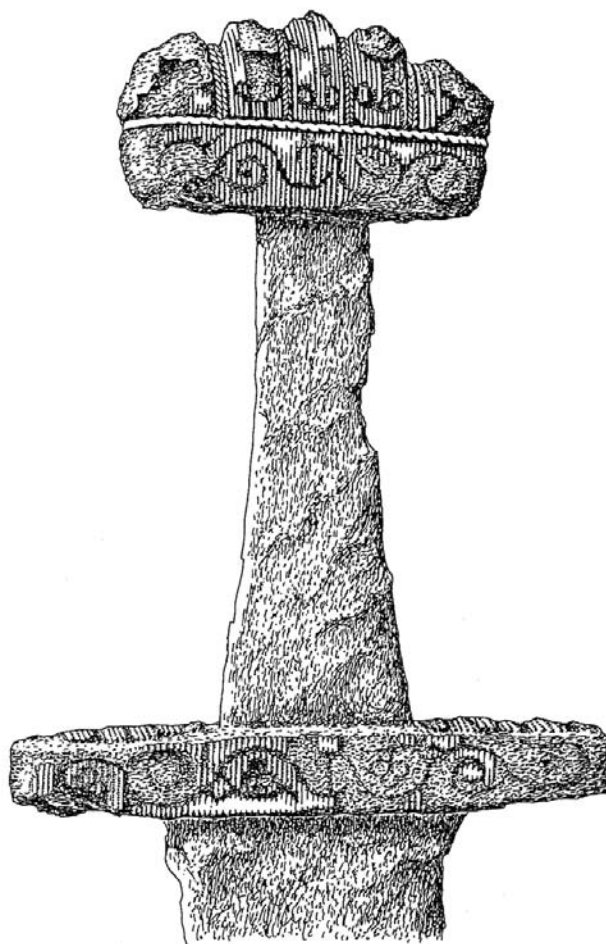
T. X: 4. Ballinderry. Signatura ULFBERHT (Peirce 2002: 64).  
Pl. X: 4. Ballinderry. Signature ULFBERHT (Peirce 2002: 64).





T. XI: 1. Kilmainham. Mač (Peirce 2002: 66).

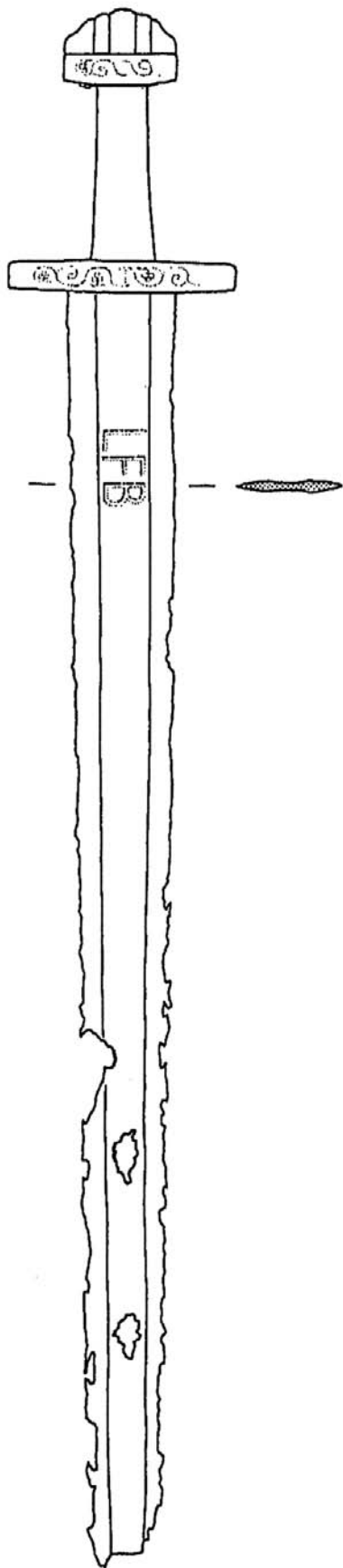
Pl. XI: 1. Kilmainham. Sword (Peirce 2002: 66).



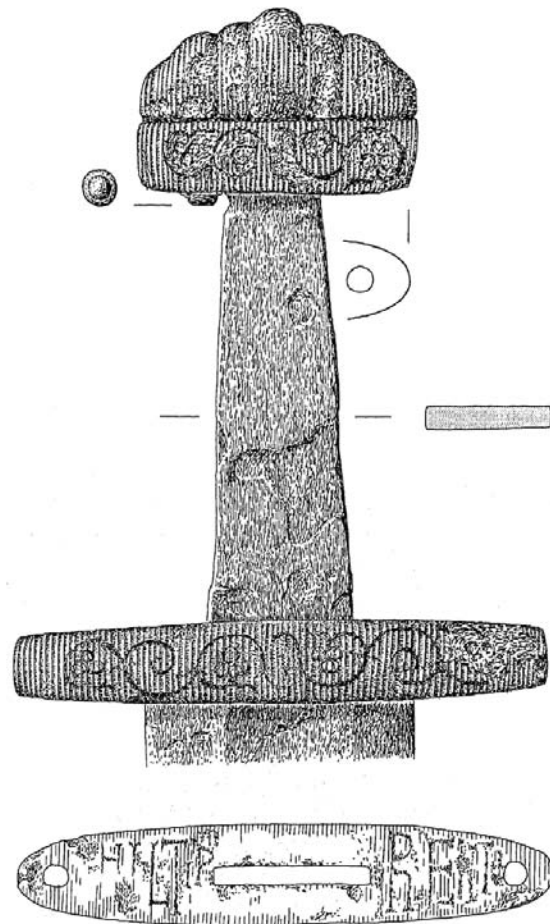
T. XI: 2. Kilmainham. Balčak (Müller-Wille 1982: 141).

