

MEDIAEVAL SWORDS

FROM SOUTHEASTERN EUROPE
MATERIAL FROM 12TH TO 15TH CENTURY

Marko Aleksić



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Belgrade 2007

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*Mediaeval Swords from Southeastern Europe.
Material from 12th to 15th Century*

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Preface

Many people who helped me in the process of writing this book should be given credit for its form and contents. Almost a decade ago, when I got into this investigation, I was lucky to become acquainted with works of Professor Djurdjica Petrović. Her conscientious work in the Dubrovnik Archives and in the Collection of Medieval Weaponry in the Military Museum in Belgrade, as well as high investigation goals, which she assigned to herself and reached, made my path towards the essence of the subject I have chosen much shorter. Her good reputation in the academic circles in the former Yugoslavia and the unquestioning support she offered me until her premature death in 2002 were one of the incentives for starting to write this book.

Every long-lasting work offers many opportunities to meet people who could be of some help. Even more so, well-meaningness and particularly useful help were always offered to me by mgr Milica Janković, keeper of the Medieval Collection in the Belgrade City Museum, and I wish to express my gratitude to her on this occasion. I could also always count on the same steady and well-intentioned support provided by my tutor Dr Djordje Janković, assistant professor, and professors Aleksandar Jovanović and Vojislav Jovanović, all from the Faculty of Philosophy in Belgrade and I also got every possible help and support from the keepers of the Medieval Collection in the Military Museum in Belgrade Branka Milosavljević and mgr Mirko Peković. My work on this subject also gives me the pleasure to get in touch and collaborate with the colleagues from other countries. I got particular encouragement from Ms Angelica Condrau from Schweizerisches Landes Museum in Zurich and Dr Gabriel Fusek from Slovak Academy of Sciences. I had the honor to experience the support of Prof. Taxiarchis Kollias from the University of Athens whose works have been real example to me. The number of people in Croatia, Slovenia, Bulgaria, Albania, Greece, Slovakia and Czech Republic who unselfishly helped in the writing of this book is so large that I was able to thank only few of them in the book. I am also greatly indebted to the Military Museum in Belgrade, Belgrade City Museum and Schweizerisches Landes Museum in Zurich for giving me permission to publish in this book the swords treasured in their collections.

Apart from me, those who deserve most credit for this book as it is are Mirjana Vukmanović, Miloš Savković and Kristijan Relić. In addition to her work on translating the text into English, Mirjana Vukmanović had to struggle also with my knowledge of that language and the ideas on how certain things should be translated. Miloš Savković, among other things, also made these beautiful drawings of the swords in the same manner as the artists who many years ago embellished the books and archaeological journals. His work sometimes required lot of preparation in order to make the true representation of certain swords on the basis of available information. Kristijan Relić, besides giving his best in the design of the book, was also my most confidential partner in the discussions about this topic, which occupied me in all these years. The photographs of the swords from the Military Museum in Belgrade are the works of Nemanja Obradović.

At about this time last year when I sat at my computer preparing as usually to write this book I realized that I had been doing this day by day already for couple of years. I could not have been doing that without great passion for this subject. Therefore I devote this book first of all to all the people who share this passion and who I came in contact with in the course of my investigation be they serious scholars, collectors or just all those in love with medieval swords.

Introduction

The initial archaeological material studied in this work comprises the sword finds from the territory of Serbia. However, besides the fact that this material could be comprehended only within certain broader context, the interest for this topic, particularly for the late medieval swords from the territory of former Yugoslavia and the entire Balkans resulted in number of finds included in this work to expand over this complete area. Finally, I decided to include in this work also the material from the neighboring regions, the Carpathian basin and the South Alpines in order to make the material from the Balkans more comprehensible. Therefore, the term southeast Europe as used in this work includes the Balkan Peninsula and the Carpathian basin, i.e. modern states of Greece, Albania, countries of the former Yugoslavia, Bulgaria, Romania, Hungary and Slovakia. Thus this work got such form considering territorial distribution of the finds.

The archaeological material studied in this work includes the swords, which are in most cases the chance finds, i.e. they do not come from the systematically excavated sites. Also, the specimens having an engraved text or heraldic or any other signs, which undoubtedly indicate distinct historical person or family or certain chronological period or geographic area are exceptionally rare. The same situation is with the swords from other parts of the continent and that directed the investigators of this subject to base the chronological and geographical determination of most of the swords on their morphological characteristics, analogies with more reliably determined finds and the available visual representations.

When we consider the investigations of the medieval swords their evolution is usually divided into the period of the Frankish spathe, i.e. the Viking swords lasting approximately until

the epoch of the Crusades and the swords from the Late Middle Ages. In addition to the historical and morphological reasons in the evolution of sword as a weapon this situation was indirectly influenced by publishing and extensive use of renowned typology of the Viking swords suggested in the 1919 by the Norwegian investigator Jan Petersen and which was later supplemented by other scholars. Considering this situation as well as the fact that typology of swords established by Ewart Oakeshott (on which the classification in this work is based) includes the chronologically later material, I was studying here mostly the swords from the 12th to the 15th century but this time interval was not strictly observed and some earlier and possibly later specimens were also included because of the typological affiliation of the material in some instances.

The work of Marian Głosek is for the time being one of the most comprehensive books about late medieval swords in Europe and it is also the study, which included the largest number of swords from the territory we investigate in this work.¹ It comprises 44 finds from the territory of Slovakia and 71 specimens from the territory of present-day Hungary dating from the 12th –15th century. In his exhaustive and well-known study of the late medieval weapons from Slovakia, Alexander Ruttkay included also 40 swords from the 12th –15th century.² Until recently there were almost no other works, which studied in detail large amount of finds from the broader territory. Gavro Škrivanić who fifty years ago published his study about the weapons of mediaeval Serbia, Bosnia and Dubrovnik included in his work around fifteen swords from the 12th to the 15th

¹ Głosek 1984.

² Ruttkay 1975/76.

century.³ The works of Djurdjica Petrović⁴ that are rather detailed studies of the subject do not have the catalogue of the finds despite a comprehensive study of many local as well as foreign finds. Branka Milosavljević studied over twenty swords from the 12th–15th century in the collection of the Military Museum in Belgrade⁵ and similar effort was made by Marija Šercer for the material from the History Museum of Croatia in Zagreb and she also suggested her own typology of these weapons.⁶ Željko Demo analyzed six finds from the northwestern Croatia.⁷ In the recent times was published the exhibition catalogue of a private collection containing considerable number of late medieval swords but the name of the collector is unknown (just initials S. P.) as well as the finding places of most of the swords.⁸ The subtitle of exhibition and catalogue suggest that all presented material comes from the territory of Croatia but it could not be accepted with certainty because of the great typological heterogeneity of the material, which often represents the unique specimens not only in Croatia but in the entire southeast Europe. Still, all these finds are included in the catalogue with reservation that it could not be assumed with certainty for every piece to originate from Croatia or the southeast Europe (cat. nos. 349-369).

One of the pioneers of investigation of medieval swords and weaponry in general in the territory of Bosnia and Herzegovina was Ćiro Truhelka while in more recent times Mirsad Sijarić published seventeen medieval swords from that territory.⁹ Seven late medieval swords from the territory of Slovenia are collected by Ferdinand Tancik in the catalogue of large exhibition concerning the medieval weapons of the Slovenes and this number was supplemented with another eight specimens in the comprehensive synthetic work including heterogeneous archaeological material.¹⁰ The works of Tomaž Nabergoj on the same subject are also important in the more re-

cent time.¹¹

The material from the territory of present-day Hungary, besides the book by Marian Glosek, was published in rather considerable quantity already in the end of the 19th century.¹² From that time also date the important works of Joseph Hampel and Geza Nagy that included also some finds from the territory of present-day Romania.¹³ Much later are the works of Ferenc Csillag, Janos Kalmar, József Lugosi and Ferenc Temesváry.¹⁴ The best investigated area in Romania is the region of Transylvania and to some extent Banat, first of all thanks to the more recent work by Karl-Zeno Pinter including thirty late medieval swords from this area.¹⁵

The swords from the 12th–15th centuries from the territory of Bulgaria are not included in any comprehensive work although many authors published and analyzed this material. The most important studies are the works by Ekaterina Manova and Shanko Apostolov.¹⁶ Lately, Valerij Iotov also paid much attention to the study of weaponry, first of all from the Early Middle Ages.¹⁷ The level of investigation of this topic in the remaining areas of Greece, Macedonia, Albania and European Turkey, i.e. the regions, which had been under Byzantine control for a long time is falling far behind when the quantity of published archaeological material is considered. Professor Taksiarkis Kollias from the University of Athens was studying the weapons in the Byzantine army but facing the lack of archaeological material of this kind in his country he used the material from the neighboring regions, mostly from Bulgaria and Serbia.¹⁸ Other scholars, first

³ Шкриванић 1957.

⁴ Petrović 1976; Петровић 1977; Петровић 1993; Петровић и Вучинић 2001.

⁵ Милосављевић 1993.

⁶ Šercer 1976.

⁷ Demo 1983/4.

⁸ Kovač 2003.

⁹ Truhelka 1914; Sijarić 2004.

¹⁰ Tancik 1971; Štamcar 1995.

¹¹ Nabergoj 1997; Nabergoj 2001; Nabergoj 2002.

¹² Szendrei 1896, unfortunately, unavailable to me.

¹³ Hampel 1905; Nagy 1894; Nagy 1896; Nagy 1898.

¹⁴ Csillag 1971; Kalmar 1971; Lugosi and Temesváry 1988.

¹⁵ Pinter 1999. Worth mentioning is the book about weapons, including also swords from 16th–18th century in Romania, Vlădescu, König and Popa 1973.

¹⁶ Манова 1966; Апостолов 1988; Апостолов 1991. Апостолов 1983 was unavailable to me.

¹⁷ Йотов 2002; Йотов 2004, *Acta Musei Varnaensis I*, ed. Йотов, Варна 2002.

¹⁸ Kollias 1988. About swords pp. 133-161. I wish to express my thanks to Professor Dr Kollias and the Greek archaeologies, Sotiris Fotakidis and Philippos Mazarakis-Ainian from the National Historical Museum in Athens who kindly tried to help me in collecting the material for

of all Ada Bruhn-Hoffmeyer and David Nicolle wrote considerably about the Byzantine weaponry but their attention was mostly directed to the period before the 12th century. In addition to this basic literature I found archaeological material for this book also in many other works where few or just one sword have been published.

The territory of Albania is included in this book although I do not know of a single work where some sword from this territory was published. Two swords ascribed to George Kastrioti Skanderbeg (1405-1468), the Albanian national hero from the period of resistance to Turkey are known so far. They are today in the Weltliche Szackammer in Vienna and their excellent copies are exhibited in the Skanderbeg Museum in Kruje, central Albania. One of them is in fact a sabre and the other despite the straight blade has somewhat curved hilt, the trait also distinguishing a sabre from a sword so because of that it was not included in this study. One blade with single-handed hilt of a medieval sword is exhibited in the same museum but as the pommel and cross-guard are missing and other data about this sword are not available I was not able to include it in the catalogue. It could be noticed that the fuller covers slightly over one third of the blade width while the point is short, slightly tapering but rounded. While visiting the museums in Albania I saw another sword in the museum in the Shkodër fortification, northwestern Albania. This is the weapon, which exceeds the chronological scope of this work and dates from around the second half of the 16th and the first half of the 17th century. This sword has typological resemblances to the finds characteristic of the territory of Serbia and Bosnia and Herzegovina and it is the later derivative of this group of related finds.¹⁹

In this concise summary of investigations of the late medieval swords in the southeast Europe and publications from which I derived most of the material for this book, here should also be mentioned the swords, which were originally in the Arsenal in Alexandria where they got Arabic inscriptions on the blades mentioning the Mam-

eluk sultans. They arrived there during second half of the 14th and first half of the 15th century mostly as tribute given by the Cypriote kingdom to the Egyptian sultans.²⁰ Most of them are nowadays housed in the Military Museum, Istanbul (62 specimens) and one or more specimens are in the Topkapi Palace Museum, Istanbul, Royal Ontario Museum, Toronto and some other. Most of these swords had most probably not been produced in Cyprus but in Italy, Germany or Spain so they are not included in the catalogue of finds. Another group of swords from the Topkapi Palace Museum and the Military Museum in Istanbul reached Turkey after the Seljuk conquests in the 14th and 15th century.²¹ It is assumed for some of these swords that they originate from the Royal Hungarian Armory (cat. no. 394-396). This material, which provenance is mostly unknown but some of them could be from the southeast Europe were also used and compared with the swords in this book.

While in the most parts of Europe prevailed the forms of the Frankish *spathes*, i.e. the Viking swords, which evolved from the Roman long double-edged sword (*spatha*) and whose evolution stages are nowadays relatively well-known, the different types of swords had been in use in the eastern Mediterranean and Byzantium. The swords in Byzantium until the 12th century were of more diverse forms as a result of various influences and traditions meeting there. In addition to the Roman tradition, which resulted in using the long sword (*spatha*) and short sword (*gladius*) mentioned in the armament of the Byzantine cavalry in the beginning of the 10th century²² various sword types were also the result of influences from the west, of the barbarian tribes during Great Migration (Herules), the Slavic and Viking mercenaries in the Early Middle Ages and also from the east, first of all from Persia and sometime later from Syria.²³

Because of the scarcity of the archaeo-

this book. Unfortunately, I did not find any sword in the Greek museums that correspond to the chronological span covered by this book.

¹⁹ See the chapter on group of swords classified as family P.

²⁰ Alexander 1985, 81.

²¹ Alexander 1987. Yücel 2000, unavailable to me in full.

²² The text *Tactics* written by emperor Leo the Wise (886-912), Kollias 1988, 150.

²³ Kollias 1988, 134; Nicolle 1991.

logical material most conclusions concerning the sword types in Byzantium has been drawn on the basis of the visual sources. Many Arabic written sources from the Early Middle Ages mention the quality of the Frankish swords, which were known in Byzantium where they arrived with the Vikings and other mercenaries. Concerning the forms, which could have been characteristic of Byzantium, the Arab philosopher Al Kindi, from the first half of the 9th century, recorded that Byzantine swords were made of soft iron, they were slender and without fuller.²⁴ In some of the Byzantine visual sources were depicted the swords having blades without fuller²⁵ and this information could be useful when we study certain finds from the southeast Europe. Besides some specimens obviously dating from the period before the 12th century and because of that not included in this work²⁶ one such example could be the blade from an unknown site now in the museum in Varna, northeastern Bulgaria (cat. no. 207, Pl. 5:3). On this blade without fuller and relatively short in comparison with blades characteristic of the western European spathes was on one side the inscription in Greek *CAPIH* and on the other letter Z (zeta).

The inscription indicates the Byzantine town Sardis in Asia Minor, the capital of the theme Anatolica as the place where the sword could have been made and blade without fuller could confirm the assumption that it was the Byzantine product. Unfortunately, the pommel and cross-guard of this sword are missing so further analogies as well as its dating could not be related to the typology of these sword elements. As such blades are not defined as any of Oakeshott types I distinguished it as a new type and marked it as type I. The Byzantine origin could be also assumed for some other blades without fuller and having other characteristics close to this find like small length and acute point of convex sides. They are dated to the beginning of the period, which we study in this work (cat. nos. 206, 208, 227, Pl. 5:4, 44?).

The pommels and to a slightly smaller degree the cross-guards are mostly missing from rather infrequent finds of early medieval swords, which could be ascribed to the Byzantine production. The preserved pommels of these swords are of circular or of discoid type (cat. no. 206). In the Byzantine visual sources are depicted diverse pommel shapes and among them are very frequent round ones, i.e. drum-shaped or spherical.²⁷ In the west and north Europe the discoid pommels were also known but they were relatively rare before the 12th century.²⁸

The evolution of the Byzantine sword is a topic, which deserves special study and it is important to notice here that specimens on which such traditions could be recognized are present among the finds from the southeast Europe as well as in other southern regions of the continent. Since the 12th century, i.e. after the beginning of the Crusades some of these characteristics have become more and more frequent in the western Europe. The discoid pommels, more frequent occurrence of curved cross-guards and more slender blades with acute point indicate these changes.²⁹ On the other hand, the swords found in the southeast Europe that are later than the 13th century do not generally have essentially different characteristics than the swords found in other parts of the continent. This could indirectly confirm that the same sword types, which predominated in other parts of Europe had been generally accepted in Byzantium and this could also be noticed in the Byzantine visual sources of that time (or those under the Byzantine influence) but it will be discussed more thoroughly in the chapter concerning typology. The fact that among other finds in the southeast Europe there are no specimens, which substantially differ from the types prevailing in the other parts of the continent indicates that large knightly swords also prevailed here in the Late Middle Ages.

At the end of this short summary of the Byzantine sword evolution should be mentioned

²⁴ Кирпичников 1966, 46 with earlier literature.

²⁵ For instance in illustrated copy of Skylitzes' chronicle from the 12th century, Bruhn-Hoffmeyer, 1966, Fig. 16-1, 4, 8, 12.

²⁶ For instance, Kiss 1987, 204-206; Pinter 1999, 112, fn. 41, pl.17-f.

²⁷ Bruhn-Hoffmeyer 1963, 12; Bruhn-Hoffmeyer 1966, 96; Kollias 1988, 140-142.

²⁸ Some of the earliest finds of the discoid pommels in western and northern Europe, Bruhn-Hoffmeyer 1954, 188, pl. X; Leppäaho 1964, 28-29, Taf. 12: 1a, 2a; 52-59, Taf. 24: 1a, 2a; 25a; 26: 1a, 2a; 27: 1b.

²⁹ Bruhn-Hoffmeyer 1963, 12; Kollias 1988, 141, 143-144.

the distinctive two-handed swords, which were represented in the illustrated Scylitzes' chronicle created somewhere in Sicily in the second half of the 12th century.³⁰ It concerns the weapons with exceptionally long hilts. The origin of this weapon could be first of all sought among the swords characterized by exceptionally long hilts that had been found mostly in Persia where they date from the time of the Sassanid dynasty, i.e. from the times of late antiquity (mostly from the 5th – 7th centuries).³¹ This weapon whose origins could be sought in Persia in the antique period has spread as far as China. For the European continent is much more significant the appearance of its derivative as the basic sword type during Second Avarian Khaganate in Pannonia.

As the leading weapon of its epoch and an object of multifarious value and importance the sword in the European tradition had great symbolic significance as it was also the case in the other parts of the world. Thus, the southeastern part of the continent was not the exception in that regard. In Byzantium the sword represented one of the most important symbols and insignia of authority, i.e. of the emperor³² and it also had the same significance among other neighboring people in this part of Europe. When Avarian khagan Bayan invited the Slavs on the lower Danube to surrender to him in 579, the Slavic leader Daurentius (Dauritius) replied: 'We got accustomed, however, to rule over the others and not the others to rule over us. We are sure of that until there are wars and swords.'³³ The tradition of venerating the sword as an attribute of warrior, ruler and deity dates in the east of Europe from much

earlier times. Herodotus, in the fourth volume of his History when describing the land of the Scythians and their customs speaks about venerating the Scythian god of war whom he calls Ares after the Greek god. Talking about Scythian deities Herodotus emphasizes that Scythians do not erect altars or statues to any of them except the god of war. He describes these altars, which had been erected throughout the country as square heap of dried roots and branches, around 3 stadia long and wide and with square surface on the top accessible from one side only. 'All of them place on that heap one ancient iron sword, which represents the statue of Ares. Every year they sacrifice to this sword the horses and other domestic animals and in much greater quantity than to the other gods.'³⁴ The intense reminiscence about this tradition and the Scythian swords is confirmed by the information recorded by Priscus in the 5th century and quoted by Iordanes that some shepherd found one of those Mars' (Ares') swords in the territory of one time Scythia and brought it to Attila, who recognized it as good omen.³⁵

In the written evidences by the German missionaries among the Polabian Slavs was described the central Slavic sanctuary on the Rügen island dedicated to the god Svetovid where was also treasured the silver-plated, larger than life sized wooden sculpture of this god with sword, which was the object of special admiration and reverence. In the preserved Slavic epic tradition as well as among the German tribes there is the motif of a young warrior who before undertaking his first deeds takes the ancient sword, which has special powers. In the Serbian poem 'Wedding of Dušan' (Serbian 14th century emperor) the young Miloš Vojinović got from his brothers 'green sword of the old Vojin' his father³⁶ and the same 'green sword' also has Grčić Manojlo (Byzantine emperor Manuel Comnenus whose poetized image was included among the epic heroes of the Balkan Slavs) in the other Serbian epic

³⁰ Bruhn-Hoffmeyer 1966, 106-107, Fig. 16-11; Oakeshott 1991, 259-260, fig. 14.

³¹ Freer Gallery of Art and Arthur M. Sackler Gallery, Smithsonian Institution, Washington, D.C. inv. nr. S1987.200a-I, <http://www.asia.si.edu/collections/singleobject.cfm?objectid=22755> (09. 01. 2006). Another specimen similar to the previous one without characteristic ring on top, The Metropolitan Museum of Art, New York, http://www.metmuseum.org/Works_of_Art/viewOne.asp?dep=3&viewmode=0&item=65.28a,%20b (12. 12. 2006). Kollias 1988, 149.

³² Kollias 1988, 154-155.

³³ Menander Protector, Cap. VII, p. 209,3–210,2, ВИНН I, 92.

³⁴ Herodotus, IV, 62; Херодотова Историја 1966, 272-273.

³⁵ Iordanes, De origine actibusque Getarum, Capp. XXXV. We could only guess how this sword looked like but it seems more probable that it was in fact kinjal (khanjali), the weapon of very long tradition and reputation not just in the east but also among the Slavs and Germans in the time of Great Migration, Амброз 1983, 33-34, рис. 3.

³⁶ Караџић 1988а, бр. 29.

poem.³⁷ Green color could be the patina on the old weapon forgotten somewhere before coming to the hands of the new warrior and this motif could originate from the ancient Slavic tradition related to the initiation of the young warriors.³⁸ The same could be assumed for the rusty sword taken by Zmaj-Ognjeni Vuk (Serbian despot, Vuk Grgurević in Hungarian service in the late 15th century) before he achieved his first deed, avenging the death of his father and liberating his brothers.³⁹

Similar motif is encountered in the Old Russian 'History of Peter and Fevronia Muromski' which was recorded for the first time in the middle of the 16th century. Young Peter in order to be able to kill the dragon goes to the church of the Holy Cross in the vicinity of Murom where in the cavity between the bricks of the altar wall he finds an ancient Agrik's sword.⁴⁰ In this poem as in the Serbian poem 'Wedding of Dušan' the dragon could be killed only with special predetermined sword and that could be also said for 'brijatkinja djorda' – a weapon of Zmaj-Ognjeni Vuk presented to him by the fairies in the poem 'Empress Milica and the Dragon of the Jastrebac Mountain' recorded in Brist near Makarska, Dalmatia.⁴¹ As an example from the Germanic epic tradition that certain accomplishment could be realized only using the special ancient sword, could be quoted the Saga of Hrolf where young Het symbolically overcomes the monster using special king's sword.⁴²

Numerous and relatively well-known examples from the Nordic epics and sagas bear witness to the great magical powers ascribed to the sword among the Germans. There is many centuries long history of the sword *Sköfnungr*, 'the best of all swords worn in the northern lands'⁴³

and also similar example of the sword Hneitir, which during a hundred years time passed from the hands of the Norwegian kings via the Swedish warriors and mercenaries to Constantinople.⁴⁴ There are many other examples of the extraordinary swords and it is interesting that in the tradition of the Germanic people such weapons had their own names.⁴⁵ This phenomenon suggests the conclusion that to the sword as an object of the material culture have been ascribed individual traits and that it, in the mind of people possessed its own name and nature characteristic of the living beings and independent of its owner.

Main elements of a sword, the blade and the hilt, i.e. its tang have always been made out of one piece of metal while pommel and cross-guard were added later. Parts of the hilt are pommel, cross-guard and grip, i.e. the tang. The grip was covered with plating mostly of leather-coated wood that is nowadays missing from most of the specimens. Parts of the blade are point, cutting edge, fuller or ridge and on the single-edged swords the blunt side of the cutting edge. In the Late Middle Ages the hilt, i.e. the cross-guard got various additions like *ecussion*, the triangular reinforcement extending to the blade in the center of a cross-guard, finger protection under the cross-guard on one or both sides of the blade, hand guard etc.

The sword hilts differ according to their length so they were for one hand, one-and-a-half hand and two-hands. The hilts of hand-and-a-half swords made possible supporting the sword with other hand but in that case, it was partially overlapping the holding hand or the pommel. The clenched fist of an average man is around 9 cm wide. Although the average stature of people in the medieval period was somewhat more robust, the average height was smaller in comparison to the modern man, hence the 9 cm should be considered as maximum for one hand. The basis for

³⁷ Караџић 19886, бр.6.

³⁸ Лома 2002, 96.

³⁹ Стојадиновић 1969, бр. 14.

⁴⁰ Лома 2002, 97. Here is proposed an assumption that sword as fetish of pagan god of war could have been substituted with cross considering that the church dedicated to the Triumph of the Holy Cross could have been at the location of the pagan shrine, perhaps similar to that described by Herodotus among the Scythians.

⁴¹ Matica 1896, 571.

⁴² Лома, 2002, 98-99, where are presented and analyzed in detail the abovementioned examples from the Slavic tradition.

⁴³ Oakeshott 1991, 4, 14.

⁴⁴ Ibid., 14.

⁴⁵ In the Nordic sagas are recorded around thirty swords having their own name, <http://www.vikingsanswerlady.com/armor.shtml> (26. 10. 2006). Similar phenomenon is recorded also in the Japan tradition.

such anthropological assumption could be the swords with very short tangs, 8 cm or less (e.g. cat. nos. 196, 228, 299). If the warrior had leather or later metal glove the tang should have been about one centimeter longer at the most so the single-handed sword had the tang around 10 cm long at the most.

Thus as the hilts of hand-and-a-half swords could be attributed all the hilts with tang around 11 to 18 cm long. The longer tangs indicate that these were the two-handed swords. It is often the case that the length of tang was not measured separately when the swords were published and thus it was difficult to determine precisely whether the sword was intended for use with one or two hands. When the height of a pommel is known it is possible to calculate the tang length by using the formula $TL = HL - PH - CW$.⁴⁶ As the cross-guard was usually 1 – 1.5 cm wide it is possible to calculate the approximate tang length even when the width of the cross-guard is not known. In the cases when only the length of a hilt was known it was possible only to assume with precaution the type of sword hilt.

In this work we accepted the length of over 18 cm for the tangs indicating that it was the two-handed sword. It should be said, however, that term two-handed sword is usually used for the swords of exceptionally large size that have a tang, which length is about 25 cm or more and which were more frequently used from the late 15th century. Even though there are rare earlier specimens of such size for which it is most reasonable to assume that they were the ceremonial swords but of identical typological traits as the other swords of that time, these two-handed swords in a true sense of the word got their distinctive typological traits in the end of 15th and during the first half of the 16th century. The blade usually had long *ricasso* with two small wings for parrying the blows while the cross-guard usually had two rings at both sides.

On the other hand, the swords with tangs suitable for using both hands but still less than 25 cm long are rather frequent finds around the second half of the 13th century and especially during the 14th and 15th century. They, in fact, do not rep-

resent the special type of weapons but just larger variants of the existing sword types. Thus, for instance, the swords identified in the Oakeshott's typology as Type XIIa are two-handed variant of Type XII swords and those identified as type XIIIa are two-handed variant of Type XIII. The most frequently encountered terms in the contemporary historical sources in the west are 'large', 'war swords' or swords 'for two hands' '*espées de Guerre*', '*Grete Swerdes*', '*Grant espées*', '*espées a II mains*', '*twahandswerd*', '*magna spata*', '*spada granda*'.⁴⁷

Although some sources make the difference between the two-handed sword and large, i.e. warfare sword, the archaeological material reveals that since the first mention of such swords in the second half of the 12th and until the 15th century the difference between the specimens of common size for one hand and those with hilts for one-and-a-half or two hands is only in their size but not in their typological traits. First reference in the western historical sources of the two-handed swords known to me is recorded in the Novel of Alexander from around 1180.⁴⁸ On the basis of the archaeological material this term could concern only the hand-and-a-half swords as the production of the swords with hilts for two hands could not be expected before the second quarter of the 13th century.⁴⁹ Less likely possibility is that it concerns already mentioned large two-handed swords, which had been known in the eastern Mediterranean and that this term was introduced through the Byzantine literature.

Most of the swords had scabbards, which were made of wood and leather and had metal fittings. Parts of the scabbards made of organic material are usually missing but the metal fittings have been sometimes found. Such single finds from the southeast Europe include the iron plating of the bottom part of a scabbard from the 11th-12th century found in the Zeta river at the site Vraničke njive near Podgorica in Montenegro,⁵⁰ gold-plated cover of a scabbard tip from the end

⁴⁶ TL – tang length; HL – hilt length; PH – pommel height; CW – cross-guard width. Explanation of all abbreviations used in this work is afore the Catalogue.

⁴⁷ Oakeshott 1981, 42-43, with written sources; Petrović 1976, 24, with written sources from the Dubrovnik archive.

⁴⁸ Oakeshott 1981, 43, note 54, with quoted source unavailable to me.

⁴⁹ See chapter on swords with blades of type XIIIa.

⁵⁰ Петровић и Вучинић 2001, 269-270, сл. 5.

of 14th or the first half of the 15th century found on the site Bobovac in central Bosnia⁵¹ and fragment of a scabbard plating from the site Ras, central Serbia, coming from the 12th century layer.⁵² Some finds from the southeast Europe also have preserved fittings or complete scabbards consisting of wood, leather and metal fittings and they mostly date from the 14th and 15th century (e.g. cat. nos. 296, 345, 374).

In the process of sword manufacture the center of sword's gravity and point of percussion were taken into account. These characteristics were important for handling the sword in order to enable the owner to easily maneuver and wield his weapon. It depended on the center of gravity how easy it would be to use the sword and how heavy its blows would be. If the center of gravity is closer to the cross-guard the sword was more easy to maneuver. The swords with center of gravity closer to the point are more difficult to handle and make the movements but their blows are heavier. In other words, the swords with center of gravity farther from the hand of the warrior were used in the combat techniques characterized by slower movements and greater swings but also by more devastating blows. On the other hand, the center of gravity closer to the hand, i.e. the cross-guard, made possible faster movements but lighter blows.

The point of percussion is the point on the sword's blade that was most effective to deliver a blow with. If this point was at the correct spot it was possible to direct and transfer most of the power invested in a blow to the aim and at the same time the smallest amount of vibrations resulting from the blow returned to the hand. The point of percussion of the medieval swords was mostly somewhere at the beginning of the third third of the blade length – and it was the segment with which the largest number of blows was delivered. In order to estimate these spots on the blade most precisely in the process of sword making, the most suitable was besides the general size the length of the fuller. There is no doubt that customer, i.e. future sword owner carefully tested these characteristics of the weapon before deciding to choose it.

In addition to the investigations concerning the establishing and using typologies of the certain sword parts, important information could be found in the medieval written and visual sources. The available historical sources provide descriptions of the sword forms only exceptionally and even then these descriptions are usually sketchy. The medieval visual sources, wall paintings, stone sculptures and monumental memorials, miniatures and the like offer considerable amount of evidence for studying the swords but these data should be taken with some reservations. Most of the sword illustrations in particular the pommels, which are chronologically most relevant are stylized. Also the time when the sword was painted could be taken only as terminus ante quem as there is actual possibility that earlier visual models have been copied including the swords. Depending on the 'realness' of the sword representations and the assumed habit of certain artist to illustrate contemporary objects or to stylize the forms more freely, certain visual representations of the swords could be accepted with more or less reliability. In this work we quoted historical or visual sources as comparative or auxiliary material for each type of pommel, blade or cross-guard in cases when they were relatively reliable analogies.

Certain historical sources also give evidence about the manufacture of the late medieval swords in the southeast Europe. Thus, many historical data are preserved about advanced metallurgy and production of weapons, first of all the swords in Transylvania, in the east of medieval Hungary in the 13th-16th centuries.⁵³ Although the blacksmiths who produced the swords in the towns Sibiu and Braşov have been mentioned even earlier, the swordsmiths (in the sources '*schwertfeger*' or '*schwertmacher*') were not recorded before the 15th century. One ancient blacksmithy or sword-smithy in this area is confirmed by the hoard of metal objects discovered in the village Şelimbăr, around 3 km to the southeast of Sibiu. One sword pommel and few blades and cross-guards (cat. nos. 167-171) were discovered in this hoard together with other objects.⁵⁴ It could

⁵¹ Anđelić 1973, 134.

⁵² Popović 1999, 353-354, cat. no. 470, sl. 220/2.

⁵³ Ţiplic 2001, Capitolul III.

⁵⁴ Rill 1983, 82.

be assumed on the basis of the hoard contents that it was hidden before the attack of the Mongols in 1241.⁵⁵ Among the finds from Transylvania but also from the neighboring regions could be recognized some sword types, which had been manufactured in these workshops (for instance the swords with Type E1 pommels, blades of Type XIII with two or three fullers on each side and some other types, which will be discussed later in the chapters concerning the typology).

Considerable amount of data concerning the local production of swords were obtained from the archives of the east Adriatic towns, first of all the archive of Dubrovnik and then of Kotor, Split and other towns. In almost every 14th century testament in Dubrovnik when the possessions of the testators were listed there was always a sword and often few of them. This could be explained as the consequence of the obligation of all adult male citizens of the Republic to serve in urban militia and there were also the case with the sailors.⁵⁶ The most frequent term used for the sword in the Dubrovnik books was *spata* or *spada* and rarely *ensis*. That these two terms were actually the synonyms reveals a text describing an attack by sword in 1349. In the charge is stated that blow was delivered '*cum ense super faciem*' and the witness confirmed that by saying that it happened '*cum una spata in manum...super visum*'.⁵⁷

The earliest mention of the import of swords in some other country via Dubrovnik comes from the Venetian archive. The Venetian Council decided in 1313 to suspend the fine imposed on Dubrovnik citizen Luka Lukarić because he obtained 108 swords instead of 96 as it had been allowed for the Serbian heir to the throne Stephen Dečanski who was the ruler of Zeta at that time.⁵⁸ The medieval Dubrovnik based the largest share of its commerce and economy in

general on traditionally close relations with the neighboring Serbia and later Bosnia. Flourishing of the sword-making craft as well as numerous data concerning the import of swords via Dubrovnik and the nearby Serbian Kotor in the 14th century could be connected first of all with development of mining and metallurgy in Serbia and its economic growth from the second half of the 13th century. This development of mining in Serbia and later Bosnia started after immigration of the German miners who were called the Sasi in the Serbian contemporary sources and who most probably did not come from Germany but from that time eastern Hungary, i.e. Transylvania. Many archive documents give evidence for the connections between Dubrovnik and its hinterland and the expansion of this production. These documents are concerning the young men coming to Dubrovnik to learn the trades including that of sword-making and most of them then returned to their homeland.⁵⁹ Similar data could be also quoted for other east Adriatic towns, first of all Zadar, Split and Trogir that were more connected with their Croatian hinterland.⁶⁰

Many mercenaries from the western Europe on their way to fight in Serbia or on their way back also passed through Dubrovnik and they sometimes left part of their equipment and weapons as deposit to the merchants of Dubrovnik.⁶¹ Unfortunately, the data from the archives in the east Adriatic towns do not give information about the import from some other parts of Europe that certainly took place, first of all from German or other workshops which exported their products throughout Europe. There is also no information about the trade in locally produced swords and swords produced in other parts of the southeast Europe.

In the preserved books of the Dubrovnik archive the swordsmiths were mentioned for the first time in the first half of the 14th century. Nine swordsmiths were active at that time in the town of St. Blasius: two Greeks, two Venetians, one from Bar, one from Kotor and three citizens

⁵⁵ Horedt 1957, 334-343; Crîngaci-Țiplic 2005, Cat. 3, pl. III-1.

⁵⁶ For instance Test. not. 5, fol. 47, 93, 105', 125, 163, 168, 169, 174, 219', 220, 224, 235', 256', 259, 259', 296'; Test. not. 6, fol. 50', 112; Div. canc. 9, addendum ad. fol. 193; Test. not. 5, fol. 269. after Petrović 1976, 19.

⁵⁷ Liber de male Faciis 10, fol. 53. After Petrović 1976, 19-20.

⁵⁸ Петровић 1977, 124. This information could indicate that swords were packed and transported in bunches of dozen pieces.

⁵⁹ Diversa notariae 1, fol. 56; 5, fol. 32; 9, fol. 39, 73, 152; Diversa cancelariae 31, fol. 115; 32, fol. 5; 33, fol. 147; 52, fol. 143; after: Petrović 1973, 73. Diversa notariae 16, 245 (12.6.1430); after Fisković 1962, 41, note 45.

⁶⁰ Božanić-Bezić 1966, 63-64.

⁶¹ Dinić 1952, 398-401; Динић 1960, 17, 22, with sources.

of Dubrovnik.⁶² Another two swordsmiths from Venice, Amadeus and Liraldus used to come to Dubrovnik to sell their products. In the second half of that century there were already 19 swordsmiths mostly from Dubrovnik or from its immediate hinterland.⁶³ In the earliest preserved Kotor archive books dating from 1326 – 1337 are mentioned besides nine blacksmiths also two swordsmiths, Amadej and Petar, son of Amadej.⁶⁴ From the same period dates the earliest preserved reference to a swordsmith from the medieval Serbia. It was Bogdan in village Čabić in Kosovo mentioned in 1330.⁶⁵ Two years later Martolo, the swordsmith from Dubrovnik and his son went to work in the town of Prizren that was the capital of that time Serbia.⁶⁶

The data about the sword making became very frequent in the Dubrovnik archive from the middle of the 14th century while in the Kotor archive are preserved just few documents from the period between 1338 and 1417 but the later data about sword making are much more numerous. Toward the end of 14th and in the first half of the 15th century more than 90 blacksmiths were registered in Kotor. The swordsmith Radonja Vukotić made the agreement with blacksmith Andrija Miletin in the beginning of September 1436 to produce swords together in the following year. Andrija had to forge the swords, make pommels, cross-guards, hand-guards on hilts and scabbards. Swordsmith Radonja had to give final touch to all these black (*nigras*) swords, to polish them, make stars and put the leather on scabbards.⁶⁷

Six years later in some dispute are mentioned a few swords, which blacksmith Andrija Miletin at that time citizen of Bar gave to the swordsmith Vukosav to sell them and settle the debt of 100 Venetian ducats. A variety of signs (*diversa signa*) had been executed on the

swords.⁶⁸ How these stars and other signs on the Kotor swords really looked like we do not know for sure but on the blades of medieval swords from the territory of southeast Europe the signs depicting stars are not rare (e.g. cat. nos. 104, 110, 240, 244, 250, 253, 340). Also, on the occasion of making the agreement in 1536 it was agreed that swordsmith Radonja would be paid by the blacksmith Andrija one golden ducat for every seven completed swords.

How many swords these two masters had made is not recorded but in the same year (1436) Marko, son of Novak, the best known and most respectable swordsmith in that time Kotor ordered 600 swords from the blacksmith Vukoslav, son of Bogdan.⁶⁹ Just a year earlier Vukoslav agreed with Milić Pautinov that he would make for him twelve swords with cross-guards and pommels and of good quality and 'wide enough for whetstone' for the price of 16 silver perpers. He promised to make four swords every week.⁷⁰ About the manufacturing price of one sword there is an information from the beginning of January 1437 when already mentioned blacksmith Andrija promised to the merchant Simik, son of Brajan to make for him 16 swords without scabbards (one sword weekly) for 12 golden ducats (1 Venetian golden ducat = 3 Dubrovnik silver perpers = 36 silver dinars).⁷¹ Many other swordsmiths were also mentioned in Kotor in that time - Tošoje Djurdjević (1430, 1434, 1443),⁷² Radič (1421, 1435), Vukoslav Žometanović (1445), Ivan Jurković (1442, 1443),⁷³ brothers Novelja and Radič Prčalović, sons of Radoslav from Kotor mentioned in Venice in 1442 and 1444, Radoslav (1445), Mileša (1449), Ivaniš Miladinović (1458) and Trifun (1460).⁷⁴

There are certain data concerning the tools used by blacksmiths and swordsmiths in Kotor in some contracts concerning the learning of these trades. Thus, the Kotor blacksmith

⁶² Testamenta notariae 3, fol. 42; 5, fol. 4, 104, 128; Diversa cancellariae 15, fol. 159; fol. 121; Diversa notariae 3, fol. 195; after: Petrović 1976, 21-22.

⁶³ Petrović 1976, 23.

⁶⁴ For swordsmiths Amadej and his son Petar see Kotor magistrate-notary book I-2, 63, 65, 109, 175, 368, 324; for blacksmiths see Kotor magistrate-notary book I, 12, 21, 35, 90; I-2, 91, 99, 120; after Ковијанић и Стјепчевић 1957, 161.

⁶⁵ Charter of Dečani, 332.

⁶⁶ Петровић 1977, 128.

⁶⁷ Kotor magistrate-notary book VI, 13.

⁶⁸ Kotor magistrate-notary book VII, 851, after Ковијанић и Стјепчевић 1957, 163.

⁶⁹ Ковијанић и Стјепчевић 1957, 163.

⁷⁰ Kotor magistrate-notary book XIV, 467, after Ковијанић и Стјепчевић 1957, 166.

⁷¹ Kotor magistrate-notary book VI, 88, after Ковијанић и Стјепчевић 1957, 167.

⁷² Kotor magistrate-notary book VII, 47, 678, XIV, 238.

⁷³ Kotor magistrate-notary book VII, 632.

⁷⁴ Ковијанић и Стјепчевић 1957, 162-164.

Petar from Bar accepted Milin Radin Prosarić from Kotor as apprentice for 8 years of service in November 1398. In return, master agreed to provide food, clothes and footwear for the youth and to give him certain tools at the end of training including anvil (*incudem*) worth 10 perpers, two hammers (*malea*, big and small) two tongs (*antinaglorum*) and two bellows (*volea*).⁷⁵ One anvil was sold in Kotor a year earlier for 36 perpers.⁷⁶ In March 1438 Miroje Milačević took in his service Radosav Trković from Nikšić (present western Montenegro) for six years with obligation to work honestly in his workshop (*in apotheca*). In return, master agreed to provide food, clothes and footwear for the lad and to give him at the end of this period 10 perpers and blacksmith's tools, 2 hammers (big and small), pair of molds etc.⁷⁷

The swords reached southeast Europe also through the mercenaries who were present in almost every medieval state in this region, mostly in Hungary and especially in the 15th century. In the armies commanded by the Hungarian rulers were at that time many units of warriors inspired by the Crusades but also the units from Bohemia or Poland that arrived as a result of the personal unions between Hungary and these countries. The historical sources also give evidence for other mercenary groups, e.g. Catalan company, which for decades stayed and ruled in some regions in the south Greece. The Dubrovnik archive also provides information about the mercenaries from Spain, Italy and Germany who came as mercenaries in to Serbia.⁷⁸

This book consists of the text, catalogue of finds and illustrations. The textual segment includes in addition to introduction also the chapters about sword typology and signs on the swords and conclusion. Chapter on typology is divided in two main segments. The first one consists of descriptions of the forms of pommels, blades and cross-guards in correlation with the types from

the Oakeshott's typology. In the second segment each type was chronologically and in some instances also geographically determined. Some swords with identical or similar types of pommel, blade and cross-guard are classified in groups, which following the Oakeshott's practice were identified as families of swords. The textual part also consists of the chapters on signs, inscriptions and decorations on the swords.

In the catalogue are presented all relevant and available data about the finds included in this work. There are in total 412 late medieval swords from the southeast Europe of which 400 are double-edged and twelve are single-edged. Each catalogue entry consists of 1 – catalogue number; 2 – number of plate or figure; 3 – finding place; 4 – place where the sword is housed (name and location of the museum or collection and inventory number); 5 – type of sword: pommel, blade, cross-guard; 6 – description of signs on the sword and possible references concerning the form of a sword that are not defined in the typology; 7 – dimensions of sword; 8 – dating; 9 – literature. Different abbreviations concerning the parts of swords or geographical terms are explained afore the catalogue. All late medieval swords were forged of iron and generally have the identical appearance; the blade is straight and double-edged while the hilt is approximately modeled as elongated trapeze so this data were not mentioned in the description of each individual specimen. In the case when the sword has certain part (pommel) made of other metal (bronze) it is of course emphasized (e.g. cat. nos. 157-159, 291).

The exceptions are twelve single-edged swords, which are all also made of iron but they were not included in the typology in this work. I do not know of any detailed typology of late medieval single-edged swords and it was neither proposed here because of the small number of finds for which I sometimes did not have enough information. Nevertheless, the available data and conclusions concerning the forms and chronology of the late medieval single-edged swords are provided at the end of chapter on chronology. The illustrative segment of the work includes drawings and photographs of the finds, signs on the swords and visual historical sources with relevant representations of the medieval swords.

⁷⁵ Kotor magistrate-notary book II, 602.

⁷⁶ Kotor magistrate-notary book II, 482, after Ковијанић и Стјепчевић 1957, 164.

⁷⁷ Kotor magistrate-notary book VI, 444, after Ковијанић и Стјепчевић 1957, 168.

⁷⁸ Динић 1960, 16-20; Петровић 1977, 126.



Map 1 – Distribution pattern of late mediaeval swords in the southeast Europe.

Of the swords included in the catalogue I had the opportunity to examine personally just a number of specimens, mostly from my country. For some other specimens I had on my disposal rather high quality data, photographs or drawings, detailed descriptions and dimensions. However, for certain amount of swords I had only

modest number of data, which sometimes had not been sufficient for detailed analysis. Yet, all of them are included in the catalogue because the very fact that they were discovered offer at least the picture about the level of investigation of this subject.

Typology

The objective of the typology is to distinguish the morphological and metrological characteristics of one group of objects, i.e. the forms and dimensions according to which they could be classified and identified considering the time of their origin and their provenance. The variations of forms in production of certain type of objects particularly medieval swords within large geographic region could be numerous and if we strictly follow the principle to take into account each and every morphological difference it could result in too many types and subtypes so this typology would be to a great extent ineffectual. Therefore, it is necessary to allow certain smaller or greater variations of form in defining each type, i.e. to establish the level of tolerance concerning morphological and metrological parameters.

On the other hand the criteria for distinguishing certain types of pommels, blades or cross-guards should be such so to help in chronological and spatial determination of the swords. Thus, for instance, the blade length despite being one of the basic morphological and metrological traits of the sword most frequently does not have the decisive importance for determination of the date of origin while the ratio between the fuller length and blade length in some instances could be of more assistance in determination of the sword production date. Thus, this criterion has been used more often in defining certain types of blades than just their length. The fuller width on the 11th-12th century blades is also rather useful criterion for determination of time of the sword production although this characteristic by itself, from the morphological point of view, is considered as less significant characteristic of a sword. These smaller morphological differences were distinguished in this work just in the cases when they could be used as criterion for the chronologi-

cal and geographical determination of the swords while in other instances it has not been taken into account (e.g. the fuller width on the blades of the 14th – 15th century swords).

Against this background it is often impossible to distinguish the specimens produced in distinct workshop or types being in use within the distinct restricted area. In cases when it is possible to distinguish the sword types used within some relatively restricted area, within larger or smaller region or political organization, certain details in their form could be the essential criterion for their chronological determination. Thanks to the fact that production and use of large number of sword types spread relatively quickly throughout Europe, their time of manufacture is usually more easily distinguishable using the analogies from rather large territories.

The classification of swords in this work is based on typology of Ewart Oakeshott. The swords were classified into 24 types and subtypes (types X–XXII, subtypes are marked with small letters of the alphabet, e.g. XIIIa, XIIIb) according to the shape of blade and hilt tang. Typology also includes distinct classifications of the pommel shapes (types A–Z) and cross-guards (types, i.e. styles 1–12). Since the initial publishing of his typology¹ Oakeshott supplemented and slightly changed some of the sections and it continued to a smaller extent also after his death when his disciples from the Oakeshott's Institute and other scholars continued his work.

On the basis of the archaeological material from the southeast Europe the Oakeshott's typology is supplemented here with some new forms of pommels (D1, E1, H2, Ia, K1, Na,b, N1, Ra,b, R1a,b, T6, Z1, Z2a,b,c, Z3, Z4), blades (I, Ia, II,

¹ E. Oakeshott 1960, 200-236, 300-325.

XIIb, XIIIc, XIXa, XXb, XXc) and cross-guards (4a, 11a, 12a,b,c, 13). In addition, the swords with identical or similar types of pommels, blades and cross-guards are classified into groups, which are identified, following the Oakeshott's practice, as the families of swords. As Oakeshott himself denoted the distinguished sword families using the capital letters of the alphabet up to the letter M that series has been continued here by adding sword families marked as N, O and P.

For the establishing the period of most frequent use of certain type of pommels, blades and cross-guards I used also the results of other scholars in addition to the conclusions suggested by Oakeshott. Besides the Oakeshott's typology mostly used chronology for certain types of pommels and blades is the one established by Alfred Geibig. The territory of Germany, i.e. the original territory of the German-Roman Empire is significant also for the production of swords in the southeast Europe because some of the leading sword making workshops in the Middle Ages were active in that area. The swords as well as the technology of their manufacture were exported and distributed from Germany to the other parts of Europe including also the southeast Europe. The typology of Geibig is based on precise morphological and metrological characteristics of the hilts, i.e. pommels and cross-guards as well as the sword blades. Generally, Geibig Combination Types 12 II, 13 II, 14, 15 II–VI, 16 I–II, 17 I–II, 18 and 19 for pommels and hilts and Types 6a–b, 7, 8, 9, 10a–b, 11, 12 and 13 for the blades date from the time considered in this work, (12th and 13th century).

Because it is based on precise morphological and metrological traits and dimensions of the sword parts the Geibig's typology was used in this work also to define more precisely certain characteristics of some types of the Oakeshott's typology. Although Geibig himself offered comparative table of his pommel types and those defined by other authors² in textual explanation of each individual type he mostly looked for parallels between the forms he defined and those suggested by other scholars. For better comprehension in Table 1 are compared and equated the pommel typologies of these two authors as I understood them in this work and also the typologies of other

Oakeshott*	Geibig	Ruttikay	Pinter	Šercer
A	16 I	IX	3	
B	15 II-15 IV	IX	4	
B1	12 II, 18	X		
C, D	13 II			
D1		XII, XIV?		
E	19			
E1		XIII	6	
F				
G				
G1				
G2				
H				
H1		XVIII/ XIX		2a-b,d
H2				2c
I		XVI	8	
Ia			7	1a
I1		XX	10	(1d)
J				
J1				
J2				1a
K		XVII	9	1b
K1			11?	
L				
M				
N (<i>Na, b</i>)	16 II	XV	5	
N1	17 I			
O	17 II			
P				
Q				
R**	14(<i>R1a</i>)	XI (<i>R1b</i>)		
S				
T**				4
U				
V**				
W				
Z **				3

Table 1 – Comparative review of pommel types by different authors as they were understood in this work

* With types which are supplemented in this book. In italics are types not defined in the Oakeshott's typology.

** Basic type with subtypes defined by Oakeshott or distinguished in this work.

² Geibig 1991, 16, Abb. 1.

scholars who established their own typologies based on the material from the southeast Europe.

When the blade types are concerned, in this book, besides the Oakeshott's typology I also used the typology of their forms established by Alfred Geibig. Geibig almost did not equate at all the forms he defined with those determined by other scholars. Only for his blade types 4 and 5 he suggested that they conditionally correspond to the Oakeshott Type X.³ Assuming that these two outstanding scholars were interested in the same topic and thus used similar and in some instances identical archaeological material particularly when the swords from the 11th – first half of the 13th century are concerned there is a logical need to compare their conclusions and recognize possible similarities. In this book, at the end of chapter about the blade typology, I tried to compare and conditionally equate these two nowadays certainly the most useful blade typologies. Considering that Geibig did that to a small degree I did it here with great reservations only intending to make the understanding of this topic easier and not to suggest the final conclusions.

In this book I quoted the Oakeshott's blade types, which were determined in a way as the author himself suggested. Considering that these two authors defined their types in a different way, Oakeshott mostly descriptively and by quoting the basic general dimensions and Geibig with many metrological parameters I took in this book just those parameters from the Geibig's typology that could help in using the typology of Oakeshott. Thus, for instance, the difference between the fuller width on the blades of the Oakeshott Types X and Xa is determined on the basis of the Geibig's parameter of the maximum fuller width (FW). Also the Geibig's index of blade tapering in the first 60 cm of length (BW/BW') was used in more precise definition of shape of the squat blades of Type XIII and its subtypes.⁴ In the chapter Description of Type Forms are defined only the forms of types and subtypes of pommels, blades and cross-guards that are not included in the Oakeshott's typology but which were distinguished in this work.

In addition to Oakeshott's and Geibig's

typologies of the medieval swords I used in this work also the typologies of other scholars who composed them on the basis of the material from the southeast Europe. Alexander Ruttkay classified the medieval swords (i.e. their pommels) from the territory of Slovakia into 20 types of which Types I–VIII are the swords before the 11th century and Types IX–XX are the swords from 12th to the 14th century. This typology is supplemented with special classification of the cross-guards consisting of 13 types. Author identified 40 swords from the 12th–14th century as distinct group and 28 of them were classified into 11 types while the remaining 12 are of undetermined type due to certain damages. Certain types are represented by just one sword (Types X, XI–XV, XVII and XIX), two types by two swords (XI and XX), Type XVIII by four swords and Type XVI by 13 specimens. This diversity of hilt forms was particularly prominent among the 12th–13th century swords (Types X–XV).

Marian Głosek collected and studied 493 swords from the territory of Poland, former German Democratic Republic, Czechoslovakia and Hungary. For classification of sword forms, their blades, pommels and cross-guards Głosek used the typology of Oakeshott that he supplemented to a smaller degree with some new types of blades, pommels and cross-guards.

Karl-Zeno Pinter⁵ collected 30 late medieval swords from Romania, i.e. from the territory of Transylvania and Banat and made a typology of blades (types A–I), hilts (m0, m1, m1½, m2), cross-guards (a–g) and pommels (1–12). By combining these individual parts he classified all medieval swords into 12 types in total while eight of them (types V–XII) date from the 12th–15th century. In classification of swords from the Croatian History Museum suggested by Marija Šercer the late medieval swords are attributed to the group of swords with hilts of cruciform shape.⁶ According to the pommel shapes Marija Šercer classified over twenty specimens from the 13th–15th centuries into ten types and subtypes (1a–d, 2a–d, 3, 4). In this work I used among other things also the material from the territory of medieval Russia for which the typology was offered by Anatolij Kirpichnikov. Of the 75 finds from the second half

³ Geibig 1991, 90.

⁴ More details about this at the end of chapter Description of shapes of blade types.

⁵ Pinter 1999.

⁶ Šercer 1976, 12.

of the 11th–13th century from the territory of medieval Russia Kirpichnikov classified 45 swords into eight types and subtypes (types I–VII) based on the pommel shapes and partially on the shapes of cross-guards.⁷

There are among the medieval swords also the specimens, parts of which (pommels, cross-guards and blades) do not all date from the same period and which at first glance could bring into question the results of the existing typologies. Dating of each such sword usually depends on the part of sword taken into consideration; type of blade or hilt or pommel. The most illustrative examples of this phenomenon could be the swords, which are reliably dated and associated with certain persons or events. One of such examples is the ceremonial sword made for the coronation of German-Roman Emperor Frederick II in 1220 and which was most probably produced by the Arab craftsman in Palermo in Sicily. The exception is its round pommel with an eagle on one side and reared lion on the other (coat of arms of Bohemia) that was put on this sword for the coronation of the king of Bohemia and Holy Roman Emperor Charles IV of Luxembourg in 1346.⁸ Another such example is the so-called sword of St. Mauritius that is also treasured today in the Weltliches Schatzkammer in Vienna. On its pommel is the inscription and coats of arms of the German-Roman Empire and personal coat of arms of Otto IV von Braunschweig, (1176/7–1218) made for his coronation as Emperor in 1209.⁹ The characteristics of blade and decoration of the corresponding scabbard indicate that the blade is about a century older. The practice of mounting a new pommel and cross-guard on the older blade has been encountered on many finds from the thoroughly investigated site Haithabu on the German Baltic coast dating from the beginning of 9th–beginning of 11th century.¹⁰ Good example of this practice is also the sword retrieved from the lake Murtensee (Lac de Morat) near the

mouth of river Broye about twenty kilometers far from Bern in Switzerland (Fig. 20). Besides its Type N pommel is about a century later than its Type X blade, it was also made of different iron of conspicuously darker color than the blade and cross-guard.¹¹

⁷ Кирпичников 1966, 49-57, Рис. 10.

⁸ The sword is housed in the World Collection in Vienna (SK Inv. No. XIII 16), Bruhn-Hoffmeyer 1954, 134, cat. nr. III c 134, pl. XVII; Boccia and Coelho 1975, fig. 1, 10, 11; Glosek 1984, 176-177, T. XX. Also see <http://www.khm.at/> / Collections / Treasury / The Holy Roman Empire

⁹ Oakeshott 1991, 56, with earlier literature.

¹⁰ Geibig 1989, 246-249, kat. Nr. 19, 30.

¹¹ Schweizerisches Museum in Zürich (inv. no. 14347). Bruhn-Hoffmeyer 1954, 41, 114, pl. IX-d, kat. II-31.

Description of Forms

Description of Pommel Shapes

D1 As this type are classified the pommels of pyramid and related shapes. The basic shape is four-sided truncated pyramid about 3.5 – 4 cm high and with 5.5. – 6 cm wide base.

E The pommels are of approximately rhomboid shape with clearly convex modeled bottom edges. The base is wide and of oval or approximately circular shape with pointed ends. Some specimens could have slightly protruding vertical rib and two indentations at the top side so the pommel looks like being ‘pinched’. The approximate dimensions of the pommels are PH= ca 4 – 5 cm; PW= ca 6 – 8 cm; PT= ca 3 – 4.5 cm.¹

E1 The pommels are basically of rhomboid shape. The edges could be straight but more often the lower two edges are of more or less convex shape while top two ones could be slightly concave. The base is of small thickness and of approximately elongated oval or slightly rhomboid shape. Some specimens have moderately protruding molded vertical rib along the middle of both sides. These pommels are of larger size than the basic type (PH= 6 – 7 cm; PW= 7 cm) and of smaller thickness (PT= ca 2 cm).

H2 The pommels are massive, horizontally oval and have prominent vertical molded rib along the middle. They are of larger size than the subtype H1 (PH= 6 cm; PW= 9.5 cm).

Ia These pommels differ from the basic type because they do not have a central disc but they are of simply hexagonal cross-section. The dimensions are similar to the basic type I, and diameter is usually around 5 – 5.5 cm.

I1a The pommels are shaped as polygonal, most frequently hexagonal or octagonal tablets.

I1b The pommels are of octagonal rarely of hexagonal shape, rather thick, with faceted sides and corners. Sometimes they have shallow circular depression on both sides.

K1 The pommels are similar to Type K but they have slightly flattened edges and could be more or less elongated along the horizontal axis. Their circular convexities are less prominent than on the basic type. There are also specimens of conspicuously greater width than height and generally the shape of these pommels is in fact between the oval and rectangular shape. The height is usually around 5.5 – 6 cm and width around 6 cm and there are even some specimens over 6.5 cm wide.

N These pommels are shaped in a frontal projection as inverted semi-ellipse with curved bottom edge and approximately straight (subtype **Na**) or slightly convex (subtype **Nb**) top edge. In a lateral projection they are almost triangular with convex bottom edge thus resembling in fact the shape of a sector. The base is generally circular or sometimes oval with pointed ends (variation of subtype Na). They have a ridge on the upper surface so they are actually of gabled shape. The difference between two subtypes is in the fact that pommels of the first one are of very small height (PH= ca 2.7 cm) hence they look like a boat while those of subtype Nb are slightly higher (PH= ca 3 – 3.5 cm) and have nearly a ‘beaker’ shape. The width of the most specimens of both subtypes is ca 7.5 – 7.7 cm.

N1 These pommels have from the front, i.e. in frontal projection, the shape of inverted semi-ellipse with straight top and curved bottom side. The base is shaped as exceptionally elongated oval with usually truncated ends and the pommels taper towards the top. Therefore, they are flat in the cross-section and represent actu-

¹ PH – Pommel height; PW – Pommel width; PT – Pommel thickness.

ally metal plates of semi-elliptical shape that are somewhat wider at the bottom and narrower at the top.

N1a The pommel has from the front the shape of inverted semicircle while its cross-section is the same as of the basic subtype N1. In contrast to the subtype N1 it has on the front side a pyramidal convexity shaped as three intersecting planes.

R These pommels are basically of spherical shape. Subtypes could be of smaller size (PH= ca 3 cm; PW= ca 4 cm) and of almost symmetrical spherical shape (subtype **Ra**) of slightly biconical shape (PH= 4 – 5 cm; PW= 7 – 7.5 cm, **R1a**), more massive and longer in a horizontal or vertical axis (diameter = ca 4.5-5.5 cm), sometimes with small ball on top (**Rb**) or they could be of smaller size and of slightly asymmetrically biconical shape (PH= ca 4-4.5 cm; PW= ca 5 – 5.5 cm, **R1b**).

Z The pommels are shaped as square plates. Top edge could be shaped as an accolade and there are specimens of more rectangular or more square shape with truncated corners and with or without circular convexities on both sides.

Z1 This subtype is characterized by the square shape with almost straight edges and right corners and with circular convexities in the middle of both sides that could sometimes be centrally hollowed. Most of these specimens are of approximately square or slightly rectangular shape. The pommel width is ca 5.5 – 6 cm while the height could vary (ca 4 – 5.5 cm).

Z2 The pommels are of approximately rectangular shape with truncated corners and faceted edges. They could be flat (**Z2a**), with circular convexities in the middle of both sides that sometimes could be hollowed in the center (**Z2b**) or with shallow circular hollows (**Z2c**). The heights and widths of these pommels could vary from around 3.5 cm to around 6 cm.

Z3 These pommels are similar to type Z1, they are of square shape with circular convexities on both sides but their top edge has protruding center and ends, i.e. it is shaped as accolade or cat's head and because of that they are sometimes also called crowned pommels. These pommels are generally of square shape and they are of slightly greater width (ca 5.5 – 6 cm) than height (ca 4

– 5.5 cm). There are also specimens with circular convexities shaped almost as hemispheres, sometimes encircled with molded ring.

Z4 These pommels are polygonal, hexagonal with decorated circular convexities on both sides. They are mostly made of bronze although there are some specimens made of iron. Some bronze specimens are lavishly decorated. They are of smaller size than the previous subtypes (PH, PW= ca 3 – 3.5 cm).

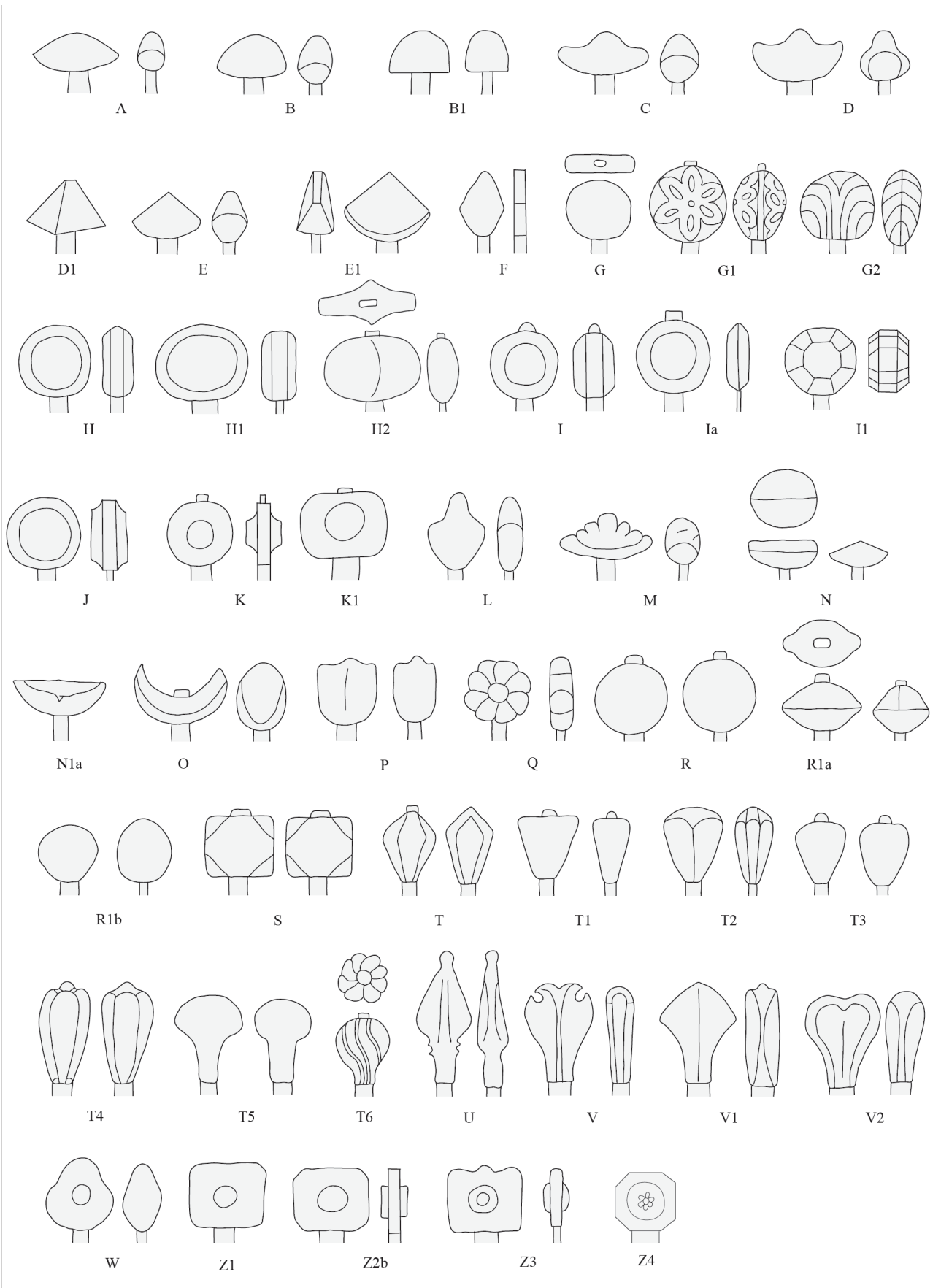


Fig. 1 – Typology of pommel shapes.

Description of Blade Shapes

I The blades are rather short (ca 68 –75 cm) without fuller and with edges tapering slightly towards the point, which is short and acute, with convex sides. The hilt is for one hand.

Ia The blades are of identical shape as the basic type but the hilts are of the hand-and-a-half type.

II The blade is somewhat shorter (77 cm), broad in the top third section and then tapering abruptly in the remaining section towards the modestly acute point. The fuller is broad, following the form of the blade and covers almost 90% of the blade length. The hilt is for one hand.

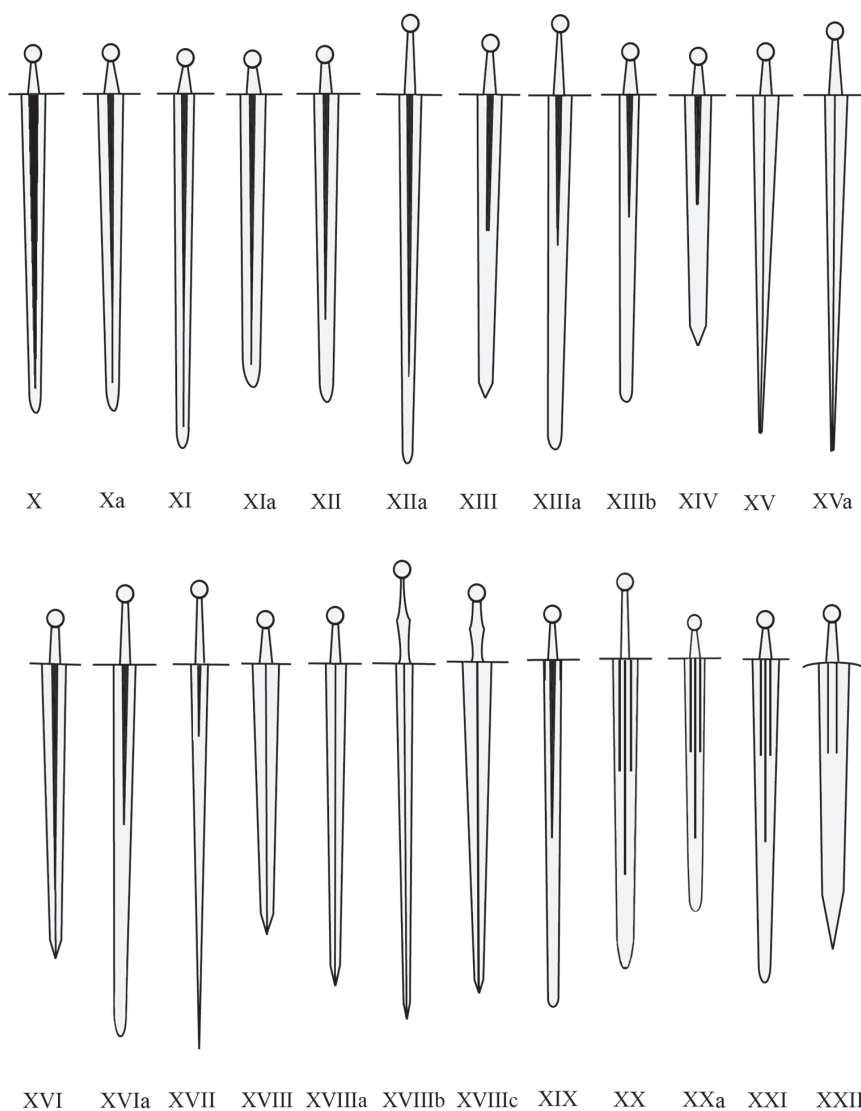


Fig. 2 – Oakeshott's typology of swords.

XIIb The shapes of these blades are identical to the Oakeshott Type XII but they have a hand-and-a-half hilt. The maximum width near the cross-guard is rather large (ca 5.5 – 6 cm) and they clearly taper towards the point, which is long and slender. The fuller is of moderate width and rather long but not as long as on Types X and Xa (around two thirds or three quarters of the blade length).

XIIIc Among the swords from the south-east Europe were encountered also those of conspicuously squat proportions, i.e. with short and usually broad blades (ca 5.5 cm) and with disproportionately long, two-handed hilts. The length of blade is mostly around 73 – 83 cm and the fuller is narrow and runs along one or two thirds of blade length. In the lower section below the fuller could be slightly prominent ridge while the point is short, rounded or triangular. The swords with such blades usually have the pommels of Type I1 or G/H1.

XXb The blades are of squat form like the Type XIIIa but they are also different as they have two or three fullers on each side instead of one and their maximum width is smaller. Besides these morphological traits, which perhaps would not be sufficient by themselves to distinguish them as distinct type most of these blades have identical pommel types (Type Z) and cross-guards (Type 12) thus offering the possibility to determine more precisely these swords chronologically and also geographically. Also, most of the blades have uniform dimensions, length being around 90 cm (± 2 cm) and width (4.5 – 4.8 cm). The hilts are usually of hand-and-a-half type or of two-handed type.

XXc The blades are of identical shape as the previous subtype but they are of somewhat smaller size, length being around 85 cm and width around 4.5 cm. The hilts are of the single-handed type.

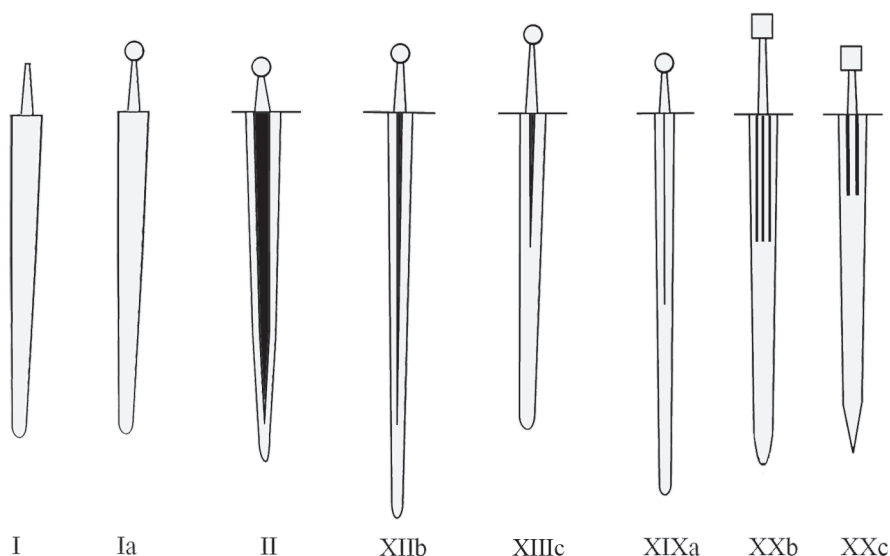


Fig. 3 – New types of blades.

XIXa They are similar to the basic Type XIX but they do not have a ricasso. The blades are flat and of moderate length, usually around 85 – 90 cm with edges almost parallel extending to an abrupt ending in the acute, triangular point. The blade width varies from 4.5 cm to 5 cm. The fuller is narrow, prominent and covers usually around one third of the blade length and extends also on the hilt tang. There are also the specimens with longer fuller. The hilt is of single-handed or hand-and-a-half type.

The material collected from the territory of the Germany is of special importance as it could be assumed that in that area existed the workshops, which first started to forge some of the blade types also appearing on the swords in the southeast Europe. Considering the fact that Alfred Geibig studied in his work also the blades from the 11th – 13th centuries it is only logical to suppose that some of his types could be equated

with the forms defined in the Oakeshott's typology. However, although he equated conditionally his Types 4 and 5 with Oakeshott Type X Geibig was of the opinion that further parallels are impossible to draw.²

i.e. the edges gently taper in the lower section towards the point with convex edges. The edges of Type 5 taper gradually in the lower section of the blade towards the slender point. Both types are similarly dated – from the mid 10th to the mid 11th

Type	BL	FL	BW	BW/BW'	FW	FW/FW'	BL/FL
4	70-76	63-69	4.5-5	1.5-1.6	1.9-2.2 and more	1.12-1.37	1.1-1.2
5a	84-91	67-76.5	4.8-5.1	1.24-1.58	1.8-2.25	1	1.19-1.26
5b	identical	identical	identical	identical	identical	1.12-1.19	identical
6	84-91	66-73	4.65-5.6	1.25-1.38 (1.55)	1.6-1.75	1-1.31	1.19-1.36
7	81.3-85.8	67-74	4.8-4.9	1.3-1.57	1.2-1.5	1-1.25	1.16-1.21
8	83.3-90.1	61-71	5.6-6.3	1.33-1.35	1.3-1.5	1	1.2-1.4
9	85-90.2	61-74	4.9 and less	1.29-1.44	1.2 and less	1-1.22	1.2-1.4
10	ca 91	75-80	5.2-6.4	1.25-1.39	1.5-1.76	1.05 and less	1.1-1.25
11	91 and more	69-75	5.2-5.6	1.13-1.3	1.2-1.4	1-1.17	1.2-1.4
12	ca 94 (over 100)	60-69	5.3-5.5 (5.9?)	1.15-1.39	0.7-1.1	1	1.4 and more
13	91 and more	75-78	4.4-4.6	1.29-1.31	1.2 and more	1	1.2 and more

Table 2 – Metrological values of the Geibig blade types 4-13; in centimeters (after Geibig 1991, 83-90).

Starting from the premise that both these typologies are based on the genuine characteristics of the sword blades we tried in this work to compare these typologies and to equate tentatively some of the types. This equalization has been carried out quite conditionally with just one aim, i.e. to make easier the recognition of certain general features of the blades. As Geibig suggested his Type 4 blades, which are shorter and on the average slightly narrower and Type 5, which are slightly longer and on the average somewhat broader correspond to the Oakeshott Type X.³ Both these types are characterized by very long and broad fuller, which generally covers the four fifths of the blade length and is around 2 cm wide (from 1.8 cm to 2.2 cm and over). The fuller on Type 4 conspicuously follows the tapering of the blade while the fuller on Type 5 tapers very little (subtype 5b) or does not taper at all (subtype 5a) in the first 40 cm. It should be noted that blades of both types are generally tapering in the first 60 cm although this parameter is rather extensive. It is more prominent for Type 4 (BW/BW' = 1.5 – 1.6) and slightly less prominent for Type 5 BW/BW' = 1.24 – 1.58). The Type 4 blades have short point,

century (Type 4) and to the third quarter of the 11th century (Type 5).

As it has already been said Geibig did not try to compare his other blade types with the Oakeshott's typology but in this work we will try to do that even with some reservations. Thus the Oakeshott Type Xa could conditionally be equated with the blades of Geibig Types 6 and 10. According to the certain parameters, the heavy and sometimes squat blades of Type 8 are also similar although they have the characteristics of some other Oakeshott types as well. Their common characteristic is the average length of around 83 – 91 cm and on average greater width of blades but this parameter for Type 6 is rather extensive (4.65 – 5.6 cm) and according to that as well as on the basis of blade length (84 – 91 cm) could equally include the characteristics of Types Xa and XI. Two other types are characterized by great maximum width, from 5.6 to 6.3 cm (Type 8) and 5.2 – 6.4 cm (Type 10) but the blades of Type 8 are shorter (83.3 – 90.1 cm) and of Type 10 longer (around 91 cm). The Types 6 and 10 have longer fuller, which covers around the four fifths, rarely three quarters of the blade length while the fuller of Type 8 is shorter on average and covers around three quarters of the blade length.

² Geibig 1991, 90.

³ Geibig 1991, 90, 153.

Main characteristic, which distinguishes Oakeshott Type Xa from its basic type, is the narrow fuller. While among the blades of Types 4 and 5 there are no specimens with fuller, which is narrower than 1.8 cm near the cross-guard, there is not known a single blade of Types 6, 8 and 10 having a wider fuller. The largest width of fuller near the cross-guard for Types 6 and 10 is around 1.5 – 1.75 cm and for Type 8 from 1.3 to 1.5 cm. Considering that their blades are generally broad and fullers narrow it was not necessary for the fuller to follow the tapering of the blade and tapering of the fuller in the first 40 cm of the length occurs only on Type 6 ($FW/FW' = 1 - 1.31$) and only on those specimens, which are narrower. Tapering of the blade in the first 60 cm of length is moderate for all three types, $BW/BW' = 1.25 - 1.39$ and for Type 8 within rather small span, from 1.33 to 1.35.

While the blades of Type 6 are evenly tapering in the lower segment towards the long point, the blades of Type 8 could also be of such a shape with point having convex edges or they could have shorter and rounded point. The edges of Type 10 are tapering slightly in the lower segment towards the point, which is somewhat longer but rounded. Taking into account slightly smaller length and the narrow fuller Type 8 could also correspond to the Oakeshott Type XIa but the edges do not taper conspicuously towards the point what is one of the main features of this Oakeshott type. The Geibig Type 8, however, in addition to the specimens with squatter lower part includes also some more slender specimens. One of them is, for instance, the sword from Roding, Bayern⁴ whose blade mostly resembles Type XIa. It has the pommel of Geibig Combination Type 15 IV, which is dated in the 12th – first half of the 13th century and it is the time to which is also dated this Oakeshott type of blade. On the other hand, some specimens classified as Type 8 have different characteristics, the squatter lower segment and rounded point⁵ and hence they could better correspond to the Oakeshott Type XIIIb. Taking into account that this comparison of two

typologies of blades have been carried out with extreme reservations I added the Type 8 to the Types 6 and 10, first of all on the basis of the average metrological parameters quoted by Geibig and despite the fact that certain blades attributed to it do not have these characteristics.

The slender blades with longer and narrow fuller classified as Oakeshott Type XI conditionally correspond to the Geibig Type 13 and to the slightly smaller extent to the Types 7 and 9. The blades of Type 13 are 91 cm long and 4.5 (± 0.1) cm wide while those of Type 9 are somewhat shorter (85 – 90.2 cm). The blades of Type 7 have similar characteristics as two previous types but they are still shorter (81.3 – 85.8 cm). Types 7 and 9 are characterized by identical width of 4.8 – 4.9 cm. The fuller on Types 13 and 7 covers around four fifths of the blade length and on Type 9 about three quarters of the length while its width is around 1.2 cm for Types 13 and 9 and from 1.2 cm to 1.5 cm for Type 7. The tapering of the blade in the upper 60 cm of the length for Types 13 and 9 is modest (from 1.29 to 1.31 and 1.44 for Type 9) while it is more prominent for Type 7 (1.3 – 1.57) what is understandable considering the larger width of the fuller on this type. The Type 7 blades could conditionally be equated also with Oakeshott Type XIa, first of all on the basis of somewhat smaller length although their maximum width near the cross-guard is relatively small.

The most similar to the Oakeshott Type XII is Type 12 in the Geibig's morphological classification of blades. The reason for this is in the fact that this Geibig type has the fuller covering around two thirds of the blade length and Oakeshott determined the same range for his Type XII. This Geibig type is also of the greatest length, around 94 cm, sometimes even over 100 cm. The width of the blade is relatively large (5.3 – 5.5 cm) and tapering ratio in the upper 60 cm is similar to the Types 6, 8 and 10 but also somewhat smaller ($BW/BW' = 1.15 - 1.39$) including also the blades of squat shape. The fuller is conspicuously narrow (0.7 – 1.1 cm) and therefore it does not taper in the first 40 cm ($FW/FW' = 1$).

The blades of Geibig Type 11 are also characterized by greater length (over 91 cm) and greater width (5.2 – 5.6 cm). On the average they are just slightly squatter than the specimens

⁴ Geibig 1991, Kat.-Nr. 42, Taf. 31.

⁵ Geibig 1991, Kat.-Nr. 60, Taf. 43 and even more Kat.-Nr. 97, Taf. 66. Both swords are from the unknown site and have pommels of the Combination Type 18 (12th – first quarter of the 13th century).

of Type 12 ($BW/BW' = 1.13 - 1.3$) but there are specimens with apparent characteristics of the Oakeshott Type XIII, meaning that the blades taper very little almost to the point, which is rounded.⁶ Nevertheless, there are also clearly more slender specimens with blades conspicuously tapering towards the point and they would better correspond to the Oakeshott Type Xa⁷ so these blades could not be completely equated with the Type XIII. Their fuller is relatively long, around three quarters of the blade length and moderately wide (1.2 – 1.4 cm).

At the end of this summary of the Geibig's typology of sword blades dating from the 11th-13th centuries and its comparison with the types defined by Ewart Oakeshott certain conclusions could be drawn. The main difference between the Types X and Xa is in the width of a fuller. It was not precisely defined in the Oakeshott's typology but it could be more precisely determined on the basis of the data published by Geibig. While the blades of Types 4 and 5, which correspond to the Oakeshott Type X are characterized by the fuller, which is never less than 1.8 cm wide and is usually around 2 cm or more, the types, which mostly resemble the Oakeshott Type Xa (Types 6, 8 and 10) have considerably narrower fuller whose width does not exceed 1.8 cm. So we accepted in this work as basic difference between Types X and Xa the maximum fuller width to be 1.7 – 1.8 cm. The blades with wider fuller thus belong to Type X and those with narrower fuller to Type Xa.

Another parameter, which was not precisely defined in the Oakeshott's typology is the index of blade tapering. Oakeshott uses just the descriptive definition stating that edges are almost parallel or that they taper more or less conspicuously towards the point. Geibig determined this parameter with the index BW/BW' , where first measure is the maximum blade width below the cross-guard and the other its width 60 cm from the cross-guard. Thus defined this parameter does not take into account the complete

blade but I consider it sufficiently useful and it has already been used.⁸ Given that this parameter is particularly important for determination of the Type XIII blades and its subtypes, which are characterized just by a small difference between these two measures of blade widths it is accepted in this work that conditional maximum value of this index is 1.35 with tolerance of about ± 0.02 . Therefore, those blades having BW/BW' index smaller than this value, have the characteristics of the Type XIII and those with higher value were not accepted as characteristic of this type.

⁶ For example the sword with pommel of Combination Type 16 II from the unknown site, Geibig 1991, Kat.-Nr. 65, Taf. 47.

⁷ Geibig 1991, Kat.-Nr. 85, Taf. 59, Neuburg, Baden-Württemberg, Kat.-Nr. 159, Taf. 98, Köln, Nordrhein-Westfalen. Both pommels are of Combination Type 14.

⁸ Sijarić 2004, 51 whose interpretation of this question is accepted in this work.

Description of Cross-guard Shapes

1 These are simple, straight and slender cross-guard, which usually tapers slightly towards the ends. It could be of square cross-section, somewhat less frequent of circular section and very rarely and on later specimens of the octagonal section. Subtype 1a as defined by Oakeshott differs from the basic type in the fact that the ends are not slightly narrowed but straight. As this detail is often difficult to prove (the tapering is mostly just around 1-2 mm) and is not of chronological relevance I did not make any difference between the Type 1 and its subtype but all such cross-guards have been classified as Type 1.

4a The cross-guards are similar to the basic type with button-shaped ends but they are

slightly curved downwards and generally somewhat shorter, the length being around 12 – 14 cm.

11a These cross-guards are similar in shape to the basic type and their difference is in the fact that they have ends turned backwards.

12 The cross-guards have horizontally curved arms in the shape of the Latin letter S.

12a – These cross-guards have arms slightly curved in the opposing direction. The finds are not morphologically uniform and their length varies between 18 – 22 cm although there are somewhat shorter specimens.

12b – The cross-guards have slightly expanded arms, which are symmetrically and horizontally sharply bent in the opposite directions

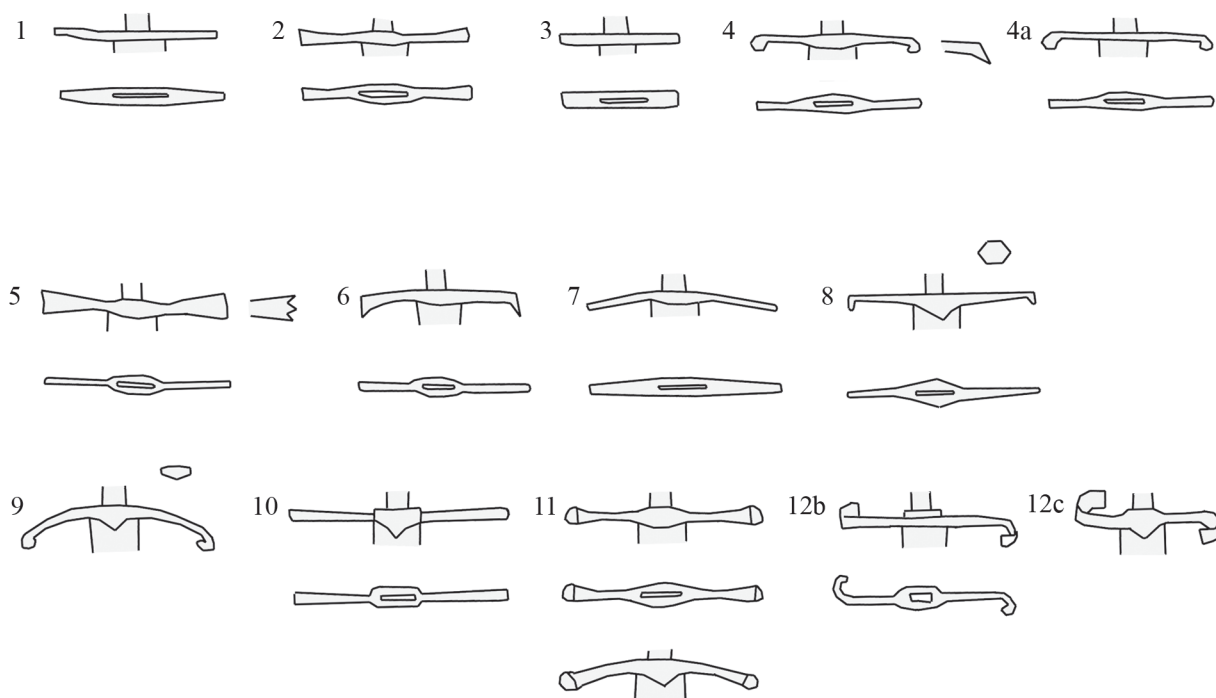


Fig. 4 – Typology of cross-guard shapes.

and sometimes with three ornamental grooves on the outside. The length could be close to the previous subtype but is more often smaller, i.e. around 16 – 17 cm.

12c – The cross-guards have symmetrically and horizontally sharply bent arms in the opposite directions. In the middle was often a wedge-shaped reinforcement, which extends on the blade like small *ecussion*. Their length is on the average even smaller than the length of the previous subtypes, around 14 – 15 cm, sometimes even smaller, around 12 cm.

13 The cross-guards are bent towards the blade and usually with button-shaped extensions on the ends. They are similar to the Type 9 but they could be distinguished from them because they never have triangular reinforcement in the middle and they are on the average mostly of square shape, rarely circular.

Chronology

Chronology of Pommels

A

The pommels, which Oakeshott classified as his Type A¹ correspond to the lense-shaped pommels (*Linsenförmiger Knauf*), which are at first distinguished as the latest type of the Viking swords, i.e. of the Frankish spathes. Alfred Geibig classified them as his Combination Type 16 I,² Alexander Ruttkay, together with Type B, as his Type IX³ while they were also sometimes classified as Type α .⁴ It should be said that such pommels are relatively numerous among the finds from different parts of Europe.

The earliest visual representation of these swords and long time ago mentioned in literature comes from the Gospel at the Cathedral in Bamberg that was made for the German-Roman Emperor Otto III between 983 and 991 in the monastery Reichenau, Bodensee, at the present German and Switzerland border. On the page bearing the dedication to the emperor is depicted Otto III sitting on the throne surrounded by the people from his court and the first courtier to his left holds in his hand the sword of this type.⁵ The fact that the earliest representation of this type of spathe comes from the imperial court could indicate that they were produced in the workshops supplying the court and army of the German Empire and that they, therefore, were located in the territory of that state. Considering that in the middle Rhine valley existed the sword-making centers, which in the 10th century were the leading manufacturers of the spathes in the western Europe it could be assumed that there also commenced the produc-

tion of the swords with lense-shaped pommels.

Most of the authors date the production of this pommel type to a rather extensive time interval, from the second half of the 10th to the 12th century. An extensive time span of production of the Type A pommels as well as of Type B that are mostly contemporary, results in a fact that dating of these swords relies to a greater extent also on other criteria. Their blades are mostly of the Types X, Xa and XI. Those of Type X generally indicate the earlier specimens while Types Xa and XI indicate the later ones. As later specimens of Type A with such blade could be mentioned the swords from the Zeta river in Montenegro (cat. no. 288) and Kupa river in Croatia (342, Pl. 11:1). Some other traits of these swords including greater blade length and greater length of the cross-guard and hilt could also in some cases indicate the later time of their manufacture.⁶ Almost all swords with Type A pommels as well as most of the other 11th and 12th century swords have straight, simple cross-guards of Type 1 and eventually somewhat squatter ones of the Type 3. When the metrological characteristics of the swords are concerned it should certainly be taken into account that medieval craftsmanship acknowledges also individual exceptions to the standard forms so they could not always be accepted as unconditional chronological element.

On the other hand, two swords with Type A pommels from the northwestern Slovakia (cat. nos. 55, 56) have the blades of Type X while short

¹ Oakeshott 1981, 93.

² Geibig 1991, 70-72.

³ Ruttkay, 1975/76, 252-255.

⁴ For example Vinski 1983, 27-33 with earlier literature, Nadolski 1954, unavailable to me.

⁵ Staatsbibliothek, München, Cod. Lat. 4453; Oakeshott 1981, 83-84, Fig. 8; Vinski 1983, 28, tab. XV, 1.

⁶ See the chapter on type Xa blades. Here could be mentioned also Geibig's typology of blades where the length of 91 cm and over generally indicates the 12th century or later date (blade types 10, 11, 12 and 13), Geibig 1991, 88-89, 154, Abb. 23, 40. Conspicuously long cross-guards of type 1 (ca 25 cm and over) also indicate the same dating, Geibig 1989, 247, note 54; Geibig 1991, 182.

hilts and cross-guards also suggest an earlier date, consequently the time around first half of the 11th century. Certain practice of swords decoration could also sometimes indicate the time of their manufacture, as, for instance, the inscription HA-KIAI / ME FECIT on both sides of the blade of a sword from Croatia (cat. no. 349) indicates the second half of the 10th and first half of the 11th century when such inscriptions were the most popular.⁷ The above mentioned pommel of Type A and of Type X blade, from Slovakia (cat. no. 55) has on the blade the inscription INGEL(RII) like the two swords from Bosnia (cat. no. 297, 298, Pl. 9:1, 9:2), which despite having considerably longer cross-guard should also be dated in the 11th century. The practice of mounting later pommels and cross-guards on the earlier blades could result in some cases in confusion when dating of such finds is concerned as it is the case, for instance, with the sword found in the Murtensee lake, near the mouth of river Broye, around twenty kilometers to the southwest of Bern (Fig. 20). It has the blade of Type X and short hilt and cross-guard but also the pommel of Type Na, which is at least a century later.⁸

On the basis of the material from Germany, the region where was the assumed place of origin of these pommels Geibig dated his Combination Type 16 I from the second half of the 10th to the third quarter of the 12th century.⁹ Distribution of these pommels in the territory of Germany indicates their higher concentration in the south and central regions and this could possibly support earlier suggested and nowadays mostly abandoned Oakeshott's assumption concerning the geographic differentiation of Types A and B during second half of the 10th and in the 11th century. Namely, he assumed on the basis of distribution of these finds in Europe that Type B pommels were initially distributed mostly in Scandinavia and in the areas of western Europe where the Vikings established their colonies, from the Baltic Sea to the mouth of the Loire river in the south. Contrary to this, the lense-shaped pommels of Type A are more numerous in the

central Europe. Such regional division Oakeshott conditionally named after the historical regions corresponding to the old Frankish Neustria and Austrasia and it disappeared, according to him, after the year 1100.¹⁰ The distribution of the Type A swords in the territory of Germany reveals that out of 20 mapped pommel specimens classified as Combination Type 16 I only two come from the territory closer to the Baltic region while other finds come from the south Germany and the Rhine valley.¹¹ In contrast to this, the distribution of finds with pommels of Combination Types 15 II – IV, in particular Type 15 III, which correspond to the mushroom-shaped pommels of Type B are not conspicuously grouped¹² and that could be the consequence of the assumed prolonged period of their manufacture lasting more than two centuries.

The finds of swords with Type A and B pommels in the southeast Europe generally indicate that earlier specimens (second half of the 10th – second half of the 11th c.) are conspicuously less abundant in comparison with the later ones (second half of the 11th – second half of the 12th c.). This could mean that they have become the most popular pommel shapes of their time sometime later than in the German Empire. Among the earlier specimens prevail the Type A pommels (cat. nos. 55, 56, 297, 298, 349) in comparison to the Type B (cat. nos. 61, 299, 346) but among the later swords are much more frequent those with Type B pommels (cat. nos. 67, 84, 96, 131, 135, 182, 183, 228, 229, Pl. 13:1, 287, 295, 350, 346) in comparison to the type A (cat. nos. 16, Pl. 1:1 81?, 147, 288, 342, Pl. 11:1, 344?).

Type X blades appear sporadically even after the 11th century in the same way as Types Xa and XI occur within broader time interval although they are most frequent (particularly the latter type) during the 12th century,¹³ so such dating of these swords should be accepted to a certain degree with caution. Still, some other features of these swords including greater length of blades (cat. nos. 16, Pl. 1:1 67, 96, 182, 295), cross-guards (cat. nos. 84, 182, 295) and hilts (cat. nos. 182, 295) generally corroborate this dating. Con-

⁷ Geibig 1991, 155-156, see the chapter on inscriptions on blades.

⁸ Schweizerisches Museum in Zürich (inv. no. 14347); Bruhn-Hoffmeyer 1954, 41, 114, pl. IX-d, kat. II-31.

⁹ Geibig 1991, 146, 151.

¹⁰ Oakeshott 1981, 82.

¹¹ Geibig 1991, 171, Abb. 50.

¹² Geibig 1991, 171-174, Abb. 50 - 52.

¹³ See the chapter on types of these blades.

sidering that most parts of the southeast Europe were the peripheral regions of a distribution area of this type and assuming that local workshops could at one time take on their manufacture, the dating of these pommel types in this part of the continent could generally be established from the end of 10th to the end of 12th century. Somewhat greater concentration in the territory of southwestern Pannonia plain and northern Dalmatia of the swords, which generally date from the 11th century¹⁴ could perhaps be related to the Hungarian military campaigns to conquer the Croatian state in the end of 11th and the very beginning of the 12th century.

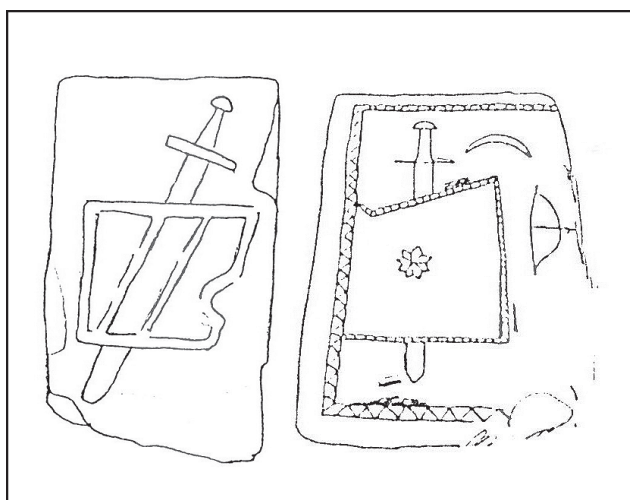


Fig. 5 – Mediaeval Tombstones in the Western Balkans, Herzegovina: a – Bienja near Nevesinje, after Сергејевски 1948, 240-241, fig. 3; b – Boljuni near Stolac, after Бешлагич 1968, 177, fig. 5.