Pl. XI: 2. Kilmainham. Hilt (Müller-Wille 1982: 141).

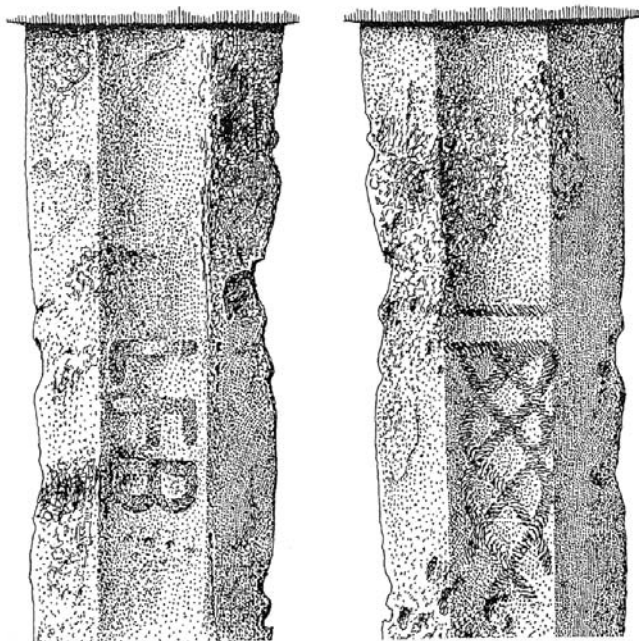




T. XII: 1. Gravräk. Mač (Müller-Wille 1982: 106).  
Pl. XII: 1. Gravräk. Sword (Müller-Wille 1982: 106).



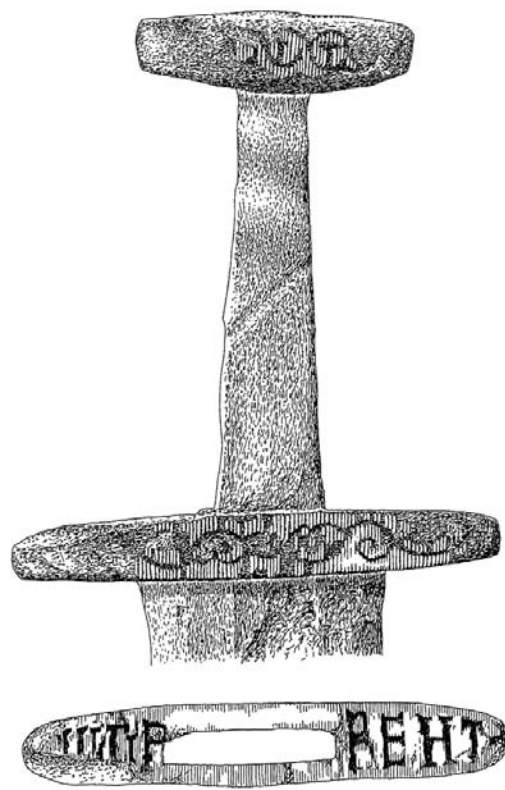
T. XII: 2. Gravräk. Balčak (Müller-Wille 1982: 113).  
Pl. XII: 2. Gravräk. Hilt (Müller-Wille 1982: 113).



T. XII: 3. Gravräk. Detalji sječiva sa signaturom (Müller-Wille 1982: 114).  
Pl. XII: 3. Gravräk. Blade details with signature (Müller-Wille 1982: 114).



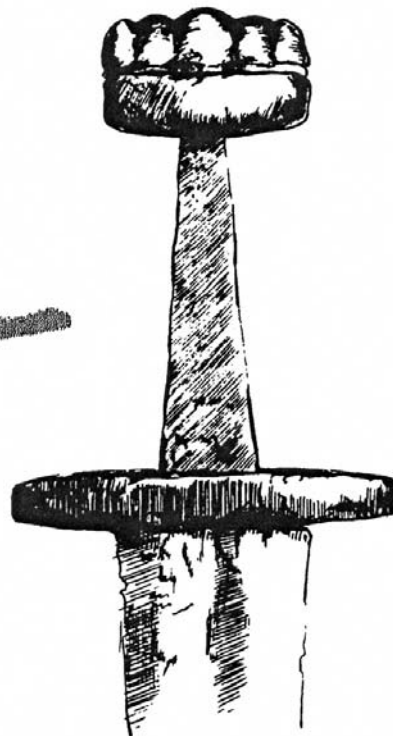
T. XIII: 1. Gjersvik. Balčak (Müller-Wille 1982: 143).  
Pl. XIII: 1. Gjersvik. Hilt (Müller-Wille 1982: 143).