B

These pommels were variously defined by different scholars and their shape was mostly identified as mushroom-like (*Pilzerformiger Knauf*). In the Geibig's typology they generally correspond to the Combination Types 15 II – 15 IV, first of all 15 III although he conditionally equates also some of his other types (14, 16 I and 18) with Type B.¹⁵ Two swords with mushroom-shaped pommels (Type B) from Ukraine Kirpichnikov classified as his Type IV.¹⁶

Considering the above mentioned representation of the sword with lense-shaped pommel from the end of the 10th century there were previously some attempts to date the swords with lense-shaped pommels in the end of 10th and in the 11th century and thus to distinguish them chronologically from the specimens with mushroom-like pommels that followed them but this standpoint is nowadays mostly abandoned. Although the representation of swords with mushroom-shaped pommels is not recorded in the visual sources so early, all other characteristics and variations of shape and size of blades, hilts and cross-guards are similar for both types indicating that their use had been simultaneous to a great extent. Such conclusion is suggested by some slightly later visual sources, e.g. the representations of swords with both these types of pommels on the relief copper plating of the altar made in 1118 in the Rhine valley.¹⁷ The same applies also to the material from Germany where Geibig dated his Combination Types 15 III and 16 I as synchronous, i.e. from the second half of the 10th to the third quarter of the 12th century.¹⁸

From the territory of western Germany come eight finds classified as Type 15 III and another six related specimens of Types 15 II and 15 IV could be also added. I did not make in this work special typological distinction between Geibig Types 15 II – 15 IV but they were all identified as Type B and certain differentiation was made only when it was necessary to date the distinct sword more precisely. The Combination Type 15 II is of smaller size and dated in the 12th century while Type 15 IV is slightly more massive and dated in the 12th – first half of the 13th century.¹⁹ Type 15 II could have or have not 'a split' at the top, in lateral projection. It should be observed that dimensions calculated by Geibig for these two types are not necessarily final considering that they are significantly smaller in quantity than Type 15 III (15 II – 4 swords and 15 IV – 2 swords).

The pommel of a sword from Pančevo near Belgrade (Fig. 6) although slightly damaged corresponds in shape and size to Type 15 III while the dimensions of a sword pommel from the Military Museum in Belgrade (cat. no. 229,

¹⁴ Cat. nos. 323, 342, Pl. 11:1, 344, 346, 348, 350, Tomičić 2002, 155, Sl. 11 (Map of finds).

¹⁵ Geibig 1991, 16, Abb. 1. Combination Type 18 actually is more slender in the vertical axis variant of type B1, which is in southeast Europe represented by just one specimen (cat. no. 390).

¹⁶ Кирпичников 1966, 54, cat. 18, 19.

¹⁷ Oakeshott 1981, 85, note 9, fig. 50.

¹⁸ Geibig 1991, 66-68, 146-147, 151.

¹⁹ Geibig 1991, 146-147.

Pl. 13:1) are close to Type 15 IV but its thickness is somewhat smaller and that is the characteristic of Type 15 II. The sword from the unknown site in the Hungarian National Museum in Budapest (cat. no. 96) has besides the Type B pommel also the Type Xa blade with inscription O S O on one side and S O S on the other. The sword from Roding, south Germany²⁰ has the same inscriptions and also identical typological traits (B, Xa, 1) and this could indicate their related provenance. The same inscription was recorded on the sword blade from the Hermitage Museum in Saint Petersburg.²¹

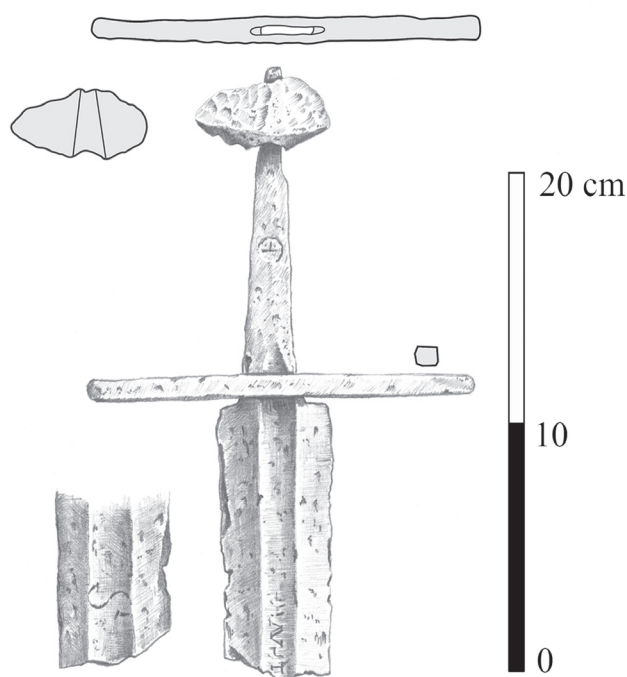


Fig. 6 – Sword from Vojlovica – Pančevo, near Belgrade, cat. no. 228, Type: B, Xa?, 1.

Worth mentioning are also the rare representations of such pommels in the visual sources in the southeast Europe. In the initial of letter A in one 14th century antiphonary in the monastery of St. Francis in Zadar, north Dalmatia,²² is depicted a sword with pommel shape corresponding mostly to Type B. In the miniature painting of this religious book were identified apparent elements of

the earlier stylistic tradition and as one of them could be identified the representation of sword, which has hilt for one hand and blade with long fuller. On a tombstone at the medieval necropolis Boljuni near Stolac, central Herzegovina (Fig. 5b) is engraved the representation of a sword with pommel, which could also be ascribed to Type B, possibly A.²³ There is still another monument with representation of a sword with pommel corresponding to Type A or B. This is the tombstone from the necropolis Bijenja near Nevesinje also in eastern Herzegovina (Fig. 5a).²⁴

Because of the crude carving of the representations characteristic of almost all monuments of this kind it is not possible to establish with certainty the precise shape of the objects, including the sword pommel. Because of that there is still a doubt whether it is an accidental shape resulting from the inability of artist to transfer accurately his intentions on the stone. The fact that in both cases they were depicted on slabs, the earliest form of these otherwise heterogeneous monuments and that both come from Herzegovina, the region considered to be the home region of their erection suggests that they really could date from the 12th or 13th century when we could reasonably assume that swords with such pommels had still been in use. We could also mention here the sword representation on a fresco depicting the Holy Warrior in the church of St. Michael in Ston, south Dalmatia, from around 1077 (Fig. 7).²⁵ The pommel shape is not clearly discernible due to the damage of the fresco painting but long blade with rounded point and broad fuller as well as the straight cross-guard clearly indicate that this weapon was made in a tradition of the west European spathe.

²⁰ Geibig 1991, 241, Kat.-Nr. 42, Taf. 31.

²¹ Кирпичников 1966, 88-89, к. бр. 41, Т. XXIX, 3. Sword has a discoid (wheel) pommel.

²² Antiphonary F, Fol 2, scene of Resurrection of Christ, Мирковић 1977, 19-20, сл. 25.

²³ Бешлагич 1961, 189, 205, fig. 4 (map), fig. 45, monument no. 63, in the western, earliest section of the necropolis. Necropolis was generally dated in the 14th – 16th century as is the case with most of around 70 000 nowadays preserved monuments in Herzegovina, Bosnia, Serbia, Montenegro and Dalmatia usually based on their ornaments and often by inertia. Still, there are some that are certainly much earlier. That is, for instance, the tombstone of Grd, zupan of Trebinje found at the site Police in Trebinje, eastern Herzegovina that is on the basis of the Cyrillic inscription dated in the time of Hum prince Miroslav, brother of Stephen Nemanja, grand zupan of Serbia, in 1173–1189.

²⁴ Сергејевски 1948, 240, 241, сл. 3.

²⁵ Шкриванић 1957, 44, сл. 9.

	15 I	15 II	15 III	15 IV	15 V	15 VI	16 I
PW	6 and 6.6	5.6–6.1	5.1–7	6.5 and 7.1	6.9–7.6	5.88 and 6.5	4,8–11
PH	3.7 and 4	3.6–4.05	2.8–4	3.9 and 4.7	4–4.5	4 and 4.04	2.2–4.2
PW/PH	1.62–1.65	1.38–1.55	1.66–1.97	1.38–1.8	1.68–1.87	1.45–1.62	2–2.8
PH/PT	1.54–1.8	1.09–1.39	0.88–1.2	0.93	0.73–0.89	1.43	0.65–1.57
PW/PT	2.53–2.93	1.68–1.85	1.78–2.36	1.68	1.35–1.5	2.08–2.32	
CL	13.6	17.5–18.9	13.3–19.5	21.3 and 20.2	24.2	21.6	13.9–25.3

Table 3 – Dimensions of pommels of Geibig variants of Combination Types 15 and 16 I.



Fig. 7 – Fresco of the Holy Warrior from the Church of St. Michael in Ston, south Dalmatia, around 1075.

B1

The pommels, which Oakeshott classified as his Type B1 correspond mostly to the Geibig Combination Type 12 II as it is understood in this work and their vertically elongated variant corresponds to the Combination Type 18. Geibig dated the Combination Type 12 II pommels in the first half of the 12th century and those of Type 18 in the 12th century and in the beginning of the 13th century.²⁶

²⁶ Geibig 1991, 149, 151, Abb. 39.

The sword discovered in the suburb of Trenčín, northwestern Slovakia, (cat. no. 11) that Ruttkay identified as the single specimen of his Type X is of considerably larger size than it is common for this shape and which Geibig measured on the basis of four specimens of his Type 12 II. The hand-and-a-half hilt and great length of its cross-guard brings it closer to the time around second half of the 12th or even the beginning of the 13th century when they were most frequent and such dating could be supported also by the elaborate decoration on the blade. Dating of this sword to the somewhat later period than it is usual for these pommel types suggests that they had been sporadically produced also after the 12th century but then they were of larger size. Such situation was assumed also by Geibig who supposed that his Combination Type 15 IV, which could be understood as somewhat more massive variant of Type B, had been also produced during the first half of the 13th century.²⁷ Besides the sword from Trenčín, the specimen from unknown site in Hungary (cat. no. 129) has by all appearances massive pommel of B1 Type and hand-and-a-half hilt, which along with exceptionally narrow blade suggests mostly the time around second half of the 12th century. To this group of swords with pommel types, which generally went out of use by the end of 12th century (Types A, B and B1) and which are of considerably larger size could be also ascribed the sword of Type A Xa, 1, from an unknown site, now in the Fitzwilliam Museum, Cambridge, that Oakeshott dated in the first half of the 13th century.²⁸ Among the lense-shaped pommels, which Geibig classified

²⁷ Geibig 1991, 146–147.

²⁸ Oakeshott 1991, 223, no. 7. L= around 120 cm; BL = 98.1 cm; HL= around 21.5 cm. Precise dimensions of pommel are not known to me but it is obviously large, i.e. proportional to the other parts of the sword.

as Combination Type 16 I there are some specimens of conspicuously larger size but they were not dated after the third quarter of the 12th century. Taking into account the characteristics of the sword from Trenčín, I think that a possibil-

Geibig identified as his Combination Type 18 the most similar to it is the pommel of a sword from Slovenia (cat. no. 390). This Combination Type Geibig dated in the 12th – beginning of the 13th century.³⁰

Cat. no.	Sword or Geibig Type	Type	PH Pommel Height	PW Pommel Width	Date
	Geibig 12 II	= B1	2.3 – 2.8	4.5–4.9	first half 12 th c.
	Geibig 15 III	= B	2.8 – 4	5.1 – 7	second half 10 th – 12 th c.
	Geibig 15 IV	= B	3.9 – <u>4.7</u>	<u>6.5</u> – <u>7.1</u>	12 th – beg. 13 th c.
	Geibig 16 I	= A	2.2 – 4.2	4.8 – <u>11</u>	second half 10 th – 12 th c.
11	Trenčín, NW Slovakia	B1 , Xa, 1	3.5	<u>8</u>	second half 12 th – beg. 13 th c.
16	Skycov, W Slovakia	A , Xa, 1	2,7	<u>8</u>	second half 11 th – first half 12 th c.
96	Museum Budapest	B? , Xa?, 1	3.7	<u>8</u>	ca second half 12 th c.
131	Szabolzi, NE Hungary	B , Xa, 1	4.3	<u>8.3</u>	second half 11 th – first half 12 th c.
129	Hungary, unknown site	B1 , XI, 1	?	?	ca second half 12 th c.
182	Caransebeș, W Romania	B , Xa, 1	<u>4.8</u>	6.2	12 th c.
342	Karlovac, W Croatia	A , Xa, 1	3.4	<u>8.4</u>	second half 11 th – first half 12 th c.
	Museum, Cambridge	A , Xa, 1	?	?	first half 13 th c.
	St. Mauricius, Wien	B , XI, 1	ca 4	ca <u>7.1</u>	year 1208

Table 4 - Dimensions of pommels of Geibig combination types corresponding to the types A, B and B1 and some examples of these pommels of larger than usual size. Underlined are the dimensions larger than usual for these types.

ity should be allowed that some of these massive pommels were manufactured in the decades around the end of the 12th and the beginning of the 13th century.

The larger dimensions of these 'late' pommels of Type A, B and B1 could be explained as a consequence of increase in the blade length and elongation of hilt so the massive pommel has the purpose to provide the better balance of the sword. Good example for this group of finds is renowned so-called sword of St. Mauritius from the Weltliches Schatzkammer, Vienna with Type B pommel also of somewhat larger size and with the coat-of-arms of German-Roman Emperor Otto IV. There is a possibility that pommel was only decorated on the occasion of his coronation in 1209 but I take as more probable that complete pommel was made at that time and added to the tang of a blade, which is undoubtedly earlier.²⁹

Considering the subvariant of Type B1, which is of slightly more slender shape and which

The sword pommel from the Ljubljana river near Ljubljana (cat. no. 371, Fig. 8, Pl. 12:2) is one of the specimens for which I could not find direct analogies in the types so far defined by the scholars. The closest in shape is the sword pommel from the region Gudbranstal in Norway dated around second quarter or middle of the 13th century.³¹ Slightly longer hilt of the sword from the Ljubljana and particularly the Type XIII blade also suggest the time around second or third quarter of the 13th century. Although there are no direct analogies for this shape of pommel, the most similar in shape but also in size among the Geibig types is his Combination Type 15 V, which is extensively dated in the 12th and the

³⁰ Geibig 1991, 149.

³¹ Oakeshott 1981, 88, Fig. 53. Sword is housed in the museum in Maidenstone, England and author quotes the analogy in the visual sources dating from around 1230 and 1250, Fig. 52, 54.

²⁹ Cf., Oakeshott 1991, 56 with earlier literature.

first half of the 13th century. This characteristic type, which includes just three pommels from the south Germany could be generally described as transition form B/N. The pommel from Ljubljana is, however, more squatter, as confirmed by its height and width, which are for about half a centimeter bigger and smaller than the established measurements for Type 15 V (Table 3). This shape makes it slightly closer to the Type B. The Type XIII blade of this sword indicates that it certainly is not earlier than the beginning of the 13th century and its dating to the same time as the sword from Norway is suggested also by its Type 2 cross-guard of octagonal section that was most popular in the decades around the middle and second half of that century.

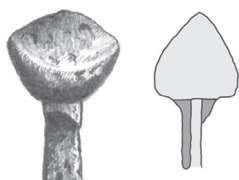


Fig. 8 – Pommel of sword from Ljubljana river, central Slovenia (cat. no. 371, Pl. 12:2).

D

This typical three-pointed shape have the pommels of Petersen Type Y (Geibig Combination Type 13 I), which are dated from the end of 9th to the beginning of the 11th century³² and from which evolved the shapes, which Oakeshott classified as Types C and D. Type D is slightly more massive and was dated in the decades around the middle of the 13th century³³ while Geibig identified it as Combination Type 13 II and dated it in the first half of the 13th century.³⁴ From the southeast Europe to this group of finds could be ascribed the specimen from an unknown site in the Hungarian National Museum in Budapest (cat. no. 97) and on the basis of drawing available to me probably also the sword from northwestern

Hungary (cat. no. 130). This specimen could be the sword of this type from Hungary mentioned by Oakeshott.³⁵

D1

The basic shape of this pommel subtype is the four-sided truncated pyramid encountered on the sword discovered in the Velika Morava river, near Jagodina, central Serbia (cat. no. 231, Pl. 6:1). The sword pommel from the vicinity of Husin, south Slovakia (cat. no. 8) that Ruttkay distinguished as Type XII is of identical shape. The specimen from the museum in Zlaté Moravce, western Slovakia (cat. no. 44) Ruttkay also distinguished as the single specimen of his Type XIV³⁶ but it also could have the shape of truncated pyramid. Description of the find indicates that the pommel is shaped as truncated pyramid but it differs from the shape represented in the schematic illustration of types where it is represented as the flat pommel, shaped as truncated trapeze.

Both pommels, which dimensions I know (cat. nos. 8, 231, Pl. 6:1) are of relatively similar size and have almost identical width and height ratio of the pommel (1.5 and 1.55) and that could mean that morphological resemblance is not accidental but that it was the type, which had been produced during certain period of time. The sword from the river Velika Morava in Serbia has long cross-guard of Type 1 that is curved in a distinctive way. Identical cross-guard also has the specimen from the village Vuchitrn in northern Bulgaria (cat. no. 222) and that, considering similar shapes of blade and hilt, could indicate their related origin. These specimens are classified in the group of hand-and-a-half swords with blades of Type Xa or similar and this generally means that these swords are not earlier than the 12th eventually the end of the 11th century but also not later than the middle of the 13th century.

Among the visual sources the possible analogy for this shape could be the pommel on a sword of the unknown Holy Warrior in the church of St. Pantaleon in Nerezi, northern Macedonia, from 1164 (Fig. 9). The frescoes in this monastery are the work of the Byzantine painters, most

³² Geibig 1991, 145-146. On the finds of swords with type Y pommels in central and eastern Europe, Алексий 2002, 253-256.

³³ Oakeshott 1981, 89-90, 93-94.

³⁴ Geibig 1991, 151, Abb. 39.

³⁵ Oakeshott 1981, 90, fig. 59, after Szendrei 1896, unavailable to me.

³⁶ Ruttkay 1975/76, 258.

Cat. no.	Finding place	Typ of Pommel	Typ of Blade	Typ of C-guard	L	BL	BW	HL	CL	PH	PW
8	Vicinity of Husin, S Slovakia	D1	XI?	1	62.5*	46*	<u>4.6</u>	<u>16.5</u>	<u>19.5</u>	<u>3.6</u>	<u>5.6</u>
44	Unkn. site, museum Zlaté Moravce W Slovakia	D1	I?	1	?	?	?	?	?	?	?
231	r. Velika Morava, vicinity of Jagodina central Serbia	D1	Xa	1 curved	<u>106</u>	91	6?	<u>15</u>	<u>19</u>	<u>4</u>	<u>6</u>
222	v. Vučitrn near Pleven, N Bulgaria	?	XI	1 curved	<u>102</u>	?	<u>4.6</u>	?	?	?	?
197	Vicinity of Vrbica, E Bulgaria	I	Xa/XII?	6	81*	65*	?	<u>16</u>	<u>19</u>	6	

Table 5 – Typological and metrological characteristics of the swords with Type D1 pommels (cat. nos. 8, 44, 231, Pl. 6:1) and swords with characteristically curved long cross-guard (cat. nos. 231, 222 and 197?). The dimensions, which could indicate mutual relationship are underlined.

(Sign * means broken; see explanation of all Abbreviations.)

probably from Thessalonica. This pommel, however, has more stylized, elegant shape closer to the conical shape with small ball on the top. In our search for possible origin of pyramidal or related pommel shapes in Byzantium could be of possible help the mosaic representation of St. Orestes with a sword pommel of possibly pyramid shape in the monasterv Nea Moni in the island



Fig. 9 – Fresco of the Holy Warrior in the Church of St. Panteleon in Nerezi, western Macedonia, from 1164. After Шкриванић 1957.

of Chios, central Greece, from around 1050. It should be said that pommels of pyramid shape or similar appear on the 16th century swords in Europe and to this group should be ascribed the pyramid pommel represented on a fresco in the

church of St. Demetrius in the Peć Patriarchate, Kosovo, from around 1619 and not to the eventual reminiscence of much older artistic models.³⁷ Small number of finds as well as the relative similarity of other parts of these swords suggest the conclusion that period of production of the Type D1 pommels and the characteristic curved and long cross-guards of Type 1 was rather short but it could not be for the time being more precisely distinguished within the chronological framework of around the 12th and the first half of the 13th century.

E

The finds from the southeast Europe that could be attributed to this group of pommels include the sword retrieved from the Danube river near Vidin, northwestern Bulgaria, (cat. no. 198) and specimen from Hungarian National Museum in Budapest (cat. no. 137) and two specimens from private Croatian collection (cat. nos. 347, 348). The most similar to this shape of the Geibig types is his Type 19, which is dated in the first half of the 12th century.³⁸ Kirpichnikov distinguished the pommels of this shape as his Type V to which he also attributed two finds from Ukraine.³⁹ Both swords from Ukraine have broad blades of almost identical length (88.2 and 88.5 cm) and shape and very similar characteristics have the blade of a sword from Bulgaria (cat. no. 198) that is 89 cm long. The pommels of these three swords have

³⁷ Ђурић, Ђирковић и Коран 1990, 293, fig. 187.

³⁸ Geibig 1991, 79, 149-150, Abb. 39.

³⁹ Кирпичников 1966, 86-87, cat. 23, 27. First sword originates from the river Dnieper near Kiev and second from an unknown site in Ukraine.

Geibig Cat. no.	Pommel code, cross-guard Type	Finding place	PW	PH	PW/PH	PW/PT	CL (Types 13-15)
	Combination Type 19		5.8-7.79	3.7-5	1.21-1.86		18.9-24.6
53	19-15-11-13	r. Isar valley, Bayern, S Germany	5.8	3.7-5	1.07-1.55	1.29	
81	19-21- 5-13	Liedolsheim-Russheim, Baden-Württemberg, SW Germany	6.74	4.5	1.45	2.17	
169	19-15-10-13	Monheim, Bayern, S Germany	6.9-7.79	3.7-5	1.07-1.55	1.58-2.51	
180	19-15-10-12	Unknown site, Germany	6.9-7.79	3.7-5	1.07-1.55	1.58-2.51	19.4
187	19-15-10-13	Bruchbergmoor, Seesen, Lower Saxony	6.9-7.79	3.7-5	1.07-1.55	1.58-2.51	

Table 6 – Pommel dimensions of the swords from western Germany that Geibig classified as Combination Type 19.

the indentations on the top so they look like being ‘pinched’. The specimens from Ukraine are dated rather extensively, in the 12th, i.e. 12th – 13th century and the find from the northwestern Bulgaria is dated in the 12th century.⁴⁰

One of five pommels, which Geibig classified as his Type 19 has also some characteristics of Type E1 (almost straight two upper edges, elongated base) and pommel of similar shape but with vertical rib in the middle have two swords represented in the cathedral in Naumburg from around 1255 (Fig. 10).⁴¹ This sword is from Seesen in Lower Saxony, central Germany⁴² and its blade shape (Type XIII) indicates somewhat later date, around the second quarter of the 13th century.

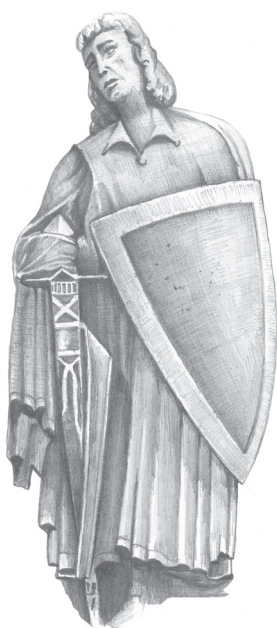


Fig. 10 – Stone statue of Dietrich von Brehna, Naumburg Cathedral, around 1255.

⁴⁰ Герасимов 1950, 307; Бобчева 1958, 61.

⁴¹ Oakeshott 1981, 88, 91, Fig. 55, 61.

⁴² Geibig 1991, Kat.-Nr. 187, Taf. 117.

E1

Among the pommels, which Oakeshott identified as his Type E there is also one specimen from Transylvania.⁴³ Four swords with pommels of the same shape (cat. nos. 165, 178-180, Pl. 4:2, 4:3, Fig. 11) identified in this work as Type E1 were discovered in this region of central Romania. Still another sword with the pommel of this type (cat. no. 153, Pl. 4:2) comes from the site Bâta Doamnei, northeastern Romania, and it was found in the archaeological layer dated in the 13th century by the coin of Hungarian king Bela IV (1235-1275).⁴⁴ Karl Zeno Pinter distinguished these pommels from Transylvania as his Type 6.⁴⁵ The pommel of a sword from Slovakia (cat. no. 13, Pl. 1:2), distinguished by Ruttkay as the sole example of his Type XIII and dated generally in the end of 12th and in the 13th century⁴⁶ fully corresponds to this shape.

All mentioned swords with determinable blade types were attributed to Type XIII. One of the characteristics of these swords is that the blades often have two fullers instead of one on each side. Also, all the swords have long (up to 27 cm) cross-guards of Type 1 (Table 7). The distribution of finds in the southeast Europe reveals that they appear mostly in the Carpathian basin and that their conspicuously highest concentration is in the region of Transylvania (Map 2). As analogy for this pommel shape in the visual sources in the southeast Europe could be quoted the sword depicted on the fresco of soldier Longin in the scene of Crucifixion, in the Sopoćani

⁴³ Oakeshott 1981, 89, Fig. 56, after 1896, unavailable to me.

⁴⁴ Pinter 1999, 132.

⁴⁵ Pinter 1999, Pl. 32:6.

⁴⁶ Ruttkay 1975/76, 257-258.

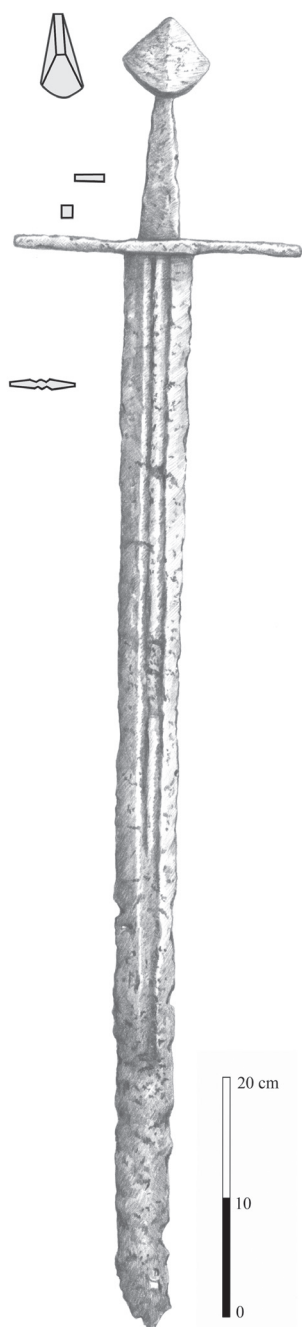


Fig. 11 – Sword from Tarnava Mica, central Romania, cat. no. 178, Type: E1, XIII, 1.

monastery near Novi Pazar, southwestern Serbia, from around 1260 (Fig. 12).⁴⁷ Taking into account the assumptions that Type XIII blades did not appear before the second quarter of the 13th century and that cross-guards of Type 1 just about that time reached such great length, the time of production of the Type E1 pommels could be

⁴⁷ Scene of Crucifixion, south wall of the transept, Турин 1991, 31, сл. 10. Frescoes in the monastery were painted by the Byzantine masters most probably from Constantinople.

established in the decades around the middle of the 13th century. Such dating corresponds to the finding circumstances of a sword from the north-western Romania (cat. no. 153, Pl. 4:2) and to the date of origin of the fresco from the southwestern Serbia.

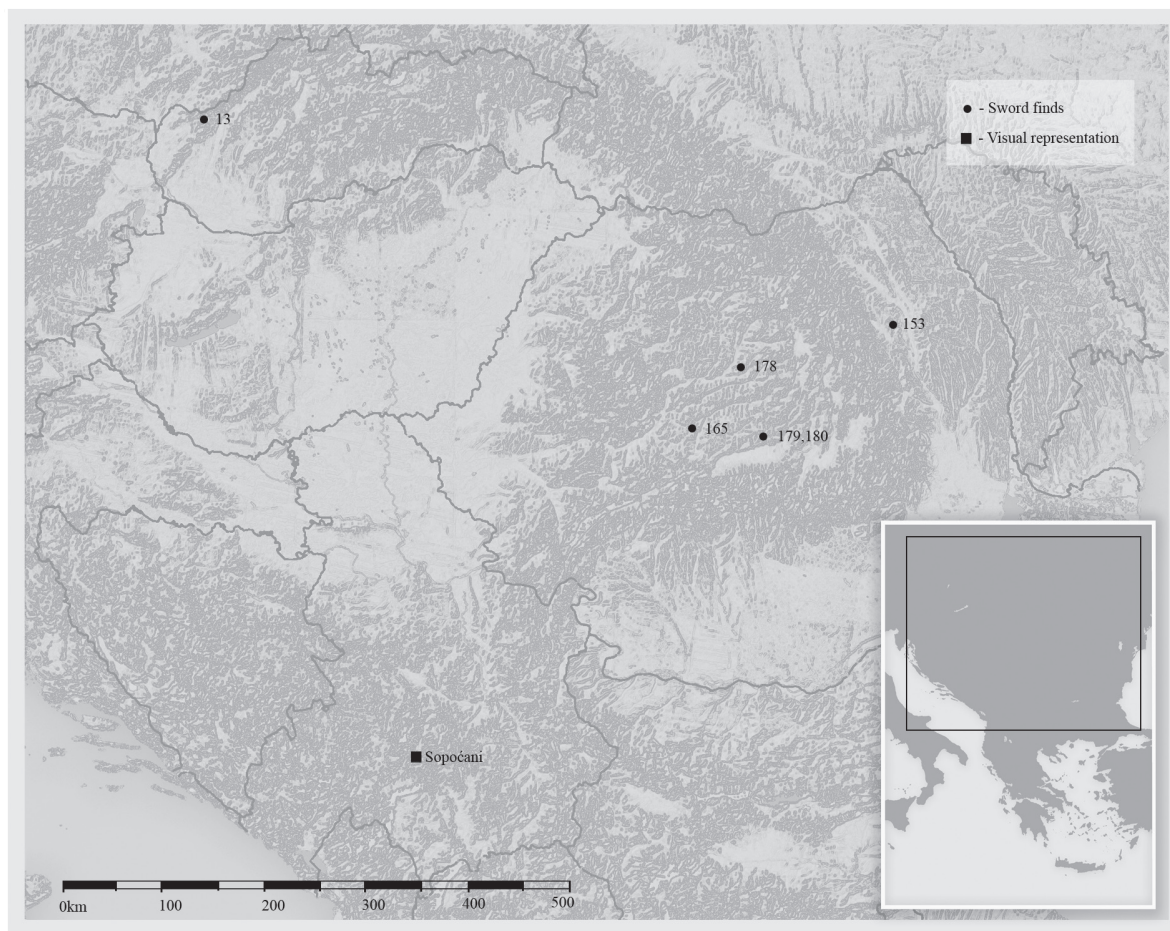
In addition to already mentioned sword from Seehausen with pommel, which could be best identified as transitional form E/E1, the Type E1 pommel was encountered also on a sword from the unknown site, now in the Museum & Art Gallery Glasgow (No. A 631).⁴⁸ As all other specimens of this type it has long Type 1 cross-guard and blade with characteristic long and broad fuller that formally distinguishes it as Type X. Just these blade types are characteristic of another group of swords also typical for the area of Transylvania (I, X, 2) and they will be discussed more extensively in the following chapters. In any case, all parts of the Glasgow sword have the attributes clearly characteristic of the Transylvanian finds so there is possibility that this specimen also originates from that area.⁴⁹ The swords with Type E1 pommels were discovered also in the Macklenburg province in the north Germany.⁵⁰

Considering the conspicuous typological similarity of these swords and relatively restricted territory of the southeast Europe where they had been found there is a possibility for more precise determination of the chronological and geographical framework of their production. And while they could be dated for the time being within the interval of few decades around the middle of the 13th century, the Transylvania region could be assumed as the zone of their production and the most intensive use in the southeast Europe. The area surrounding the towns Sibiu, Braşov, Făgăraş and Sigisoara whence come four specimens of this type was from the second half of the 12th

⁴⁸ Oakeshott 1991, 30. Author himself purchased the sword on the Sotheby's auction in 1960 and then presented it to the collection in Glasgow.

⁴⁹ Such assumption is not in contrast with the fact that some medieval swords from the private Romanian collection (Slatineanu) were on the auction in Britain in the end of 1950s.

⁵⁰ U. Schoknecht, Ein Fund mittelalterlicher Waffen von Levetzow, Kreis Wismar, in *Bodendenkmalpflege in Mecklenburg. Jahrbuch* 1967, 283-303, Berlin 1967, unavailable to me in full.



Map 2 – Distribution pattern of swords with Type E1 pommels.

century inhabited mostly by the German colonists who are known as the Sasi (Transylvanian Saxons) in the historical sources from the 12th century. The knights of Teutonic Order settled in the area surrounding the town of Braşov between 1211 and 1225 and included in their military organization also local German population. This question will be treated more profoundly in the chapter about Type N pommels, which could be chronologically related just to the stay of Teutonic knights in Transylvania and here is important to mention that distribution of swords with Type E1 pommels also points to Transylvania and the German community there.

The evolution of the blacksmith's craft in this area where mining was also developed has been confirmed in the historical sources since the 13th century. In the archives of the Transylvanian towns Sibiu and Braşov the swordsmiths have been mentioned since the 15th century⁵¹ but there is no doubt that swords had been produced also by the blacksmiths much earlier. This is confirmed

by one blacksmith's hoard, which contained also few sword parts (cat. nos. 167-171) and which was deposited not far from the town Sibiu, most probably before the Mongol invasion in 1241.⁵² In addition to the swords of Type E1, XIII, 1 that could have probably been manufactured by the Transylvanian blacksmiths this could be also assumed for rather distinctive, contemporary or slightly later swords of the Type I, X, 2 but there will be more about them in the chapter concerning the pommels and blades of those types.

The possible connections between the medieval Sasi and this type of swords are also indicated by the abovementioned fresco painting from Serbia considering that the Sopoćani monastery was built by the Serbian king Uroš I (1243–1272) and during his reign the German miners also known as the Sasi in the historical sources were settled in Serbia most probably from Transylvania. The blades of Type XIII that appear almost exclusively as parts of these swords indicate that they are still somewhat later than Type N but

⁵¹ Ţiplic 2001, Capitolul III.

⁵² Horedt 1957, 334-343.

Cat. no.	Finding place	Type of blade	Type of C-guard	L	BL	HL	BW	FL	FW	CL	PH	PW
13	Vicinity of Myjava, NW Slovakia	XIII?	1	74*	55*	<u>19</u>	<u>5.6</u>	?	?	27	<u>6.7</u>	<u>7.2</u>
153	Bâta Doamnei, NE Romania	XIII	1	<u>118</u>	<u>97</u>	21	5	68	?	25	?	?
165	Seica Mică, central Romania	Xa/XIII	1	100	82.5	17.5	?	?	?	20.5	?	?
178	Tarnava Mică, central Romania	XIII	1	110	91	<u>19</u>	<u>6.1</u>	c a 55	2.1	<u>23.4</u>	<u>6.9</u>	<u>7</u>
179	Dejan, central Romania	XIII(b)	1	?*	?*	?	?	?	?	?*	?	?
180	Vicinity of Făgăraș, central Romania	XIII	1	<u>115</u>	<u>96</u>	<u>19</u>	?	85	?	<u>22.5</u>	<u>6.4</u>	?

Table 7 – Characteristics of the sword with Type E1 pommels. Dimensions of certain sword parts that could indicate their mutual resemblance are underlined.

perhaps just for few decades as it is suggested by long cross-guards of Type 1, which are the same to those on the Type N swords. The fact that Type E1 pommel shape is rather similar to the basic Type E and that there is a real possibility that it was in fact just a morphological variation as well as the fact that such pommels were discovered also on the swords in northeastern Germany indicate that origin of this shape should be most probably looked for in the territory of the Holy Roman Empire.



Fig. 12 – Fresco of the soldier Longin in the scene of Crucifixion on west wall of the nave, church of the Sopoćani monastery, south Serbia, around 1260.

F

These pommels are relatively rare in Europe as it is confirmed by the fact that their shape has not been distinguished within any generally

known typology of pommels except the typology of Oakeshott. In fact, he also mentioned just one specimen of this type from Cambridge, south England⁵³ that could be dated around the first half of the 13th century and later already mentioned sword from Museum & Art Gallery Glasgow. The single specimen with pommel of this type from the southeast Europe is the sword from the Ljubljana river (cat. no. 383) that dates from the end of the 12th or the first half of the 13th century.

G

The discoid pommels are originally element of the Mediterranean cultural tradition and they were frequent in Byzantium and other parts of the south Europe.⁵⁴ They were also not unknown in other parts of the continent but they were more frequently used from the 12th century onwards.⁵⁵ The Type G pommels are one of the earliest discoid pommel shapes, which because of its simple form had been in use for a rather long period of time.

One of the rather well-known representations of the swords with spherical pommel in the Byzantine art is the one depicted on the fresco

⁵³ Oakeshott 1981, 94, Pl. 8C.

⁵⁴ Bruhn-Hoffmeyer 1961, 8 sqq., especially pp 12-13; Bruhn-Hoffmeyer 1966, 96.

⁵⁵ Bruhn-Hoffmeyer 1954, 188, pl. X; Boccia and Coelho 1975, fig. 8, 9; Boccia, Rossi and Morin 1980, 24, fig. 3; From the previous, 11th century are finds from the museum in Copenhagen, Bruhn-Hoffmeyer 1954, pl. X a and from Finland, Leppäaho 1964, 29, 55, Taf. 12:1a, 2a; 25:a.

of Jesus of Navi in Monastery of Hossios Loucas, Boeotia, south Greece, from the 10th century (Fig. 13). The sword is in the scabbard and it has single-handed hilt and cross-guard with globular ends that is frequent in the visual sources from that time and also confirmed in the archaeological material.⁵⁶ The pommel is of oval shape with a small ball on the top.⁵⁷ From the middle of the 11th century dates the mosaic representation of St. Bacchus in the Nea Moni Monastery in the island of Chios, central Greece.⁵⁸ The portrayed saint holds the single-handed sword with characteristic cross-guard having sharply bent ends that is also confirmed in the archaeological material from the Balkans and spherical pommel with convexity or hole in the middle. There are also many other examples of such pommels depicted in the Byzantine visual sources.⁵⁹ The visual representations from Dalmatia where the strong cultural influence from Byzantium was conspicuous at that time although often insufficiently clear also confirm the use of swords with this pommel type.⁶⁰

The reliably dated representation of the single-handed sword with straight cross-guard from the southeast Europe is also the one held by St. Sergius from the church of the Holy Virgin in Studenica, central Serbia. The fresco was painted in 1209 by the Byzantine painters most probably from Thessalonica.⁶¹ The discoid pommels are the most numerous in the preserved visual sources from the second half of the 13th and particularly from the beginning of the 14th century. It seems, in fact, that such pommel shape was one of the most popular models used by the painters from Byzantium and those who worked in the spirit of its tradition. This fact as well as the fact that they had been painted in a uniform manner makes their differentiation rather difficult (types G, H but also I, J and K).

Although Oakeshott dated the Type G pommels rather extensively⁶² the material from the southeast Europe as well as from other parts

of the continent reveals that two periods when they had been used more often could be generally distinguished. Within the group of earlier swords with this pommel type are included the finds from the Zeta river in Montenegro (cat. no. 289), from the unknown site in Hungary (cat. no. 92, Pl. 3:1) and from the vicinity of Bratislava (cat. no. 7). Also, the sword from the vicinity of Shumen in Bulgaria (cat. no. 206, Pl. 25) that has an unusual blade without fuller (Type Ia) and slightly oval pommel of this type could be added to this group. Such blade type considering that there are very few similar finds could be for the time being dated generally from the 10th to the 12th century and absence of fuller indicates the Byzantine traditions. The blade characteristics of the other three mentioned swords and the length of hilts of the hand-and-a-half swords from the territory of medieval Hungary suggest the time around the second half of the 12th and first half of the 13th century.⁶³



Fig. 13 – Fresco of Jesus of Navi in Monastery of Hossios Loucas, Boeotia, south Greece, 10th century.

Among the swords belonging to the later group of this type stands out the ceremonial sword (cat. no. 57), which and Holy Roman Emperor

⁵⁶ For example site Gamzigrad, eastern Serbia, Јанковић 1983, 155, 200, Fig. 126/ 4, 5.

⁵⁷ Kollias 1988, 144.

⁵⁸ Ibid.

⁵⁹ Bruhn-Hoffmeyer 1966, 95-97; Kollias 1988, 141.

⁶⁰ Gunjača 1956, 111-117; Kečkemet 1957, sl. 23, 24, 25.

⁶¹ Мандић 1966, сл. 17.

⁶² Oakeshott 1981, 95.

⁶³ See the chapter on Type Xa and XIII blades.

and Hungarian king Sigismund of Luxembourg (1387–1437) presented to Friedrich IV der Streitbare, Elector of Saxony in 1425.⁶⁴ According to the blade type and general dimensions, very similar to that sword is also Type G sword from the Ljubljana river in Slovenia (cat. no. 379, Pl. 12:1). Very similar and also lavishly decorated swords had been produced around the middle of the 15th century in Italy.⁶⁵

In addition to the two abovementioned later swords with Type G pommels, some specimens having blades and hilts of rather large size are also attributed to this group (cat. nos. 14, 25, 254). Two specimens of this type from Slovakia are dated in the 15th century.⁶⁶ The sword from the vicinity of Nitra, southwestern Slovakia (cat. no. 14) has the cross-guard of Type 12 mostly indicating the 15th century date and from the same period dates also the Type XVIIIb blade of a sword from the Museum in Bratislava (cat. no. 25). If the ceremonial sword made for a special occasion is not a usual example for the pommels of this type, other later pommels of Type G are mostly characterized by more oval than circular shape. Also, they could often be of moderately convex shape and on the average of slightly larger size (PH = ca 5-6 cm; PW = ca 6-7 cm) than the earlier specimens of this type (PH = ca 5 cm; PW = ca 5 cm) although there are also some exceptions.

The sword of this type from the Serbian part of the Sava basin is also of large dimensions (cat. nos. 254). On the other hand, the sword with such pommel from the site Vrčež in eastern Serbia (cat. no. 253, Pl. 7:2) has two-handed hilt and disproportionately short Type XIIIc blade, which dates from the second half of the 14th or the first half of the 15th century.⁶⁷ The closest analogy for this sword is a specimen from the vicinity of town Gorzeszów, southwestern Poland, that also has disproportionately short blade and long hilt.⁶⁸ As the oval variant of Type G pommels was not distinguished as distinct subtype (as it is the case with Type H) such oval specimens are classified as transitional type G/H1. All the swords with lat-

er Type G pommels although typologically rather heterogeneous have the characteristics, which indicate that they are generally not earlier than the second half of the 14th century or later than the second half of the 15th century.

H

These pommels together with Type G could be attributed according to their shape to the simplest forms of the discoid pommels. In fact, they could be considered as variant of Type G with slightly truncated, faceted edges. Oakeshott dated them in the almost entire medieval period but it could be concluded that they also became somewhat more frequent from the 12th century. The finds from the southeast Europe are not frequent and generally date from the 12th – 13th century (cat. nos. 60, 199?, Pl. 5:1, 219?) or they date from around second half of the 14th – beginning of the 15th century. These later specimens (cat. nos. 21, 22, 90) could be understood as morphologically but also chronologically close to the subtype H1, which was much more frequent in that time.

H1

Although these pommels are according to their shape just the oval variant of Type H they appear more often only on the swords dating from the second half of the 14th century and the first half of the 15th century. Oakeshott mentions the relief representation of the sword on the tombstone of German-Roman emperor Günther von Schwarzburg († 1349), in the Cathedral in Frankfurt as one of the earliest representations of this pommel type.⁶⁹ Rather early is also the representation on the relief tombstone of Sir John Foxley in Bray Church, Berkshire, England, dating from 1378, as well as the one within a vignette in the book of stories of Titus Livius dating from around 1373.⁷⁰ The Type H1 pommels correspond to Types XVIII and XIX in the classification of Alexander Ruttikay⁷¹ and Types 2a and 2b in the

⁶⁴ Nagy 1894, 315-318.

⁶⁵ Boccia and Coelho 1975, fig. 108-121.

⁶⁶ Glosek 1984, 139-140, cat. nos. 20, 40.

⁶⁷ See the chapter on the Type XIIIc blades.

⁶⁸ Glosek and Nadolski 1970, 35-36, cat. 14, T. V:4.

⁶⁹ Oakeshott 1981, 102-104, Fig. 72.

⁷⁰ *Le storie di Tito Livio*, Biblioteca Ambrosiana, cod. 214, c. 107 v, representation Furio Camillio, Boccia, Rossi and Morin 1980, 38-39, fig. 18.

⁷¹ Ruttikay 1975/76, 260.

typology of Marija Šercer.⁷² Such pommels were usually mounted on the long swords with hand-and-a-half or two-handed hilts. These pommels are relatively evenly and moderately distributed within a large area from the south Balkans to the western Carpathians (cat. nos. 18, Pl. 2:2, 65, 120, 214, 218, 255, Pl. 15:4, 302, 308) and this confirms their extensive use there as also in the most parts of Europe. Considering that these pommels are dated in a decades of transition from the 14th to the 15th century it is not surprising that most of the specimens in the southeast Europe were mounted on the swords with Type XVII blades, which are also dated in that time (cat. nos. 18, Pl. 2:2, 120, 218, 255?, 308). Other specimens generally have widely distributed but less chronologically distinct blades of Type XVIa (cat. nos. 65, 214).

Worth mentioning among the representations of swords with Type H1 pommels in the southeast Europe is the one on the red marble tombstone with relief effigy of the duke Stibor the Younger († 1434) in the military gear and armed. This effigy is housed in the Historical Museum in Budapest (Fig. 14). Among the swords depicted on the frescoes in the monasteries in Serbia, FYR Macedonia, Bulgaria and Romania there is a considerable number of specimens with oval pommels. Such frescoes were encountered in the Žiča monastery, western Serbia (around 1220),⁷³ in the Gračanica monastery in Kosovo (1321), fresco depicting St. George in the Dečani monastery in Kosovo (around 1330),⁷⁴ in the scene 'three dukes in front of emperor Constantine' in the Marko's Monastery near Skopje, FYR Macedonia (around 1370).⁷⁵

The sword from the vicinity of Novi Sad, northern Serbia (cat. no. 259) has an oval pommel, which has the decoration consisting of small truncated quadrangular pyramid on both sides⁷⁶ and that is as far as I know the unique example among the finds from the southeast Europe. Con-

sidering that this pommel shape is in fact just a variant of Type H1 and that all features of this sword, known to me, do not differ from the features of other specimens with pommel of this type, the sword is also dated in the second half of the 14th and the beginning of the 15th century.

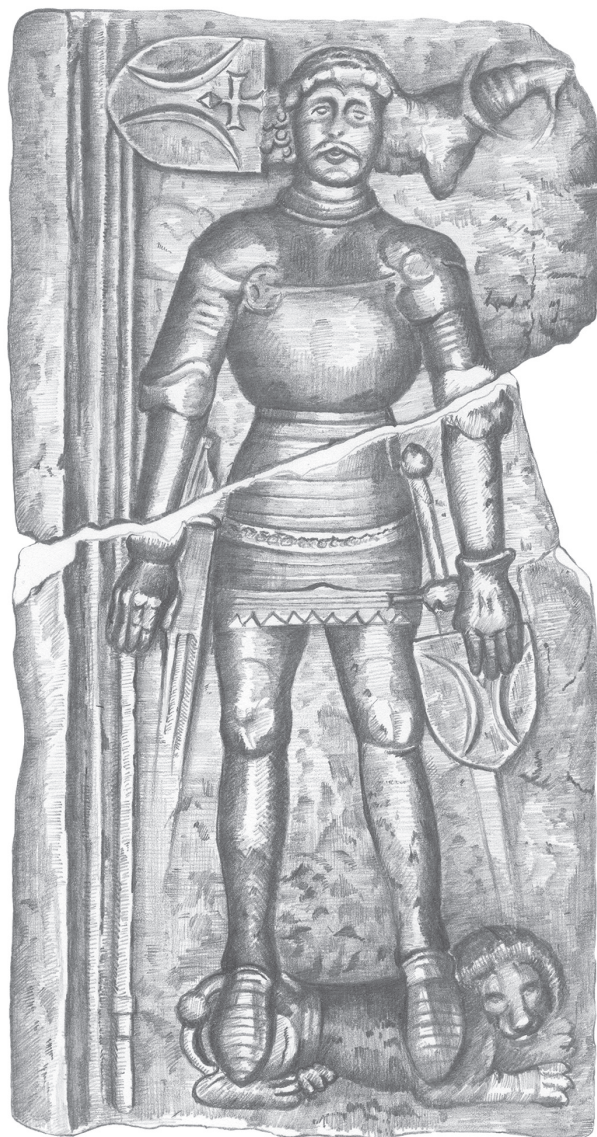


Fig. 14 – Effigy of the Duke Stibor the Younger († 1434), red marble, Historical Museum in Budapest.

H2

Just three specimens are ascribed so far to this characteristic subtype, which could also be understood as subvariant of type H1 and all of them come from the southeast Europe, more precisely from the western Balkans (Map 3). Two were found in the Zapadna Morava valley in Ser-

⁷² Šercer 1976, 10-12. The only difference between them is that one pommel (cat. no. 11, Type 2a) is thicker and other two (cat. nos. 12, 14, Type 2b) are thinner.

⁷³ Кашанин, Бошковић, Мијовић 1969, 151.

⁷⁴ Петковић и Бошковић 1941, PL. CLIV.

⁷⁵ Радовановић 1977, сл. 3.

⁷⁶ Šercer 1976, 11, 45-46. The author distinguished this pommel as her Type 2d.

bia (cat. nos. 257, 258, Fig. 15) and the third one, which Marija Šercer classified as a single specimen of her Type 2c was found in the Sava river in northern Bosnia (cat. no. 315).⁷⁷



Fig. 15 – cat. no. 258, r. Zapadna Morava near Čačak, western Serbia, Type: H2, XVIa, 6.

It is interesting that both swords from the western Serbia have the identical types of blades and cross-guards and that dimensions of all their parts are very similar. It can be concluded on the basis of rather meager available data about

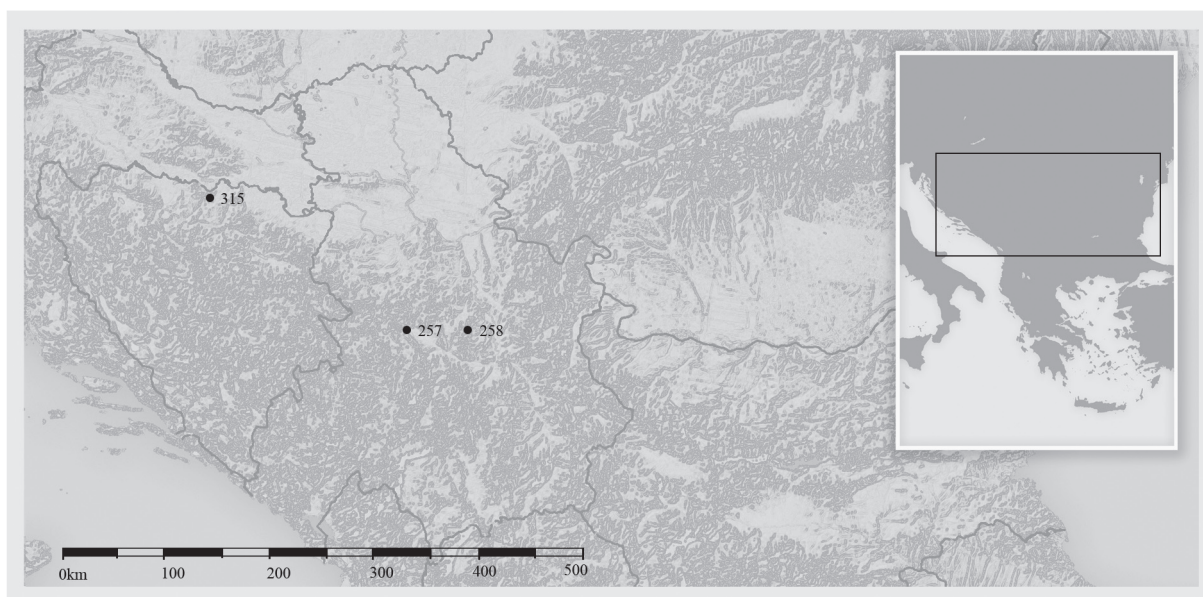
the sword from Bosnia that it is of only slightly larger size than the previous two swords (Table 8). Two specimens from the western Serbia have the blades, which resemble mostly the Oakeshott Type XVIa but those somewhat less frequent specimens of this type that have fullers covering slightly more than half of blade length (on sword from Zablaće around 59% and on sword from Kalenić almost two thirds of blade length, i.e. around 64.5%). Considering the unique pommel shape and the fact that their blades, pommels and cross-guards are of the same types and that dimensions of all parts are almost identical we could assume that swords from western Serbia come from the same workshop or from the group of related workshops and this could be assumed with little less certainty also for the sword from Bosnia.

According to the information provided by the finder the sword from the vicinity of Kalenić Monastery (cat. no. 258, Fig. 15) was found together with about ten other swords and daggers of which only our specimen is preserved.⁷⁸ This assumed hoard of weapons was found at the site Kovačnica near the village Kalenički Prnjavor, which is even today on the monastery estate. The name of the site (Kovačnica = engl. smithy) clearly indicates that blacksmith's workshop was situated at this location while the village name (Prnjavor = monastery estate) suggests that it was in the past also on the estate of the monastery, which was founded by the Serbian feudal lord Bogdan around 1418. It could be assumed against that background that hoard was buried in the blacksmith's workshop or in its immediate vicinity in the moment of danger, most probable before the Turkish conquests.

When exactly this happened, i.e. when the blacksmith's workshop was closed down could not be established with certainty but it could be assumed that regions to the north of the Zapadna Morava river were in greater danger after temporary fall of the Serbian state in 1439 and before its final fall in 1458 (Map 12). The blacksmith's workshop could have continued its activities even after this time but certainly not for very long so the most probable date of hoard depositing is a decade before or a decade after the middle of the 15th century. Taking into account the name of

⁷⁷ Šercer 1976, 10-12, cat. no. 15.

⁷⁸ Ventić 1983, 143.



Map 3 – Distribution pattern of swords with Type H2 pommels.

the site where the hoard was found it is logical to conclude that these were the products of that very workshop working here in the first half of the 15th century and that is considerably less possible that these were already used weapons hidden there by accident in the face of an imminent danger.

sumed that these are distinct, local type pommels, i.e. the swords, which were produced in the area of western Serbia but could have been used also a bit further, in the northern Bosnia. Thus we could date with considerable certainty the production of this sword types in the time around the second quarter or middle of the 15th century.

Cat. no.	Finding place	Type of Pommel	Type of Blade	Type of C-guard	L	BL	HL	BW	CL	PH	PW
257	Zablaće, W Serbia	H2	XVIa	6	<u>114</u>	<u>90.5</u>	<u>24</u>	<u>5.4</u>	<u>20.5</u>	?	?
258	Kalenić, W Serbia	H2	XVIa	6	<u>116.5</u>	<u>91.5</u>	<u>25</u>	<u>5.5</u>	<u>20</u>	6	9.5
315	Dubočac, N Bosnia	H2	?	6	120	94	<u>26</u>	<u>5.5</u>	?	?	?

Table 8– Typological and metrological characteristics of the swords with Type H2 pommels. The dimensions, which could indicate mutual relationship are underlined.

The blacksmiths on monastery estates, i.e. in the villages belonging to the monastery were mentioned in Serbia for the first time in the estate register of the Dečani monastery in Kosovo in 1330 (Богдан мѣчаларъ, engl. Bogdan, the swordsmith).⁷⁹ The situations when the workshops for sword making existed on the monastery estates are also known from the other parts of Europe, e.g. the workshop for production of blades in monastery Sain Hugon in Savoy, southeast France.⁸⁰ If it proves to be true that our sword was deposited at the spot where it had been produced not even reaching its final owner it could be as-

I

The Type I pommels are of somewhat more elaborate discoid, i.e. wheel shape for which Oakeshott states that they were most popular from the middle of the 13th century.⁸¹ They were encountered in almost all parts of Europe and various scholars classified them in a different way. In the typology of swords from the territory of medieval Russia suggested by Kirpichnikov his Type VI pommels correspond to this shape,⁸² Ruttkay identified them as Type XVI⁸³ and Karl Zeno Pinter as Type 8.⁸⁴

⁸¹ Oakeshott 1981, 96.

⁸² Кирпичников 1966, 50, 55-56.

⁸³ Ruttkay 1975/76, 249, 259.

⁸⁴ Pinter 1999, 133-141, Pl. 32:8.

⁷⁹ Charter of Dečani, 332.

⁸⁰ Bruhn-Hoffmeyer 1954, 125-126, 199.

These pommels are the most frequent on the single-handed or on hand-and-a-half swords that usually have the blades of Type X, Xa or XIIb. According to the number of this pommel types found in the southeast Europe they are prevailing in the territory of western and central Romania, i.e. in Banat and Transylvania. Some swords of this type (cat. nos. 163, Pl. 3:4, 185, 161?, 172?, 174?, 186?,) have the characteristic blades, which on the basis of long and wide fuller should be mostly classified as Type X but all of them date from a period considerably later than the end of the 11th century when these blades generally went out of frequent production.

The concentration of these distinctive swords in the area of Banat and Transylvania indicates that they were the products of the local workshops (Map 6). The intensive mining and metal processing started in Transylvania from around the middle or second half of the 13th century⁸⁵ and as we already said there were probably produced the distinct swords of Type E1, XIII, 1. In the mining activities were mostly engaged the German immigrants, Sasi, but there were also people of other nationalities including the Slavs especially in Banat and the blacksmith Đurađ whose name is confirmed on at least one (Cat. no. 163, Pl. 3:4, perhaps 172) of these swords could have been of the Slavic descent.⁸⁶

Typological traits of these Type I swords from Romania indicate the time around second half of the 13th century, hence they were at least partially contemporary with also local swords of Type E1. To this distinct group of weapons belongs most probably also the find from northeastern Slovakia (cat. no. 19)⁸⁷ and possibly also the specimen from western Bulgaria (cat. no. 220) with similar features but as I do not know the width of its fuller this could not be confirmed. Three specimens from Serbia (cat. nos. 232, Pl. 13:2, 236, 251, Pl. 13:2, 13:3) and two from Slovakia (cat. nos. 24, 54) are attributed according to their typological traits and general dimensions

to the same group but they have the blades with narrower fuller (Type Xa or XIIb) as well as some other finds from Romania (cat. nos. 162, 164, 187). The pommel diameters of this group of swords are around 5.5 cm and specimens from Romania are of more uniform size, i.e. the differences in size are small (ca 0.2 cm) while when other areas are considered the sword pommel from western Serbia (cat. no. 251) could be also ascribed to this group. The diameters of pommels of other swords differ, however, more substantially.

Another group of swords with Type I pommels is characterized by somewhat larger dimensions so the pommels are also more massive and wider (around 6 cm) and because of that they are of slightly oval shape. The blades Types XIIIa and XVIa are prevailing in this group indicating slightly later period. Most of these finds belong to the group of a bit earlier specimens with blades of these types, i.e. from the final quarter of the 13th and the beginning of the 14th century. Besides the pommels it is also suggested by the type of cross-guards, which in some cases could still be of Type 2, of circular or octagonal section and often of uniform length of around 20 cm, while the hilt length was around 20-23 cm (cat. nos. 5, 6, 15, 17, 29, 35, 85, 102, 106, 203?, 210?, 233, 234, 237, Pl. 13:4, 316?).

The blades of Type XIIIa and XVIa were produced during the entire 14th century and even later and the described features taken individually do not necessarily confirm this dating. On the other hand, typological uniformity and somewhat larger quantity of discovered swords of this type suggest the conclusion that they were rather popular within relatively short period of time. The visual sources could not be of much help in this case as the shape of Type I pommel is difficult to distinguish from other wheel pommel Types, especially Type K. Considering that they are followed by other types (of which will be more details later), which were obviously more popular and as their common typological features of all parts generally date from the period around the transition from the 13th in the 14th century I think that such dating of these sword is rather reasonable.

In addition there are also some specimens, mostly from the territory of Hungary (cat.

⁸⁵ Tiplic 2001.

⁸⁶ See about these swords also in the chapter on blades (Type X) and about the inscription G U O R A G U I S > I on one of them in the chapter on inscriptions on blades.

⁸⁷ Its blade is attributed to the Type XII and on the basis of the published photograph it could be assumed that it had conspicuously wide fuller but it is not completely reliable, Glosek 1984, T. XXIV:2.

nos. 30, 66?, 73, 80, 104, 107, 111), with identical typological traits but of conspicuously larger size and thus similar to the swords with prevailing pommels of Type K, K1 and H1. These specimens could be contemporary with the previous group but also slightly later and they reveal that pommels of Type I were rather frequent during most of the 14th century.

Ia

The pommels of type Ia differ from the basic type only in the lateral projection and Oakeshott did not distinguish them as distinct type. In fact, only few scholars who studied the material from the southeast Europe defined this type. Thus Marija Šercer classified the pommels on four swords from the Croatian Historical Museum in Zagreb as her type 1a.⁸⁸ Pinter classified the pommels of Type I swords from Transylvania and Banat as his Type 8 and those of Type Ia as his Type 7.⁸⁹

Of the pommels of this type in the southeast Europe, four swords from Croatia and two from northern Bosnia (cat. nos. 324-327, Pl. 11:2, 301, 312) are the specimens of larger size with blades of Type XIIIa and XVIa and hilts for two hands or slightly shorter. These six typologically similar specimens generally have the characteristics indicating the period of the second half of the 13th and the first half of the 14th century. They do not differ, from typological point of view, in any other aspect from the similar swords found in Hungary or other parts of Europe. Their territorial distribution indicates at first glance the possibility that it was eventually a local variant but I think that in the Pannonia Plain could be expected more of such finds considering that this subtype of pommels usually had not been distinguished in the material from Hungary and I was neither able to do so. The specimen from the National Museum in Prague that was dated in the second half of the 13th century is among the rare swords from other parts of Europe for which it is confirmed to have such pommel.⁹⁰

Of other specimens of this type in the southeast Europe there is one sword from the op-

posite, eastern end of one time Hungary, i.e. present-day western Romania (cat. no. 188) that has characteristic blade of Type XVI, which could be dated around first half of the 14th century. Another find from Romania (cat. no. 184) has the blade with long and wide fuller that appeared here around the middle or second half of the 13th century and which we discussed in the chapter on pommels of previous type. Thus, it also belongs to the group of distinctive swords, which have most probably been produced somewhere in the territory of Banat or Transylvania. The sword with Type Ia pommel from the vicinity of Varna, northeastern Bulgaria (cat. no. 209) also dates from the time around the 13th century. Its dimensions are not known to me and this makes more precise dating rather difficult.

It could be concluded that Type Ia pommels were certainly produced in the period around second half of the 13th and the first half of the 14th century. Throughout this period, which was probably somewhat shorter but it is not possible to limit it more precisely, these pommels appear mostly on the sword types on which also appear the pommels of the basic type.

II

The pommels of polygonal shape appeared sporadically even before the middle of the 14th century but they were most popular in the second half of the 14th and the first half of the 15th century.⁹¹ In the typology of pommels made by Alexander Ruttkay this shape corresponds to Type XX, which is dated rather extensively in the 14th and 15th century.⁹² A. Kirpichnikov also suggested similar date for the pommels of his Type VII.⁹³ Although this pommel type is of clearly defined and uniform shape and on the other hand not very frequent, it obviously existed during a considerably long period of time. In order to define their shape better and to date them more precisely I classified the polygonal pommels into two subtypes (IIa and IIb).

The earliest specimen is by all appearances the one found in Finland and dated around 1100 and it corresponds to the subtype IIa with

⁸⁸ Šercer 1976, 10-12, 41-43, cat. nos. 1-4.

⁸⁹ Pinter 1999, 133-141, Pl. 32:7.

⁹⁰ Wagner, Hieb und Stichwaffen, Praha 1969, 120, No. 17; quotation after: Апостолов 1991, 10-11, Фиг. 2.

⁹¹ Oakeshott 1981, 103.

⁹² Ruttkay 1975/76, 260-261.

⁹³ Кирпичников 1966, 56-57.

faceted edges.⁹⁴ One rather famous and also relatively early specimen of the Type I1 is the sword of German-Roman Emperor Albrecht I von Habsburg, (1255–1308, emperor from 1266) that was discovered in his tomb in the Cathedral in Speyer, Rhineland-Palatinate, southwestern Germany, in 1900. Considering that Albrecht I was killed in a plot while on military campaign he probably had this sword with him on that occasion and because of that it was placed in his tomb and the sword should not be dated much before the year 1308.⁹⁵



Fig. 16 – Fresco of St. George, Staro Nagoričino Monastery, northern Macedonia, around 1316/18.

Rather well-known is a sword found in the river Pregola in northern Poland, now housed in the German Historical Museum, Berlin (inv. nr. W 1838), that has lavishly decorated octagonal pommel. There are heraldic motifs on the pommel including an eagle on one side and reared lion on the other while on the blade are

inlaid representations of wolf and heart on one side and a four-legged animal and cross on the other. This unique sword aroused many dilemmas among the scholars. On the basis of the heraldic motifs on the pommel some authors identified it as the sword belonging to Konrad von Thüringen, (1239–1240), Fifth Great Master of the Teutonic Order⁹⁶ while the other assumption is that it dates from somewhat later time, second half of the 14th or the first half of the 15th century and this seems more plausible.⁹⁷ The wolf representations on swords are historically confirmed for the first time in 1340 but it does not mean that they could not have been used on the swords even earlier. However, the representations of animals combined with heart and cross as on the blade of this sword have analogies with specimens (i. e. cat. no. 250, Fig. 37) of which none have been dated earlier than the second half of the 13th century.⁹⁸ To the arguments speaking in favor of the later dating of this sword could be also added the fact that the pommel is made of bronze what is rare phenomenon for the medieval swords but considering the quantity it is less rare on the later pommels of Type I1.⁹⁹

The sword from the vicinity of Preslav in Bulgaria (cat. no. 199, Pl. 5:1) could be mentioned as an earlier specimen of this type from the southeast Europe. Considering that its blade is of Type Xa and taking into account the cross-guard features (Type 1, CL= 25 cm) this sword should be most probably dated around the beginning of the 13th century. The sword from Banat, western Romania (cat. no. 193, Pl. 4:1) has somewhat shorter cross-guard of the same type and characteristic blade of Type XIII with three fullers on each side. Such blades are parts of the swords with Type E1 pommels and Type 1 cross-guards and they are most probably the products of the local workshops in Transylvania from around second and third quarter of the 13th century.¹⁰⁰

Most of other swords with Type I1 pommels have the characteristics, which date them in

⁹⁴ Leppäaho 1964, 61, Taf. 28: 1a, 1b; Oakeshott 1991, 39, iv.

⁹⁵ L= 92; BL= 76,2; HL= 14,3; Historisches Museum der Pfalz, Speyer.

⁹⁶ Müller and Kölling 1980, 159, 362, and this accepts also Oakeshott 1991, 94.

⁹⁷ Glosek 1984, 74-75. See the chapter on signs on swords.

⁹⁸ Glosek 1984, 73-75. Moreover, such signs are the most frequent in the 14th century.

⁹⁹ Oakeshott 1981, 103.

¹⁰⁰ See the chapter on Type E1 pommels.

the period of the highest popularity of this shape (cat. nos. 20?, 36, 42, 62, 71, 72, 76, 82, 86, 93, 110, 114, 116, 119, 156, 199?, Pl. 5:2, 201, 250, Fig. 26, 269, Pl. 17:4, 270, 333, 361). In this group are also some specimens with Type 12 cross-guards, which appeared in the final decades of the 14th century at the earliest (cat. nos. 269, Pl. 17:4, 270). Both these swords come from Serbia and have the pommel shaped as rather thick polygonal plate (subtype I1a) and the pommel of a sword from northern Croatia (cat. no. 333) could also be ascribed to this group. The lavishly decorated pommel of a sword discovered in a tomb in the church of Holy Trinity in Pskov, northwestern Russia that allegedly belonged to the prince of Novgorod and Pskov Vsevolod Msislavich (1102–1135/6), could be ascribed to the same subgroup of pommels. Its massive Type XX blade and decorated pommel indicate, however, the 15th century date or possibly the end of the 14th century.¹⁰¹

The group of swords of conspicuously squat proportions, i.e. with exceptionally short blade and long two-handed hilt (Type XIIIc) is also of similar date, i.e. from the decades around the end of 14th and the beginning of the 15th century. The swords from eastern Serbia (cat. no. 250, Fig. 26) and Hungary (cat. nos. 71, 119) are the most characteristic specimens and few specimens from Hungary could also be ascribed to this group (cat. nos. 72, 110?, 114, 116?). In fact, most of the swords with Type XIIIc blades have the Type I1 pommels and they could be dated from the end of 14th to around the middle of the 15th century.¹⁰² The other swords with these pommels have mostly the blades of Type XIIIa and XVIa and they generally date from the period of the most extensive use of the Type I1 pommels. It is interesting that among these swords including also the swords with Type XIIIc blades there is a considerable number of specimens with some sign encountered on the tang (cat. nos. 250, Fig. 32, 62, 72, 76, 116, 119).

The visual representations of the swords with Type I1 pommels appeared in the southeast Europe already from the beginning of the 14th century. Thus, the single-handed swords with po-

lygonal pommels are depicted in the frescoes from around 1316/18 in Staro Nagoričino Monastery in northern Macedonia (Fig. 16). Among the specimens from other parts of the continent should be mentioned the tombstone effigies of Galeotto Malaspina († 1367) in the church San Remigio, Fosdinovo, Tuscany, northwestern Italy,¹⁰³ of bishop Gerhard von Schwarchburg from around 1400 and of bishop Johannes von Eglofstein from 1411, both in the Cathedral in Würzburg, Bayern, south Germany and bronze sculpture of Sir John de Leventhorpe in Sawbridgeworth, Herts, south-east England, from the year 1433.¹⁰⁴

J

These pommels are of very similar shape as the Type K specimens and it is sometimes impossible to distinguish them according to the available information. The significant number of specimens of this or similar shape are because of this similarity classified as Type K and this is also to a considerable extent the case in this work. They are dated rather extensively, from the middle of the 13th to the first quarter of the 15th century.¹⁰⁵

J1

The discoid pommels of this shape are rather rare and they are usually encountered on the swords dated around the first quarter of the 15th century.¹⁰⁶ The same could be said for the rare specimens from the southeast Europe (cat. nos. 108, 126, 157–160). The pommel of the sword (cat. no. 157) belonging to the Moldavian duke Stephen III the Great (1457–1504) is meticulously decorated and the blade is of Type XX, confirming thus the dating of this sword in the second half of the 15th century. Three more swords also from this museum (cat. nos. 158–160) have the same type of pommel, blade and cross-guard so it could be assumed that they are of the same origin and date as the sword of Stephen the Great.

¹⁰¹ Кирпичников 1966, 56–57, к. бр. 42, Таблица XXVI-1.

¹⁰² See the chapter on Type XIIIc blades.

¹⁰³ Boccia and Coelho 1975, fig. 67.

¹⁰⁴ Oakeshott 1981, 103–104, Fig. 73, 74, 112.

¹⁰⁵ Oakeshott 1981, 96.

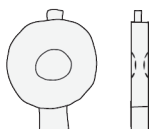
¹⁰⁶ Oakeshott 1981, 103–104, Fig. 7, Pl. 25.

Cat. no.	Finding place/Museum	Type of Blade	Type of C-guard	L	BL	HL	BW	PH	PW
139	Uncn. site, Hungarian Nat. Museum	XVIa?	1	?	?	?	?	?	?
202	Vicinity of. Varna, NE Bulgaria	XVII	1	132	103.5	28,5	<u>4.2</u>	6	?
335	Uncn. site, Croatian Nat. Museum	XVII?	11?	<u>115*</u>	<u>92.5*</u>	<u>22,5</u>	<u>4</u>	?	?
336	Vicinity of Otočac, NW Croatia	XVII?	11?	<u>117.5</u>	<u>95</u>	<u>22,5</u>	4.7	?	?

Table 9 - Swords with Type J2 pommels. The dimensions, which could indicate mutual relationship are underlined.

J2

These pommels are of discoid shape and closest to Type G but they have circular recess in the middle. Oakeshott usually denoted them as subvariant of Type I, J or J1¹⁰⁷ but we distinguished them here as distinct type because they could be more precisely dated. A few finds from the southeast Europe could be generally dated around the first half of the 15th century. The sword from the vicinity of Varna, northeastern Bulgaria, (cat. no. 202) has the Type XVII blade, which dates it in the second half of the 14th or the beginning of the 15th century. Two swords from the unknown site and from the northwestern Croatia (cat. nos. 335, 336) that are dated in the 15th century¹⁰⁸ have besides the Type J2 pommels also identical types of blades and cross-guards and they are also of very similar size (Table 9).



K

The pommels of Type K are morphologically somewhat more complex variant of wheel pommels in comparison with the earliest and simplest types of this shape (Types G and H). As their shape differs very little from the Type J their quantity is relatively high among the finds from the most of Europe and it is also the case in the southeast of the continent where they belong to a group of the most numerous late medieval pommel shapes including over forty specimens. The Type K pommels are very similar to those classified by Oakeshott as his Type J.¹⁰⁹ Their difference is just in the thickness of central disc and

shape of the lateral ones. Central disc on Type K is thinner and lateral discs are more prominent while on Type J central disc is thicker and lateral discs are less prominent. The most numerous pommels in the southeast Europe are those with thicker central disc but with prominent lateral discs so they have the characteristics of both types. As most of the authors used mark K for defining these pommels I did the same in this work. In the Ruttkay typology his Type XVII mostly resembles Type K pommels¹¹⁰ and in the typology of Kirpichnikov it is his Type VI. These pommels also correspond to the Type 1b in the typology of Marija Šercer.¹¹¹ The Type K pommels emerged around the middle of the 13th century but they were more frequent from the end of that century and in the 14th century.¹¹² Almost all swords with Type K pommels from the southeast Europe are large knightly sword with Type XIIIa and XVIa blades.

The sword retrieved from the Danube river near Višnjica in the vicinity of Belgrade (cat. no. 240, Fig. 17) has the massive Type K pommel with very prominent circular convexities of smaller diameter. On top of the pommel is massive rivet decorated with a coil of bronze strap and on both circular convexities are bronze inlays, i.e. the cross sign made of thick wire. Its blade is long (97 cm) and wide (5.8 cm) with wide fuller (FW= 2 cm) covering almost two thirds of the blade (FL= 61 cm) and its shape is resembling Type XIIIa. The cross and running wolf are inlaid on one side of the blade and the unicorn and heart on the other. Although its cross-guard is not preserved the sword from Višnjica is a good example of this variant of Type K pommels to which also belongs large quantity of finds from the southeast

¹⁰⁷ Oakeshott 1991, 107, 137-138.

¹⁰⁸ Šercer 1976, 46, cat. nos. 19, 20.

¹⁰⁹ Oakeshott 1981, 96. Precisely about the Oakeshott's typology of wheel pommels of Types G, H, I, J and K <http://www.vikingsword.com/vmuseum/vmxi5.html> (11.09.2006).

¹¹⁰ Ruttkay 1975/76, 249-250, 260.

¹¹¹ Šercer 1976, 10-12.

¹¹² Oakeshott 1981, 96.

Europe. Generally speaking, besides almost identical shape and decoration of the pommel as on the sword from Višnjica, these swords are characterized by two-handed hilt, straight cross-guard of moderate length and long and massive blades of Type XIIIa with fuller, which mostly covers around two thirds of the blade length. They are numerous also in other mostly central parts of the continent and the Oakeshott's family of swords identified as H corresponds just to them.¹¹³

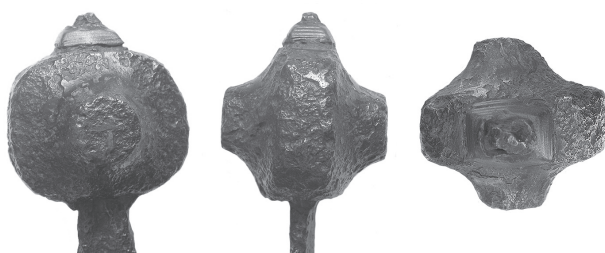


Fig. 17 – Pommel of Sword from Višnjica, near Belgrade, cat. no. 240, Pl. 7:3, 16:2.

The specimen discovered near Sremska Kamenica, in the vicinity of Novi Sad, northern Serbia (cat. no. 241) has the pommel of very similar shape and size and besides the ornament identical to the sword from Višnjica there is also a metal wire preserved along the perimeter of the central disc. The blade is broken and greatly damaged by corrosion but because of only insignificant tapering towards the breaking point it could be also best identified as Type XIIIa. Specimen from the unknown site now in the Military Museum in Belgrade (cat. no. 242, Fig. 18) has also almost identical pommel decorated in the same way as the sword from Višnjica and it could be classified into this related group of swords on the basis of the preserved blade fragment and the hilt.

The pommel of almost identical shape, size and decoration has also the sword from the unknown site in the National Museum of Bosnia and Herzegovina in Sarajevo (cat. no. 303) but it is very slightly flattened at the bottom as is the case with the sword from Sremska Kamenica. The blade is broken but parameters possi-

ble to compare (greatest blade width, length and width of the fuller) indicate the similarity with the abovementioned swords. The characteristic distinguishing the sword blade from Sarajevo is that it tapers slightly more abruptly towards the breaking point but it is still within the limits characteristic of Type XIIIa.¹¹⁴ The similarity of this sword with the one from the Military Museum in Belgrade is conspicuous also in the inlaid heraldic motif consisting of a shield with the cross within. Such heraldic decoration was encountered also on the blade of a sword from the Balaton Lake in Hungary (cat. no. 59) whose pommel is also ascribed to Type K.¹¹⁵

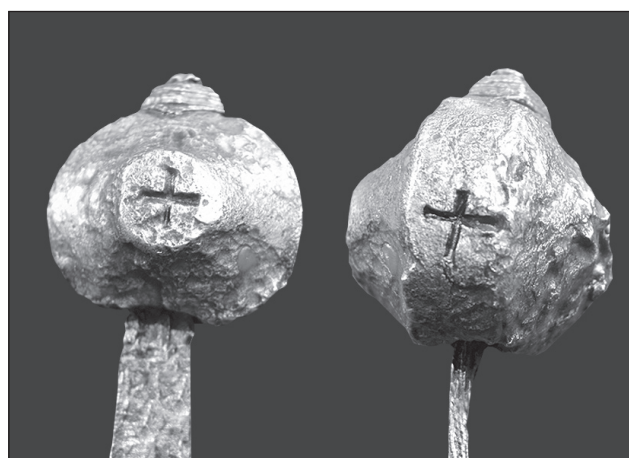


Fig. 18 – Pommel of Sword from the Military Museum in Belgrade, cat. no. 242, Pl. 14:1.

Pommels with such decorations but with also very slightly flattened upper and lower edge are mounted on two more swords from Military Museum in Belgrade. And while one blade is broken (cat. no. 246, Pl. 14:2) thus preventing its typological determination, another (cat. no. 245, Pl. 14:3) is of Type XIIIa with the same traits as the abovementioned finds. Sword from the vicinity of Koprivnica, northern Croatia (cat. no. 321, Pl. 11:3) has the pommel with Greek cross on its convexities that is also slightly flattened from above and below.

The specimen from the Ljubljana river (cat. no. 378) with inscription 'AGLA' on the blade has also the pommel of this shape with a rivet decorated in the same way. On the basis of the published drawing of the sword from the

¹¹⁴ Ratio between the blade width near the cross-guard and 60 cm below it is 5.5 : 4.1 cm, i.e. 1.34; Sijarić 2004, 51.

¹¹⁵ See about that in detail in the chapter on the signs on swords.

¹¹³ Oakeshott 1991, 12.

vicinity of town Vratsa, northwestern Bulgaria, (cat. no. 211) it could be concluded that its pommel also has massive rivet on the top and circular convexities with representations of cross and that includes this sword together with the other mentioned specimens in this group of related finds. The sword from the unknown site in Croatia (cat. no. 358) that represents the 'classic' example of this group according to the Type XIIIa blade, Type 2 cross-guard and its dimensions also has the Greek cross on circular convexities and decorated rivet. The sword once treasured in the Dečani Monastery in Kosovo (cat. no. 243) also belongs to this group of mutually related finds.¹¹⁶

The abovementioned swords besides distinctively decorated Type K pommel and related characteristics of all other parts could be understood as a group of related finds. Such prominent and pronouncedly decorated rivet is not very frequent on the medieval swords. The provenance and possible model for this practice could be looked for in very prominent and also pronouncedly decorated rivet on a discoid pommel, of now dilapidated but once certainly outstanding sword discovered in the tomb of Giovanni de Medici († 1353), Florence, church Santa Reparata.¹¹⁷ Besides these swords there are also specimens with Type K pommels that are related but still somewhat different.

The sword from Opovo, northern Serbia (cat. no. 244) also has the pommel of this type decorated in almost identical way as the pommel from Višnjica. The hilt is slightly shorter and the blade is broken so it could not be precisely typologically classified. The sword found at the site Latinsko groblje near the village Lopljan in the vicinity of Etropole, western Bulgaria (cat. no. 217) has the smaller pommel of this type without rivet but with engraved Greek cross on the circular convexities. The blade is broken but it could be assumed to have been similar to Type XIIIa. This sword also has slightly smaller hilt (hand-and-a-half), cross-guard and pommel than the previous specimens. From the territory of Hungary come considerable amount of swords with one (cat. nos. 101, 105, 115, 138) or four (cat. no. 64) Greek crosses on the Type K pommel.¹¹⁸

Type K pommel with very prominent rivet but without cross representation on the circular convexities has also the sword found by chance together with three more single-edged swords near the village Drahovce, western Slovakia (cat. no. 53). According to the published drawing¹¹⁹ its blade has two rather narrow parallel fullers that is relatively rare but not isolated phenomenon among these swords. The sword from the vicinity of Kupres, western Bosnia, (cat. no. 305) has the similar but broken blade classified as Type XVIa.¹²⁰ Its pommel is of more oval shape without engraved cross on the circular convexities and with slightly flattened top and bottom edge. The rivet is also prominent and decorated with iron plating. The same situation is with the sword excavated within fortification in Bratislava (cat. no. 51) having pommel of Type K with rivet decorated in the abovementioned way.¹²¹

The sword from the ancient bed of the Drava river near Karlovac (cat. no. 322, Pl. 11:4) has the pommel with smaller rivet and engraved cross on the circular convexities. The top and bottom sides are slightly flattened so the pommel shape is more oval and thus slightly closer to Type K1. Its broken blade with representation of the running wolf is attributed to the Oakeshott Type XVIa.¹²²

In general, it could be concluded that all these swords have in addition to the Type K pommels also the straight cross-guards of Type 1, or of Type 2 and blades mostly of Type XIIIa, rarely of Type XVIa. Among the pommels could be conditionally distinguished a group with distinct ornaments (decorated rivet and cross on circular convexity) and of fairly uniform dimensions (PH= 6 – 6.5; PW= 5.6 – 5.8) (cat. nos. 64, 115, 240, Fig. 17, Pl. 7:3, 16:2, 241, 303, 51?, 105?, 305?). Those of the smaller size have more often 5.3 (± 0.15) cm high pommel and they usually do not have decorated rivet and rarely also cross on the circular convexity (cat. nos. 59, 378, 242?, Fig. 18, Pl. 14:1, 321, Pl. 11:3, 322?, Pl. 11:4).

¹¹⁹ Bača and Krupa 1991, fig. 2:2.

¹²⁰ Sijarić 2004, 63.

¹²¹ Sword was found in a building in the eastern section of castle Garaj, in fortification Devin – Bratislava and dated in the first half of the 15th century. Plachá and Hlavicová 1980, 223-225.

¹²² Demo 1983/84, 229-230.

¹¹⁶ Шкриванић 1957, 44, 49, сл. 16/4.

¹¹⁷ Boccia and Coelho 1975, fig. 43-52.

¹¹⁸ Glosek 1984, 123-124, Taf. II.

When other sword parts are concerned the group with Type XIIIa blades and hilts around 27-28 cm (± 1) long (cat. nos. 51, 64, 240, Pl. 7:3, 16:2, 241, 245, Pl. 14:3, 246, Pl. 14:2, 105?, 115?) could be distinguished and these are more often the swords with completely decorated pommels of larger size. There are also some specimens, which are conspicuously different from the others because of their evidently smaller dimensions (cat. no. 217 and partially also 101).

Most of the swords with pommels of this shape, including also those with distinctively decorated pommels and with Type XIIIa blades are generally dated in the first half of the 14th century. The distinct 'representative' of this type could be the sword from the unknown site in the Kunsthistorisches Museum in Vienna that is on the basis of the blade inscription known as the sword of Dietrich von Bern. This sword has Type XIIIa blade with characteristic long fuller (around two thirds of the blade length), Type 2 cross-guard and discoid pommel with exceptionally prominent circular convexities with engravings of the Greek cross from which the inlays of yellow metal could be missing. This specimen is dated in the first half of the 14th century, first of all on the basis of the artistic representations on the tombstone effigies in Germany of that time.¹²³

On the other hand, the swords with Type K pommels and Type XIIIa blades and to somewhat smaller extent also those with Type K1 pommels are the most frequent sword finds in the northern parts of the medieval Serbian state and in the neighboring areas. Considering the fact that military actions mostly took place in this territory in the second half of the 14th and the first half of the 15th century it is reasonable to assume that most of the finds of two-handed swords dates from that period (Map 12). Therefore, it seems that these swords, which were known in Germany from the first half of the 14th century, were imported and possibly also produced in Hungary and in the Balkans in the middle and in the second half of that century.

The assumption that swords with Type K pommels decorated in this way could have been produced until the second half of the 14th century is suggested by some swords with such or

similar (Type K1) pommels now in the Military Museum in Istanbul and originating from the Alexandria Arsenal. As the difference between these two pommel types is not substantial and the distinction between them could not be always precisely established because there are also transitional forms we are going to mention here the specimens of both types decorated in the same way as the abovementioned finds from the southeast Europe. One of them is the sword with the inscription referring to Mameluk Emir al-Saifi Arsitay and indicating the period between 1400 and 1408,¹²⁴ then the swords inv. nos. 5923 and 11593 (sultan Muhammad ibn Mahmud, †1392), No. 10924 and No. 2417 (1400-1408).¹²⁵ Most of these pommels are of Type K1 but for some specimens, e.g. No. 5923 and No. 10924 could be concluded that they are of transitional type K/K1. This second sword has on its tang two intersecting lines depicting St. Andrew's cross so also because of that it is similar with the Type K swords from the southeast Europe (cat. nos. 59, 62, 77, 212, 233). It should be also mentioned that there is a possibility that these swords could have been in use for rather long time before reaching Alexandria where they got the inscriptions. But, because there are no such specimens from the Alexandria Arsenal in the group of swords with earlier inscriptions (1367/68) and as all five mentioned swords date from rather short time interval (1392-1408) this possibility seems less plausible.

There are also some other pommels, which have an ornament of the inlaid Greek cross and which certainly should be later than the first half of the 14th century. This indicates that such ornament was the element of the aesthetics also in the second half of the 14th century and possibly even later. Such are the pommels of Type Z3 on the swords from the vicinity of Užice, western Serbia (cat. no. 275, Pl. 7:1) and from the Zeta river near Podgorica, Montenegro, (cat. no. 294) and similarly decorated is also the Type T2 pommel on a sword from the unknown site in Croatia, now in a private collection (cat. no. 363).

The distribution of swords with Type K pommels and Type XIIIa blades indicates that they were widely used in the territory of Hun-

¹²³ Kunsthistorisches Museum, Inv. Nr. A8W; Oakeshott 1991, 98.

¹²⁴ Military Museum, Istanbul, inv. no. 2438, Alexander 1985, 108, cat. no. 32.

¹²⁵ Alexander 1985, 108-109, cat. nos. 33, 34, 35, 37.

gary and in the northern Balkans. This indicates the intensive import but also that they could have been produced in the workshops within this territory. As we already mentioned, some of these specimens have in addition to the distinctively decorated pommels also the signs on tangs (engraved intersecting lines) and on blades (triangular shield) that are also characteristic of some other finds from the southeast Europe.¹²⁶ Taking into account their assumed German provenance as well as the strong political and economic connections of Hungary and German-Roman Empire the assumption that they were produced by the Hungarian blacksmiths seems fairly probable but it also could be reasonably supposed for the north Balkan workshops.

K1

The pommels of this shape have not been distinguished by any scholar so far. Oakeshott recognized them as Type H1 and Głosek also attributed them in the same way. Considering their uniform shape and substantial number in the southeast Europe as well as in the other parts of the continent I classified them as distinct subtype. Generally speaking, their shape is a transitional form between types K and Z and they are also similar to Type H1. Among the Type K1 pommels there are specimens, which have the Greek cross of usually yellow metal inlaid on both circular convexities (cat. nos. 100, Pl. 3:2, 141, 248, Pl. 15:1) in the same manner as on the listed Type K specimens. Exactly in the same manner are decorated Type K1 pommels from the Military Museum in Istanbul that we mentioned in the previous chapter.

All the swords with Type K1 pommels have the hilts for two hands or slightly shorter (HL= 22.5 - 29.5 cm). Most of these swords have the Type XVIa blades and to a slightly smaller measure of Type XVII and Type XIIIa. Such amount and interrelation of the blade types brings Type K1 swords closer to the Type H1 specimens but in the first group is somewhat higher percentage of the specimens with Type XVIa blades. Such distribution of blade types indicates mostly the period around the second half of the 14th and the beginning of the 15th century. Among these

swords are also those of conspicuously larger size (cat. nos. 191, 192, 213, 261, Pl. 15:2, 377) as it is also the case among the Type H1 swords. The dimensions of other Type K1 swords are generally within the limits characteristic of the remaining Type H1 swords. It could be concluded on the basis of the typological similarity as well as the similar size of the swords that Type K1 pommels are to a great extent contemporary with Type H1 and thus they are generally dated in the second half of the 14th and first quarter of the 15th century. Also, thus decorated Type K pommels should not be much earlier than the similarly decorated specimens of Type K1 indicating that they had been produced also in the second half of the 14th century. Such dating suggests that Type K1 pommels are not only morphologically but also chronologically the derivative of the basic Type K, i.e. that they are its later variant.

In addition to these morphological features such dating is much more apparently supported by the mentioned Type K1 swords from the Military Museum in Istanbul that are dated in the period around the end of the 14th and the beginning of the 15th century.¹²⁷ In favor of such dating of Type K1 pommels speak also the specimens with Type XVII blades, which are dated in the second half of the 14th and the beginning of the 15th century. Two swords with pommels of Type H1 and Type K1 and blades of Type XVIa originating from the vicinity of the village Debrene, northeastern Bulgaria, (cat. nos. 213, 214) could possibly bear witness to the certain contemporaneity of the pommels of Type K1 and Type H1. The circumstances of their discovery are not known to me but it should not be ruled out that they come from the same site and that they are therefore of the similar date. Nevertheless, there are no reliable data for such a conclusion.

N

As the examples for Type N pommels Oakeshott quoted the find from the vicinity of Zürich¹²⁸ and later also another sword from the

¹²⁶ See the chapter on signs on hilts and blades.

¹²⁷ Alexander 1985, 108-109, cat. no. 32, 35, 37.

¹²⁸ River Limmat near Dietikon, environs of Zürich. Schweizerisches Landes Museum in Zürich (inv. no AG 2465), Bruhn-Hoffmeyer 1954, 10, 187, Nr. 36, Pl. IX,e; Oakeshott 1981, 98, where one sword from Romania is also mentioned but without details.

unknown site and now in the private collection.¹²⁹ Geibig classified three swords from the territory of western Germany as his Combination Type 16 II and equated it conditionally with Type N. Also, relying like Oakeshott on a single today known visual representation of such pommel from around 1255 (Fig. 19),¹³⁰ he dated these swords in the end of 12th and first decades of the 13th century.¹³¹



Fig. 19 – Stone Statue of Wilhelm von Camburg, Naumburg Cathedral, central Germany, around 1255.

Alexander Ruttkay, emphasizing the analogy with the Oakeshott Type N, classified in his Type XV only the sword from the vicinity of Komárno, southwestern Slovakia, (cat. no. 28) and dated it in the 13th century.¹³² This sword as well as two other specimens from Hungary (cat. nos. 79, 98, Pl. 3:3) are dated in the same period by Głosek.¹³³ Karl Zeno Pinter classified five pommels of this type from the territory of Romania (cat. nos. 155, 166, 169, 176, 177) as his Type 5 and also dated them in the 13th century.¹³⁴ In addition to these thirteen mentioned swords, Type N pommel was encountered also on the sword from the Ljubljana river near Ljubljana (cat. no. 370, Pl. 12:3) and on the basis of available data it could be assumed for a sword from the unknown site housed in the National Museum in Prague and with slightly less certainty for a sword discovered in the vicinity of Nowy Dwór Gdański, northern Poland.¹³⁵

Nine pommels are classified as subtype Na and six of them (cat. nos. 28, 155, 166, 169, 177 and specimen from unknown site in the private collection) besides having the identical shape are of very similar size as well (PH= ca 2.7 cm; PW= mostly around 7.5 cm, Table 10). The remaining three pommels of the swords from Hungary, Slovenia (cat. nos. 79, 370, Pl. 12:3) and from Zürich are of slightly more elongated shape in a horizontal projection (PW= ca 8 – 8.4 cm) so they could be considered also as a subgroup within subtype Na. The pommels of subtype Nb are characterized by almost identical width but slightly greater height (usually around 3.3 cm). Something that distinguishes all these swords are also conspicuously similar types and dimensions of the blades and cross-guards.¹³⁶ In addition to already mentioned finds I got the information, in the meantime, about three more swords with the Type N pommel.¹³⁷ One of them is from the south-

¹³² Ruttkay 1975/76, 258-259.

¹³³ Głosek 1984, 141, cat. 52, 173, cat. 441, 174, cat. 460.

¹³⁴ Pinter 1999, 127-130.

¹³⁵ Głosek 1984, 142-143, 160, cat. no. 69, cat. no. 279.

¹³⁶ More details about the swords with pommels of this type in Aleksić 2006, 363-367.

¹³⁷ There is possibly another sword of this type that was on the auction at Sotheby 26. June 2003, Olympia, London, but I was not able to confirm this information, i.e. whether it was so far unknown specimen or it was one of the already known swords.

¹²⁹ Oakeshott 1991, 45, Xa 10.

¹³⁰ Oakeshott 1981, 92, Fig. 62.

¹³¹ Geibig 1991, 72-73, 147-149, Kat.-Nr. 36, 47, 65, Taf. 27, 33, 47.

east Europe and is in the private collection of the anonymous Croatian collector (cat. no. 353).

Another sword of Type Na, Xa?, 1 comes



Fig. 20 – Sword from the Murtensee lake near the mouth of the Broye river, Bern, western Switzerland. Schweizerisches Museum in Zürich, inv. no. LM-16347. On photography: Schweizerisches Museum in Zürich, NEG-22982. Without scale.

from the site Prackendorf, northeastern Bavaria.¹³⁸ The third specimen is the sword discovered in the Murtensee lake (Lac de Morat) near the mouth of the Broye river, about twenty kilometers southwest of Bern, western Switzerland, and it also has the pommel of subtype Na (Fig. 20).¹³⁹ And while all parts of the swords in private collection in Croatia and from the northeastern Bavaria are very similar in shape and size to the other specimens of this type, the sword from western Switzerland has totally atypical blade and cross-guard in comparison with other swords in this group. The pommel is typical specimen of its subtype

with height identical to almost a millimeter (2.8 cm) to all other specimens of subtype Na. On the other hand, the Type Xa blade with inscription + INIOMINICII + suggests more extensive time interval, around the transition from the 11th to the 12th century and short hilt for one hand and short straight cross-guard are in accordance with that date. Nevertheless, it could be noticed on the photograph of this sword that pommel is made of different kind of iron and that it is of conspicuously darker color than other parts of the sword.¹⁴⁰ It seems that this is rather good example how new pommel had been mounted on the sword used and retained for almost a century.

The swords with Type N pommels have similar blades, which generally have the transitional characteristics of Types Xa and XIII. All the swords with subtype Na pommels have Type Xa blades, which are according to some features close to Type XIII (slightly more rounded point and squatter outline). Their dimensions are also uniform (BL= ca 95 cm) especially maximum width (BW= ca 5.1 cm). No signs nor ornaments have been encountered on the blades of all these swords while, on the other hand, all three specimens of subtype Na with slightly more slender pommels have decorated blades. Specimens with subtype Nb pommels have either identical blades (possibly cat. nos. 98, Pl. 3:3, 176)¹⁴¹ or blades with slightly prevailing characteristics of Type XIII (squatter outline and more rounded point).¹⁴² The cross-guards of all Type N swords are of Type 1 and they are slender and exceptionally long specimens. The exceptions are two swords with earlier blades from Switzerland. All the specimens of both subtypes have the hand-and-a-half hilt of uniform length (ca 17 ± 1 cm). Such typological and metrological uniformity of almost all nowadays known specimens indicates that all parts of swords of this type are of the same or similar origin and that period of their manufacture was not very long.