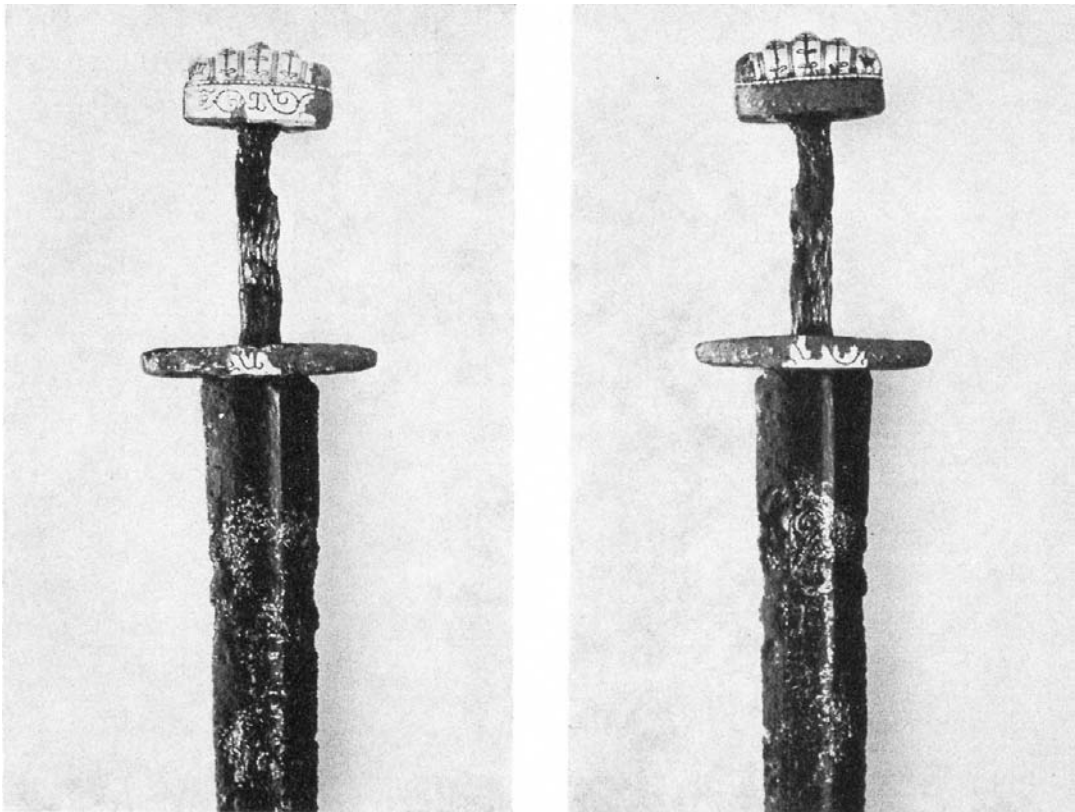
T. XIII: 3. Liepe. Balčak (Müller-Wille 1982: 142).  
Pl. XIII: 3. Liepe. Hilt (Müller-Wille 1982: 142).

**HILFBERHT**

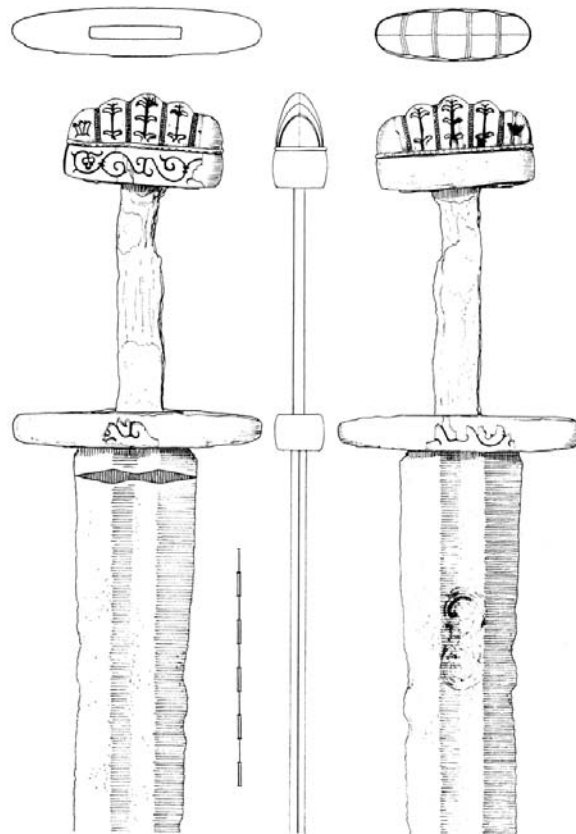
T. XIII: 2. Gjersvik (Müller-Wille 1982: 146).  
Pl. XIII: 2. Gjersvik (Müller-Wille 1982: 146).



T. XIII: 4. Mač iz kolekcije Wallace. Balčak (Ellis Davidson 1998: sl. 87).  
Pl. XIII: 4. Sword from Wallace Collection. Hilt (Ellis Davidson 1998: fig. 87).