If we connect the repaired sword from the

¹³⁸ Schwarzsachtaler Heimatmuseum, Neunburg vorm Wald, http://www.neunburgvormwald.de/tourist/html/raum_2.html (26.01.2007).

¹³⁹ Bruhn-Hoffmeyer 1954, 41, 114, pl. IX-d, kat. II-31.

¹⁴⁰ I wish to express once again my deepest gratitude to Mrs Angelica Condrau from Schweizerisches Museum in Zürich who was kind enough to provide me with high quality photographs of this sword.

¹⁴¹ Also sword from unknown finding place, west Germany, Geibig 1991, cat. no 65, pl. 47.

¹⁴² Seehausen, southern Germany, Geibig 1991, Kat.-Nr. 47, pl. 33.

Cat. no.	Type of Pommel	Type of Blade	Type of C-guard	Finding place	L	BL	HL	TL	CL	BW	PH	PW
28	Na	Xa?	1	Vicinity of Komárno, southwest Slovakia	34.4*	16*	18	ca 14.3	ca 25	5.1	ca 2.7	ca 7.7
155	Na	Xa	1	Unknown site or vicinity of Buzau, SE Romania ?	?	?	?	?	?	?	?	?
166	Na	?	1	v. Vurpăr, vicinity of Sibiu, c. Romania	88*	70.5*	17.5	ca 13.5	22.5			
169	Na	-	-	Site Şelimbăr, vicinity of Sibiu, c. Romania	-	-	-	-	-	-	ca 2.6	ca 6.5 ?
177	Na	Xa (XIII)	1	v. Sânpetru, Braşov, central Romania	ca 87.2*	ca 70.4	ca 16.9	ca 13.25	ca 23.1	ca 5-5.2	ca 3	ca 7.2
-	Na	Xa	1	Unknown site, private collection	111	94	17	ca 13.4	ca 24.5	ca 5	ca 2.6	ca 7.7
79	Na`	Xa	1	Vicinity of Szarvas, SE Hungary	107.6*	90.3*	17.3	ca 13.2	25.4	5.1	2.6 (3.4)	8.2
370	Na`	Xa?		r. Ljubljana near Ljubljana, Slovenia	46.5*	30*	16.5	ca 12.7	26	5	2.8	8.4
-	Na`	Xa?	6?	r. Limmat, site Dieticon near Zürich, Switzerland	108.8	89.9	18.9	ca 14.5	19.6	4.3	2.6	ca 8
98	Nb	Xa/XIII	1	Unknown site, Hungary	110.3	93.1	17.2	ca 13.2	27.7	ca 5 ?	3.4	7.4
176	Nb	XIII (Xa)	1	Neagra Codlea near Braşov, Romania	ca 115.5	97.2	ca 18.3	14.2	ca 25	5.1	3.2	7.6
353	N	XIII/XIb	1	Unknown site, private collection, Croatia?	110,4	94,7	15,7	?	24	4,7	?	?
-	Nb	XIII	1	Seehausen, south Bavaria	118.5?	101?	17.25?	12.9 ?	26.6	5.37	3.38	7.55
-	Nb	Xa?	1	Unknown site, Germany?	114.5 ?	96.5 ?	18 ?	13.2 ?	23.8	5 ?	3.65?	7.4 ?
-	Nb`	Xa?	1	Vicinity of Passau, SE Bavaria	89.5*?	73.3*?	17.5?	13.25?	26.5	5.7?	3.3	7.8
-	N(a`?)	XI?	1	Unknown site, National Museum, Prague	115.5	97.5	18	ca 14	24.2	4.5	3	8.4
-	N(?)	XI?	1	Nowy Dwór, vicinity of Gdańsk, N Poland	95	80.8	14.2	ca 10	16.2	4.4	3.2	7.1

Table 10 – Metrological traits of swords with Type N pommels.

vicinity of Bern with the specimen from the vicinity of Zürich for which with slightly less certainty could be assumed that the pommel (elongated variant of subtype Na) was also later than the blade, then it could be supposed that some workshop, which inherited the tradition associated with the evolution of Type N pommels also carried out the restorations of the earlier swords in the first half of the 13th century. Disregarding whether this assumption is correct, it seems for the time being that wider region of the southern Germany had been the area where the production of Type N pommels most probably started.

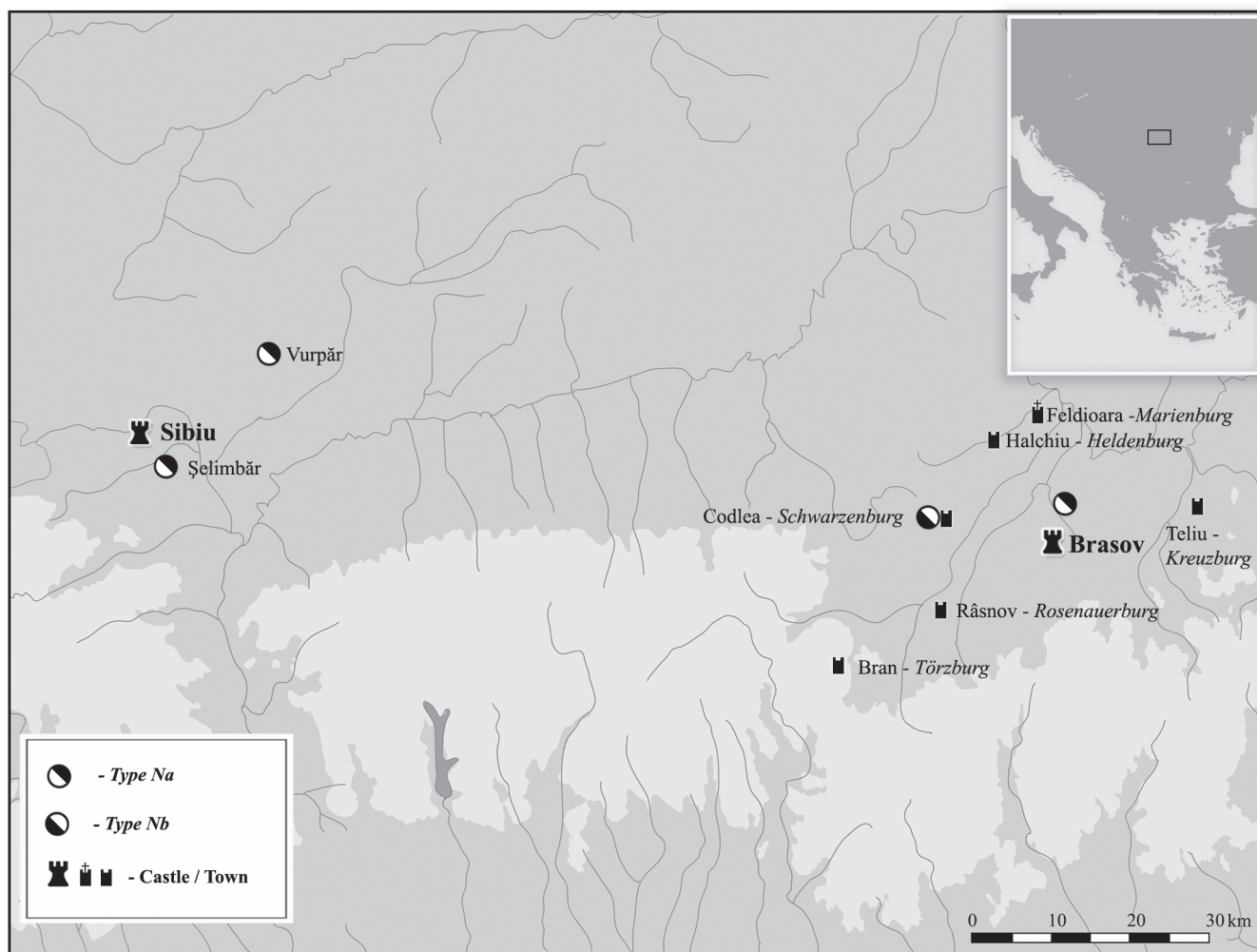
Typological traits of the swords with Type N pommels (blades of Type Xa and XIII, hand-

and-a-half hilts and long Type 1 cross-guards) date them generally in the time around the end of 12th – mid 13th century as they have been dated by most researchers so far. Besides the mentioned artistic representation from around 1255 this conclusion is also suggested by the Type Na pommel (cat. no. 169) found in the hoard in Transylvania that was most probably deposited in 1241 before the Mongol invasion¹⁴³ and the sword of this type found at the site Neagra Codlea near Braşov (cat. no. 176), also in Transylvania, in the 13th century layer.¹⁴⁴

The quantity and distribution of finds in

¹⁴³ Horedt 1957, 343-344, Taf. 3/26; Rill 1983, 81.

¹⁴⁴ Pinter 1999, 127, note 100.



Map 4 – Distribution pattern of swords with Type N pommels in Transylvania and Teutonic castles in the Braşov area (Burzenland).

present-day central Romania, i.e. Transylvania could also suggest the circumstances in which these swords were produced and used. The knights of the Teutonic Order arrived in 1211 in this area of that time eastern Hungary where mostly German immigrants had been settled sometime earlier. They built the fortress Marienburg (Castrum Mariae, modern Feldioara) as their religious and administrative center in the southeastern part of Transylvania (Burzenland, Rom. Tara Bârsei, Hung. Barcaság) some 19 kilometers north of Braşov, which was the urban center of their region.¹⁴⁵

Two of five swords from Romania come from within the circle of around 15 kilometers from these sites (Map 4). Other two swords come from the vicinity of Sibiu, the center of the entire German community in Transylvania and around 120 kilometers west of Braşov. One find was discovered in a hoard of metal objects mostly weap-

ons discovered in the village Şelimbăr and dated in the year 1241 and in that hoard was also found a unique church vessel, urceolus, shaped as human head, which has direct analogy with the vessel from Thuringia, central Germany, from the first half of the 13th century.¹⁴⁶ Taking into account the key role of Thuringian nobility in this period of history of the Teutonic Order¹⁴⁷ this luxurious object could also indicate the presence of the Order in this part of Transylvania.

If the conspicuously great quantity of Type N swords in Transylvania was really connected with the stay of the Teutonic Knights there, then the time of swords production could be determined even more precisely, i.e. in the first quarter

¹⁴⁶ Church in Riethnordhausen, about 10 km north of Erfurt, central Germany, Horedt 1957, 340-343, Abb. 2, Fig. 1.

¹⁴⁷ Great masters of the Order in that time were from Thuringia, Hermann von Salza (1209–1239), Konrad von Thüringen (1239–1240), and duchess of Thuringia, Elisabeth († 1231) was proclaim a patron of the Order in 1236. More details in Aleksić 2006, 372-373.

¹⁴⁵ Holban 1981, 28.

of the 13th century. Their production could have continued in the following years (subtype Nb) as it is also suggested by their somewhat different blades of Type XIII, which appeared just in the second quarter of the 13th century.¹⁴⁸ The advanced sword production in Transylvania is also indicated by some other slightly later sword types for which it could be assumed with more certainty that they had been produced there¹⁴⁹ while for the Type N swords it seems more probable for the time being that they had been produced in the south Germany.

On the basis of the distribution of finds as possible area of manufacture of these swords could be distinguished the territory of Transylvania and south Germany, i.e. Bavaria. Besides the mentioned representation in the Naumburg cathedral many finds of the swords with Type N pommels in south Germany, i.e. Bavaria and the neighboring areas (present-day Switzerland and Slovenia at that time within the German-Roman empire) and the mentioned assumption concerning possible workshop for repairing older swords somewhere in this region or nearby suggest that origin of these swords could be most probably sought in Bavaria or in the immediate vicinity.¹⁵⁰

As it was already mentioned, the intensive production of medieval swords developed in Transylvania from the middle of the 13th century. Nevertheless, it could not be assumed for any of these Transylvanian Types to have been made before the second quarter of the 13th century. The distribution of the types, which could be ascribed to the local production in Transylvania (Map 2, 6) reveal that they also reached other sometimes distant regions of the southeast Europe but not even near as much as the swords of Type N. Even if we should assume that these swords were pro-

duced in the Transylvania workshops they should be their earliest distinct type so it does not seem likely that swords from Transylvania were exported to Germany, one of the Europe leading regions in sword production in that time. On the contrary, it is more plausible to expect that the swords from the south German workshops were exported to the eastern frontier of Hungary, the area where they were much more needed in the battles against the Cumans that was the main reason for arrival of the German crusaders in Transylvania.

The conspicuous typological and metrological similarity of all sword parts of the most Type N specimens (Table 10) clearly indicates that they had been completely produced in one workshop and that the blades were not separately exported to be completed by adding cross-guards and pommels in some other location. The type and processing of the iron ore was very important for the production of high-quality sword and this mostly indicates the workshop employing reliable techniques in all phases of the sword manufacture. In other words, the sword smithy could have been transferred to Transylvania by the Teutonic knights but it was much more complicated to transfer or rebuild the furnaces and other equipment and to obtain high-quality raw material with familiar characteristics in order to produce the steel of the highest quality. It was much more simple to bring the finished products and to establish the workshop for their repairing in Transylvania. On the basis of everything stated above it seems for the time being that when the location of the workshop or workshops, which produced these swords the most indications suggest the region of the south Germany or possibly some neighboring regions.

N1

The sword from the unknown site housed in the Hungarian National Museum in Budapest (cat. no. 136) has the pommel with straight top and rounded bottom edge and I classified it as Type N1. Oakeshott did not distinctively define this pommel shape but he identified them as one of the basic variants of the Brazil nut type. Such pommels are infrequent in the material published so far. From the territory of Germany come the chance finds from Eppingen and the vicinity of

¹⁴⁸ Oakeshott 1981, 41-42; See the chapter on Type XIII blades.

¹⁴⁹ See the chapter on pommels of Type E1 and I and blades of Type X and XIII.

¹⁵⁰ The region of the present-day south Germany is indirectly indicated by the probability that the swords with Type O pommels were also produced somewhere in the vicinity. Their representations were registered so far just in this area, in the Freiburg cathedral, southwestern Germany, Oakeshott 1981, 99, Fig. 65-67. The Type O pommels are similar in shape to those of Type N and in fact they are most probably their later derivative but we shall discuss this issue in the following chapter.

Oberderdingen, southeast Germany, that are only around 14 kilometers far from each other and there is yet another specimens from the unknown site.¹⁵¹ Two specimens were found in Poland¹⁵² and one each in Switzerland, in Kaliningrad region and in Finland.¹⁵³ Another three specimens from the territory of medieval Russia, two of them from Kiev, i.e. its wider surroundings, the third one discovered in a kurgan at the site Hotinci near the southeast Baltic coast¹⁵⁴ and one more sword from Switzerland¹⁵⁵ could be added to the abovementioned examples. Of the artistic representations of this pommel type could be mentioned one on the copper plating of the altar from Hildesheim, central Germany, from around 1120.¹⁵⁶

Three pommels of this type from Germa-

or eventually Type XI. The Type 7 blades Geibig dated in the first half of the 12th century and this corresponds with the dating of two quoted Oakeshott's types while the Type 5 blades could be earlier and dated until the third quarter of the 11th century.¹⁶⁰ Thus the characteristics of the sword blades from Germany (in particular the one from the unknown site) indicate that dating of these pommel types could extend also to the first half of the 12th century. The blade of a sword from Budapest is damaged by corrosion so I was not able to draw a reliable conclusion whether it is of Type X or Type Xa. Therefore, it could be dated only on the basis of its pommel shape and only generally in the second half of the 11th and the beginning or the first half of the 12th century.

N1a

Combination Type (Pommel code)	(Cat.-No.) Finding place	PH	PW	PW/PH	PH/PL	PW/PL	CL
17 I (17-17-9)	75. Eppingen, Baden-Württemberg, SW Germany; 86. bei Oberderdingen, Baden-Württemberg; 181. Unknown site, Hessen, central Germany;	2.7-3.2	6-6.8	2-2.2	1.45-1.8	3.2-3.8	16.9-17.4

Table 11 – Characteristics of the Geibig Type 17 I pommels.

ny Geibig denoted as his Combination Type 17 I and dated them in the second half of the 11th century.¹⁵⁷ On the other hand, specimens of this type from the necropolis Pokrzywnica Wielka, northeastern Poland, are dated in the end of 11th – middle of the 12th century.¹⁵⁸ The sword from kurgan in Hotinci in the north of Russia is dated in the 12th – second half of the 13th century.¹⁵⁹ The representation on the copper altar plating from Hildesheim also suggests that dating of these pommel types could extend to the first half of the 12th century.

Two swords from the southeast Germany have the blades of Geibig Type 5, which corresponds to the Oakeshott Type X while the blade of the third sword, from unknown site, is of Geibig Type 7, which is closest to the Oakeshott Type Xa

The sword pommel from the vicinity of village Govezhda near Montana, northwestern Bulgaria, (cat. no. 216, Pl. 4:4) has the distinct shape, which I denoted as Type N1a. The pommel shape as well as the hand-and-a-half hilt and Type Xa blade indicate that it is roughly contemporary or somewhat later variant of the previous type. The swords with pommels quoted as parallel to the previous type could be also quoted as the closest in shape to this pommel as well but there is no direct analogy for the specimen from Montana. For the time being it is dated in the 11th – 12th century,¹⁶¹ i.e. in the second half of the 11th – 12th century.¹⁶² Taking into account all its features this sword could be dated around the first half of the 12th century as the later specimens of the basic type N1 have also been dated.

O

This pommel type is very rare and its shape could be best explained as the latest derivative of the Type N pommels. They have not

¹⁵¹ Geibig 1991, Kat.-Nr. 75, 86, 181, karte 53.

¹⁵² Rauhut and Długopolska 1971, 315, 327, T. VII:i, XI:l.

¹⁵³ Geibig 1991, 75.

¹⁵⁴ Кирпичников 1966, 54, к. бр. 15 – 17.

¹⁵⁵ Gesler 1928, 143, Taf. I:7, II:1,2.

¹⁵⁶ Oakeshott 1981, 85, Fig. 50.

¹⁵⁷ Geibig, 1991, 150.

¹⁵⁸ Rauhut and Długopolska 1971, 337, 352.

¹⁵⁹ Кирпичников 1966, 54.

¹⁶⁰ Geibig 1991, 153-154, Abb. 40.

¹⁶¹ Първанов 2002, 221.

¹⁶² Йотов 2004, 43-44.

been found so far in the southeast Europe. In fact, there are only two or three swords with such pommels known so far and one of them comes from the central Bohemia. It is the sword discovered in fortress Křehleby, around 10 km west of Pardubice.¹⁶³ Oakeshott claims that one such specimen was published in the catalogue of the Gimbel collection but as I was not able to check this information¹⁶⁴ it is possible that it is the sword with pommel of the same type from the unknown site that was published by Geibig.¹⁶⁵ In any case, both authors agree that few depictions from the Freiburg cathedral, southwestern Germany, dated to about 1300 are the best indicators for the chronology of these pommels.¹⁶⁶ This indicates that they could be dated in the second half of the 13th and the beginning of the 14th century. These pommels are morphologically somewhat more massive and more saddle-like variation of Type N pommels, in particular those specimens of Na subtype that are slightly more horizontally elongated (e.g. cat. nos. 79, 370, Pl. 12:3). According to the certain similarities with the Type N swords (exceptionally long cross-guard of Type 1) and the blade type (Xa/XIIb) that is most similar to certain blades with Type R1 pommels (cat. nos. 4, Pl. 2:1, 31) the sword from Germany could be dated in the second half of the 13th century.¹⁶⁷ For the Pardubice sword it could be concluded that it has Type XVI blade indicating somewhat later time, around 1300 and Type 2 cross-guard of octagonal section also confirming this dating.

Ra

The late medieval swords from the southeast Europe reveal that pommels of spherical shape despite being relatively scarce had been in use during rather long period of time. The ear-

lier specimens from the southeast Europe that are of the almost symmetrical spherical shape and of smaller size were encountered on the swords, which could be generally dated around first half of the 12th century. The sword from the Zeta river (cat. no. 285, Pl. 8:1) has single-handed hilt and rather atypical Type II blade, which together with the Type 6 cross-guard could suggest the south European provenance. The sword from Hungary (cat. no. 68) has single-handed hilt and blade with long fuller and acute point that also date it in the 12th century.

Although similar shape of roughly contemporary pommels was also known in the western Europe (subtype R1b) the origin of the spherical pommels should perhaps be looked for in the Byzantium or in the East Mediterranean tradition. As the archaeological finds from the original territory of the Eastern Empire are missing it is suggested by the Byzantine artistic sources¹⁶⁸ or some swords used by the Arabs in Spain for which could indirectly be assumed the relationship with the Byzantine traditions.¹⁶⁹ Besides the pommel of almost spherical shape these swords have single-handed hilts, very short and bent cross-guards and squat blades with wide shallow fuller just suspected. In any case, they indicate that spherical pommels and their variations were popular and had long tradition in the Mediterranean.

Rb

The later specimens of the spherical pommels are slightly more massive (diameter around 5 cm ± 0.5 cm), they could have a small ball on the top and they are sometimes horizontally or vertically elongated (cat. nos. 40, Fig. 21, 41, 374). All three mentioned specimens have wide, heavy blades (Type XIIIa, XX) of moderate length (82 – 87.5 cm), double-handed hilts and long cross-guards of Type 11. Besides evident typological resemblance, which also suggests similar production date of these specimens, two of them most probably come from the same site in

¹⁶³ Aleksić 2006, 365, 376, kat. nr. 16. Once again I wish to express my thanks to Mr. Jan Tetrev Vychodoceske Museum Zamek cp. 2, Pardubice who kindly provided for me the excellent photographs of this sword.

¹⁶⁴ Oakeshott 1981, 99. I think that it is the publication Karl Gimbel, *Waffen - und Kunst-Sammlung Karl Gimbel*: Baden-Baden. Berlin, Rudolph Lepte, 1904, unfortunately unavailable to me.

¹⁶⁵ Geibig 1991, cat. 61, pl. 44.

¹⁶⁶ Oakeshott 1981, 99, Fig. 65-67; Geibig 1991, 73-75, 150-151.

¹⁶⁷ It has already been dated in that period in Geibig 1991, 150-151.

¹⁶⁸ Bruhn-Hoffmeyer 1963, 12; Bruhn-Hoffmeyer 1966, 96; Kollias 1988, 141.

¹⁶⁹ Museo de Armería de Alava, Asturias, northwestern Spain, Prado del Rey, around 50 km northeast of Cádiz, Andalucía, south Spain, Museo Arqueológico de Sevilla, Ocete Rubio 1988, 27-30.

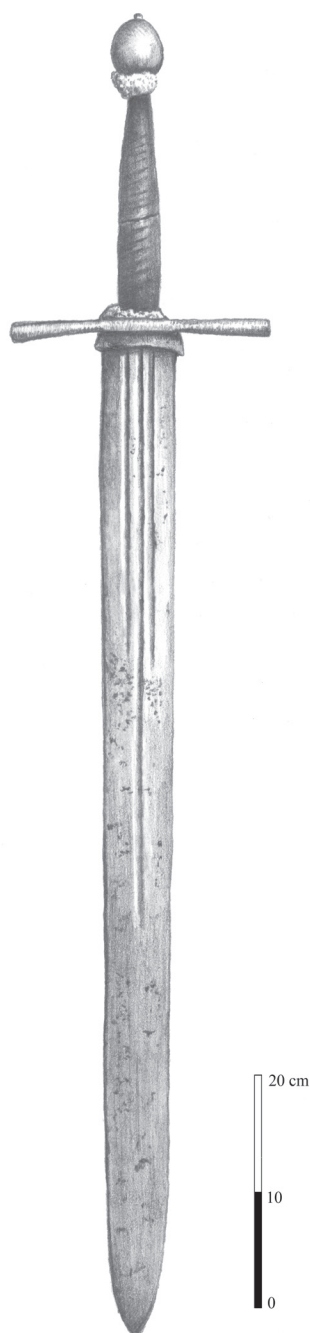


Fig. 21 – Sword from unknown Site. Spis Museum, Levoča, northeastern Slovakia, cat. no. 40, Type: Rb, XX, 11a.

the northeastern Slovakia while the third is from the Ljubljanica river (cat. no. 374). Specimens from Slovakia are rather extensively dated, from the second half of the 15th to the first half of the 16th century¹⁷⁰ and the sword from Ljubljanica is dated in the second half of the 15th century.¹⁷¹ Indications for dating of this kind of spherical

pommels even earlier are the representations on frescoes from central Serbia from the beginning of the 15th century.¹⁷²

Of the representations of such pommels in the southeast Europe worth mentioning are the frescoes depicting St. Michael and St. Areta in the Resava monastery, central Serbia, from 1410/18 or the scene Betrayal of Judas in the Koporin monastery, central Serbia, from the year 1402.

R1a

Besides the pommels shaped as almost symmetrical sphere there are also some specimens, which are more or less biconical in shape. The specimen from site Dlhá nad Váhom, near Šaľa, western Slovakia, that Ruttkay identified as his Type XI is of such shape (cat. no. 4, Pl. 2:1) and it is dated in the 13th – first half of the 14th century.¹⁷³ Glosek classified it as his Type A1 and also added three more swords (cat. no. 31 and two swords from Bohemia) that are dated from the end of the 12th century to the first half of the 14th century.¹⁷⁴ These pommels are more or less of biconical shape in all three projections and they are of larger size than somewhat earlier Type Ra, particularly concerning their width (PH= 3.7 – 5.1 cm; PW= 7 – 7.7 cm). Some specimens, like the sword from Košice (cat. no. 31) have elongated pommels (PW/PH= 1.85) while the others, like the mentioned sword from western Slovakia have the pommels of more spherical shape (PW/PH= 1.41). The swords with Type R1a pommels could be generally dated on the basis of the blades of the types XI, XII, XIIb and XVI in the period around the second half of the 13th and the first

¹⁷² Frescoes of St. Michael and St. Areta in the Resava monastery, from 1410/18; the scene Betrayal of Judas in the Koporin monastery, from the year 1402, Petković 1934, Pl. CLXXXIX, CLXXXIX.

¹⁷³ Ruttkay 1975/76, 256-257.

¹⁷⁴ Ibid.; Glosek 1984, 36. Two swords from Bohemia: Glosek 1984, 139, 142, cat. nos. 27, 61, T. XXXIII:1. Glosek classified the pommel of a sword from unknown site, now in the museum in Budapest (cat. no. 98) as Type A1 (Glosek 1984, 174, cat. no. 460) but we classified it here as Type Nb. Same opinion about this pommel was expressed also earlier, Geibig 1991, 65. Ruttkay included in his type XI also the pommel of a sword from the site Jablonove (cat. no. 9), western Slovakia but Glosek, rightfully in my opinion, did not accepted that as it is the pommel of polygonal shape, Ruttkay 1975/76, 146, cat. no. 64; Glosek 1984, 138, cat. no. 10.

¹⁷⁰ Glosek 1984, 142, cat. nos. 66-67.

¹⁷¹ Nabergoj 1997, 264.

half of the 14th century.

Although all four so far known specimens of such pommels come from the territory of Bohemia and Slovakia, the characteristics of other parts (blades of Types XI?, XII, XIIb?) and cross-guards (Type 1) as well as distinct hilt length do not generally distinguish them from the other roughly contemporary finds from the central Europe and the neighboring regions. Because of that and because of the fact that they are not identical it could not be claimed for the time being that it is a distinct local type. As a possible road sign in looking for the provenance of these pommels, the sword from the vicinity of Passau, eastern Bavaria, from around second quarter of the 13th century could perhaps be of some help.¹⁷⁵

R1b

When defining his Type 14 Geibig stated conditional similarity with previously quoted Type R1a pommels (Głosek Type A1) as well as their differences. The Type 14 pommels are not clearly biconical in the frontal projection and they are of slightly smaller size (PH= 3.7 - 4.4 cm; PW= 4.9 - 5.5 cm) and of more asymmetrical shape. Although they are dated in the 12th century it was done with certain reservations because these swords have also certain characteristics of the earlier time.¹⁷⁶ This dating is mostly based on the characteristics of the five sword blades, whose pommels Geibig attributed to this type. These blades mostly belong to his Types 6 and 11, which are dated from the second half of the 11th to the 12th century. In the Oakeshott's typology they mostly correspond to the Types Xa and XI, which had also been most frequently used in this period. Straight or slightly curved and relatively

long cross-guards (18.8- 22.9 cm) also indicate that date.

The sword from the vicinity of Glamoč (cat. no. 298, Pl. 9:2) has at first glance chronologically heterogeneous parts and has the pommel of identical shape but of slightly smaller size which brings it also close to the Type Ra pommels. Its blade with the inscription +INGEII+FEZI±, is shorter with wider fuller and this and the single-handed hilt attribute it to Type X. Its cross-guard is of the distinctive Type 4a, which is frequent in the visual sources from the 12th and 13th centuries but there are also some earlier specimens.¹⁷⁷ The sword with similar cross-guard, with an archaic blade and identical type of inscription (INGELRIT) comes from the unknown site in Germany and is dated around the second half of the 10th century.¹⁷⁸ Thus the cross-guard shape of the sword from Glamoč besides its blade, allows considerably earlier date and this for the time being prevents the reliable chronological determination. In this particular case I think that most probably the new pommel and probably also new cross-guard were added around the beginning or the first half of the 12th century to the old blade (dating from around the end of 10th or the beginning of the 11th century).

Two swords from Bulgaria (cat. nos. 196, 223) with single-handed hilt and Type Xa blades that date them in the 12th century have also the spherical-biconical pommels. The sword from Pernik (cat. no. 196) was discovered in the course of systematic archaeological excavations within the 12th century structure so its dating is reliable.¹⁷⁹ On the basis of the published data about these pommels it could be assumed that they mostly correspond to the Geibig Type

	Cross-guard type	CL	PH	PW	PW/PH	PH/PT	PW/PT
Geibig Pommel code 14-16-11	Geibig Types 9, 14	18.8–22.9	3.7–4.4	4.9–5.5	1.2–1.38	0.97–1.15	1.29–1.482
cat. no. 304, Bijeljina, NE Bosnia	Oakeshott Type 6	23.8	4.5	5.4	1.2	?	?

Table 12 – Characteristics of Geibig Type 14 pommels (Geibig 1991, Kat.-Nr. 58, 85, 89, 104, 159).

¹⁷⁵ Geibig 1991, Kat.-Nr. 36, Taf. 27. Pommel is classified as Combination Type 16 II, which is in this book conditionally equated with Oakeshott Type N, but its shape could be best described as transitional type Nb/R1a.

¹⁷⁶ Geibig 1991, 63-65, for dating, 147.

¹⁷⁷ See the chapter on cross-guards of Type 4a.

¹⁷⁸ Geibig 1991, Kat.-Nr. 179, Taf. 109. Pommel is of the Combination Type 12 I (= Petersen Type X).

¹⁷⁹ Чангова 1992, 167.

14 and this is also indicated by the cross-guard type and length of the sword from Pernik. The sword from the vicinity of Bijeljina (cat. no. 304, Pl. 9:4) has the pommel, which according to its shape and size entirely corresponds to Geibig Type 14. These pommels are characterized by irregular shape so they are not totally symmetrical in any projection as is also the case with the pommel of a sword from the vicinity of Bijeljina. Its width fits into the limits of this Geibig's type while it is just one millimeter longer and around three millimeters thicker (Table 12). The cross-guard of this sword is generally straight but still slightly curved towards the blade and with somewhat extended ends and because of that it corresponds more to the Oakeshott Type 6. Its length (23.8 cm) is only slightly bigger than on the five swords from Germany but even according to this criterion it generally matches the specimens of Geibig Type 14. Its blade is broken but it could be attributed to Type Xa with considerable certainty so this sword could be dated in the 12th century. Thus, typological traits of the swords from Pernik and Bijeljina could confirm with more certainty Geibig's dating of Type 14 pommels in the 12th century.

T

The pear-shaped pommels, which Oakeshott classified as T types generally, occur from the second half of the 14th century. It should be said that variants of this shape are more numerous than in the Oakeshott's list so some of them could be only conditionally defined as transitional forms between some subtypes (74, 175, 271). The pear-shaped pommels are not very frequent among the finds from the southeast Europe and it is confirmed by the total of 15 specimens included in this work.

One of the earliest artistic representations of the pommel of this shape and of T2 Type was encountered on the stone effigy on the tomb of Günther XXV von Schwarzburg-Blankenburg, † 1368, and his wife Elisabeth von Honstein, † 1381) in the cathedral in Arnstadt in central Germany (Liebfrauenkirche Arnstadt). Somewhat later are representations also on the tombstone effigies of Friedrich von Griffensthal and Friedrich von Tarant who were killed in the battle near Sempach in 1386 and buried in the church in

Königsfelden, northern Switzerland. Such pommels are sometimes mentioned in the literature as Sempach type and they are frequent on the swords with Type XVII blades but also on other types. They were, generally, most popular in the period around the final quarter of the 14th century.¹⁸⁰ Among the finds from the southeast Europe somewhat more interesting is the sword pommel from the private collection from Croatia (cat. no. 363) that has slightly protruding and flattened circular surfaces with representation of Greek cross on both sides. This type of decoration is very frequent on Type K and K1 pommels in the second half of the 14th century and eventually in the beginning of the 15th century, that is in the period from which this Type T2 specimen also dates.

The pommels of subtype T1 are also generally dated in the second half of the 14th century and first two decades of the 15th century. The specimen from the National Museum in Copenhagen¹⁸¹ was used by Oakeshott as one of the earliest examples of this pommel type because the sword has Type XVI blade, which is dated in the first half of the 14th century at the latest.¹⁸² It seems possible that the later pommel was added to an earlier blade. Similar situation was assumed in the dating of a sword with pommel of this type and of exceptionally small size from the southwestern Bosnia (cat. no. 307).¹⁸³

Oakeshott generally dated the pommels of subtype T3 in the first half of the 15th century mostly relying on the effigies from England although he himself states that this shape is of Italian provenance.¹⁸⁴ Although it is not typical example of this type, the pommel of the so-called sword from Monza, north Italy, resembles mostly just this shape. Two coats of arms are depicted on this pommel; a snake of the Visconti family and cross, symbol of the city of Milan.¹⁸⁵ The sword belonged to the ruler of Milan (Estorre Visconti, 1412–1413) and is known nowadays for many more or less good contemporary replicas. The identical pommel has still another also rather re-

¹⁸⁰ Oakeshott 1981, 105, Fig. 77.

¹⁸¹ Bruhn-Hoffmeyer 1954, 87, 120, 194, pl. XXXII c.

¹⁸² Oakeshott 1981, 61–62, Fig. 32, pl. 20B. Such dating is also suggested by the inscription on blade +NINDIC+.

¹⁸³ Sijarić 2004, 73.

¹⁸⁴ Oakeshott 1981, 106, Fig. 78.

¹⁸⁵ Boccia, Rossi and Morin 1980, 192–193, fig. 226; Oakeshott 1981, pl. 21, 22B.

liably dated (around the year 1392) sword from Italy that belonged to Buonarroto Buonarroti, leader of the Guelf party in Florence.¹⁸⁶

The pommels of subtype T4 that are mostly dated on the basis of sculptures from England and northern France also date from the period of transition from the 14th to the 15th century. The sword from the unknown site in the Military Museum in Belgrade has the pear-shaped pommel (cat. no. 271) ribbed in the upper segment that is rare and typologically undefined phenomenon. Its general form mostly resembles the types T2 and T4 so it is thus determined in the catalogue. Its blade is of Type XVa and the ends of Type 12a cross-guard are slightly curved in the opposite directions in the same way as it was encountered on the later specimens of this type when 'S' cross-guards were already distributed in the other parts of the continent.

Type T5 pommels are also one of the later variants of this type. They appear on the stone effigies in England in the first half of the 15th century although Type T5 is dated mostly in the second half of that century.¹⁸⁷ Głosek distinguished the variant of this shape decorated with twisted ribs (cat. no. 38) and classified it as subtype T6.¹⁸⁸

U

The swords with Type U pommels whose elegant shape Oakeshott compared with the 19th century clock keys are not numerous but almost all nowadays preserved specimens are in immaculate state of preservation. This is also the case with sole specimen of this type from the south-east Europe, housed in the Waffensammlung in the Kunsthistorisches Museum Wien (cat. no. 296, Fig. 22). It reached Vienna from Dubrovnik after the short Austrian occupation of the city of St. Blasius in the beginning of 19th century. This luxurious and perfectly preserved specimen was a gift by Hungarian king Mathias Corvin to the Dubrovnik municipality, i.e. to its duke in 1466.¹⁸⁹ This object is the oldest and actually only one preserved medieval sword from Dubrovnik and it is peculiar that after it has been published¹⁹⁰ it did



Fig. 22 – Sword from Dubrovnik, cat. no. 296, before 1466. Type: U, XVa, 6.

not draw any attention of the domestic scholars.

Among other finds from Europe worth mentioning are the specimens from the Schweizerisches Landes Museum in Zürich¹⁹¹ and Bayerische National Museum, München.¹⁹² The sword with such pommel was depicted on a tomb effigy of bishop Johann von Grumbach from

¹⁸⁶ Boccia and Coelho 1975, fig. 76-79.

¹⁸⁷ Oakeshott 1981, 106-107, Fig. 80, 81.

¹⁸⁸ Głosek 1984, 35-36, Ryc. 6-8.

¹⁸⁹ Bach 1970, 67.

¹⁹⁰ Ibid, 61 with older literature.

¹⁹¹ Inv. nr. 16053, Bruhn-Hoffmeyer 1954, 88, 194, Pl. XXXII:d; Oakeshott 1960, 316, Fig. 157; Oakeshott 1981, 107, Fig. 83.

¹⁹² Inv. nr. W 871, Bruhn-Hoffmeyer 1954, 68, Pl. XXII:b.

around the year 1475.¹⁹³ It was also encountered on the portrait of St. Knut on Altae diptych painted by Hugo van der Goes for the Trinity College Church around 1478/9.¹⁹⁴ The visual representations suggest the dating of these swords in the middle and in the second half of the 15th century and the Dubrovnik sword, which is the reliably dated specimen of this type, confirms this dating.

V1

The pommel of a variant of Type V has in the southeast Europe the sword from Bijeljina, northeastern Bosnia (cat. no. 309, Pl. 10:2). The sword has the pommel of subtype V1, the blade of one of Type XVIII variants and Type 12 cross-guard. Oakeshott dated this pommel type in the 15th century first of all on the basis of the Italian visual sources from around the years 1420-1435 and also on the basis of the ceremonial sword of the city of Bristol, Avon, southwestern England, from 1431 and yet another specimen from the private collection dated in the late 15th century.¹⁹⁵ Fact that shape of this pommel not exactly correspond to type V1 but have also some elements of type T5 pommels have no crucial influence for its dating. It seems that the closest analogy for the sword pommel from Bosnia is the pommel on a sword treasured in the Royal Arsenal in Vienna (Wiener Bürgerliche Zeughaus). It is two-handed sword with a blade, which is the variant of Type XVIII so it most probably dates from the middle of the 15th century.¹⁹⁶ The sword from Bijeljina could be just slightly earlier, i.e. from around the second quarter of that century.

Z

Oakeshott classified all the pommels of square shape in his Type Z. Certain morphological differences between them are used in this work as criteria for distinguishing the distinct subtypes. It is evident, at first glance that these pommels are conspicuously more frequent finds in the southeast Europe than in other parts of the continent (Map 5).

Also, most of the swords with square pom-

mels (Types Z1-Z3) have Type 12 cross-guards and almost all specimens with such cross-guards have one of the variants of square pommels and this is very clear connection between these types of pommels and cross-guards. In order to recognize more clearly the relationship between Type Z pommels and Type 12 cross-guards we distinguished the groups of swords having related characteristics of all their basic parts and they are identified, following Oakeshott's practice, as families of swords (families N and O) but there will be more about that in the corresponding chapters.

If we are to look for the chronological interrelation of these pommel subtypes then we

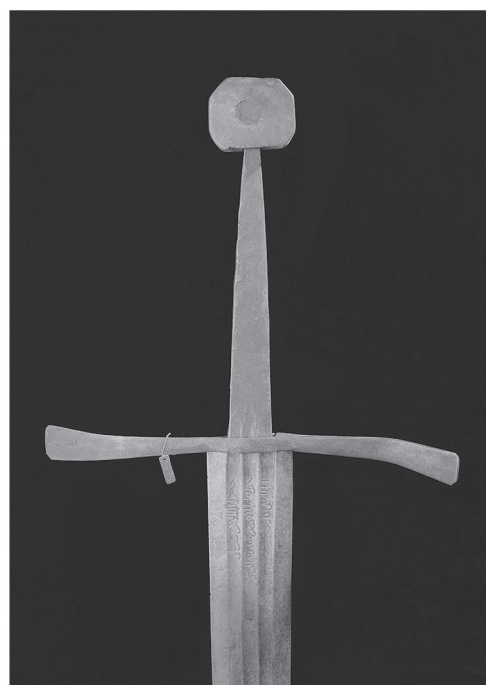


Fig. 23 – Sword with Arab Inscription from Alexandria Arsenal, now in Royal Ontario Museum, Toronto (inv. nr. 930.26.45), cat. no. 393, Type: Z2b, XXb, 12a. On photography: Royal Ontario Museum, Toronto, ROM2006_8819_2. Without scale.

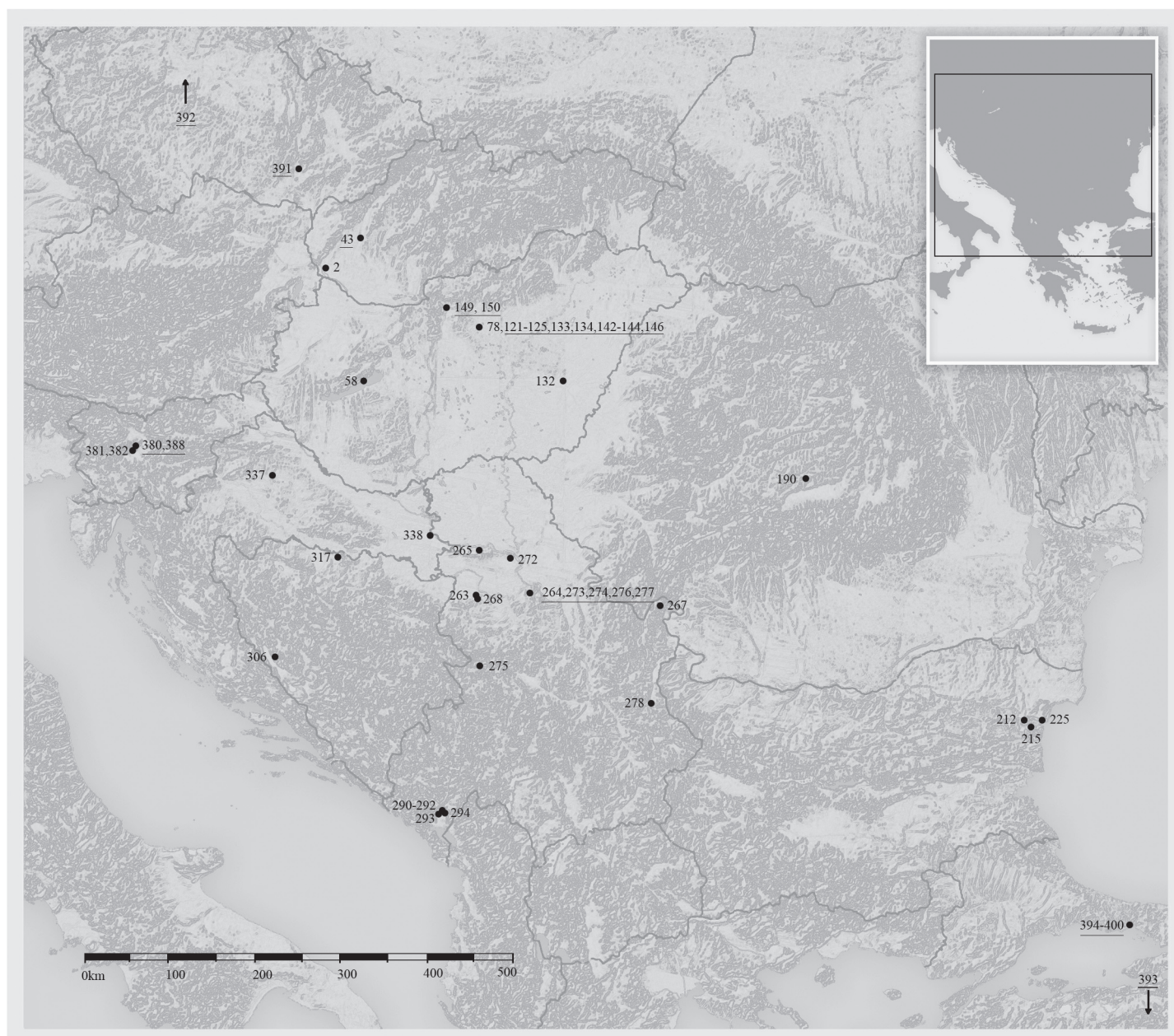
could conclude that pommels of subtypes Z3 and in particular Z4 are generally somewhat later than the other two subtypes. It is indicated not only by the fact that from the morphological point of view they represent the derivatives of earlier shapes but also by the fact that they were most frequently encountered on the swords whose other parts indicate somewhat later date. The Z4 pommels of octagonal and not of square shape appear almost exclusively on the swords having typological

¹⁹³ Oakeshott 1981, 107, Fig. 85.

¹⁹⁴ Oakeshott 1960, 316, Fig. 158.

¹⁹⁵ Oakeshott 1981, 107-109, Fig. 87, 88.

¹⁹⁶ Wiener Zeughaus 1960, Kat. Nr. 4, Abb. 10.



Map 5 – Distribution pattern of swords with Type Z1 – Z3 pommels in the southeast Europe. Underlined are museum locations housing the swords from unknown sites.

traits Z4, XIXa/XXc, 13 (sword family P).

Large amount of swords with pommels of subtype Z3, which could be morphologically recognized as the derivative of Z1 belong to the group of typologically uniform specimens (Z3, XIXa, 12c) that are identified as sword family O. It is considered that swords of this group, known in the Venetian sources as spade schiavonesche, should not be earlier than the mid 15th century and they were produced also at the beginning of

the next century.¹⁹⁷ There are also somewhat earlier swords with Z3 pommels and two of them (cat. nos. 275, Pl. 7:1, 294) are interesting because they have inlaid cross on the lateral convexities that is an infrequent case on the Type Z pommels. Such type of decoration looks like it still continues the tradition of decoration of Type K and K1 pommels and it could also indicate that they were produced in the time when such decoration was still popular, around the second half of the 14th

¹⁹⁷ For this group of swords see Boccia and Coelho 1975, 18, cat. nos. 165-167; See also the chapter on the O family of swords.

or the beginning of the 15th century.¹⁹⁸ Among the earliest specimens of the swords with subtype Z3 pommels could be classified the single-handed specimen, which was once in the Alexandria Arsenal where it got the Arabic inscription dedicated to the Mameluk Emir Saif-addin al-Ukuz al-Malikī al-Ashrafi (1367-8.) (cat. no. 398).¹⁹⁹

In contrast to these two subtypes, the pommels Z1 and Z2 appear somewhat more frequently and on slightly earlier swords. Some specimens from the Alexandria Arsenal could also be of use as one of the road signs for dating of this pommel shapes. Two swords with subtype

army together with captured king Janus of Cyprus (1398-1432) or as his tribute or gift to the sultan in the two following years.²⁰¹ According to its typological traits (Z2c, XXb, 12a) this sword is related to the group of finds, which are in this work identified as family N.

As it could be assumed with considerable certainty that cross-guards of Type 12 as well as of Type 13 did not appear on the swords from the southeast Europe before the last decades of the 14th century²⁰² the mentioned connection between these cross-guards and Type Z pommels also could help in the dating of these pommels.

Subtypes of Type Z pommels	Number of swords with cross-guards of Types 12 or 13	Cat. no.	Number of swords with cross-guards of other types	Cat. no.	Without cross-guard	Cat. no.
Z1	7 (+1)*	143, 146, 225, 272, 273, 337, 381, (392)	4	306, 397, 399, 400	0	
Z2	21 (+2)**	2, 78, 132, 133, 142, 144, 149, 150, 264, (265, 266), 267, 277, 278, 290, 292, 293, 317, 338, 382, 393, 394, 396	3 (+2)**	190?, 212, 215, (265, 266)	1	263
Z3	9 (+1)*	124, 134, 275, 276, 294, 368, 380, 388, (392), 395	1	398	2	2 7 4 , 291
Z?	7	43, 121, 122, 123, 125, 389, 391	1	58	0	
Z4	6	279, 280, 281, 282, 310, 318	0		0	
TOTAL	51 (+2)**		9 (+2)**		3	
TOTAL 65						

Table 13 – Swords with Type Z pommels with cross-guards of Type 12 and 13 and without these types of cross-guards.