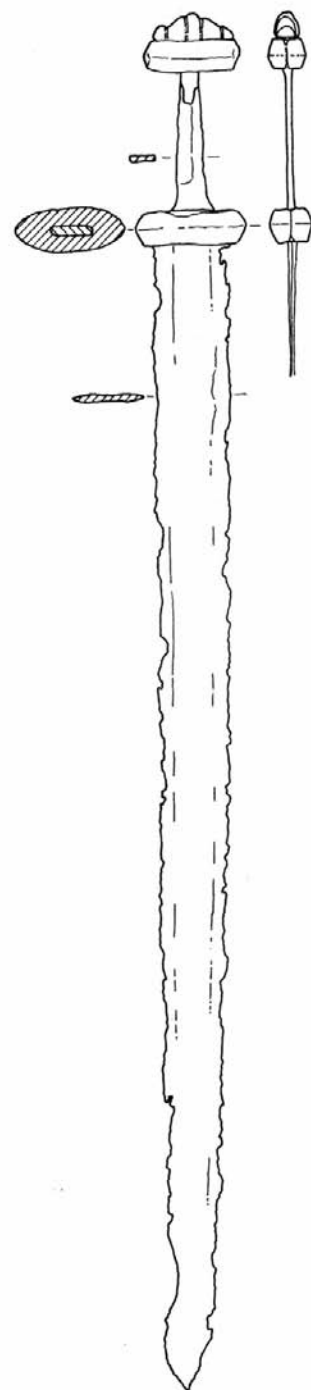
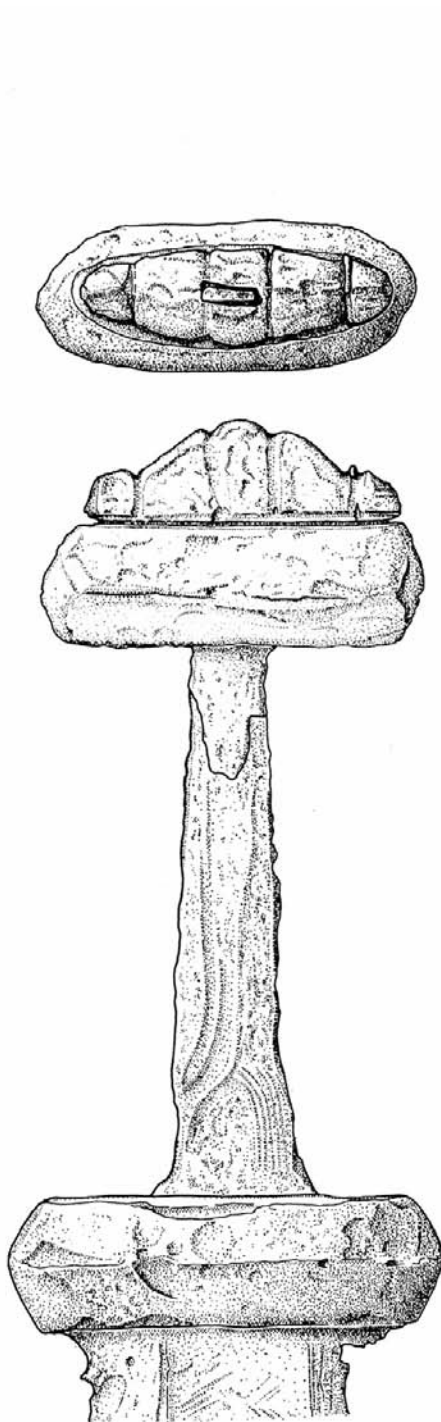


T. XIV: 1. Elst. Balčak i dio sječiva (Ypey 1982: 48).  
Pl. XIV: 1. Elst. Hilt and part of blade (Ypey 1982: 48).



T. XIV: 2. Elst. Balčak i dio sječiva (Ypey 1982: 49).  
Pl. XIV: 2. Elst. Hilt and part of blade (Ypey 1982: 49).



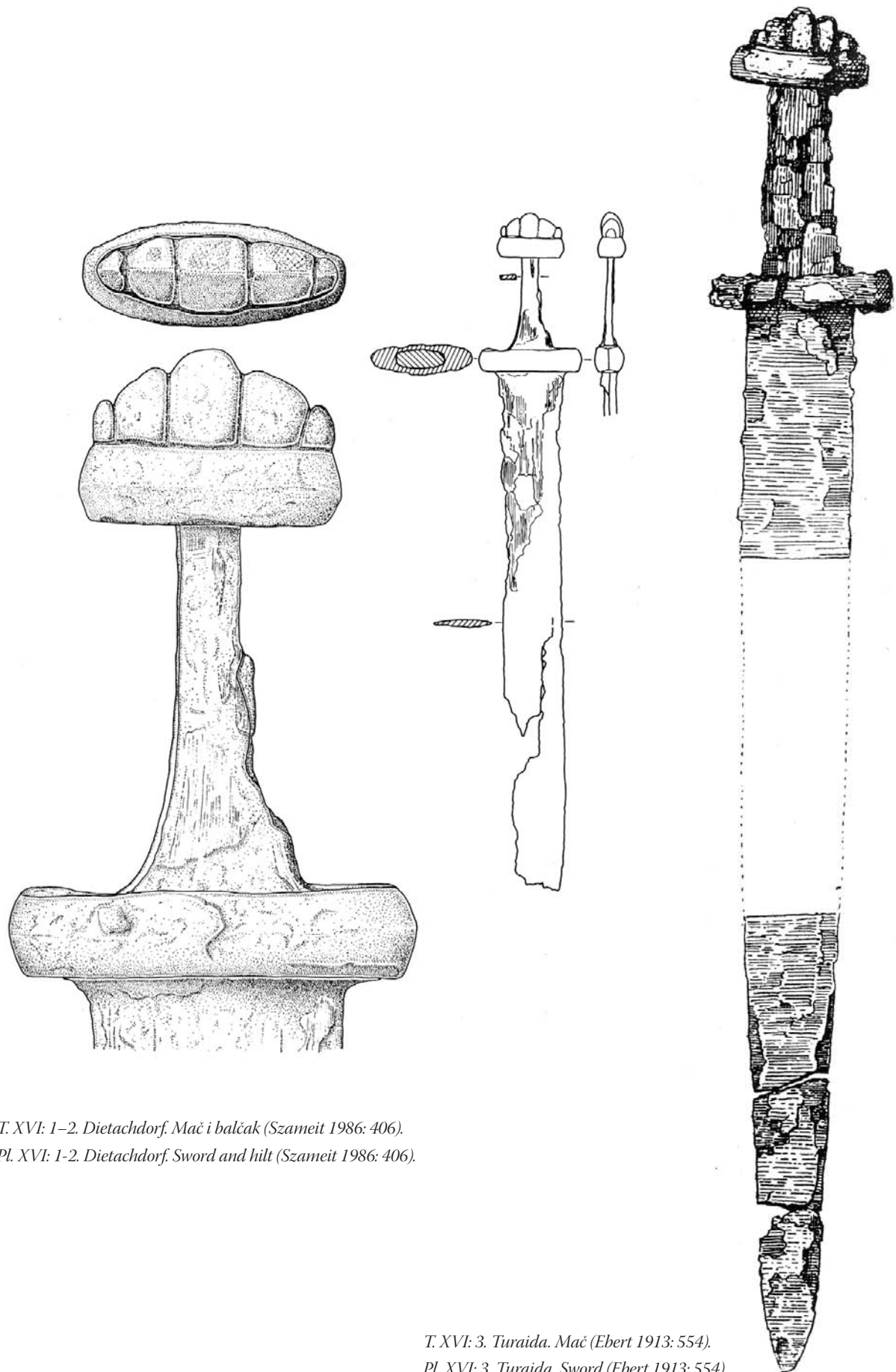


T. XV: 2–3. Hainbuch. Mač i balčak (Szameit 1986: 404).  
Pl. XV: 2–3. Hainbuch. Sword and hilt (Szameit 1986: 404).

T. XV: 1. Ostby. Mač (Peirce 2002: 68).

Pl. XV: 1. Ostby. Sword (Peirce 2002: 68).





*T. XVI: 1–2. Dietachdorf. Mač i balčak (Szameit 1986: 406).*

*Pl. XVI: 1-2. Dietachdorf. Sword and hilt (Szameit 1986: 406).*

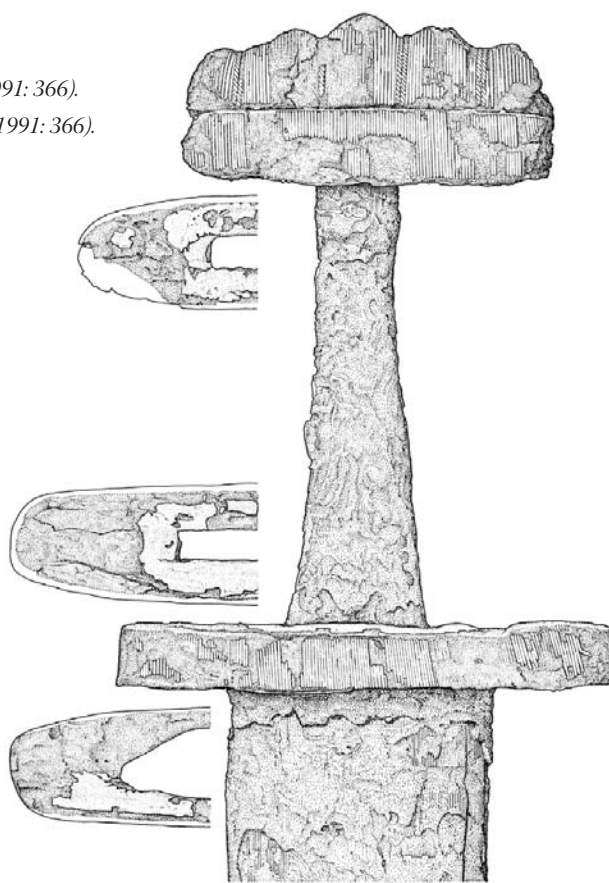
*T. XVI: 3. Turaida. Mač (Ebert 1913: 554).*

*Pl. XVI: 3. Turaida. Sword (Ebert 1913: 554).*



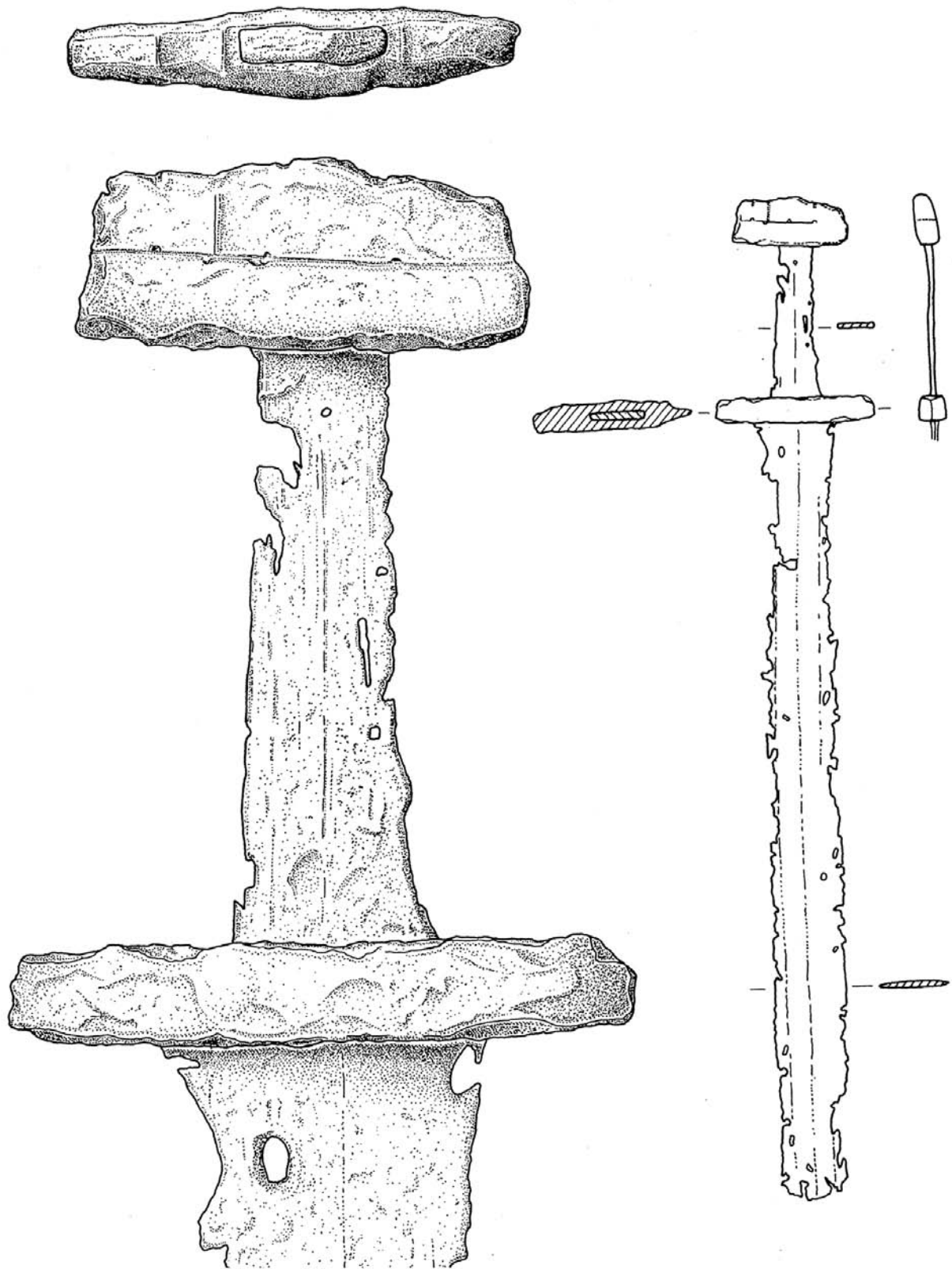
T. XVII: 1–2. Haithabu, mač Ab (Geibig 1991: 366).