* Pommel for which I am not sure whether it is of subtype Z1 or Z3 (cat. no. 392).

** The cross-guards of Type 6 but they could have been shaped as Type 12 in a certain moment (cat. nos. 365, 366).

Z1 pommels bear dedicatory inscriptions in the name of al-Saifi Arsitay that were inscribed on their blades during the reign of this Mameluk governor, between 1401 and 1408 (cat. nos. 399, 400).²⁰⁰ Another sword, which is housed in the Royal Ontario Museum, Toronto (cat. no. 393, Fig. 23) has the pommel of type Z2c and inscription on the blade mentioning the sultan Al Ashraf Sayf al-Dīn Barsbāy (1422–1428). This means that this sword reached Cairo, i.e. the Alexandria Arsenal either as war trophy after the conquest of Cyprus in 1426 and the return of the Mameluke

As it can be seen in Table 13 out of the total of 65 swords with Type Z pommels collected here, only 11 of them have the cross-guards, which are not of Type 12 or 13 and it means that they could be possibly earlier than the second half of the 14th century.²⁰³ For two of them (cat. nos. 265, 266, Pl. 6:4) I noticed on examination that their cross-guards were at one time horizontally

²⁰¹ Inv. nr. 930.26.45. Bruhn-Hoffmeyer 1954, 62, kat. III d,1, pl. XXIV b. Interpretation of these inscriptions and historical facts about the rulers of Egypt from Mameluke Bahri and Burji dynasty after Alexander 1985.

²⁰² See the chapter on cross-guards of Type 12 and Type 13.

²⁰³ Two swords from Serbia do not have preserved cross-guards (cat. nos. 274, Pl. 16:4, 291) but their pommels of subtype Z3 suggest that they are also not earlier than the middle of the 14th century.

¹⁹⁸ See the chapters about pommels of Type K, K1 and T2.

¹⁹⁹ Askeri Museum, Istanbul (inv. Nr. 21247). Alexander 1985, 111, cat. nr. 47.

²⁰⁰ Askeri Museum, Istanbul (inv. Nr. 2437 and 24149). Al-exander 1985, 110-111, cat. nr. 42, 46.

curved, most probably in the form of letter S, so if this assumption is correct they have also been used in the period of use of such cross-guards. For another sword (cat. no. 190) I am not certain, on the basis of available data, whether it really had the Type Z pommel or it probably was the Type K1 specimen. Thus the very fact that out of all swords with Type Z pommels just 14 of them (and only 8 with absolute certainty) could be eventually dated before the second half of the 14th century (they do not have Type 12 and 13 cross-guards) suggests the conclusion that they were not frequent before that date.

Arabic inscriptions on their blades that they got in the Alexandria Arsenal indicate that they were also not earlier (with the exception of cat. no 398) than the final decades of the 14th century.

When it concerns these Arabic inscriptions on the blades of swords, which reached the Alexandria Arsenal mostly from the Cyprus kingdom, they are actually dedications to certain Mameluk sultans whose period of reigning helped to establish the date of these inscriptions. It means that it is possible that these swords could be of an earlier date than the inscriptions but considering the circumstances and frequency

Cat. nos.	Finding place	Type of Pommel	Type of Blade	Type of C-guard	L	BL	HL	BW	CL	PH	PW
58	I. Balaton, Centr. Hungary	Z	XVIa	5 bent	116.3*	90.3*	26	5.1	21.7	6.7	8.1
190	Unknown F. P. Romania	Z2b?	XVIa?	2	116	96	20	6	19.5	5	?
212	Vic. of Varna, E Bulgaria	Z2c	XVIa/XIIIa	1	110*	85*	25	5.8	22.5	?	?
215	Vic. of Varna, E Bulgaria	Z2c	XVIa	6	105	81	24	6.3	20.5	4.2	5.2
263	Šabac, W Serbia	Z2c	XVIa	-	119	94	25	5	-	?	?
265	Novi Sad, N Serbia	Z2c	XVIa	6 (12a)	111.5	86	25.5	5.3	22.7	4.8	5.2
266	Šabac, W Serbia	Z2c	XVIa	6 (12a)	99*	77*	22	5.5	22	4.5	5.5
274	Unknown site, Serbia	Z3	XVIa?	-	107.5	84	23.5	5.9	-	4	5
291	r. Zeta, Montenegro	Z3	XIIIa?	-	113	88.5	24.5	6	-	?	?
306	Glamoč, W Bosnia	Z1	XVIa	6	116	91.8	24.2	5.8	27.4	4.1	5.7
397	Topkapi Museum	Z1	XVIa?	5	125.3	99.3	26	4.9	27	5	?
398	Mil. Mus., Istanbul (1367/8)	Z3	XIXa?	5	105.5	88.5	17	5.6	16.5	?	6.8
399	Mil. Mus., Istanbul	Z1	XVIa?	6	117.7	93.6	24.3	5	17.3	?	5.5
400	Mil. Mus., Istanbul (1401/8)	Z1	XVIa?	2	97.2	76	21.2	4.5	17.1	?	5.6

Table 14 – Dimensions of swords with Type Z pommel but not Type 12 and 13 cross-guards.

Certain regularities could be noticed among the swords, which do not have the mentioned cross-guards and which were discovered in the southeast Europe. Although rather heterogeneous material could have been expected considering that only condition for this group of finds was that they do not have Type 12 and 13 cross-guards, five swords (cat. nos. 212, 215, 263, Pl. 6:3, 265?, 266?, Pl. 6:4) have Type Z2c pommel and Type XVIa blade and their general dimensions are rather similar (Table 14). The swords from the museums in Istanbul (cat. nos. 397-400) generally have also these characteristic but they are somewhat different (Type Z1, Z3 pommels and in some instances different blade types). The

of their arrival from Cyprus this possibility does not seem much plausible for the time being and it is most probable that they are not much earlier than the added Arabic inscriptions.²⁰⁴ When the sword with inscription on the blade mentioning the year 1367/8 (cat. no. 398) is concerned, it has Type Z3 pommel, which is considered as one of the earliest specimens of this shape so there is no substantial reason to assume for the time being that the sword had been forged much earlier.

The Type XVIa blades generally date from the 14th and 15th century and they are not

²⁰⁴ On this and about the historical circumstances of arrival of these swords from Cyprus to Egypt see Alexander 1985, 81-84.

particularly chronologically relevant so they could not help much in dating of these swords. It could only be noticed that later blades of this type are of somewhat larger size and it is the case also with the mentioned swords. In favor of slightly later dating of the group of swords Z2c, XVIa, 6 speaks possibly their resemblance to the group of swords of Type H2, XVIa, 6. These swords have been produced in the same area, possibly more precisely in western Serbia in the first half or middle of the 15th century and their similarity is evident not only in the type of blades and cross-guards but also in their size (Table 8) but this still remains just an assumption. The fact that Z2c pommels are just one morphological variation of this subtype indicates in itself that they are, for instance, chronologically close to the subtype Z2b.

The sign consisting of two or three intersecting lines engraved on the tang was encountered on two specimens of this group (cat. nos. 212, 306, Pl. 10:1). Głosek explained this sign as the mark of the blacksmith or swordsmith from the territory of Hungary and dated it in the end of the 13th and in the 14th century.²⁰⁵ Still another sword from the Alexandria Arsenal with such sign has the inscription indicating possibly the period of the second half of the 14th century.²⁰⁶ The mapping of these but also of all other swords with Type Z1 and Z2 pommels reveals that they are concentrated within the southeast Europe, in particularly in the territory of medieval Hungary, north Balkans and the neighboring areas (Map 5) whence after all come most probably also some swords with such pommels from the museums in Istanbul (cat. nos. 393-400).²⁰⁷ And while the distribution of the subtype Z2b specimens clearly points to the territory of the medieval Hungary, the Z2c pommels indicate that also the neighboring areas of the north Balkan could be considered.

We can conclude on the basis of the avail-

able data that pommel variants of subtype Z2 have been generally in the greatest use around the end of 14th – middle of the 15th century. This could be said with considerably certainty for the specimens of subtype Z2b, which belong to the family N swords and related specimens and on the basis of the presented data with somewhat less certainty for the finds of subtype Z2c. If we should accept such dating of subtype Z2 pommels and apply it on the group of swords, which do not have Type 12 or 13 cross-guards (Table 14) we could draw the conclusion that Type Z pommels are rather rare before the final decades of the 14th century. In fact, except the mentioned sword from the Alexandria Arsenal from around the middle of the 14th century (cat. no. 398, subtype Z3), all the remaining swords including the specimen from western Bosnia (cat. no. 306, Pl. 10:1), two swords from the Alexandria Arsenal with inscriptions from 1401-8 (cat. nos. 399, 400) and another from the Topkapi Museum (cat. no. 397) have the subtype Z1 pommels and there is also the sword from the Balaton lake (cat. no. 58) whose precise pommel shape is unknown to me. Relatively small number (less than 10%) of swords with Type Z pommels that could be possibly earlier than the second half of the 14th century indicates that most of these finds could be dated after the middle of that century.

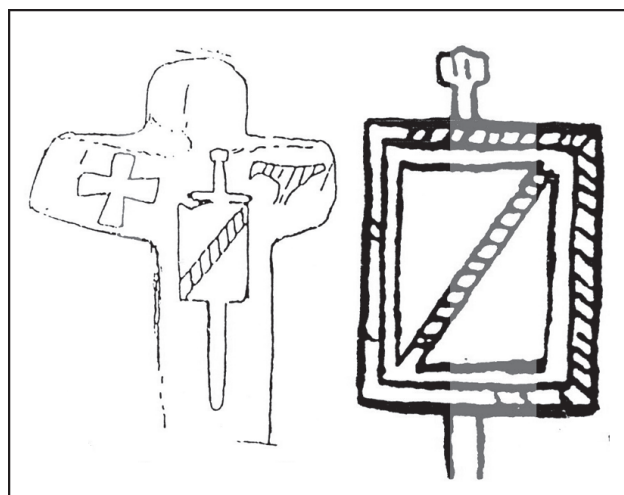


Fig. 24 – West Balkan tombstones, stećci with representations of swords with square pommels. a – site Bihovo near Trebinje, eastern Herzegovina; b – site Hodovo near Stolac, central Herzegovina, after Wenzel 1965, Wenzel 1966.

²⁰⁵ Głosek detected this sign on three specimens from Hungary (Głosek 1984, 123, cat. nos. 419, 422, 438) and on three specimens from Poland (Ibid., 45, cat. nos. 273, 276 and 372). See more about this in the chapter on hilt signs.

²⁰⁶ Alexander 1985, 108, cat. 33. (the year 1392?).

²⁰⁷ For some of them (cat. no. 395 and perhaps also 394 and 396) it is assumed that they most probably come from Hungarian Royal Arsenal in Buda that was plundered in 1526; Alexander 1987, 22, 25.

Nevertheless, it could be assumed for the basic shape, the subtype Z2a, that it appeared even earlier. This subtype actually has not been always classified as the variant of the square pommels but because of truncated corners as the variant of polygonal, octagonal pommels, similar to the Type I1 pommels. Thus they have been identified by M. Głosek as distinct type, which is dated from the end of 13th to the middle of the 14th century.²⁰⁸

The Type Z2a pommel on the single-handed sword with straight cross-guard is depicted in the frescoes in the Staro Nagoričino monastery (1216/18), near Kumanovo, northern Macedonia.²⁰⁹ Nevertheless, this is almost isolated examples among the visual representations of swords in the southeast Europe from that time. The swords with square pommels are depicted also on the monumental tombstones in the western Balkans, known as *stećci*. These monuments are generally dated in the 15th century so they can only illustrate the popularity of these pommels in this part of the southeast Europe.

²⁰⁸ Głosek 1984, 34-35, where they are classified as Type H2.

²⁰⁹ Тодић 1993, сл. 47.

Chronology of Blades

For classification of blades according to their shape we used the Oakeshott's typology in this work primarily to determine the swords chronologically and eventually geographically. Because of that it has been insignificantly modified in some instances. Considering that among the sword types in the southeast Europe also occur the shapes characteristic of this area, I identified in this work some new types of blades (Types I, Ia, II, XIIb, XIIIc, XIXa, XXb, XXc, Fig. 3).

In more recent times, the typology of swords created by Alfred Geibig has also appeared. He classified the sword blades into 14 types and some of them also has variants. Of the blade types dating from the period we are interested in, i.e. they were in use in the 12th century and later, there are 8 types and two subtypes (Types 6 – 13 and Types 6 and 10 have two subtypes each).

I

In the eastern area of the Balkans and in the Carpathian basin have been discovered certain swords from the 9th – 11th century that have different traits than the contemporary blades from the other parts of the continent. Their characteristics are single-handed hilts, blades of similar length that are wider below the cross-guard (around 5-6 cm) but also in the lower segment and they have almost parallel edges so their shape is squat. They do not have fuller or ridge and the point is pronouncedly rounded. To this group of finds could be attributed the 9th-10th century sword from the vicinity of Vratsa, northwestern Bulgaria with characteristic bronze cast cross-guard,²¹⁰ specimen with missing cross-guard and pommel from the vicinity of village Vlchiy

Dol near Varna, northeastern Bulgaria, dated in the 10th century,²¹¹ the sword with discoid pommel and short bronze cross-guard with prominent globular ends from the grave 2 at the site Čierny Brod, western Slovakia, from around the first half or the middle of the 9th century.²¹² Main characteristic, which distinguishes these swords from almost all other contemporary finds is the absence of fuller or ridge along the middle of the blade. Also, the blades are shorter, relatively wide and of distinctly squat shape with short and pronouncedly rounded point. The cross-guards, if preserved, have been made of bronze.

The sword blade from the vicinity of village Lučica near Požarevac (cat. no. 227, Pl. 5:4) is also rather short, does not have either fuller or ridge along the middle and belongs to Type I. It is wide near the cross-guard but tapers conspicuously towards the point, which is not very acute. Besides this one, I attributed to the Type I also the sword blade from the vicinity of Shumen (cat. no. 206, Fig. 25) as well as two blades of similar size from the museum in Varna, northeastern Bulgaria (cat. nos. 207, Pl. 5:3, 208). They are even shorter (67.5 and 71.5 cm) than the blade from Lučica (76 cm) and they also have more or less acute point. The sword from the vicinity of Shumen is dated in the 12th – beginning of the 13th century and two blades from the museum in Varna in the 12th century.²¹³

The earlier finds, from the 9th-10th century have somewhat longer blades (around 75 cm)²¹⁴ of squatter shape and they have short and pro-

²¹⁰ Йотов 2004, 40-42, к. бр. 421.

²¹¹ Апостолов 1991, 7-8, фиг. 1,а.

²¹² Kiss 1987, 204-205, Abb. 5.

²¹³ Парушев 1999, 140-141.

²¹⁴ Which generally correspond to historical data about dimensions of Byzantium swords from the beginning of the 10th century, Kollias 1988, 137.

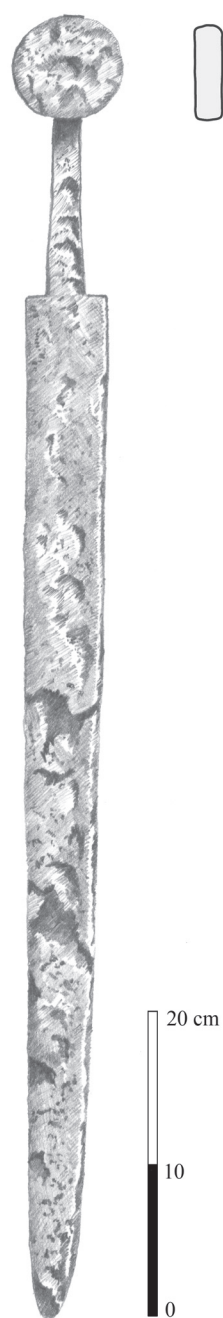


Fig. 25 – Sword from vicinity of Shumen, northeast Bulgaria, cat. no. 206, Type: G, Ia, –.

nouncedly rounded point while later specimens, included in this work, have somewhat shorter blades and short and acute point. The blade from Lučica is dated generally in the 11th – 13th century mainly on the basis of the engraved Latin inscription DOICTANH.²¹⁵ Not a single sword has the preserved cross-guard and only the specimen from the vicinity of Shumen has preserved pom-

mel of discoid shape. The discoid pommels are frequent in the visual sources dating from rather extensive time span, particularly in the Byzantine tradition, but they mostly correspond to the published date of the sword.²¹⁶

On one side of the blade from the museum in Varna (cat. no. 207) is engraved Greek inscription CAPΔH and on the other the Greek letter Z. The city of Sardis was the capital of the Byzantine province Anatolica in the Asia Minor and this inscription suggests that it had been produced there. In addition to the mentioned data and the fact that such blades were almost unknown in other parts of Europe also one earlier historical source indicates that Type I blades could be the Byzantine products. The Arabian philosopher Al Kindi from the first half of the 9th century recorded that Byzantine swords had been forged of soft iron and that they were slender, simple and without fuller.²¹⁷

This description should relate to the earlier group of swords but their similarity to the Type I is apparent in the fact that they have no fuller. Almost all other swords from this period have fuller along the middle and rare exceptions could be explained generally as the products of some local workshop, which was not able to follow the leading types of the period even in such simple element. In contrast to them, the blades of hitherto rare finds from the eastern Balkans belong by all appearances to the Byzantine tradition where the common practice was to produce the blades without fullers. The fact that pommels and cross-guards of most of these swords are missing indicates that they had been produced of some other, possibly, organic material and there certainly were also the specimens with bronze cross-guards.²¹⁸

Ia

Considering that most of the swords with blades classified as Type I have broken tangs it is not possible to determine with certainty their original length so they could also belong to this subtype. The hilt of the sword from the northeastern Bulgaria (cat. no. 206, Fig. 25) is preserved in its total length of 19 cm (TL= 12 cm) and hence

²¹⁶ See the chapter on Type G pommels.

²¹⁷ Кирпичников 1966, 46 with earlier literature.

²¹⁸ See more detail about this in Kollias 1988, 142-143.

²¹⁵ Миленковић 1992, 58-59. For interpretation of this inscription see the chapter on signs on blades.

it is classified with certainty into this subtype. Its shape and size do not differ from other Type I specimens as it could be expected considering the greater length of the hilt. Even more so, its blade is actually the shortest of all specimens of this type for which I had the data so the possibility that some other Type I swords belong in fact to this subtype seems more plausible. Certain visual sources from the 12th century reveal that swords with prolonged hilts were known in the Byzantine tradition or at least in the Mediterranean region. Thus in the scene of fight of David and Goliath depicted in a fresco from 1123, today in the National Art Museum of Catalonia in Barcelona, one sword has the hilt with the grip, which is around two times the length of David's hand.²¹⁹ The examples of two-handed swords are depicted in the miniatures of the illustrated transcript of the Skylitzes' chronicle, which was made in Sicily in the 12th century and is today in the National Library in Madrid.²²⁰

The representations of two-handed swords in the Skylitzes' illustrated chronicle could be most probably the types of weapon originating from Persia although there is still a question whether these swords had also been in use even after the 7th century and whether they were known in Byzantium only as trophy or ceremonial weapons or they were actually used.

II

The blade shape of a sword from the Zeta river in Montenegro (cat. no. 285, Pl. 8:1) is not known to me from any other sword and at first glance it could result from the extensive sharpening using the whetstone. But, that it is not the case is suggested by the shape of a fuller, which

follows the characteristic shape of a blade indicating that it had been forged just in this form. If we ignore such conspicuously narrow lower part, the shape of this blade could be ascribed to Oakeshott Type X. In the Geibig's typology of blades it corresponds to a great extent to Type 4, which is dated from the middle of the 10th to the middle of the 11th century. Although I do not know all the necessary dimensions of the sword from Zeta it could be noticed that fuller width possibly corresponds to the limits set by Geibig for this type while abrupt tapering of the blade and fuller in the lower segment of the Zeta sword does not correspond to any metrological value measured by Geibig (BW/BW', FW/FW').

And while the closest typological parallels for this blade from the west Europe suggest the time around second half of the 10th and the 11th century, the shape of pommel and cross-guard still indicates somewhat later time. It could be assumed with much more certainty that one or more workshops produced swords with archaic blade characteristics (wide fuller) when the group of finds of Type I, X, 2 is concerned. This group comes from the territory of Romania and dates from around the second half of the 13th century but we will discuss that later in a chapter on the blades of the next type. Typological traits of the pommel (Type R) and the cross-guard (Type 6) allow the assumption about south European provenance of this sword from around the first half of the 12th century, perhaps from some local workshop. The sword comes from the same site as five more specimens (cat. nos. 284-289), which have the traits suggesting the time around the first half of the 12th century so it is not impossible that it was a group find.

	BL	FL	BW	BW/BW'	FW	FW/FW'	BL/FL
Geibig type 4	70–76	63–69	4.5–5	1.5–1.6	1.9–2.2→	1.12–1.37	1.1–1.2

Table 15 – Dimensions of the Geibig Type 4 blades.

²¹⁹ <http://art.pro.tok2.com/BibleOld/HSamuel/Goliath/unkn.jpg> (08. 03. 2006). Hilt is perhaps for two hands only for the small, David. In comparison with the hand of Goliath it is a single-handed sword.

²²⁰ Ioannes Skylitzes, *Synopsis historiarum*. Bruhn-Hoffmeyer 1966, 106-107, Fig. 16-11; Oakeshott 1991, 259-260, Fig. 14.

The shape of this blade, particularly its tapering lower part with long and acute point clearly reveals that the sword was intended mostly for thrusting and less for cutting. Although the techniques of using swords in this period are still insufficiently known it could be principally remarked that the swords intended mainly for cut-

ting prevailed in northern and central parts of the continent in the preceding as well as in this period and it means that thrusting techniques were not widely practiced there. On the other hand, in the south, Mediterranean parts of Europe the swords with acute points were known from the earlier times²²¹ and this means that thrusting techniques were practiced more often there.

X

The Type X blades maintained many traits of the earlier forms and they represent, in fact, one of the latest phases in the evolution of Frankish spathe or Viking swords, i.e. the early medieval swords. The relatively squat blades somewhat conspicuously tapering in the lower segment and still with long and wide fuller and with more or less rounded point were still the most frequent in the period from around the second half of the 10th to the end of the 11th century, possibly even later. The blades having these characteristic Geibig conditionally equated with his blade Types 4 and 5 and dated them up to the last quarter of the 11th century.²²² Oakeshott dated these blades generally up to around 1100 although he allows also the possibility of the later specimens.²²³ As the Type A and B pommels were the most popular shapes in the most of Europe during the 11th and 12th centuries thus the Type X blades were the most frequent specimens during the 11th century. Therefore, these blades appear most often with Type A and B pommels and they represent, in fact, the one of the earlier specimens with the pommels of these types.

Despite the fact that Type X blades are reliably dated in the second half of the 10th and almost the entire 11th century, there are the blades of this shape in the southeast Europe that are of much later date. It concerns the group of swords mostly from the territory of Transylvania and Banat that have blades of this shape, hand-and-a-half hilts and Type I pommels (cat. nos. 163, Pl. 3:4, 172, 174?, 185, 186?). It seems, at first glance, that these are specimens with Type XII blades with wider fuller but the fuller length is as a rule greater than the maximum length for this type (two thirds of the blade length) and the

hand-and-a-half hilts are not characteristic of the Type XII. It could be concluded considering the characteristics of other sword parts that these were the local products from the period around the middle and second half of the 13th century.

According to the distribution of these finds (Map 6) the workshops producing them were possibly somewhere in the territory of Banat or Transylvania.²²⁴ On the blade of a sword from the unknown site now in the Museum of Banat in Timisoara (cat. no. 163, Pl. 3:4.) there is the inscription G U O R A G U I S > I and damaged inscription beginning with letters GU... was discovered on a specimen from the vicinity of Sibiu in Transylvania (cat. no. 172). It is allegedly of exceptionally large size (L= 133.6 cm; BL= 111.2 cm) but I think these data are not correct.²²⁵ As it is possible that identical inscription was also on the other specimen, they could represent the name of the blacksmith who manufactured these swords as it is the common case with the names on the medieval blades. The name GUORAGUIS is the most similar to the Latin transcription of the Slavic name Djuradj (Guorag), (English, French, Romanian: George, Hungarian: György).

The hand-and-a-half hilt of both these swords is of almost identical length (17.4 and 17.5 cm) and of similar length (\pm less than 0.3 cm) are the hilts of some other 13th century specimens from southeast Europe (cat. nos. 24, 79, 97, 98, Pl. 3:3, 155, 165, 166, 232, Pl. 13:2, 251, 366, 371, Pl. 12:2). It should be mentioned that second 'standard' hilt length of the 13th swords was around 19 cm (cat. nos. 13, Pl. 1:2, 94, 99, 110, 178, 180, 182, 184, 187, 194?, 206, 220, 236, Pl. 13:3, 354, 367) and third around 16 cm (cat. nos. 7, 8, 19, 31, 92, Pl. 3:1, 130, 164, 170, 185, 197, Pl. 5:2, 199, Pl. 5:1, 286, 352, 353, 370, Pl. 12:3) and that could indicate the way of balancing the swords or the manner of wielding it.

Both quoted swords with inscription from Romania are very close typologically and they

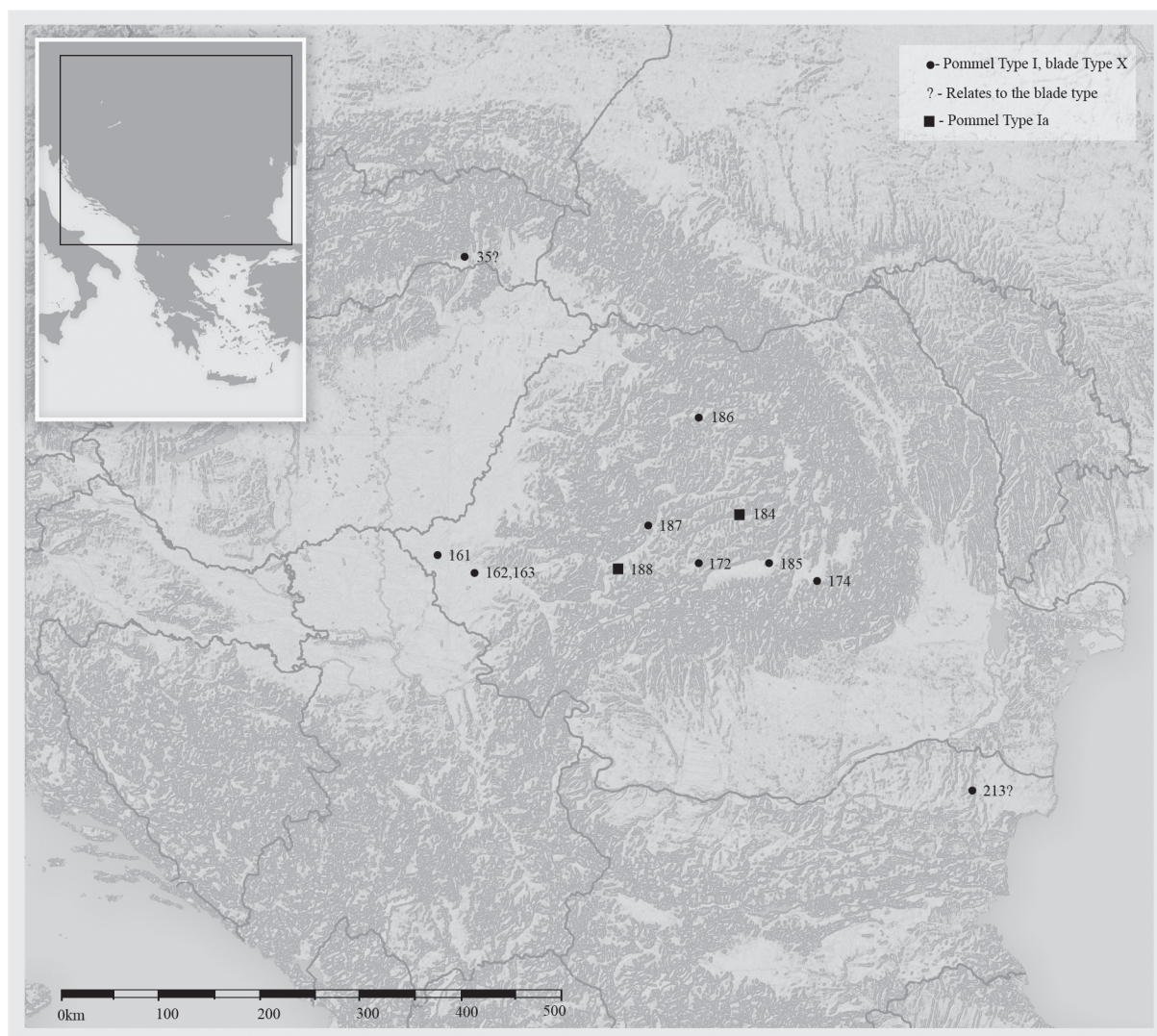
²²⁴ See the chapter on Type I pommels.

²²⁵ These dimensions were published in Rill 1983, 83 and they were taken over also by Pinter 1999, 140, Taf. 42.a although he quotes the hilt 17.5 cm long that does not correspond with the previous measures (133.6 – 111.2 = 22.4 cm). Considering that it was the single-handed sword of the proportions similar to the other mentioned swords of the same typological traits I think that such large dimensions are impossible.

²²¹ Bruhn-Hoffmeyer 1961, 8.

²²² Geibig 1991, 90, 153.

²²³ Oakeshott 1981, 30.



Map 6 – Sword finds with blades of Type X and pommels of Type I in southeast Europe.

are characterized besides the Type I pommel also by Type 2 cross-guard as well as by the distinct blade with long and wide fuller. Just such hilt length was the distinct standard for some other 13th century sword types (i.e. Type N, Xa/XIII, 1) and Type 2 cross-guard of circular section also suggests this century. The blade shape also would not oppose such dating if only the fuller is not conspicuously wide but I think that it is the characteristic of certain group of workshops and that it is in this case of no chronological relevance. The specimens from Romania with such blades have exclusively Type I pommels and cross-guards, which are of Type 2 and of circular section. In any case, their obvious typological similarity as well as concentration of finds within relatively limited area indicate that these were the products

of a distinct group of workshops, which could be sought after somewhere in the territory of Banat or Transylvania.

The blade of sword from the Zeta river near Podgorica (cat. no. 284) is classified as Type X although it has certain characteristics, which are not typical for this type. The blade is short (70.8 cm) and the fuller is exceptionally short (35 cm). This sword also distinguishes for somewhat smaller blade width (4.5 cm) making it lighter (the weight of complete sword is 750 g) and that was probably the reason why the fuller is short. The signature INGELRII indicates that it has been produced in the workshop using this sign or possibly as the copy of the object produced in that workshop.

Xa

These blades although distinguished as the subtype of Type X are among the most numerous finds in the period between the 11th and 13th century as they have been dated by Oakeshott.²²⁶

The basic difference between the blades of Type X and Type Xa is in the fuller width. The wider fuller, which covers more than third sometimes even the half or more of the blade width below the cross-guard is the characteristic of the earlier type, i.e. Type X while Type Xa is characterized by the fuller width, which does not exceed 1.7–1.8 cm at the most. In the blade typology of Alfred Geibig the earliest blades, which have the fuller of such or smaller width appear around the middle of the 11th century (Type 6). In addition to this type, the blades of Type Xa correspond also to those identified by Geibig as Type 8 and Type 10 and which are somewhat later (12th century).²²⁷ Taking into account that this typology was made on the basis of the material from the territory of Germany, thus the territory where most probably should be expected the emergence of Type Xa blades, the possible earlier finds should be considered as exceptions, which could be ascribed to the non-standardization of the medieval artisan production. Thus the dating of Type Xa blades, and the dating of Geibig's types, which correspond morphologically to the greatest extent is generally the same. It means that they are dated in the period from around the middle of 11th to the middle of the 13th century and their highest popularity was during the 12th and the beginning of the next century.

In contrast to the basic type, these swords could have hand-and-a-half hilts besides the single-handed hilts. The appearance of prolonged hilts, the hand-and-a-half ones could not be confirmed so far in the western Europe before the second half of the 12th century. As these swords had been in use for quite a long time they also had the pommels of other shapes (Types C–I, N, R etc.) besides Type A and B ones, which dominated during the 11th and most of the 12th century. These hand-and-a-half swords of various types have the hilts of often rather uniform length. Such hilts of uniform length (mostly ca 16.5 ± 1 cm) have just

the swords mostly with Type Xa blades (cat. nos. 7, 8, 11, 24, 28, 60, 79, 97, 98, Pl. 3:3, 103, 129, 155, 162–166, 172, 176, 177, 182, 187, 214, 221, 225, 232, Pl. 13:2, 251, 337, 338, 350, 352, 354, 366, 370, Pl. 12:3, 371, Pl. 12:2) that are generally dated around the first half of the 13th century. The length of their tangs reveals more deviation (TL= 12–13 cm ± 1 cm) that is rather unexpected as the tang length crucial for handling the sword should, actually, be constant and the hilt length should vary depending on shape and height of the pommel.

Large number of swords of the roughly same date that have hilts of such uniform length could be considered to be accidental but still it seems that there is certain reason for that. This phenomenon could most probably be the consequence of distinct grip length depending on the assumed width of the hand of an average man in the Middle Ages that influenced the size of the complete hilt. Nevertheless, greater uniformity of hilt lengths than the grip lengths reveals that the tang on which were later mounted the pommel and cross-guard had been forged in the 'standard' length of 17.5 cm and that the grip length varied depending on the pommel height and cross-guard width. This could mean that swordsmiths tried to make distinct grip length, which made possible supporting the sword also with other hand but that it was not precisely determined. Thus, it happened that blacksmiths forged rather precisely the tang of distinct length and that somewhat greater deviations happened later in the process of mounting the pommel and cross-guard but that mistakes were not of crucial importance.

If we assume that uniform hilt lengths of these swords are not just accidental then it means that this practice was applied around the first half of the 13th century in the workshops, which inherited the kindred manufacturing tradition. Typological traits of the swords with these hilts are rather diverse and mostly generally accepted throughout most of Europe suggesting that these workshops should be sought within large areas or that these were rather large workshops manufacturing objects, which reached many parts of Europe. Nevertheless, it could be assumed with considerable certainty that swords with Type N pommels, which almost all belong to this group are the products of the German workshops from

²²⁶ Oakeshott 1991, 36.

²²⁷ Geibig 1991, 153–154, Abb. 40.

the first half of this century. These swords represented in the moment of forging the most modern weapons of that time indicating that these were the leading workshops of that time.²²⁸ The fact that other specimens with such hilts are widely distributed also suggests that these were large sword-making workshops. Therefore, we could for the time being connect the swords with so uniform hilts most probably with some of the leading workshops of that time in the territory of Germany but it is possible that there were also many local smithies from the wider territory of central and eastern Europe that produced swords after such models.

XI

Type XI blades are generally dated in the 12th century²²⁹ meaning that they were mostly produced in the same period as the previous type but they could be distinguished because of somewhat smaller maximum width. This morphological parameter is often impossible to determine clearly and distinguish precisely as the difference is usually in just few millimeters. Thus in the Geibig's typology the blades with smaller maximum width are denoted as Type 13 and dated in the end of 12th eventually the beginning of the 13th century.²³⁰ Besides this type the blades of Geibig Types 7 and 9 also have slightly smaller maximum width (4.9 cm and less) and they are dated in the first half or the entire 12th century.²³¹ That maximum blade width as the sole criterion for distinguishing types Xa and XI is not the sufficient element is revealed by the fact that some blades of Geibig Type 6 are also of small width (4.65 – 5.6 cm). The additional criterion could be the maximum fuller width, which for Geibig Types 7, 9 and 13 never exceeds 1.5 cm.

Type XI blades are not infrequent throughout most of Europe so its southeastern part is not the exception. As the Type Xa blades, the Type XI swords could have the hand-and-a-half hilt besides those for one hand. In that case these are generally the later specimens of this type dating

around the final decades of the 12th and the beginning of the 13th century.

XIa

Type XIa swords are rather scarce and not a single specimen from the southeast Europe could be attributed to this type with certainty. Generally speaking, these swords mostly have the pommels of discoid shape (Type I, J) and rarely of spherical (Type R) or of mushroom shape (Type B) and they are generally dated in the same period as the basic type.²³²

XII

Type XII blades are generally dated in the 13th century although there are also earlier or later specimens.²³³ Oakeshott also pointed to the difficulties in distinguishing this type from other blade types and hence also the problem of its precise dating. The difference in comparison with the earlier types is an apparently shorter fuller whose length Oakeshott limited to the 2/3 of the blade length although there are some exceptions with slightly longer fuller. On the other hand, the difference in comparison with the later types is the pronouncedly acute point and, more reliably, the hilt length. Geibig denoted the blades of similar characteristics as Type 12 and dated them in the 13th century.²³⁴

XIIa

For Type XIIa blades there is also a problem of distinction in comparison with the other types, first of all Type XVIa. It could be noticed that not such a large number of swords is attributed to this Type and it is also the case with the specimens studied in this work. This type is only roughly dated in the 13th and the 14th century.²³⁵

XIIb

The hilt of this blade type is of a hand-and-a-half size and this is the feature, which distinguishes them from Types XII and XIIa. The hilt length of some specimens is around 17.5 cm (24?, 97?, 251) while the other specimens have slightly longer hilt, around 20 ± 1 cm (cat. nos. 4,

²²⁸ See the chapters on Type N pommels and Type XIII blades.

²²⁹ Oakeshott 1981, 31.

²³⁰ Maximum width of the blades of this type is 4.5 (± 0.1) cm. Geibig 1991, 88-89, 154, Abb. 23, 40.

²³¹ Ibid.

²³² Oakeshott 1981, 34 sq.

²³³ Oakeshott 1981, 39-41.

²³⁴ Geibig 1991, 88-89.

²³⁵ <http://www.oakeshott.org/typo.html> (22. 11. 2006).

Pl. 2:1, 5, 6?, 236).

Oakeshott did not distinguish this subtype but he emphasized that Type XII swords are exclusively characterized by single-handed hilt and Type XIIa swords by two-handed hilt. This blade shape could also be defined as the subgroup of Type XVIa swords but with shorter hilt and longer fuller. Nevertheless, considering that their pommels and cross-guards have the characteristics of the period from which the Type XII dates and that certain amount of them obviously have the hilt length similar to the 13th century swords I identified them in this way.

These blades were encountered on the swords with Type 1 cross-guards usually of conspicuously great length (around 25 cm) and with Type 2 of circular or octagonal section. The pommels on the specimens from the southeast Europe could be of Type I (5, 24, 236, Pl. 13:3, 251) and rarely of other shapes (R1a, D?, cat. nos. 4, Pl. 2:1, 231, 6:1). All mentioned typological traits of the pommels and cross-guards of these swords suggest the period from around the middle of the 13th to around the beginning of the 14th century. Their origin considering relatively small number of finds could not be determined with certainty but it could be noticed that they are most numerous in the territory of modern Slovakia and also in more or less distant territories, in western Germany, western Serbia, possibly eastern Bulgaria and western Romania. On the other hand, the apparent similarity of the some hilt length to the swords of other types from the roughly same period that is as, it seems, not accidental brings these swords closer to the specimens, which have been widely distributed in the central and southeast Europe but also in the other parts of the continent.

XIII

Oakeshott dates the emergence of this type in the period around the year 1240 although there are also somewhat earlier specimens.²³⁶ I think that good examples of some of the earliest swords, i.e. genuine representatives of this type are the swords with Type Nb pommels dating from around the second quarter of the 13th century.

All of the earliest swords with Type Na pommels from the first quarter of the 13th century have Type Xa blades, which are somewhat squatter and with more rounded point than it is common for this type and according to these traits they are also similar to Type XIII (cat. nos. 79, 155, 166, 177). The subtype Nb specimens, which are a decade or two later have identical or similar blades with Type XIII traits prevailing, i.e. the blades are less tapering toward the point, which is more rounded (cat. nos. 98, Pl. 3:3, 176 and also 371, Pl. 12:2).²³⁷ The squatter blade, i.e. one, which is wider in the lower segment, suggests the increase of its weight and as a consequence the handling was slower but the blows were more powerful. The aspiration to produce swords, which in such a way reflected also the main techniques of weapon handling, could be seen in the rounded point, which confirms that swords were primarily intended for inflicting heavy cutting blows while thrusting was of secondary importance.

An intention to produce swords with massive blades, which were appropriate for these techniques, had become more and more popular in the ensuing period and two-handed variant of this type (Type XIIIa) has become one of the most widely distributed type of large knightly sword in Europe and also in its southeastern part. The Type XIII swords and its two subtypes are generally dated until the end of the 14th century but it seems that the popularity of the basic type diminished after the first half of the 14th century and that it appeared later only sporadically.

The group of finds with Type XIII blades from Romania that have two or three fullers on each side (cat. nos. 153, Pl. 4:2, 178, 180?, 184, 193, Pl. 4:1) represent the distinct group of these blades. This characteristic is not unusual but it is relatively rare on Type XIII blades or on other types of that time. The fact that most of these specimens have distinctive Type E1 pommels indicates that this was a special local type of swords. It is also suggested by their conspicuous concentration in the region of Transylvania where the mining progress started in the end of the 12th century at the latest (Map 2). The miners were mostly the Sasi (Saxons), in fact the immi-

²³⁶ Oakeshott 1981, 41-42; Oakeshott 1991, 97, 101.

²³⁷ As well as the specim from Seehausen, south Bavaria, Geibig 1991, Kat.-Nr. 47, Taf. 33.

grants from different parts of Germany and other western countries (Flanders, France). All these swords are dated in the second, third and eventually final quarter of the 13th century and they represent first types for which we could assume and with reason that they were the products of the local blacksmiths.

XIIIa

The blades of this type are among the most abundant in the southeast Europe. There are 62 specimens in total but it should be said that there are among them some specimens for which it is not absolutely certain that they belong to this type. Oakeshott dated the appearance of these blades and the basic type as well in the time around 1240 and these swords are the one of the earliest types of two-handed swords in western Europe. Their most extensive use was in the 14th century when they reached their greatest size and when they were together with Type XVIa swords the most popular two-handed specimens. So, the swords with Type XIIIa blades are the one of the first swords from the epoch of large knightly sword and the main task of this weapon was to overcome the resistance of body armor by the power of its blow.

These heavy and slow but destructive swords imposed the permanent initiative in the battle. Given that they assumed without exception the use of both hands, it was not possible to use the shields at the same time neither these swords were quick enough to parry the blows of the opponent. This weapon is therefore the final result of the permanent increasing of the size and weight of a sword in order to achieve the heaviest possible blows, which were intended to overcome the body armor, which also from the second half of the 13th century have been improving faster and becoming stronger and stronger. In this some sort of competition with the armor the sword had lost to a certain extent the role of an inviolable offensive weapon because other offensive weapons, first of all the mace could also inflict devastating blows.

The sword treasured in the Collection of Arms in Vienna (*Waffensammlung*, Wien, inv. Nr. II 22718) has neither pommel nor cross-guard and the blade with the tang is of Type XIIIa. On the blade is the inscription, which together with

coat of arms of Austria and Bohemia indicates that the sword belonged to the Bohemian king Přemysl Otakar II, 1253–1278.²³⁸ The dimensions of the blade are large, particularly the width (BL= 98 cm; BW= 6.5 cm) and the hilt is even larger (HL= 43 cm) in comparison with other swords of that time. It should, however, be emphasized that Type XIIIa sword of such enormous dimensions of hilt and blade is almost a unique example for this time and that was probably the reason why it had never been completed and the assumption that it was actually a processional sword seems the most plausible. In any case, this sword is one of the important arguments that Type XIIIa swords of exceptionally large size had been produced already by the end of the third quarter of the 13th century. On the other hand, most of the swords with exceptionally long hilts (HL longer than 27-28 cm) date from the 14th century and from its second half.

Two-handed swords with squat blades start to vary in number and length of fullers from the end of 14th or the beginning of the 15th century and depending on these features they could be of Type XX or XXb. The later one Oakeshott did not distinguish but classified its blades also as Type XIII(a).²³⁹

XIIIb

These swords are rather rare in the entire Europe and the same situation is also in the southeast part of the continent. As for the basic type and subtype XIIIa Oakeshott assumed that these blades appeared around the year 1240. The squat blades but of smaller size and with wider fuller and with single-handed hilts are rather frequent on the early medieval swords but they generally disappeared around the middle of the 10th century so they could hardly be confused with this subtype. It seems important to note at this place about some swords of this type that could be slightly earlier. For example, the sword from the unknown site in western Germany has this type of blade, single-handed hilt and pommel of Geibig Combination Type 18, which is dated in the 12th – first quarter of the 13th century.²⁴⁰ Also

²³⁸ Glosek 1984, 52, 176, cat. no. 488, T. XXIX:3, with earlier literature.

²³⁹ Oakeshott 1991, 234.

²⁴⁰ Geibig 1991, Kat.-Nr. 97, Taf. 66:1-4.

the sword from the unknown site, now in the private collection, that is dated in the second half of the 12th century²⁴¹ could be ascribed to the group of squat, single-handed swords, which could be understood as the predecessors of Type XIII. Despite these examples, which considering their small quantity could be perhaps best explained as a consequence of the heterogeneity of medieval craftsmanship, the emergence of this subtype as well as its basic type could be dated sometime in the second quarter of the 13th century.

The characteristic example of this type is a sword also from the unknown site in the western Germany with Type H pommel.²⁴² Such blades are rare in comparison with the basic type and particularly Type XIIIa and the same situation is in the southeast Europe where it eventually corresponds only to the blade of a sword from Transylvania (cat. no. 179, Pl. 4:3).

XIIIc

These swords principally correspond to Type XIIIa but they have conspicuously shorter blade in comparison to the two-handed hilt. Such asymmetrical ratio between the length of blade and hilt assumes considerably different handling than for the most other swords. So there is a possibility that these are in fact two-handed swords of regular size whose blades were broken but not in such a way that they could not be adapted for use in this form. However, most of these swords have Type II pommels indicating that they are of related origin or that some had been forged as imitation of the others.

Their proportions reveal that this was a special weapon type held in both hands but it made possible rather swift movements. It seems that these finds reveal sufficient mutual similarities, which could also be chronologically relevant and because of that they are identified in this work as a distinct type. The most typical specimens of this type are the swords from Hungary (cat. nos. 119, 132) and eastern Serbia (cat. nos. 250, 253, Pl. 7:2) and somewhat less pronouncedly squat are the swords also from Hungary (cat. nos. 71, 72, 114).

In addition to the specimens from the southeast Europe (Map 7) six specimens from

²⁴¹ Oakeshott 1991, 91, Nr. 4.

²⁴² Geibig 1991, Kat.-Nr. 182, Taf. 113.

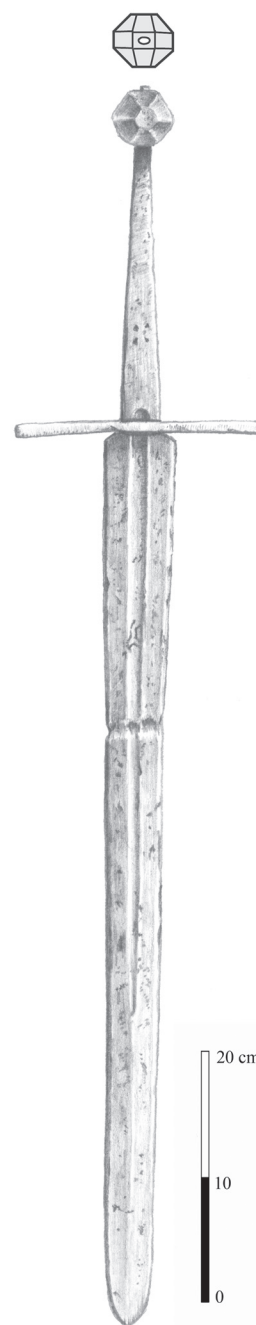
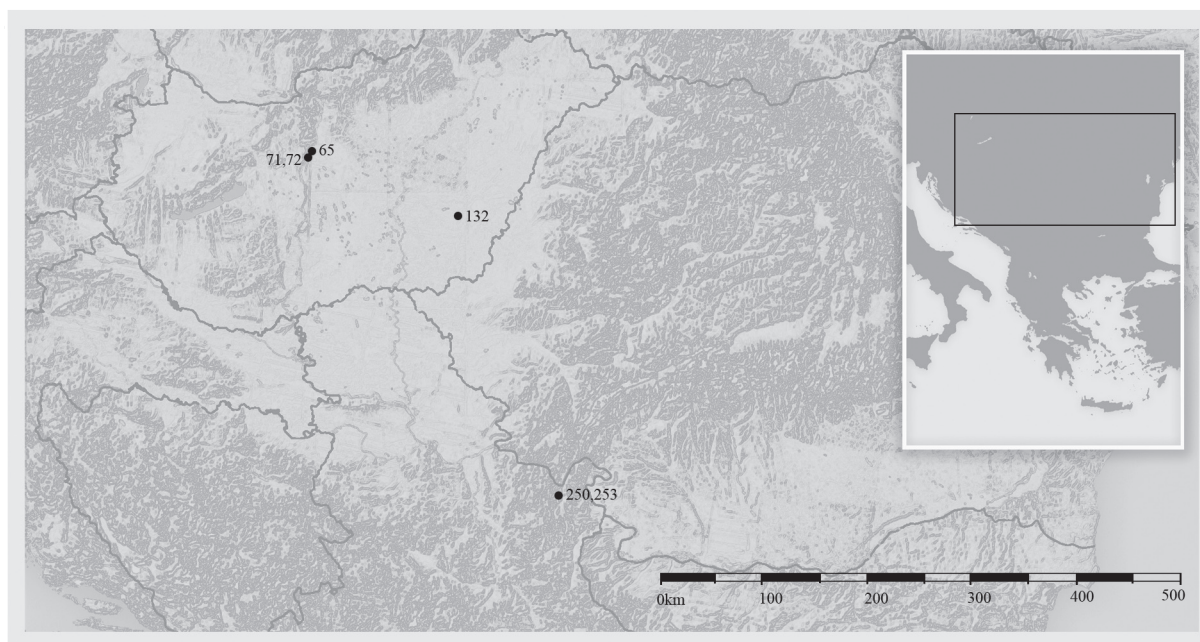


Fig. 26 – Sword from Klokočevac, near Majdanpek, eastern Serbia, cat. no. 250, Type: II, XIIIc, 2.