Pl. XVII: 1–2. Haithabu, sword Ab (Geibig 1991: 366).



T. XVII: 3. Haithabu, mač Ab. Detalji balčaka (Müller-Wille 1976: 40).

Pl. XVII: 3. Haithabu, sword Ab. Hilt details (Müller-Wille 1976: 40).

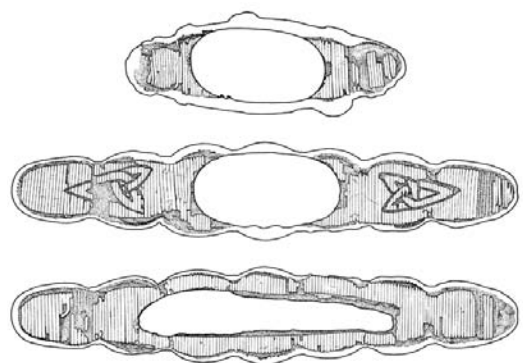


T. XVIII: 1-2. Atzenbrugg. Mač i balčak (Szameit 1986: 402).  
Pl. XVIII: 1-2. Atzenbrugg. Sword and hilt (Szameit 1986: 402).



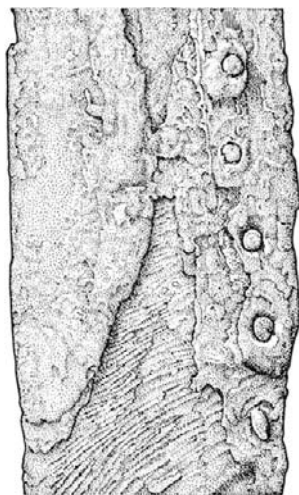


T. XIX: 1. Haithabu, mač Bb. Balčak (Müller-Wille 1976: 70).  
Pl. XIX: 1. Haithabu, sword Bb. Hilt (Müller-Wille 1976: 70).



T. XIX: 2. Haithabu, mač Bb. Detalji nakrsnice (Müller-Wille 1976: 75).

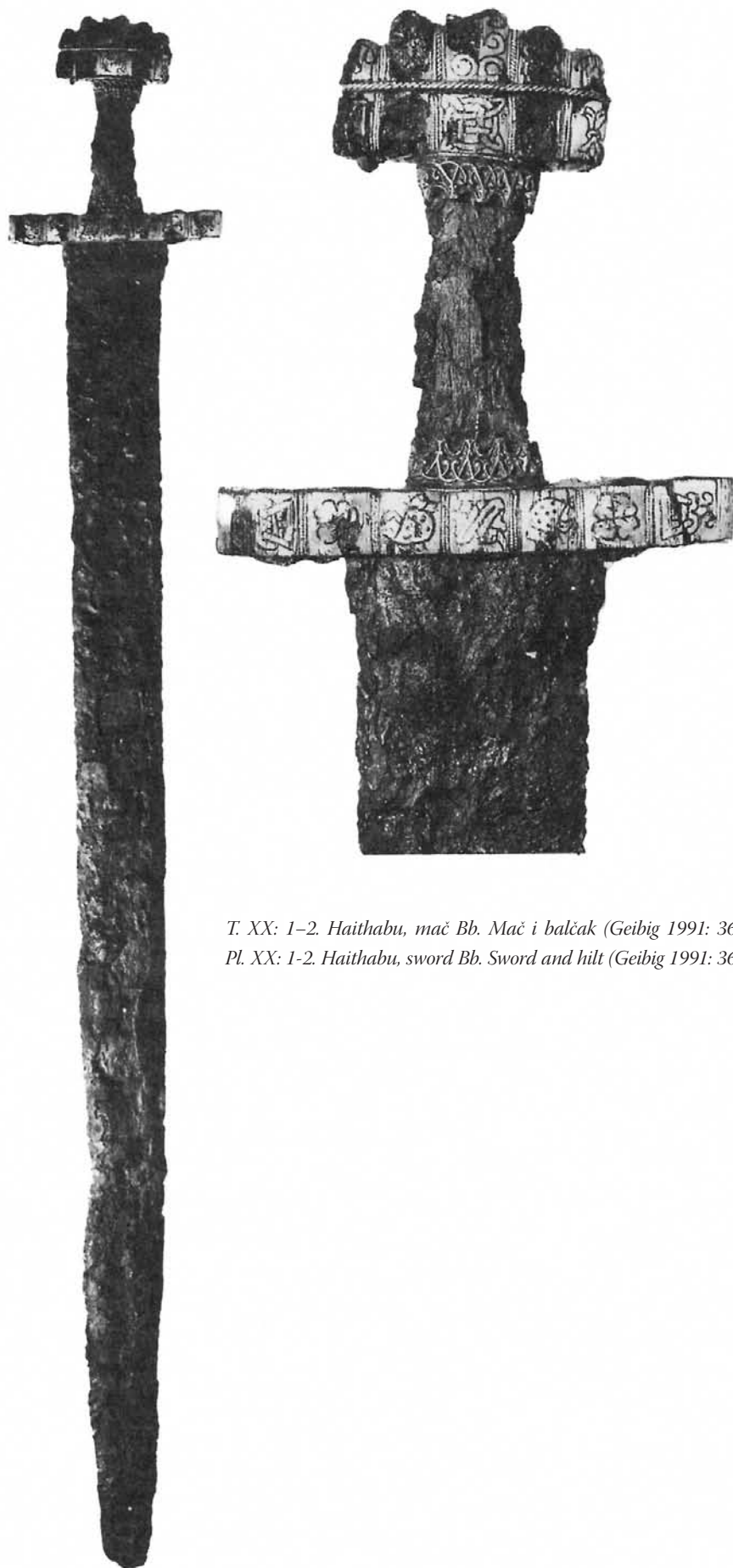
Pl. XIX: 2. Haithabu, sword Bb. Cross-guard details (Müller-Wille 1976: 75).