Poland²⁴³ are also ascribed to this group. Three or four of them also have Type II pommels and four have the variants of cross-guards, which Głosek classified as Type 1b and Type 11a. The Type II pommels as well as pommels of Types G, H1 and T, which also appear on the swords with this blade type, suggest the late 14th and the 15th century.

²⁴³ Głosek 1984, 163, cat. no. 318; Głosek and Nadolski 1970, 31sq, cat. nos. 10, 14, 27, 33, 37. These swords are denoted in the table as well as in the text as numbers from 1' to 6'.



Map 7 – Distribution pattern of Type XIIIc swords in southeast Europe.

Cat. no.	Type of Pommel	Type of cross-guard	Finding place	L	BL	HL	BW	CL	BL/HL
119	I1	1	Unknown site, Museum Budapest	103.5	76.6	26.9	5.4	20.9	2.85
250	I1	2	Vicinity of Majdanpek, E Serbia	100.8	73	27.8	5.6	20.4	2.63
253	G _(oval)	2	Vicinity of Majdanpek, E Serbia	98.8	73.4	25.4	5.4	20.7	2.89
116	I1	1	Unknown site, Museum Budapest	102.8	79.4	32.2	5.4	25.5	2.47
71	I1	1	r. Danube, Museum Budapest	100	78.4	21.6	4.1	22.4	3.63
72	I1	1	r. Danube, Museum Budapest	108	82.1	25.9	4.8	23.6	3.12
114	I1	1	Unknown site, Museum Budapest	113.3	87.3	26	5.6	21.4	3.36
65	H1	1	Site Zuglo, Budapest	111.6	86.5	25.1	5.6	21.7	3.47
132	Z2	12b	Site Belen, Bekes (?), SE Hungary	83	62	21	4.5	?	2.95
1'	T6	1b	Site Szarlej, Central Poland	89.5	67	22.5	5.7	22.2	2.98
2'	I1	11a	Elblag, S Poland	110	81.5	28.5	7.3	26	2.86
3'	G _(oval)	1	Gorzeszów, SW Poland	95	68	27	5	26.5	2.52
4'	I(1)	1b	Krakow-Rakovice III, S Poland	107	83	24	4.7?	22.7	3.46
5'	I1	1b	Vicinity of Łuzki, E Poland	107.5	82.5	25	5.5	23	3.30
6'	I1	1	Nysa, SW Poland	113.4	87	26.4	5.8	20.7	3.30

Table 16 – Dimensions of swords with short blades and two-handed hilts (marked by ' are specimens from Poland not included in the catalogue).

Of the 15th century date is most probably also the sword from Hungary (cat. no. 132) with Type 12b cross-guard that has the blade assumed to be the short variant of the late Type XXb, which we shall discuss later. The cross-guards of Type 1b and 11a with backward bent or thickened ends are the most frequent in the second half of the

15th and in the ensuing century and the earliest dated specimen is a sword from the end of 14th and the beginning of the 15th century.²⁴⁴ All the abovementioned characteristics of the swords of

²⁴⁴ Glosek 1984, 39-40. The cross-guards identified by Glosek as Type 1b were not encountered in the southeast Europe.

this type indicate that they could be generally dated in the end of 14th and the greater part of the 15th century.

The group of swords from Poland is mostly characterized by distinct cross-guards of Type 1b and Type 11a while the more southern specimens from Hungary and eastern Serbia have straight cross-guards of Type 1 or cross-guards with slightly expanded ends that are closer to Type 2. There are among these swords certain specimens of conspicuously similar size (cat. nos. 250, 253 and 119; 65, 114 and 6'; 4' and 5') indicating certain rules in the process of balancing these weapons. Although most of the swords have wide blade with almost parallel edges there are also specimens with clearly narrower blades (cat. nos. 70, 71, 132, 4'). It is interesting that all compared swords, which have the straight cross-guard of uniform length ($CL = 21 \pm 0.7$ cm) have also the uniform shape and width of the blades ($BW = 5.6 \pm 0.2$ cm) (cat. nos. 119, 250, 253, 114, 65, 6'). On the other hand, all specimens with narrower blade have also uniform, somewhat longer cross-guards of Type 1(b) and Type 11a ($CL = 23 \pm 0.7$ cm). So we could conclude for the time being that these swords represent from the typological and metrological point of view rather uniform group and that they date from the end of the 14th and the greater part of the 15th century. It should be mentioned that according to the oral tradition one of these swords (no. 6') belonged to the Polish duke Mikołaj II Opolski, (1465–1497)²⁴⁵ and this does not oppose the dating of this type based on the morphological features of the swords.

XIV

Type XIV blades are generally dated in the final quarter of the 13th and the first four decades of the 14th century. The pommels on the swords with this type of blades are almost exclusively of discoid shape (Type I, rarely Type K).²⁴⁶ They are not very frequent finds in Europe and this is even more so in the southeast Europe where just one specimen was ascribed to this group with certainty (cat. no. 17). It is important to say that this type is difficult to distinguish first of all from Type XVI as well as Type XII.

XV

Although Oakeshott assumed the earliest emergence of these blades already in the end of the 13th century, most of the specimens in Europe date from the 14th and 15th century.²⁴⁷ This type is relatively rare among the finds from the southeast Europe in comparison to its subtype. These are also the earliest late medieval blades with the ridge along the entire length. The ridge along the middle of the entire length of the blade is not an unknown phenomenon on the swords but it is exceptionally rare in the Middle Ages before the appearance of the Type XV blades. This significant innovation could be understood in the wider context of the evolution of the sword, which had more often to overcome in practice the plate armor, which was becoming stronger and more complex.

Heavy two-handed swords of Types XIIa and XVIa could have overcome this obstacle thanks to the destructiveness of its blow while the Type XV swords assumed the different combat technique. The short sword with acute point was ideal for finding the unprotected spots between the plate joints of the plate armor. Slightly smaller dimensions resulted in the appearance of a ridge, which strengthened the sword instead of a fuller, which made the blade lighter. This strengthening was necessary for the acute point, which could easily broke because of small width and extending of ridge along the entire blade made in fact of this weapon just one long, reinforced and acute point. Such blade was also strong enough to damage not so strong armors even with a blow.

Such swords intended primarily for thrusting in the combat against the plate armor and then also cutting of less strong armors assumed entirely different combat tactic than the squat blades, which are best represented as Type XIIIa. This difference in combat technique is best illustrated in the well-known description of the battle of Benevento that is considered as one of the first mentions of two-handed swords in a true sense of the word. This battle between the army of Manfred, king of Sicily (1258–1266) consisting of the German knights and the Sicilians and the French forces lead by Charles of Anjou took place near this south Italian town in Campania in 1266. In

²⁴⁵ Glosek and Nadolski 1970, 43.

²⁴⁶ Oakeshott 1981, 51-53.

²⁴⁷ Oakeshott 1981, 57-59.

the beginning the German heavy armored cavalrymen with their large swords seemed, as recorded by the chronicler, almost invulnerable in the conflict with the French and the Provençals. When it seemed that fortunes of war were finally on the Manfred's side somebody in the French army noticed that Germans while wielding their swords hold them above their heads thus revealing their vulnerable spots at the plate armor joints. The French armed with shorter swords with acute point started to stab the enemies in the unprotected parts shouting 'l'estoc, l'estoc!' (use the point, use the point!) and soon the formation of German knights that looked indestructible started to fall apart.²⁴⁸

It is assumed that German knights used Type XIIIa swords in this battle while for the swords used by the French the type could be assumed with less certainty. Yet, the swords with Type XV blades and similar, which we will discuss later were the most distributed in the south Europe. As an illustration of Type XV could be used the so-called sword from Monza, discovered in the end of 17th or in the beginning of the 18th century in the tomb of Estorre Visconti in the course of restoration of the basilica San Giovanni Battista in Monza.²⁴⁹ Estorre Visconti, member of one of the most prominent families in Lombardy was for a short time before his death the ruler of Milan (1412–1413) so this sword is dated in the beginning of the 15th century. The blade is 70 cm long and 4.9 cm wide while the hilt is 17.5 cm long.

XVa

The XVa blades are generally dated as the basic type but they were more frequently used after the middle of the 14th century.²⁵⁰ The largest number of specimens could be dated around the end of 14th and the first half of the 15th century.

The blade of the sword, which Holy Roman Emperor and Hungarian king Sigismund gave as a gift to herzog Friedrich IV der Streitbare, Elector of Saxony (cat. no. 57) has a ridge

along the middle and on both sides of the ridge runs a fuller slightly longer than the half length of the blade. Of the same shape is the sword blade from the Ljubljana river, Slovenia (cat. no. 379, Pl. 12:1). Both swords have almost identical dimensions and the blade from Ljubljana is around 1.1 cm narrower than the blade of king Sigismund's sword. Such blade shape, with ridge and two fullers on each side is rare. These blades mostly correspond to the Oakeshott Type XVa not only according to the shape and size but also because of the fact that this type has various variants of blade cross-section, i.e. the form of the ridge. On the earlier specimens the ridge is simple and of elongated rhombic section, while on the later specimens the blade cross-section could be like elongated rhomb with more or less concave sides. The cross-section of blades of these two swords should be most probably attributed to the mentioned variant of Type XVa blade.

Oakeshott claims that such blades appeared around the second quarter of the 15th century, perhaps slightly earlier,²⁵¹ and sword of king Sigismund is reliably dated around the year 1425.²⁵² It could be noticed that in that time, around the second and third decade of the 15th century and later, it was in fashion at least for more luxurious specimens as the sword of king Sigismund and sword from Monza to use usually semi elliptical ornamental plating – small plate attached to the middle of the cross-guard.

XVI

Type XVI blades appeared around 1300 as one of the answers to the plate armor, which was becoming stronger and more resistant to blows inflicted by lighter swords. These blades are similar to Type XIV and besides having on average slightly longer hilt the main difference is in the ridge in the lower segment of Type XVI blade. The ridge in the lower segment of the blade could be explained mostly as the prolonged reinforcement of the acute point intended to penetrate between the armor plates.

Although this type is dated in the entire 14th century most of the finds could be dated in the first half of that century although there are also later specimens. These blades are rare in the

²⁴⁸ Oakeshott 1981, 43–44, with historical sources unavailable to me (Primatus, Clericus Parisiensis).

²⁴⁹ Tesoro del Duomo, Monza, north Italy, Boccia and Coelho 1975, fig. 85–91; Boccia, Rossi and Morin, 1980, 192–193, fig. 226.

²⁵⁰ Oakeshott 1981, 59.

²⁵¹ Oakeshott 1981, 58–59, Fig. 30.

²⁵² Glosek 1984, 147.

southeast Europe (cat. nos. 188, 203, 307) and only slightly more frequent in the other parts of the continent. These swords, not without exception, have Type I discoid pommels as is the case with two specimens from the southeast Europe. As one of the earliest specimens of these blades could be mentioned a sword found by chance in the fortification Krchleby, around 10 kilometers to the west of Pardubice, central Czech Republic. This sword has very rare Type O pommel, in fact it is one of only two or three specimens known so far to have such pommels.²⁵³

Generally speaking, Type XVI blades represent the attempt to combine different combat techniques against different types of armors. The ridge was actually an extended reinforcement of the acute point, which made possible successful thrusting. Upper segment of the blade is still wide and massive in contrast for instance to Type XV and that was enough to make possible rather strong cutting blow.

XVIa

Type XVIa blades are together with Type XIIIa blades the most widely distributed late mediaeval two-handed swords and they are in fact the most frequent among the finds from the southeast Europe (around 70 specimens in total). However, there are among them certain specimens for which it could not be claimed with absolute certainty on the basis of the available information. The most of these swords in Europe date from the 14th and the beginning of the 15th century.²⁵⁴

These blades, despite having similar dimensions with Type XIIIa (length and maximum width of the blade and hilt length), because of their smaller weight particularly in the segment closer to the point leave different impression when handling. It could be best explained by the fact that their center of gravity is closer to the cross-guard than on Type XIIIa thus making wielding easier. In other words, these swords had not been the best considering the destructive power of their blows but on the other hand they made possible swifter movements and better maneuvering. The

point was sufficiently acute and light to enable the thrusting blows. Thus, these swords are to a larger or smaller extent the compromise between heavy two-handed swords and lighter types with acute point but in contrast to the basic type their main purpose was to inflict a heavy cutting blow. In addition to Type XIIIa, most of the swords in the southeast Europe from the period around the second half of the 14th century were of this type.

There are also swords with such blades that are later, from around the middle or even second half of the 15th century. They are as a rule of larger size (BL= around 90–100 cm; HL= around 25–30 cm; BW= usually around 5.5 cm or more). Of this kind are for instance the swords with Type H2 pommels from western Serbia and northern Bosnia (cat. nos. 257, 258, Fig. 15, 315) or two swords from Slovakia (cat. nos. 23, 38). As the swords of Type XX and Type XXa could be understood also as the later variant of Type XIIIa blades thus these blades also reveal that Type XVIa blades somewhat more massive than before were parallel with them and were in use during almost the entire 15th century.

XVII

Type XVII blades are dated roughly into the second half of the 14th and the beginning of the 15th century, in the time when plate armor mostly reached its high quality.²⁵⁵ Oakeshott states that these swords were weighing over one kilogram and a half that was actually not much for one two-handed sword but the specimens of narrow and slender shape that were also less heavy are more frequent in the material from the southeast Europe. It seems that these more slender specimens were not so rare also in the other parts of the continent.²⁵⁶ The pommels on the swords with these blades are most often of Type H1 or of some of T Types and this is also the case in the southeast Europe where certain specimens of other types (K1, I1, J2) have also been encountered.

²⁵³ Glosek 1984, 140, cat. no. 31, where the sword is typologically determined in somewhat different way but without influencing its dating. See the chapter about Type O pommels.

²⁵⁴ Oakeshott 1981, 63–65.

²⁵⁵ Oakeshott 1981, 65–66.

²⁵⁶ For instance in Poland, Glosek and Nadolski 1970, cat. nos. 6, 18, 45; Switzerland, Gesler 1928, 143, Taf. 2:6.

XVIII, XVIIIa, XVIIIb, XVIIIc

The blades of all XVIII subtypes are generally dated from the beginning of the 15th to the beginning of the 16th century.²⁵⁷ The subtype XVIIIb is dated even more precisely, in the second half of the 15th and the beginning of the 16th century first of all on the basis of the visual sources and among others the engravings by Albrecht Dürer.²⁵⁸ The subtype XVIIIc is rather rare and the same situation is in the southeast Europe where only one or two such swords were encountered (cat. nos. 260, Pl. 16:3, 309, Pl. 10:2). Similar situation is also with other subtypes. Generally, the finds of all XVIII subtypes are relatively rare throughout Europe and even more so in its southeastern part where they are much more infrequent than even the related types of group XV. The blades of groups XV and XVIII differ only slightly in their shape so the latter could in fact be considered as later variant of group XV. It is often impossible to distinguish them with certainty because of their great similarity especially when the blade was damaged by corrosion or the prolonged sharpening on the whetstone.

The amount of specimens of both groups (groups of Types XV and XVIII) representing all the blades with ridge instead of fuller is incomparably smaller in the southeast Europe than the number of types with fuller (particularly the approximately contemporary Types XIIIa, XVIa, XVII and XXb) and this also indicates the combat techniques prevailing in this area. It is clear that predominant sword types were those intended primarily for cutting and in a second instance for thrusting.

XIX

The largest number of Type XIX blades come from the Alexandria Arsenal and they are today in the museums in Istanbul – Military Museum and Topkapi Museum but there are some specimens in other museums worldwide – London Tower, Royal Ontario Museum, Toronto and in some museums in Spain – Armeria Real, Madrid, Valencia and others. The specimens from Alexandria have the Arabic inscriptions, which were engraved after the swords got to this arsenal and these inscriptions mostly date them to the

first half of the 15th century and later.²⁵⁹ On the other hand, many specimens, some of which belonged to the historical personalities as well as the visual representations in the Iberian Peninsula could be mostly dated in the second half of that century²⁶⁰ indicating that these swords were the most popular in the southwestern part of the continent. They have not been encountered in the southeast of Europe but the specimens of subtype XIXa are characteristic of these regions.

XIXa

There are no swords with Type XIX blades among the finds from the southeast Europe included in this book, while those of Type XIXa on the other hand are not infrequent. Large amount of swords with Type Z3 pommels and Type 12c cross-guards that are classified here in the O family of swords and known also as the schiavonesca swords have such blades (cat. nos. 134, 276, Pl. 17:3, 380). They appeared around the middle or the second half of the 15th century.²⁶¹ Also, some specimens of the swords of P family (pommels of subtypes Z2 and Z4 and cross-guards of Type 13) that appeared in roughly same period or slightly later also have such blades (cat. nos. 280, 282, Pl. 18:2, 18:4, 318). The typological traits of the swords with Type XIXa blades, therefore, indicate that they appeared around the middle of the 15th century.

For most of the swords with such blades from the southeast Europe there is no information about the finding place and it could be noticed for the remaining finds that they are concentrated in the central and western Balkans (cat. nos. 278, 283, 318). Generally speaking, these blades are the characteristic of the south Europe and they are infrequent in other parts of the continent. As they appear on the swords of O family their origin should be most probably sought in the northeastern Italy but they could have possibly also been produced in the eastern Adriatic and in its Balkan hinterland. Thus, their production most probably started in the northeastern Italy, in the Republic of St. Mark, in Venice or in Belluno around the middle of the 15th century.²⁶²

²⁵⁹ Alexander 1985, 83, 87, Nr. 21-23, 49, 63.

²⁶⁰ Oakeshott 1981, 73-74, Pl. 39C.

²⁶¹ See the chapter on the sword family O.

²⁶² More about this in chapter of swords family P.

²⁵⁷ Oakeshott 1981, 68.

²⁵⁸ Oakeshott 1981, 70.

XX

On the basis of certain swords with the blades of this type Oakeshott dated it in the 15th century, mostly in its first half.²⁶³ There are not many specimens of this type in the entire Europe and the same situation is also in the southeast Europe. It is worth mentioning that some lavishly decorated swords from the eastern and south-eastern Europe belong to this type. That is the case with the sword of Stephan the Great (cat. no. 157), the duke of Moldavia (1457–1504) and with luxuriously decorated specimen discovered in the church of the Holy Trinity in Pskov, north-western Russia.²⁶⁴ Still few more swords, which are today in the Topkapi Museum in Istanbul (cat. nos. 158-160) belong to the same group as the sword of Stephan the Great and they probably also originate from Moldavia. Generally, these swords are the later variant of the massive two-handed specimens, which were fullered in a distinct way.

The situation that blades have more than one narrow fuller was not unknown in the earlier period (mostly on Types XIII and XIIIa) but it has become more frequent around the end of the 14th or the beginning of the 15th century. Besides on this type they are most frequent on Type XXb blades. Almost synchronized emergence of these two types of blades having many rather narrow fullers as one of main characteristics could possibly indicate their related origin. As the origin of the swords with Type XX blades suggests their popularity in Moldavia, thus the distribution of Type XXb blades points to the neighboring Hungary (Map 10). The neighboring region of Transylvania, particularly the towns Sibiu, Braşov and Cluj inherited long-lasting tradition of smithery and sword making that was characterized by very frequent grooving of blades in this way. This practice could be noticed on the most probably local sword types from the middle of the 13th century.²⁶⁵ Thus, these circumstances possibly suggest that origin of Type XX and Type XXb blades could be so far sought most probably in Transylvania.

XXb

The blades distinguished in this work as Type XXb were usually identifies as the later specimens of Type XIII(a).²⁶⁶ On the other hand, Marian Głosek denoted these blades as Type XXI²⁶⁷ for the same reasons mentioned here (distinct manner of fullering and the characteristic Type Z pommels and Type 12 cross-guards accompanying them). However, they are classified in this book as Type XXb because Głosek's designation has not been widely accepted in the same way as the blades in the next group are identified as Oakeshott Type XXI. As it was already said these blades could be best understood as the later variant of Type XIIIa but number of fullers indicates that they have certain similarities also with the Type XX blades. These two types are also roughly contemporary date from the 15th century and it is also possible that they have the related origin.

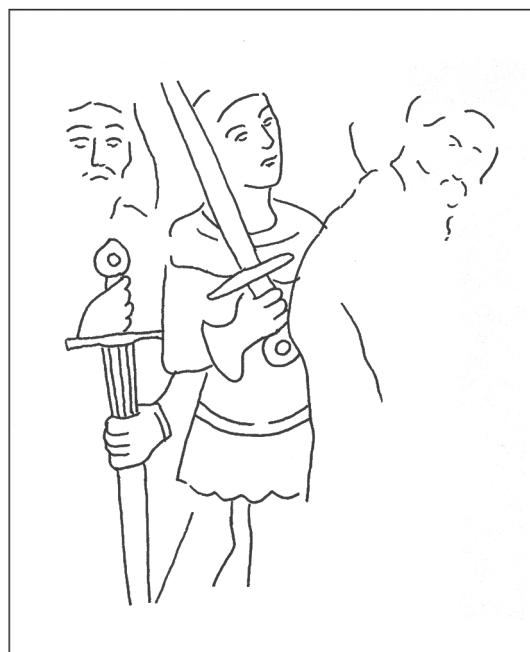


Fig. 27 – Fresco in the church of St. Margaretha in Medias, central Romania, ca. 1420, after Pinter 1989, Fig. 4.

Most of the swords with Type XXb blades have Type Z pommels and Type 12b cross-guards and they belong to the group of swords identified as family N. In addition to the abovementioned uniform typological traits, most of the Type XXb

²⁶³ Oakeshott 1981, 76, Pl. 40A, B, C; 42A.

²⁶⁴ Кирпичников 1966, 56-57, Т. XXVI-1.

²⁶⁵ See the chapter on Type E1 pommels and Type XIII blades.

²⁶⁶ Oakeshott 1991, 234.

²⁶⁷ Głosek 1984, 30.

blades are characterized also by relatively uniform dimensions. They are around 90 (± 2) cm long, 4.5–4.8 cm wide while the hilt length is somewhat less uniform. On the other hand, the dimensions of three swords from the Topkapi Museum in Istanbul that could be assumed to have come from the Hungarian Royal Arsenal (cat. nos. 394–396) considerably differ from other specimens of this group of finds. And while the processional sword is of exceptionally large size for the understandable reasons (cat. no. 395) for other two swords could be concluded that they as most other swords with Type Z pommels that reached the Istanbul museums despite apparent typological similarities still differ to a certain extent from the swords of the same type discovered in the southeast Europe.

The distribution of swords of the family N with Type XXb blades indicates that they had been in use mostly in Hungary and the neighboring regions (Map 10) and there could be also sought the workshops, which produced them.²⁶⁸ For somewhat more precise dating of Type XXb is relevant already mentioned sword with such blade on which is the Arabic inscription (cat. no. 393, Fig. 23) and according to that inscription this sword could be dated in the period before the year 1428.²⁶⁹ Although Type Z pommels and Type 12 cross-guards almost obligatory accompany the blades of Type XXb it is interesting to mention that such blades are extremely rare finds so far in the Balkans, which is otherwise the area with the most densely distributed swords with such pommels and cross-guards (Maps 5, 8). This could restrict the area where they were used to the territory of medieval Hungary considering rather large sample, which we have at our disposal. The uniform typological traits as well as general dimensions of most of the swords with Type XXb blades suggest that certain distinct area and relatively limited time interval of their production could be assumed, i.e. they were most probably produced in Hungary around the first half and the middle of the 15th century.

XXc

These swords are the variant of the previous subtype, they have shorter hilts, for one hand, and the general dimensions are slightly smaller. Many of the swords of this type have the Type Z pommels (Z2 and Z4) and characteristic Type 13 cross-guards and they are classified here as family P. The shape of these blades reveals that they are single-handed variant of the larger swords of Type XXb. Types of their pommels and cross-guards indicate that they are later than the subtype XXb and considering the apparent resemblance between them they could be understood as the derivatives of the subtype XXb blades. The blades of Type XXc are of conspicuously similar size that is after all the characteristic also of other parts of all swords of group P (Table 19). Thus these blades could be dated in the second half of the 15th and the first half of the 16th century.

Typological and metrological resemblances of the swords with Type XXc blades that mostly belong to the family P as well as their distribution suggest that they were produced in the workshops within the restricted territory. This conclusion could actually be applied to all other finds of family P and the area where these workshops should be looked for considering the distribution of finds and commercial traditions in the period when they were produced and used is the territory of the east Adriatic towns and their hinterland in Serbia and Herzegovina and very probably also in Bosnia. Although their production dates from the period of the Turkish rule in the Balkans, Type XXc blades reveal the continuity of traditions, which still arrived from the north in contrast to the cross-guards where the influences from the southeast could also be recognized.²⁷⁰

XXI

When distinguishing Type XXI swords Oakeshott quoted few precisely dated specimens. One is the lavishly decorated sword produced in 1493 for Caesar Borgia (1475–1507) and the other is the sword of Hungarian king Sigismund (cat. no. 126) from 1435 that is also the earliest reliably dated find.²⁷¹ This type of swords is dated from the beginning of the 15th until around the first half of the 16th century.

²⁶⁸ See more about this in the chapter on swords of family N.

²⁶⁹ Royal Ontario Museum, Toronto (inv. Nr. 930.26.45). See the chapter on Type Z pommels.

²⁷⁰ More about this in chapter on family P swords.

²⁷¹ Boccia & Coelho 1975, fig. 95–96; Oakeshott 1981, 77.

XXII

The weapon of this type is actually more a dagger than a sword and few such specimens (cat. nos. 311, 345) have been encountered in the material from the southeast Europe. The exceptionally short swords, which according to their length (BL= up to 50 cm) rather resemble the daggers, well-known *cinquedae* – ‘five fingers’ or ‘oxen tongue’ are classified as this type. This weapon got its name because of its pronouncedly squat almost bizarre shape in contrast to the elegant Renaissance ornaments on many specimens. This weapon, neither sword nor dagger did not have practical purpose but was mostly used as the status symbol around the end of the 15th and in the beginning of the 16th century.²⁷² It was most popular in Italy as it is confirmed by the many preserved specimens in the museums worldwide.²⁷³

The custom of wearing a small sword came into fashion in Venice and Florence in the beginning of the 14th century and promptly spread to the other parts of Italy, to Spain, France, Burgundy and finally to the German towns. This, as also other Italian and not only Italian customs rapidly spread also to the Dalmatian towns and the merchants from these towns traveled and established many colonies in the Balkan towns far in the hinterland. Similar specimens of this or the previous sword type are perhaps hidden in the name *spada picula* mentioned in a will from June 19th 1393 in the Dubrovnik Archive²⁷⁴ or in the name *spadetta* in another will from the same archive from the year 1426.²⁷⁵ Although few in number the distribution of these finds in the southeast Europe could most probably be connected with those merchants who for many centuries ‘crisscrossed’ the Balkans.

²⁷² Oakeshott 1981, 78.

²⁷³ Boccia and Coelho 1975, fig. 184-188, 190-208, 228-233.

²⁷⁴ Test. not. 5, fol. 242'. After Petrović 1976, 24-25.

²⁷⁵ Test. not. 11, fol. 137'. After Petrović 1976, 25.

Chronology of Cross-guards

The cross-guards of Type 1 and subtype 1a differ according to the shape of their ends so the former have slightly tapering ends in contrast to Type 1a with straight ends. But as this difference is insignificant and often imperceptible I did not take it into account in this work. The Type 1 cross-guards were encountered on almost all sword types because of their simple form and in most cases they are not chronologically relevant. They appeared already on the Viking swords and were in constant use until the end of the medieval period. Since their first occurrence their length gradually increased until around the middle of the 13th century although the cross-guards of different length have been produced at the same time. As an evidence for early production of slender and long cross-guards of Type 1 is often quoted already mentioned representation of the sword from the Gospel of German-Roman Emperor Otto III from around 983–991.²⁷⁶ Considering that the hilts longer than those for one hand could not be expected at the end of the 10th century as is also confirmed by this illustration, the length of this cross-guard in proportion to the hilt could not be longer than 17–18 cm. However, the German workshops, which dictated the development in production of most of the new sword types in that period gradually started to forge the cross-guards of a greater length.

The most conspicuous Type 1 cross-guards are those of apparently great length, around 25 cm and longer. It could be concluded on the basis of material from the entire Europe that they were very rare before the end of the 12th century and that they were frequent on the swords during the entire 13th century. This clearly distinguishes them from the earlier specimens but not

so much from the later ones. Thus, in case when it is evident that traits of the other sword parts are not later than this period, such cross-guards could be rather reliable chronological parameter. Alfred Geibig has tried to use the length of these cross-guards as one of the auxiliary criteria for the swords dating. Thus the cross-guards on the 9th century swords has the maximum length of 13–14 cm, during the 10th century the cross-guards are not longer than 16 cm while the maximum length of the cross-guards in the 11th and 12th century was over 20 cm. The cross-guards being up to 28 cm long were encountered at the end of the 12th and in the 13th century.²⁷⁷ These conclusions are confirmed also by large number of finds from the southeast Europe and the most reliable evidence for such long Type 1 cross-guards is provided by the swords with Type N pommels from the first half of the 13th century.²⁷⁸

The Type 1 cross-guards could be curved and although Oakeshott thinks that they had been usually forged as straight and curved later,²⁷⁹ it seems that it was often not the case because the curvature was almost as a rule rather symmetrical and it was much easier to achieve before the cross-guard was attached to the sword. There are among these curved cross-guards some specimens which are also distinguished for their exceptionally large size (cat. nos. 222, 231, Pl. 6:1). When we are discussing these two cross-guards from northern Bulgaria and central Serbia that are exceptionally long and curved it should be said that they are mutually very close in shape. The cross-guard of the sword from the eastern Bulgaria (cat. no. 197, Pl. 5:2) has also the similar outline of the curvature and identical length (19 cm) but it has

²⁷⁶ Staatsbibliothek, Munich, Cod. Lat. 4453; Oakeshott 1981, 83–84, 30, Fig. 8; Vinski, 1983, 28, tab. XV,1.

²⁷⁷ Geibig 1989, 247, note 54; Geibig 1991, 182.

²⁷⁸ See the chapter of this type of pommel.

²⁷⁹ Oakeshott 1981, 115.

also slightly thickened ends and because of that it was attributed to Type 6 (Table 5). Nevertheless, I think that these are the swords with related cross-guards and the same could be assumed also for their blades. These are single-handed swords with slender blades having long and conspicuously narrow fuller and with short but acute point with convex sides. All three swords could be generally dated around the second half of the 12th and the first half of the 13th century and although they have the pommels of different types their related origin, perhaps from some local workshop or group of workshops, could be assumed. Generally, the curved cross-guards were more often used in the south Europe²⁸⁰ but the local provenance is possibly suggested besides the distribution of finds and the characteristic traits also by the form of a blade point that is not unique but it is generally characteristic of the blades revealing the Byzantine tradition in production (blade Type I).

Type 2 cross-guards also date from the extensive time interval but it could be noticed that they are generally rare before the 12th century. This shape corresponds to the cross-guards of Geibig Type 15 that occur on his Combination types 13 II, 15 II and 18, which are not earlier than the 12th century.²⁸¹ There are some exceptions but they are not so numerous and I think not always reliably dated.²⁸² The cross-guards of this type are often of circular or octagonal cross-section and they were most frequently used around second half of the 13th century then they gradually went almost completely out of use and then reappeared somewhat more often on the 15th century swords. Type 3 cross-guards almost do not differ from Type 1 except for their length. Considering that their length is not defined²⁸³ we accepted in this work the maximum length for this type to be around 15 cm. This type is incomparably more infrequent than Type 1 and because also of its simple appearance it is not chronologically relevant and existed throughout the entire medieval period but in much lesser quantity than Type 1. Type 4 cross-guards are not specifically dated

and except the subtype 4a they were not encountered in the material from the southeast Europe. They appear infrequently in the visual sources, for instance, in the fresco depicting St. Mercurius and an unknown Holy Warrior in the Psača monastery, northeastern Macedonia (1365/71).

The cross-guards of subtype 4a are of characteristic shape and because they were encountered just on two swords included in this work (from the Zeta river, Monenegro, cat. no. 284 and from the vicinity of Glamoč, Bosnia, cat. no. 298, Pl. 9:2) and as they are of relatively uniform shape and size I classified them as the distinct subtype. The common characteristic of these two cross-guards besides the morphological traits is that they were used on two swords of distinct and mutually related characteristics, which do not have direct analogies in the so far known material and which provoke certain dilemmas. Straight and slightly curved cross-guards with thickened ends appear generally within very extensive chronological interval, almost during the entire medieval period.²⁸⁴ As the close analogy for the cross-guards of subtype 4a could be mentioned the 9th century sword from southwestern Ireland,²⁸⁵ and very similar is also the cross-guard of the 10th century sword from the unknown site in Germany.²⁸⁶

On the other hand, the shapes identical to those on two swords from the western Balkans are rather frequent in the visual sources, particularly in the miniatures of the 12th – 13th century manuscripts. Few swords depicted in the illustrated copy of the Scylitzes' chronicle originating from Sicily and dating from the 12th century, today in the National Library in Madrid, have the cross-guards of this shape.²⁸⁷ The representations of swords in the scene David and Goliath from the Winchester Bible from around 1170²⁸⁸ or in the Apocalypse from the St. Mathew's school in

²⁸⁰ Kollias 1988, 143-144; Vinski 1983, 33-35, Tab. XIV.

²⁸¹ Geibig 1991, 61-63, 71-72, 75-77, 151.

²⁸² Oakeshott 1991, 34, 37, 39. In the past these swords were dated much later, Oakeshott 1981, pl. 6B, 6C.

²⁸³ Oakeshott 1981, 114.

²⁸⁴ Oakeshott 1981, 112-113; for Byzantium see Kollias 1988, 143-144.

²⁸⁵ Oakeshott 1981, 112, Fig. 90. Askeaton, Limerick.

²⁸⁶ Geibig 1991, Kat.-Nr. 179, Taf. 109. On one side of the blade is inlaid the inscription INGELRIT and on the other an ornament consisting of a network of rhombs and two lines on both sides.

²⁸⁷ Bruhn-Hoffmeyer 1966, 96, Fig. 16-4, 6, 7, 9, 10, 13, 24, 25.

²⁸⁸ Gravett and Hook 2004, 55.

Paris from around 1250²⁸⁹ could be included in this group. The representations of swords with cross-guards of this shape were also encountered in the illustrated texts from Spain dating from this period.²⁹⁰ In the southeast Europe such slightly curved cross-guards are depicted on the short single-handed swords, for example in the fresco of the Holy Warrior from the Sopoćani monastery, southwestern Serbia, from around 1260 and similar specimen was depicted on the icon of St. Procopius from the second half of the 13th century (Fig. 28). Among the swords from the western and northern Europe worth mentioning according to my knowledge is just one more specimen, the cross-guard of a sword from Norway dated around the middle of the 13th century.²⁹¹



Fig. 28 – Detail from the icon of St. Procopius Mount Sinai, the Holy Monastery of St. Catherine, second half of the 13th century.

Taking into account the mentioned examples it could be concluded that this cross-guard shape is so far rather infrequent among the finds particularly in the western Europe in comparison with the quantity of discovered material and that it is rather more frequent in the visual sources, mostly in the south Europe during the 12th – 13th centuries. Such or similar forms of cross-guards have long tradition in the Byzantium and in the south Europe in general, so there could be most probably sought the origin also of our specimens. This assumption could possibly be suggested also by the fact that pommel types of these two swords (R1b, B1) generally indicate or allow the time around the first half of the 12th century. On the other hand, their blades and particularly the inscriptions on them indicate the western European provenance and the time from around the middle of the 10th century to around the middle of the 11th century. Therefore, such dating of all parts of these two swords and accordingly the cross-guards of Type 4a should not be ruled out.

The cross-guards of Types 5 or 6 are not rare on the large knightly swords from the end of 13th to the end of 15th century but they also appear on the earlier specimens. When the straight cross-guards of Types 1 – 3 mainly prevailed in the western Europe during the 11th, 12th and 13th century, it seems that cross-guard forms considerably varied in the southern and eastern Europe. Some of these forms could be attributed to Types 5 and 6 (e.g. cat. nos. 197, Pl. 5:2, 285, Pl. 8:1, 287). It seems that Type 5 cross-guards, which have the cross representation perforated on the ends, were produced around the first half of the 15th century. This is suggested by rather reliably dated sword from the Ljubljana river, central Slovenia²⁹² (cat. no. 379, Pl. 12:1) and by all appearances also by the processional sword of exceptionally large size dated in the first half of that century and today in the museum in Cracow²⁹³ and by the specimen from the Wallace Collection.²⁹⁴ The sword from the Topkapi Museum (cat. no. 395) also has the cross-guard decorated in the same way. It was assumed because of its

²⁸⁹ Bibliothèque Nationale, Paris, M.S.G. 403, fol. I., Oakeshott 1981, 88, Fig. 54.

²⁹⁰ Manuscripts from Catalonia, e.g. *Liber Feudorum Maior* (end of the 12th c.) or *Biblia de Monasterio de Santa María de Ripoll* (beginning of the 11th c.); Cirlot 1978, 43-52, Foto XIII, XIV, XVII, XVIII, Fig. 6, 7.

²⁹¹ Oakeshott 1981, 88, Fig. 53, river Gudbrandsdal, Norway, Maidstone Museum, south England. Sword has the pommel of transitional Type B/N.

²⁹² See the chapter on chronology of the Type G pommels.

²⁹³ Glosek 1984, 166, cat. no. 357, T. XXXV:7. Type: XVib, H, 5; L= 160.6; CL= 38.8; BW= 8.6.

²⁹⁴ "Shrewsbury Sword", Wallace Collection (A.645), Oakeshott 1981, pl. 26C, 27A.

enormous dimensions that it was a processional sword.²⁹⁵

The form of Type 6 cross-guards could be recognized even on some swords of the Viking tradition²⁹⁶ where they are still short and stout and in fact do not correspond to the shape defined by Oakeshott. They reached their greatest popularity in the 13th and particularly in the 14th and 15th century when they were of rather slender appearance. It seems, however that short but more slender forms were known in the southern Europe even before that time (cat. no. 285, Pl. 8:1). As an example could be taken also two swords with even shorter cross-guards (CL= 12.5 and 13.3 cm) from the wider surroundings of Saint Petersburg, northern Russia, from the 12th century.²⁹⁷ The shape that would be widely accepted sometime later was encountered on the swords ascribed to St. Mauritius in Turin.²⁹⁸ It could be concluded on the basis of all mentioned above that Type 5 cross-guards and its curved variant of Type 6 had been produced almost during the entire medieval period but certain variants of shape and size could be somewhat more precisely dated.

Type 7 cross-guards are morphologically the broad variant of curved Type 1 that is almost impossible to distinguish in the photographs and most of the drawings. They have been very rarely distinguished also by other scholars indicating that they are infrequent finds in the other parts of the continent as well. Types 8, 9, 10 and 11 characterized by distinctive triangular reinforcement in the middle, *écussion*, are not among the swords studied in this work. On the other hand, the cross-guards identified by Oakeshott as Type 12 are of the shape, which was most widely used just in this part of Europe.

Type 12 cross-guards are of characteristic shape with arms more or less sharply horizontally bent in the opposite directions. Considering certain morphological differences between them that are characteristic of distinct shapes, I classified them in three basic subtypes. Oakeshott pointed

out that these cross-guards appear most often on the swords together with Type Z pommels, mostly in Venice and Hungary.²⁹⁹ Głosek also noticed this connection in the material he gathered mostly from the area of medieval Hungary and the neighboring regions and he distinguished the group of swords with Type Z pommels, Type 12 cross-guards and blades, which he identified as Type XXI but which correspond to the Type XXb as defined in this work.³⁰⁰

When we are speaking about swords with cross-guards of this type the first conclusion begging to be made is that they occur almost as a rule together with Type Z pommels. The exceptions are mainly the 15th century swords mostly with Type T or V pommels (cat. nos. 271, 309, Pl. 10:2, 340) and also the diverse variations of single-handed swords from the end of that century that, however, reflect first of all the later popularity of these cross-guards. The square pommels of Type Z were widely produced in the southeast Europe during the second half of the 14th and in the 15th century. Also, most of these pommels were encountered in the southeast Europe on the swords with Type 12 cross-guards and that speaks about clear connection of S cross-guards and square Type Z pommels.

If we were trying to establish the relative chronological relationship between the subtypes of S cross-guards we could start from the fact that those of subtype 12c, which are mutually rather similar appear almost exclusively on the swords with Type XIXa blades and Type Z3 pommels. I identified them as family O and these swords are known as spade *schiavenesche* in the Venetian historical sources.³⁰¹ These swords are dated around the second half of the 15th century and the well-known *schiafona* swords evolved from them sometime later.³⁰² In contrast to them, the subtypes 12a and 12b appear on somewhat earlier swords most of which belong to the family N or to the related specimens (Table 17). And while large number of the *schiavenesche* swords of the

²⁹⁵ L= 270 cm; BL= 205 cm; BW= 9.9 cm; Alexander 1987, 22.

²⁹⁶ For example the swords of Kirpichnikov Type II, Кирпичников 1966, 53-54, T. XXV:1.

²⁹⁷ Кирпичников 1966, 86-88, T. XXVII:2, 3.

²⁹⁸ Armeria Reale, Torino, Boccia and Coelho 1975, fig. 18, 19.

²⁹⁹ Oakeshott 1981, 118.

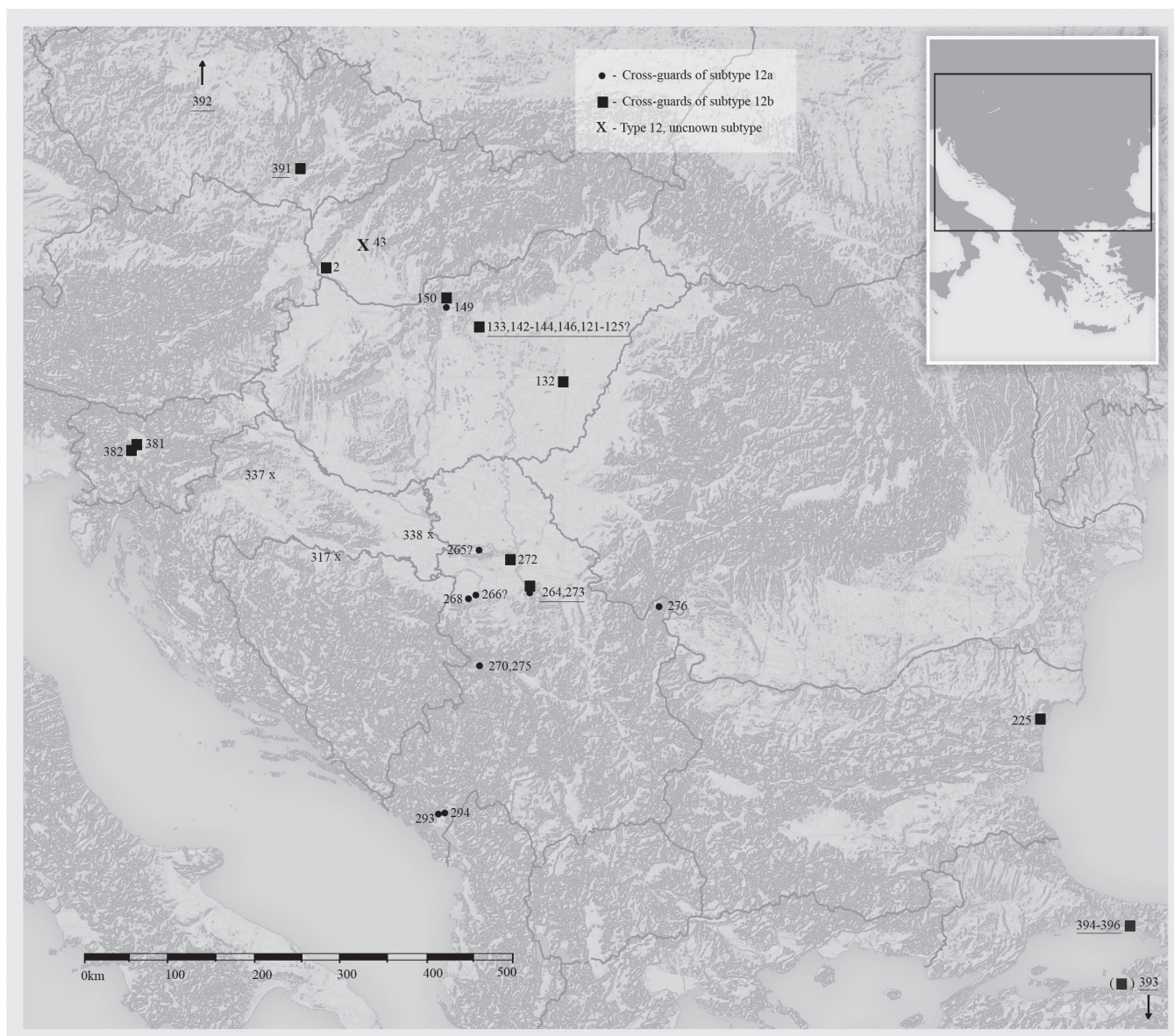
³⁰⁰ Głosek 1984, 30. These swords are identified as family N in this work. See the chapter on the families of swords.

³⁰¹ For example in the list (inventory) of weapons in the arsenal of the Doge's Palace in Venice from 1548, Franzoi 1990, 232-233.

³⁰² See the chapter on family O swords.

family O comes from the Arsenal of the Doge's Palace in Venice,³⁰³ the specimens with the 12a and 12b cross-guards are generally most frequent in the western Balkans and in the medieval Hungary. Actually, the largest quantity of nowadays known finds of 12b cross-guards, which are one of the basic traits of the group N swords, originate from Hungary while the swords with 12a cross-guards mostly come from Serbia (Map 8).

identified as family N (Z(2b), XXb, 12b). The sword from the Royal Ontario Museum, Toronto (cat. no. 393, Fig. 23) that also has Type XXb blade with the Arabic inscription which dates it in the first quarter of the 15th century, differs a little from the family N specimens because its pommel is of subtype Z2c and even more because its cross-guard is of the subtype 12a. Almost all swords with Type XXb blades and Type 12 cross-



Map 8 – Distribution pattern of swords with subtypes 12a and 12b cross-guards in southeast Europe. Underlined are museum locations housing the swords from unknown sites.

The cross-guards of subtype 12b are one of the main characteristics of the group of swords

³⁰³ Boccia and Coelho 1975, fig. 165-167; Franzoi 1990, 85-86, cat. 144-149. Some specimens of these swords are also in the Military Museum, Istanbul, Alexander 1987, 23-24, cat. 87-93. See also the Table 18.

guards known to me have the cross-guards of subtype 12b so this sword could be considered as the rare exception.³⁰⁴ Still, this cross-guard also has

³⁰⁴ The exception is also the sword from the northern suburb of Budapest (cat. no. 78) with Type XXb blade and cross-guard of subtype 12c.

certain similarities with the subtype 12b (evenly expanded ends, it is curved in symmetrical horizontal plane and both arms are fully symmetrical) that together with the blade type and pommel subtype suggest its related provenance with the specimens of subtype 12b. It indicates that it was forged, as well as the complete sword, in the same group of workshops, which produced the swords of the family N. This could indicate that this sword was made shortly before the appearance of 12b cross-guards or perhaps during the assumed interval of their simultaneous production. In that case, the largest quantity of the cross-guards of subtype 12a could be dated around the final quarter of the 14th and the beginning of the 15th century and those of subtype 12b could be generally dated in the first half and the middle of the 15th century.