T. XIX: 3. Haithabu, mač Bb. Detalj sječiva (Müller-Wille 1976: 75).

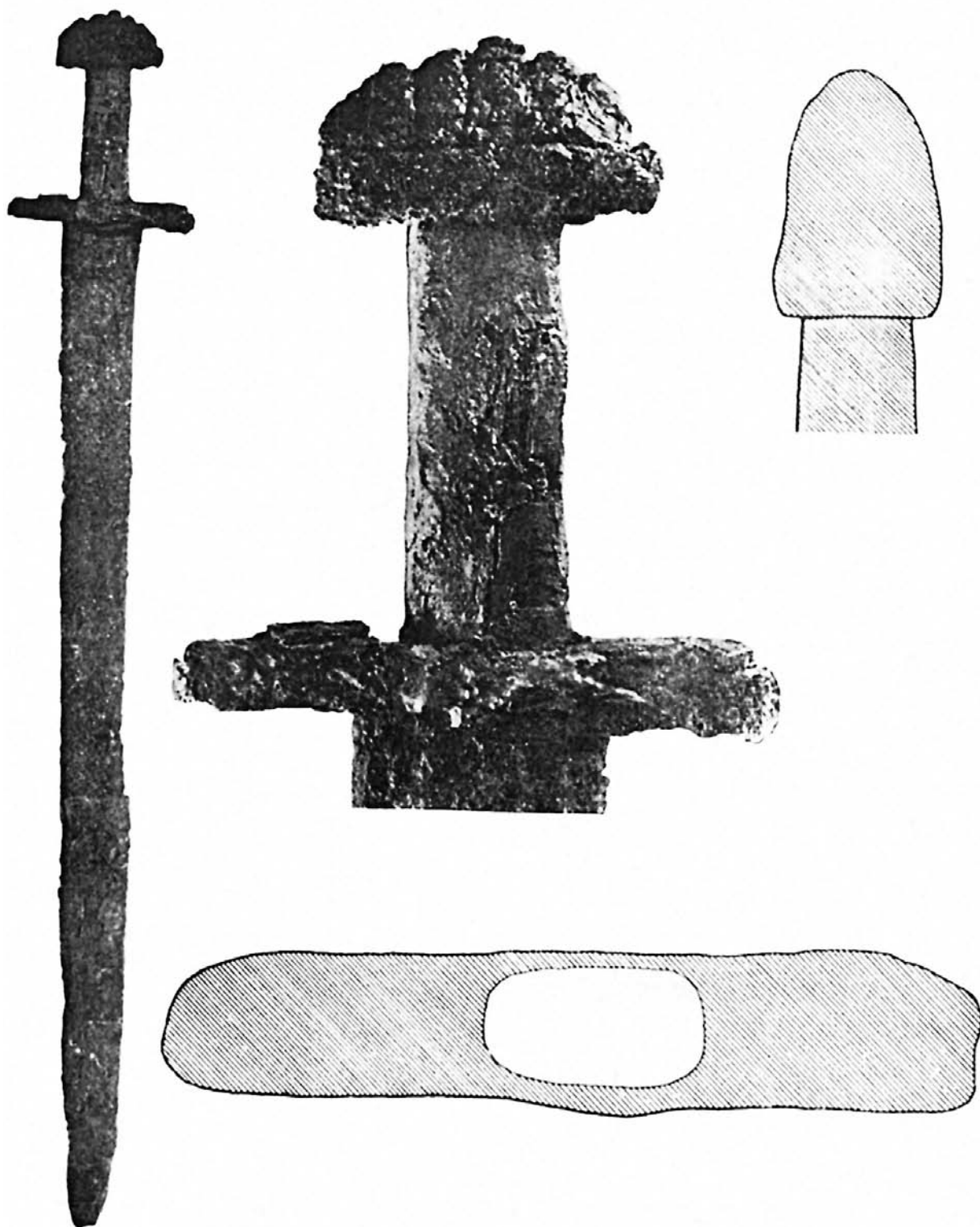
Pl. XIX: 3. Haithabu, sword Bb. Blade details (Müller-Wille 1976: 75).



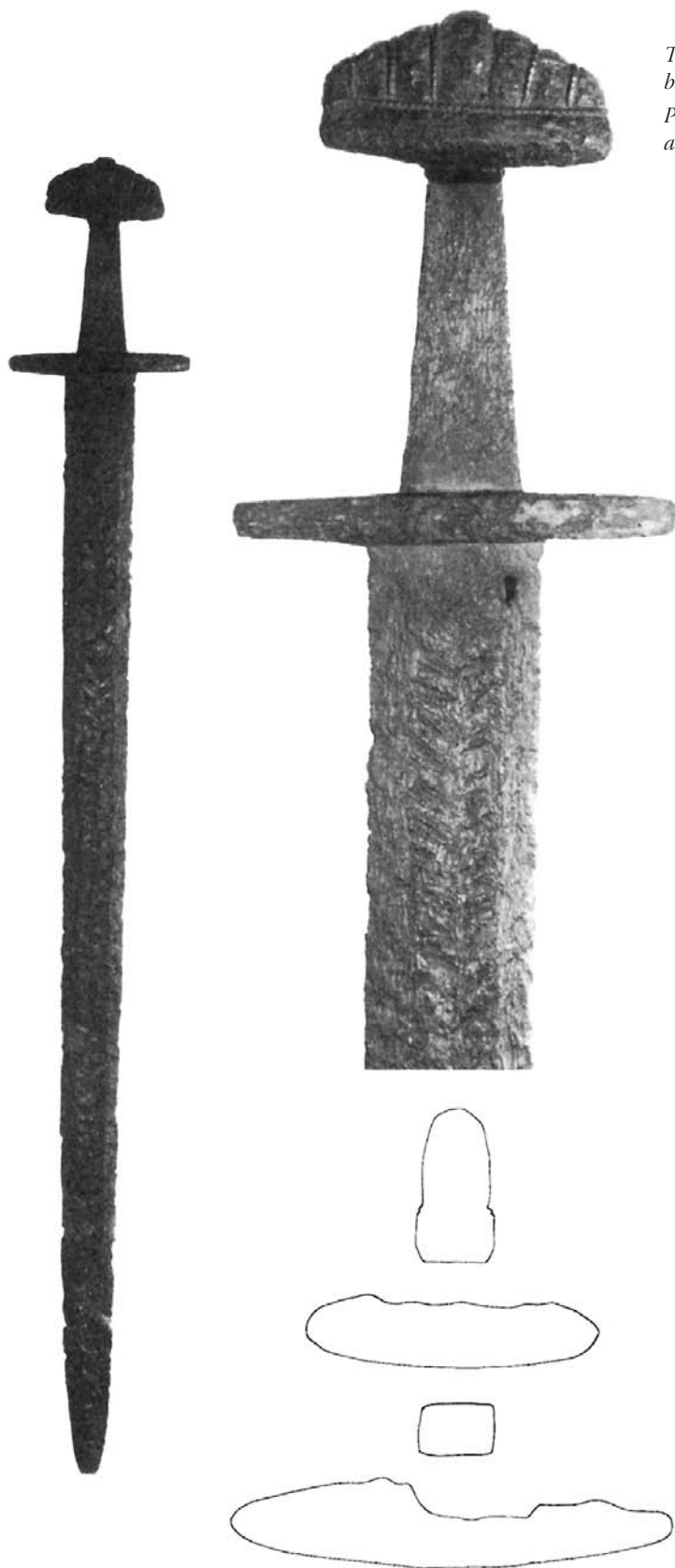


*T. XX: 1–2. Haithabu, mač Bb. Mač i balčak (Geibig 1991: 367).*

*Pl. XX: 1–2. Haithabu, sword Bb. Sword and hilt (Geibig 1991: 367).*

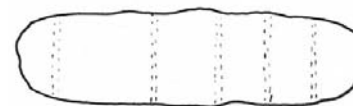


*T. XXI: 1–4. Mikulčice. Mač i detalji balčaka (Poulik 1957: 302).  
Pl. XXI: 1–4. Mikulčice. Sword and hilt details (Poulik 1957: 302).*



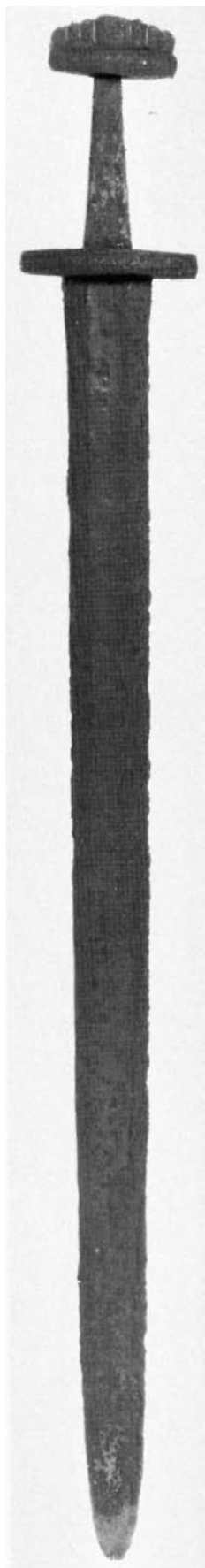
*T. XXII: 1–2. Ludwigshafen am Rhein – Oppau. Mač i balčak s dijelom sječiva (Geibig 1991: 280).*

*Pl. XXII: 1-2. Ludwigshafen am Rhein-Oppau. Sword and hilt with part of blade (Geibig 1991: 280).*



*T. XXII: 3–4. Iz Rajne kod Mainza. Jabučica (Geibig 1991: 280).*

*Pl. XXII: 3-4. From the Rhine at Mainz. Jabučica (Geibig 1991: 280).*



*T. XXIII. Francuska, nepoznato nalazište. Mač (Peirce 2002: 70).  
Pl. XXIII. France, unknown find-site. Sword (Peirce 2002: 70).*