Such dating of the swords with these cross-guards is suggested in addition to the other typological traits of the swords also by the fact that from the morphological point of view they represent the predecessors of the cross-guards of subtype 12c, i.e. the stage in the evolution of the S cross-guards that directly precedes them. In other words, it is obvious on the basis of the collected material that 12c cross-guards on the swords of the family O represent one of the final phases in the evolution of the S cross-guards. They are preceded by the cross-guards of subtypes 12a and 12b and the former ones are most probably earlier, i.e. they represent the earliest shape of these cross-guards. Considering that the swords with cross-guards of subtype 12c were the most popular in the southwest, i.e. in the Adriatic and those of subtype 12b in the north, i.e. in Hungary, this relative chronological sequence must be taken conditionally and with assumption about partially synchronous use of these subtypes of cross-guards in the different but generally adjacent areas.

While analyzing the Type 12 cross-guards, which I had the opportunity to examine personally (cat. nos. 264, 267, Pl. 17:1, 269, Pl. 17:4, 272, Pl. 7:4, 273, Pl. 17:2, 276, Pl. 17:3) I noticed that they are horizontally curved almost as a rule in the opposite clockwise direction when the sword is looked at from the pommel towards the

point.³⁰⁵ The single exception is the sword from an unknown site (cat. no. 269, Pl. 17:4) with the cross-guard curved in the opposite direction. The rare visual representations of these cross-guards (Fig. 29) are also curved in the opposite clockwise direction³⁰⁶ and that could indicate their specially determined role.

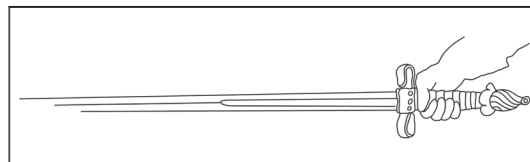


Fig. 29 – Painting of St. John, Esztergom, Hungary around 1480, after Glosek 1984.

Still another distinction of these cross-guards could explain their possible role in combat. The conspicuously large quantity of Type 12 cross-guards is broken. The broken cross-guards are very rare on the medieval swords as they are the segments of sword that sustained little pressure in the battle and also because of their sufficiently compact shape they were not prone to breaking so they are usually the least damaged parts of the swords. Of only thirteen broken cross-guards of swords, which are studied in this work four (cat. nos. 2, 269, Pl. 17:4, 275, Pl. 7:1, 392) or five (cat. no. 43)³⁰⁷ are of Type 12 and to this group could also be added a saber with broken cross-guard of this type from the Hungarian National Museum in Budapest.³⁰⁸ Out of remaining eight broken cross-guards two are of Type 13 (cat. nos. 278, 281) and four of Type 1 (cat. nos. 9, 24, 28, 179, Pl. 4:3) of those specimens, which are dating from around first half of the 13th century when they reached their greatest length in

³⁰⁵ In order to confirm this it is necessary to examine the sword because the photograph could be developed from the opposite side and thus the direction of curving could be different.

³⁰⁶ Glosek 1984, Ryc. 6, Ryc. 8. The exceptions could be concerning the left-handed warriors.

³⁰⁷ I did not have the drawing nor the photograph of this sword from Slovakia but unusually small published length of the cross-guard (14 cm) could mean either that it is the subtype 12c or the subtype 12b but broken. As the blade of this sword is of Type XXb more probable is the second possibility.

³⁰⁸ Nagy 1898, 228, T. II:2.

comparison to the general size of the hilt. All the above mentioned cross-guards of Type 12 belong to the subtypes 12a and 12b and they have one arm broken off. This fact could indicate at first glance rather poor quality of manufacture but there are no concrete reasons for such assumption as they are usually well forged specimens and the proportion of finds with broken blade or hilt is not higher than for other types.

The precisely determined direction of the curvature of Type 12 cross-guards and conspicuously large percentage of the damaged specimens suggest the conclusion that cross-guards served the distinct purpose in combat. This purpose could be to push aside for a moment the blade of the opponent's weapon or to ensnare the opponent's weapon in the curved arm thus getting enough time to deliver a blow. When parrying the opponent's blow his blade was expected to slide to the cross-guard whose main role was in fact to protect the hand in that moment. The S shaped cross-guard made possible in that very moment to brush aside the opponent's blade or to hold it for a while to have enough time to deliver a blow.

Considering that the saber is much lighter weapon than the double-handed sword it makes possible quicker maneuvering, brandishing and delivering the blows. Thus the warrior with saber had enough time to deliver the blow, brandish the saber once again and deliver another blow and such situation imposed the defensive role to the warrior with heavy sword, which was primarily intended for the offensive attacks. These cross-guards made possible 'catching' of the opponent's weapon and holding it for some time that was enough to deliver the blow. It was easiest to execute such a maneuver against the blade of a saber particularly the Turkish type of saber with expanded upper third of the blade that had been in use in the 14th and 15th century.

Except for the fact that saber blade was lighter than the blade of two-handed swords the curved blade with extended upper segment was 'suitable' to get jammed in the curves of the S cross-guards. The introduction of this technique in the sword combat seems to be logical considering the apparent advantages of the saber over the heavy sword and this among other things contributed in its giving way in the course of time to

the types of lighter swords or sabers. The popularity that the saber achieved also in the Christian armies of the southeast Europe is confirmed by relatively numerous finds of the specimens with Type Z pommels and Type 12b cross-guards in the south Hungary³⁰⁹ as well as by the visual representations of the sabers with straight cross-guards and discoid pommels in the frescoes in the northern Balkans.³¹⁰ In fact, it could be assumed that the type of Turkish saber reached Hungary most probably via Serbia.

It seems logical to assume that this technique, but somewhat simpler, was initially practiced with the swords having the straight cross-guard but the idea appeared at a certain moment to curve the cross-guard in order to make this fighting maneuver more successful. The deformation and subsequent reshaping of the cross-guards was not an infrequent practice in the Middle Ages.³¹¹ Just for the cross-guards of Type 12a could be assumed that they had been curved in such a way and it is suggested besides their simple shape also by the heterogeneity of their curvatures. Some cross-guards were symmetrically and moderately curved (e.g. cat. no. 275, Pl. 7:1), some were curved not in the regular horizontal plane but their arms were slightly turned upwards or downwards (e.g. cat. no. 268, Pl. 6:2) and some were sharply bent at almost right angle (e.g. cat. no. 293, Pl. 8:3). In any case, it could be concluded that cross-guards of Type 12a in contrast to Types 12b and 12c do not represent morphologically restricted group but almost every specimen is different thus indicating the possibility that some of them had been curved by the owners themselves. This situation could also suggest the conclusion that Type 12a cross-guards represent the earliest phase of the S cross-guards. In the course of improvement and expansion of this fighting technique the local blacksmiths started to adapt to the needs of their customers and when their production had been taken on by the large workshops (first of all those producing also Type XXb blades in Hungary) it

³⁰⁹ Nagy 1898, 226-228, T. I:1, II: 2,4; Csillag 1971, 36, cat. 28, 34; Kalmar 1971, 71-72, kép. 125; Demo 1983/4, 231-232, T. 2:3, 4:4; Kovač 2003, 30, cat. 31. All quoted sabers could be dated in the 15th century.

³¹⁰ Петровић 1977, 134, сл. 26. Monastery Manasija, fresco Holy Warrior Nikita, central Serbia, 1407 -1418.

³¹¹ Oakeshott 1981, 115.

resulted in appearance of morphologically more uniform shapes of Type 12b.

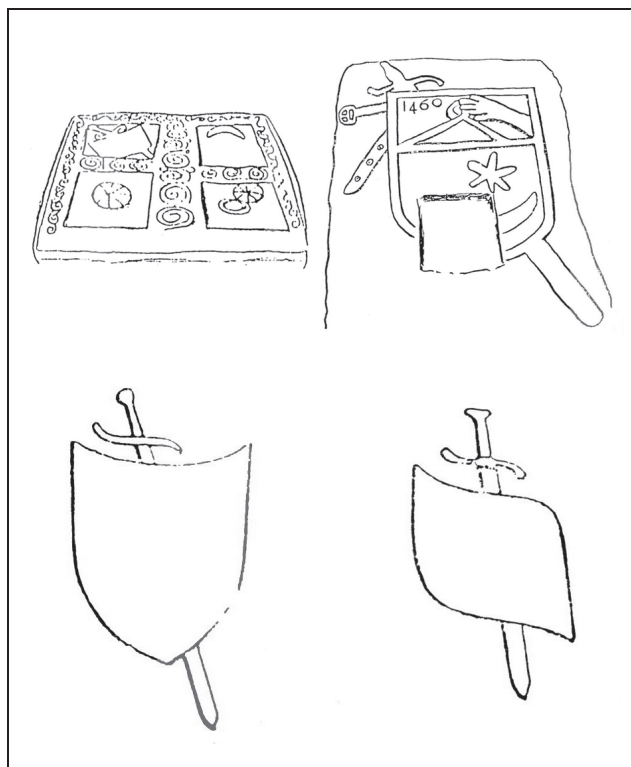


Fig. 30 – Representations of swords with S-shaped cross-guards on central Balkan tombstones, *stećci*, 15th century: a – site Ledinac, Lištica near Mostar, western Herzegovina; b – Nisko near Split, central Dalmatia; c, d – Podgora near Makarska, central Dalmatia. After Божанић-Бежић 1966a; Wenzel 1965; Wenzel 1966.

Two finds from the Serbian Danube valley and the Sava valley (cat. nos. 265, 266, Pl. 6:4) perhaps bear witness to the circumstances of expansion of the assumed fighting technique. Both swords have the pommels of subtype Z2c, Type XVIa blades and Type 6 cross-guards of almost identical length (22 cm and 22.7 cm). Nevertheless, I noticed while examining these swords that the cross-guards have, looking from above, conspicuously irregular, wavy shape. Such a shape is not only unknown among other specimens and has no justification in usage and aesthetics of the sword but due to its irregularity it stands out from the solid manufacture of other sword parts. This, it seems, clearly indicates that the cross-guards had been deformed after their manufacture. It seems that this phenomenon could be best explained by assuming that these cross-guards had been horizontally curved at one time, most probably in the letter S shape (Type 12) and that

they were subsequently straighten into the initial shape. This assumption is supported by the fact that all other swords with pommels of subtype Z2c also have Type XVIa blades and most often Type 6 cross-guards and not a single Type 12 specimen and that all of them are of roughly uniform dimensions (Table 14). The actual historical circumstances, which resulted in curving and re-straightening of the cross-guards could be diverse but if this assumption is correct it is most probable that swords changed owners at least once and some owners used the S cross-guards and others did not.

Typological traits of the swords with Type 12a cross-guards also generally indicate the period around second half of the 14th – first half of the 15th century. There are no among them the specimens with characteristic Type XXb blades, which very often occur together with Type 12b cross-guards while the pommels are mostly of Types Z2 and Z3.³¹² If we, thus, try to establish the relative chronological relations between the cross-guards of the S subtypes then we could assume that subtype 12a is the earliest, then comes the subtype 12b and the subtype 12c is the latest. The 12c cross-guards appear on the swords of family O and they date from around the second half of the 15th century, the 12b cross-guards are by far the most frequent on the swords of the family N dating from around the first half and middle of the 15th century, while the 12a cross-guards are even earlier although it should not be ruled out that these shapes have been simultaneously used for the certain period of time. Considering that all these swords, which have besides the S variants of Type 12 cross-guards also the variants of square Type Z pommels they could be understood also as different phases in the evolution of a distinct weapon type. This assumption is supported by the fact that most of these finds come from the relatively restricted territory.

³¹² See the chapters on the chronology of these types of pommels and blades and on the swords of family N. Besides the already mentioned sword from museum in Toronto (cat. no. 393, Fig. 23), the exception of this rule could eventually also be the sword from river Zeta in Monenegro (cat. no. 293, Pl. 8:3) with pommel of type Z2, cross-guard of type 12a and blade of type XVIa. But this blade has two fullers on each side which is characteristic of type XXb blades. Anyway, dimensions of this blade, as well as its silhouette does not correspond to the Type XXb blades.

The time of emergence of the S cross-guards could be roughly determined as the period around the second half or end of the 14th century and the beginning of the 15th century. At that time the Balkan Christian armies mostly armed with the large knightly sword were more and more often engaged in conflicts with the Turkish army armed with the sabers. The Turks as also some other nomads before them have initially participated as mercenaries in the conflicts of the local states in the southeast Europe first of all as light equipped cavalry. Since their first settling in Gallipoli in the European continent in 1354 the Turks started their permanent advancing and conquering in the Balkans. Seventeen years later they defeated the Christian army lead by the Serbian despot Uglješa on the Maritsa river and in 1389 they also defeated the Serbian army lead by knez Lazar in Kosovo. This period, which lasted for almost half a century was filled with the series of skirmishes and clashes with the different results. The more intensive conflicts and attacks continued until the 1402 and the battle of Angora when rather short period of around two decades of peace ensued because of the problems Turkey encountered after the defeat inflicted by the Mongols. It seems most probable that production of the Type 12 cross-guards commenced in this interval of around half a century and mostly in its second half.

On the basis of some other historical data this time could be possibly determined even more precisely. The term *spada schiavonesca* in the Italian historical sources³¹³ relates to the swords distinguished here as the family O and which according to the evidence we have today did not appear before the mid 15th century.

However, the earliest nowadays known reference to the *schiavonesca* sword dating from the year 1391 could be found in the Dubrovnik archive. In the will of the blacksmith Dobrič Bunisalić two swords are mentioned among his property as ‘... doe spade schiavonesche.’³¹⁴ It could not be perceived from this information how these swords looked like but considering rather apparent morphological connection and continuity between the later *schiavonesche* swords (family O) and the earlier types with Type 12

cross-guards it could be assumed that main characteristic of this weapon was also the horizontally curved cross-guard and square pommel. Bearing in mind the obvious typological connections between the swords of families N and O it could be expected that these swords of the family N shape or related specimens had also been known under this name in earlier times.

The connections between Dubrovnik and Venice were very strong during the entire medieval period so there is no doubt that the term ‘spade schiavonesche’ could have easily been transferred from one town to the other. On the basis of the chronological continuity of the sword types with horizontally curved cross-guard and square pommel, the information from the year 1391 could be understood as an indirect evidence for the existence of swords with these traits in the final decades of the 14th century.

On the basis of data mentioned so far it could be assumed that Type 12a cross-guards were the earliest variant of this shape and the possibility that historical data from the Dubrovnik archive from the end of the 14th century relates to the swords with such cross-guards seems rather plausible. The fact that two *schiavonesche* swords are mentioned in a will as the inheritance of a blacksmith indicates that they had been forged at least few years earlier. The distribution of the 12a cross-guards points to the western Balkans, i.e. Serbia while the cross-guards of subtype 12b are almost not encountered in this region. They are, however, conspicuously frequent in the territory of medieval Hungary while on the other hand the swords with 12a cross-guards are exceptionally rare finds there (Map 8).

The swords known as *schiavonesche* and *schiavone* got their name after the Slavs from the eastern coast of the Adriatic who used such swords in the Venetian service.³¹⁵ In the medieval Dubrovnik written sources the term ‘Sclavonia’ relates to Serbia that was the almost only neighbor of the city of St. Blasius from the 7th century until 1321. The connections between Dubrovnik and Serbian rulers as well as common people remained strong and almost daily also in the ensuing decades. In the Dubrovnik archive there is a clear distinction, for example, between the

³¹³ Franzoi 1990, 232-233.

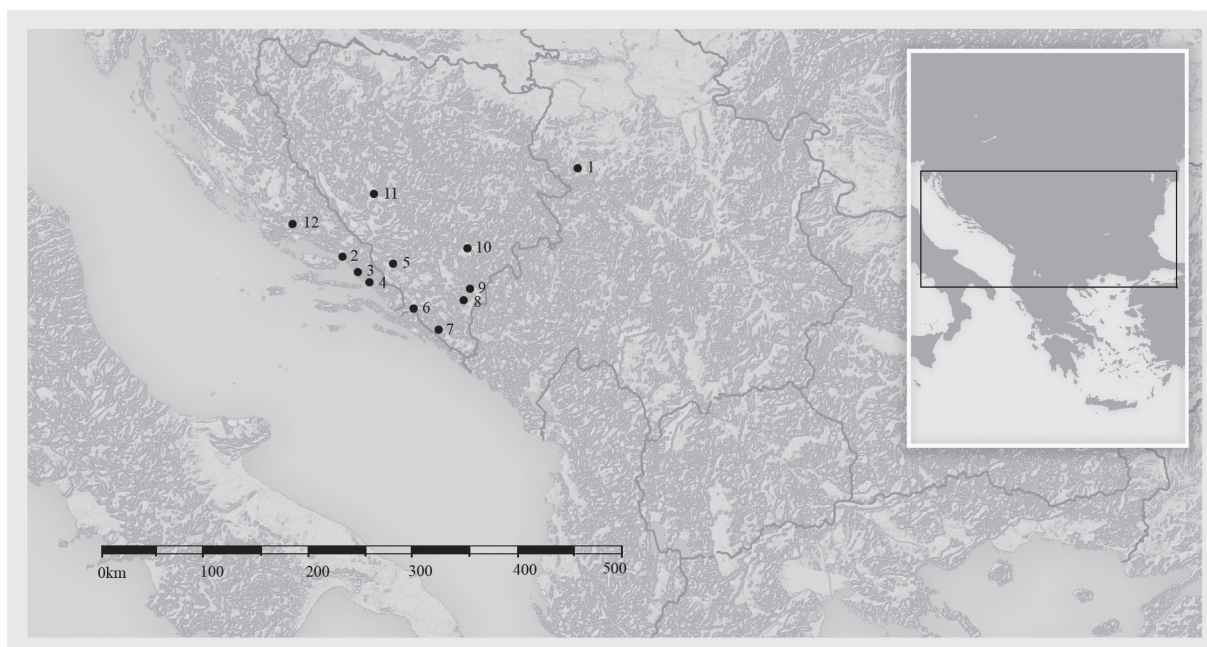
³¹⁴ Testamenta notariae 8, fol. 2. After Petrović 1976, 25.

³¹⁵ Franzoi 1990, 29.

historical and also modern region of Slavonia in the south Hungary, present-day northern Croatia that was called 'Slovigna, Slovinia' and the term 'Sclavonia' meaning the territory of Serbia.³¹⁶ In the assumed time of occurrence of the first horizontally curved cross-guards of subtype 12a and that would be most probably around the final decades of the 14th century Serbia was in full swing of the conflict with the Turks that culminated in the battles in 1371 and 1389 that were in fact the strongest resistance of the Balkan states to the Turkish conquests. An intensive and long-lasting process of emigration to the remaining parts of the Serbian state in the north and west but also to a considerable degree to the neighboring re-

with the Turks where they were in the Venetian and Austrian service as border guards.

These migrations of the people from the western Balkans that in the Pannonia plain in the north and on the Adriatic coast in the southwest had primarily the role in the battles against the Turks could as it seems be an explanation for the appearance and production of the family N swords in Hungary and family O in Venice. There, in large workshops its production become much more typologically uniform (swords families N and O). The information from the Dubrovnik archive indicates that this weapon was called the *spada schiavonesca* almost from the time of its appearance.³¹⁷



Map 9 – Necropolises of central Balkan tombstones, stećci with representations of swords with S-shaped cross-guards.

1 – v. Bobova near Valjevo, site Rimsko groblje; 2 – v. Donja brella near Makarska (5 representations); 3 – v. Tučepi near Makarska; 4 – v. Podgora near Makarska, site Groblje (2 representations, Fig. 30c, 30d); 5 – v. Lištica near Mostar, site Ledinac (Fig. 30a); 6 – Popovo polje, site Prapatnica; 7 – v. Žakovo near Trebinje (2 representations); 8 – v. Ključ near Gacko, site Crkvina; 9 – Gacko, site Sredevići; 10 – Kalinovik, site Gornje bare; 11 – v. Ravno near Kupres, site Ravanjska vrata; 12 – v. Nisko near Split (Fig. 30b). After Божанић-Безић 1966a; Wenzel 1965; Wenzel 1966.

gions, first of all the south Hungary and Dalmatia started after these defeats. The Serbian population in Hungary was very active in defending the south frontier in the ensuing one and a half century while in northern Dalmatia they were also settled in the greatest number along the border

Type 13 cross-guards appear in the south-east Europe, more precisely in the western Balkans, exclusively on the swords with Type Z pommels and mostly on the swords of the family P. There will be more details about the dating of these specimens in the corresponding chapters

³¹⁶ Динић 1966, 27-28, with examples from the Dubrovnik archive and other documents.

³¹⁷ More about origin and distribution of this weapon see the chapter on sword families N and O.

but it is important to emphasize here that the traits of the family P swords (Z2b/Z4, XIXa/XXc, 13) suggest the period of the second half of the 15th century and later. There are, however, also rare specimens of the swords with Type 13 cross-guards that because of their traits could not be ascribed to this group of finds but they are slightly earlier. These are the finds from the Zeta river near Podgorica (cat. nos. 290, 292, Pl. 8:2) that are of slightly larger size than all other specimens of the family P. Still, as these are the sole examples of the Type 13 cross-guards that do not belong to this group it is reasonable to assume that they should not be much earlier. It is confirmed also by their typological traits, which generally indicate the period around the first half of the 15th century although they do not offer the ground for the precise chronological determination. This is the period when most probably should be dated the appearance of Type 13 cross-guards in the southeast Europe that have been in use for a very long time after this date.

Of the total of ten Type 13 cross-guards from the southeast Europe eight of them were encountered on the swords of family P.³¹⁸ All the swords of group P reveal besides typological also pronounced metrological similarity in the dimensions of all their parts including the cross-guards (Table 19). Thus, all Type 13 cross-guards, dimensions of which are known to me, are of almost identical length (CL= 10-10.3 cm). The length of the straightened cross-guard of this type is 18 cm as it is confirmed by the find from the Military Museum in Belgrade. The swords of family P have been most probably forged in the western Balkan workshops³¹⁹ and as all their parts are obviously of the same origin this also applies to the Type 13 cross-guards.

Even though the swords of family P could be mostly recognized as the 'endemic' kind of swords of the western Balkans, the cross-guards clearly curved towards the blade appear during almost the entire medieval period because of their rather simple and predictable shape. As somewhat closer analogies from the 15th century, the

period when the Balkan swords had been forged, could be mentioned the sword from an unknown site in Poland, today in the Kulturhistorisches Museum, Stralsund, northeastern Germany,³²⁰ specimen from the vicinity of Slupsk, northern Poland³²¹ and the sword from the unknown site now in the National Museum in Copenhagen.³²² These above mentioned swords are large knightly swords and they do not have direct analogies with the swords of the family P. In addition to being very similar to each other, the specimens of this group are characterized by the pronounced curvature resembling almost the horse-shoe shape on the later specimens and they also have discreetly decorated ends with ring-like or globular protuberances.

³¹⁸ The cross-guard of the sword of the family P from the unknown site and now in the Military Museum in Belgrade (cat. no. 282, Pl. 18:4) is straight but I think that it once was also curved and then subsequently straightened.

³¹⁹ See the chapter on this family of swords.

³²⁰ Glosek, 1984, 155, cat. no. 224, T. XXXV,2. Type: T4, XVIIIb. The arms of the cross-guard are expanded.

³²¹ Glosek and Nadolski 1970, 50, cat. no. 56, T. XVIII,1; Type: T3, XVIa. One arm of the cross-guard is broken.

³²² Bruhn-Hoffmeyer 1954, cat. no. Va, 5, pl. XXXVIII,d; Type: ?, XVIa/XXb.

Sword Families in the Southeast Europe

Family N

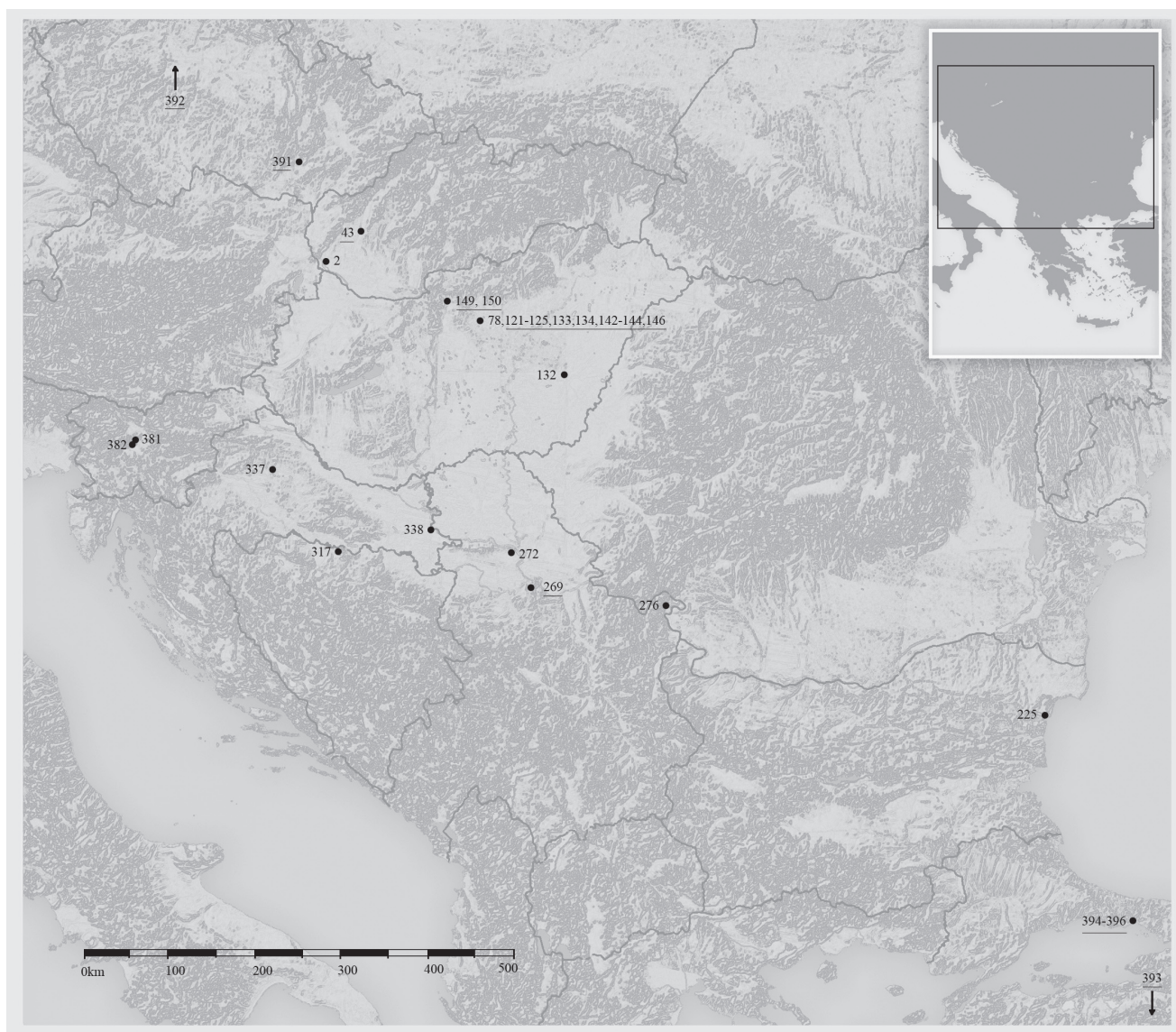
These swords generally belong to the group with square Type Z pommels and the S cross-guards of Type 12. Actually, most of them has the pommels of subtype Z2b, Type XXb blades and cross-guards of subtype 12b but considering that there are also very similar specimens, which sometimes do not have just one of these traits (e.g. Type XIIIa blade or pommel of some other subtype of Type Z) they are also studied here together with the above mentioned specimens (Table 17). Although these hand-and-a-half and two-handed swords have been identified earlier when they were mostly called ‘Venetian’ or sometimes ‘Hungarian’ swords, Marian Głosek defined these weapons more precisely from typological point of view. He denoted them as Z, XXI, 12 (but Type XXI blade corresponds to the Type XXb in this work) and also assumed their Venetian provenance.¹

The cross-guards of subtype 12b as one of the essential characteristics of this group of finds are generally dated in the 15th century. The pommel shapes of this group of swords reveal somewhat greater diversity. By far the most frequent is the shape Z2b and there are also the subtypes Z1, Z2 and Z3. The blades of Type XXb suggest the time around the first half and the middle of the 15th century. The reasons for such dating are explained in the relevant chapter and one of the illustrative examples is the sword from the Royal Ontario Museum, Toronto (Fig. 23) with such blade that is according to the inscription on the blade dated in the first quarter of the 15th century. Given that the Type XXb blades are mutually similar and that they are usually accompanied with very similar shapes of pommels and cross-



Fig. 31 – Sword from Unknown Site, Hungary, cat. no. 146, Type: Z1, XXb, 12b. Without scale.

¹ Głosek 1984, 30.



Map 10 – Distribution pattern of family N swords and related specimens in the southeast Europe. Underlined are museum locations housing the swords from unknown sites.

guards it could be assumed that they have been produced within relatively short time interval. Thus, all basic typological traits of this group of swords (Z2b, XXb, 12b) indicate the time around first three quarters of the 15th century. It seems that typological differences of pommels (Z1, Z2 and Z3), blades (XIIIa) and cross-guards (12a, 12c) on the related specimens could be understood rather as variations between the workshops and specific period of production than as the consequence of the significant chronological difference. This is suggested by the fact that it is mostly just one part of the sword that does not belong to the classic type of this group.

Some swords from the Hungarian National Museum in Budapest have Type Z pommels, Type XXb blades and Type 12 cross-guards but

I have no information concerning the subtypes of pommels and cross-guards and their dimensions (cat. nos. 121, 122, 123, 125). Among the specimens discovered so far there are no swords with Type XXb blades that do not belong to the family N so because of that these four mentioned swords are also included in this study. Also, most of the swords of family N whose finding places are known come from the territory of medieval Hungary or the neighboring regions (Map 10). This clearly indicates that they had been in use in Hungary during the 15th century, i.e. in the time when battle against the Turks was in full swing. The Hungarian provenance could be assumed with great probability also for three swords today in the Topkapi Museum in Istanbul (cat. nos. 394-396) that belong to this group or are related

Cat. no.	Finding place/Museum	Pommel Type	Blade type	c-guard Type	L	BL	HL	BW	CL	PH	PW
2	r. Danube near Bratislava	Z2b	XXb	12b	88.4*	67.3*	21.1	5	14.3*	4.2	5.8
43	Mus. Trnava, W Slovakia	Z	XXb	12	78.9*	61.4*	17.5	4.8	14(*)	3.5	3.9
78	Budapest, N Hungary	Z2b	XXb	12c	119.2	93.5	25.7	4.8	15	5.2	6
121	National Mus., Budapest	Z	XXb	12	?	?	?	?	?	?	?
122	National Mus., Budapest	Z	XXb	12	?	?	?	?	?	?	?
123	National Mus., Budapest	Z	XXb	12	?	?	?	?	?	?	?
124	National Mus., Budapest	Z3	XXb	12	?	?	?	?	?	?	?
125	National Mus., Budapest	Z	XXb	12	?	?	?	?	?	?	?
132	Beces, SE Hungary	Z2b	XXb/XIIIc	12b	83	62	21	4.5	?	?	?
133	NW Hungary	Z2b	XXb	12b	111*	90*	21	5	?	?	?
142	National Mus., Budapest	Z1	XXb	12b	?	?	?	?	?	?	?
143	National Mus., Budapest	Z1	XXb	12b	?	?	?	?	?	?	?
144	National Mus., Budapest	Z2	XVII	12b	?	?	?	?	?	?	?
146	National Mus., Budapest	Z1	XXb	12b	?	?	?	?	?	?	?
150	Mus. Visegrád, N Hungary	Z2b	XVIa/XXb	12a	?	?	?	?	?	?	?
225	Varna, E Bulgaria	Z1	XIIIa?	12b	?	?	?	?	?	?	?
267	Kladovo, E Serbia	Z2b	XIII?	12b	95.8*	77.6*	18.2	?	?	?	?
269	Military Mus., Belgrade	I1a	XIIIa	12b	118	95	23				
272	St. Slankamen, N Serbia	Z1	XIIIa	12b	118.5	97	21.5	4.9	16.5	4.5	5.4
317	Srbac, N Bosnia	Z2b	?	12	81*	63*	18	5	?	?	?
337	Bjelovar, N Croatia	Z1	XVIa?	12b	123	100	23	6	ca 25	ca 5.4	ca 6
338	Vukovar, E Croatia	Z2	?	12b	67*	48.5*	18.5	5.3	?	?	?
381	r. Ljubljana, Slovenia	Z	XIIIa	12b	110	88.5	21.5	?	?	?	?
382	r. Ljubljana, Slovenia	Z2	XVIa?	12b	124.5	ca 104	ca 20.5	?	?	?	?
391	Brno, Czech Republic	Z	XXb	12b	108.2	88.1	20.1	4.3	21.9	5.1	3.7
392	National Museum, Prague	Z1/Z3a	XXb	12b	115.4	90.2	25.2	4.7	15.2	4.1	4.8
393	use to be in Alexandria Arsenal	Z2b	XXb	12a	118.7	91.4	27.3	4.8	22.2	5.6	6.8
394	Topkapi Museum Istanbul	Z2b	XXb	12b/c	121.2	99.3	21.9	5.1	12	?	?
395	Topkapi Museum Istanbul	Z3	XXb	12b	152	116.6	35.4	5.5	22	?	?
396	Topkapi Museum Istanbul	Z2b	XXb	12b	108.5	86	22.5	5	16	?	?
TOTAL: 30											

Table 17 – Typological and metrological traits of the family N swords and related specimens from the south-east Europe.

to it. In fact, the processional sword of exceptionally large size (cat. no. 395) was most probably in the Hungarian Royal Arsenal in Buda whence it was taken to Istanbul after the battle of Mohács in 1526.² It could also be supposed for the other two swords but with much less probability.

The swords of family N have the characteristics of large knightly swords and according to their distinct typological traits they represent

in fact one of the stages in the evolution of typologically related weapons, which generally have square pommels and Type 12 cross-guards. The relative chronology of Type Z pommels and Type 12 cross-guards is proposed in the relevant chapters of this work and here is important to state that swords of family N precede those of family O (Z3, XIXa, 12c) generally in the same way as the cross-guards of 12b subtype precede those of 12c subtype or Type Z1 and Z2 pommels precede

² Alexander 1987, 22, 25.

those of Type Z3.³ Actually, it could be noticed that later types evolved from the earlier ones and that these are in fact two variations in the evolution of the single weapon type. The fact that the largest quantity of them comes from the relatively restricted area supports the assumption about their continuous development.

The term spade *schiaivonesche* from the Venetian sources concerns the swords of the family O⁴ but according to our present knowledge they had not been produced in the period when this term was recorded for the first time in the Dubrovnik archive in the year 1391.⁵ If the assumption that swords of family N and family O represent two phases in the evolution of a single type of weapon is correct then the information from the Dubrovnik archive could most probably be related to the swords of the family N or even more probably to the related specimens with the cross-guards of subtype 12a that could be the earliest link in the evolution of this weapon with curved cross-guard and square pommel.

In the chapter of this work on the Type 12 cross-guards the assumption was presented that these swords had distinct role in combat. The swords of the family N have almost as a rule the more advanced variant of S cross-guards of subtype 12b and they had been produced in the time when this supposed combat technique could have been widely known and practiced. The distribution of these swords indicates that they had been used and most probably also produced in the medieval Hungary. Considering that cross-guards of subtype 12b are not the earliest shape but that they were most probably preceded by the subtype 12a somewhat different distribution pattern of these finds (Map 8) suggests that production of the S cross-guards did not start in Hungary but somewhat more to the south, in Serbia. This assumption is supported also by the fact that as the swords with cross-guards of subtype 12b usually have the Type XXb blades thus almost none of nowadays known swords with subtype 12a does

have the blade of this type.⁶ Such conspicuous typological difference between the swords with cross-guards of subtype 12a and 12b is corroborated by clearly different distribution pattern and that is the reason why I did not attribute the first group to the family N. Nevertheless, their blades and pommels do not show apparent uniformity and because of that they were not distinguished as the distinct group.

Probably the earliest shape of the horizontally curved cross-guards is the subtype 12a and distribution of the swords with this cross-guard point to the territory of Serbia (Map 8). The swords with Type XXb blades have almost not been recorded to the south of the Sava and the Danube while on the other hand almost all of them have been discovered in the territory of medieval Hungary so it could be concluded that such blades were used and most probably also produced in Hungary. Furthermore, almost all the swords with such blades also have the cross-guards of subtype 12b so this conclusion could include also them and therefore also the swords of family N.

If the cross-guards of subtype 12a were really the earliest variant of horizontally curved cross-guards then the swords with such cross-guards should be considered the antecedents of the family N swords. Their distribution suggests that they were used and probably also produced in the territory of medieval Serbia in the later decades of the 14th century when they already could have been known in Dubrovnik as spade *schiaivonesche*. As the battleground of the conflicts between the Christian armies and Turkey shifted northwards thus they could reach the areas to the north of the Sava and the Danube, the territories of Hungary and Wallachia, around the very end of the 14th and beginning of the 15th century. There, the large workshops in Hungary could have taken over their production and about

³ See the referent chapters of these types of pommels and cross-guards as well as next chapter on the family O swords.

⁴ Boccia and Coelho 1975, 18; Franzoi 1990, 232-233.

⁵ *Testamenta notariae* 8, fol. 2, quoted after Petrović 1976, 25.

⁶ The exception is the sword from the Alexandria Arsenal (cat. no. 393, Fig. 23) in contrast to the remaining seven specimens with Type 12a cross-guards (cat. nos. 149, 264, 268, Pl. 6:2, 270, 273, Pl. 17:2, 275, Pl. 7:1, 294). The eventually another exception could be the sword from Montenegro (cat. no. 293, Pl. 8:3) which blade has two fullers on each side but its shape corresponds to the Type XVIa so it actually doesn't belong to the family N swords. See more about this blade in a chapter on Type 12 cross-guards.

that time these swords got the uniform typological traits of the family N. The Serbian population that had been settled in the frontier zone with Turkey, as we know from the historical sources, played an important role in these battles and could have been spreading these weapons to the north. These swords of the same name had somewhat different evolution in Italy and Dalmatia where they finally evolved in the schiavone swords.

Family O

The swords of family O represent morphologically relatively restricted group. Generally, these are single-handed and hand-and-a-half swords with Type 12c cross-guards, Type Z3 pommels and mostly Type XIXa blades. Many of

finds from the southeast Europe as well as those from the Military Museum, Istanbul reveal also certain similarity in size (Table 18).

The cross-guards of subtype 12c are almost not encountered on the swords, which do not belong to the family O and from morphological and chronological point of view they are the derivatives from the earlier shapes of horizontally curved cross-guards of subtypes 12a and 12b. Although the pommels of subtype Z3 appeared around a century earlier than the swords of this family⁸ their shape could be also generally understood as a derivative from the subtype Z1. Thus the swords of family O also represent one phase in the evolution of swords of related characteristics whose earliest provenance could be sought

Cat. no.	Finding place/Museum	L	BL	HL	BW	CL	PH	PW
134	National Museum Budapest	?	?	?	?	?	?	?
276	Military Museum, Belgrade	113	96,5	16,5	5	12	<u>5,3</u>	<u>5,8</u>
368	Private collection, Croatia	105	88	17	?	?	?	?
380	National Museum Ljubljana	88,4*	72,2*	14,4	?	?	?	?
A87 [†] *	Military Museum, Istanbul	<u>118,7</u>	<u>96,6</u>	22,1	4,4	<u>15,5</u>	?	<u>6,3</u>
A88	Military Museum, Istanbul	<u>117</u>	<u>96,4</u>	<u>20,6</u>	<u>4,8</u>	18,7	?	6,8
A89	Military Museum, Istanbul	<u>118,2</u>	<u>95,3</u>	<u>22,9</u>	<u>4,8</u>	16,9	?	6
A90	Military Museum, Istanbul	<u>120</u>	99,2	<u>20,8</u>	4,5	<u>14</u>	?	<u>6,3</u>
A91	Military Museum, Istanbul	<u>117,6</u>	<u>97,5</u>	<u>20,1</u>	<u>4,9</u>	<u>15,8</u>	?	6,7
A92	Military Museum, Istanbul	<u>117,2</u>	<u>97,3</u>	<u>19,9</u>	4,5	<u>14</u>	?	6,6
A93	Military Museum, Istanbul	115,4	<u>96,2</u>	<u>19,2</u>	4,7	16,5	?	<u>6,3</u>
F144 ^{2**}	Palazzo Ducale, Venezia	122,4	102,7	<u>19,7</u>	<u>5,2</u>	<u>14,7</u>	?	?
F145	Palazzo Ducale, Venezia	<u>116,7</u>	<u>97,7</u>	<u>19</u>	4,6	<u>14</u>	?	?
F146	Palazzo Ducale, Venezia	<u>117,4</u>	<u>98,4</u>	<u>19</u>	<u>5,2</u>	<u>14,4</u>	?	?
F147	Palazzo Ducale, Venezia	<u>118,7</u>	<u>94,7</u>	24	<u>5</u>	<u>14,7</u>	?	?
F148	Palazzo Ducale, Venezia	<u>118,5</u>	<u>95</u>	23,5	<u>5</u>	<u>14,2</u>	?	?
F149	Palazzo Ducale, Venezia	114	<u>95,5</u>	<u>18,5</u>	<u>5,1</u>	<u>15,7</u>	?	?
F151	Palazzo Ducale, Venezia	111,5	<u>97,5</u>	14	<u>5</u>	<u>15,5</u>	?	?

Table 18 - Dimensions of the family O swords. Underlined are the dimensions indicating mutual relationship.

* Nr. A – in: Alexander 1985.

** Nr. F – in: Franzoi 1990.

these swords are housed in the Doge's Palace in Venice and the term spade schiavonesche in the Venetian historical sources refers to them.⁷ In addition to the apparent typological uniformity, the

in the western Balkans. It could be assumed that they had been mostly used in the Adriatic area

⁸ Sword from the Military Museum in Istanbul with straight cross-guard and an Arabic inscription on the blade assumed to be dating from 1367/8, Alexander 1985, 81-82, 111, cat. no. 47.

⁷ Franzoi 1990, 85-86, 232-233.

and that they had been produced in Venice and possibly also in the eastern Adriatic towns in the period around the second half of the 15th century. The workshops, which produced them were located in the territory of the Republic of St. Mark, in Venice itself or in Belun and it is possible that they had also been forged in Dubrovnik, Kotor, Split and other east Adriatic towns and even in the Balkan hinterland.

The different types of related single-handed swords developed simultaneously with the abovementioned swords or sometime later in Italy and even later appeared the well-known schiavone swords. One of the swords, which could illustrate some of these many variants of sword types in the end of 15th and in the first half of the 16th century in Italy and which links the swords of family O with the schiavone swords is, for example, the sword from the Hermitage Museum in Saint Petersburg.⁹ It has Type Z1/Z3 pommel, (shape is like Type Z1 and circular almost hemispherical convexities like on Type Z3), Type XIX blade and in addition to the Type 12c cross-guard it has two finger guards and one bar for hand protection as indication of future guards of basket shape. Also similar is the sword housed in the Doge's Palace that has Type Z1/Z3 pommel, identical cross-guard, finger ring and bar for hand protection and Type XIXa blade with two fullers on each side.¹⁰ In the same collection are also housed many resembling swords, which, however, are somewhat less similar to the swords of family O but they illustrate the diversity of sword types, which appeared in Italy and in south Europe at the end of the 15th century.¹¹ These swords, however, have not been encountered on the east Adriatic coast and in the Balkans but the schiavone swords prevailed there during the 16th, 17th and 18th century.

It is interesting how Vladan Desnica the collector from the northern Dalmatia acquired his famous collection of the 17th – 18th century schiavone swords.¹² He was a famous writer and

the descendant of the Serbian family, which for centuries provided the commanders of the border guards along the frontier with Turkey.¹³ Desnica partially inherited the mentioned swords but also purchased many of them mostly from the other families from the area of northern Dalmatia. These people have been settling there since the 15th century first as refugees and later as border guards along the Venetian and Austrian border with Turkey. Besides the specimens in the Croatian History Museum, around twenty schiavone swords are housed in the Military Museum in Belgrade¹⁴ and in some private collections in the region¹⁵ and almost all of them are very well preserved.

The swords of family O could have also been used mostly by the Dalmatian Slavs who were in the Venetian service. The domains of the Republic of St. Mark on the east Adriatic coast expanded more intensely from the final decades of the 14th century and particularly in the 15th century as the territories of the Serbian state diminished. In favor of this assumption speaks also the widely spread practice of Venice making the alliances with local noblemen who gained independence. The preserved historical sources about advanced sword production in Dubrovnik, Kotor and other towns¹⁶ indicate that these swords could have also been produced and not only used in the eastern Adriatic.

Family P

The family P swords usually have Type Z4 pommels of polygonal, octagonal shape and of somewhat smaller size. Most of them are made of bronze. There are, however, also some specimens with Type Z2 pommels (cat. nos. 277, Pl. 18:1, 278). The blades are usually of Type XIXa or Type XXc while the cross-guards are of distinctive shape with arms sharply bent towards the

in the village Islam Grčki in the north Dalmatia that was destroyed in the last war is nowadays unknown to me.

¹³ The local famous fortress of Stojan Janković († 26. 08. 1687), near the village Islam Grčki, north Dalmatia, was for the last four century in property of Vladan Desnica ascendants until it was set on fire in 1991.

¹⁴ Милосављевић 1993, 36-42, к. бр. 25-44.

¹⁵ For example the private Croatian collection (owner S. P.) contains 12 specimens of the schiavone swords, Kovač 2003, 33-38.

¹⁶ See the introductory chapter of this book.

⁹ Oakeshott 1991, 242.

¹⁰ Boccia and Coelho 1975, fig. 152; Franzoi 1990, 86, cat. 151, fig. 43.

¹¹ Boccia and Coelho 1975, fig. 150, 151, 153-158.

¹² Of the total of 22 swords of the schiavone type in the Croatian History Museum (Šercer 1976, cat. nos. 192-213), ten have been acquired from this collector. The fate of the remaining part of the collection of Vladan Desnica that was

blade. These cross-guards are identified as Type 13 and they appear in the southeast Europe mostly on the swords of the family P although there are some exceptions.¹⁷ Of the swords studied in this work eight specimens belong to the family P (cat. nos. 277-282, Pl. 18:1, 18:2, 18:4, 310, 318). They all come from the central and western Balkans, that is from the territory of Serbia and Bosnia and Herzegovina.

The earliest of them are those with Type Z2b iron pommels (cat. nos. 277, Pl. 18:1, 278). The sword from the Zeta river near Podgorica (cat. no. 290) has also Type 13 cross-guard and Type Z2 pommel but it has hand-and-a-half hilt that is not characteristic of this sword family. This sword dates from the first half of the 15th century and two other mentioned swords date from a slightly later period. Other specimens of this group of swords are later and they date from the period after the middle of the 15th century. The pommels of subtype Z4 were often made of bronze and sometimes lavishly decorated (cat. no. 282, Pl. 18:4a). Such swords, which were not considerably altered, have been produced far into the 16th century and even later as it is confirmed by the specimens housed in the Military Museum in Belgrade and the National Museum of Bosnia and Herzegovina in Sarajevo.¹⁸

Besides the distribution of the swords of family P that clearly points to Bosnia and Herzegovina and Serbia, the types of their blades also indicate the traditions maintained in those regions. Type XIXa blades are known on the swords of family O that appeared most probably just few decades earlier in the Adriatic while Type XXc blades are in fact smaller, single-handed variants of the earlier Type XXb, which had been most probably produced in the north, i.e. in Hungary. The mutual resemblance in the size of these swords is apparent (Table 19). For example, the swords from Knjaževac, Prizren, Počitelj and Foča (cat. nos. 278, 279, 310, 318) are of almost identical length (98-98.5 cm) and have almost identical blade length (85-86 cm) and hilt length (12.5-13.1 cm) while two swords from the unknown site in the Military Museum in Belgrade (cat. nos. 281, 282, Pl. 18:4) are also of similar size – L= 102-103 cm, BL= 89.5 cm, HL= 12.5-13.5 cm, BW= 4.5 cm. Against this background it seems rather obvious that this group of typologically and metrologically very similar swords was produced in the single workshop circle.

Considering that the Turks mostly used sabers and that these swords have not been encountered in the other parts of the Turkish Empire it could be assumed that this weapon was

Cat. no.	Finding place	Pommel Type	Blade Type	C-guard Type	L	BL	HL	BW	CL
277	Military Museum in Belgrade	Z2b	XXc	13	86*	71.5*	14.5	?	?
278	Knjaževac, Eastern Serbia	Z2b	XIXa	13	98	85	13	?	?*
279	Prizren, Sothern Serbia	Z4	XXc	13	98.5	86	12.5	5	10
280	Military Museum in Belgrade	Z2	XIXa	13	94.5	82.5	12	?	?
281	Ethnographical Mus., Belgrade	Z4	XIXa?	13	103	89.5	13.5	4.5	?*
282	Military Museum in Belgrade	Z4	XIXa	13 straight	102	89.5	12.5	4.5	18
310	Počitelj, Central Herzegovina	Z4	XXc	13	98.5	85.4	13.1	4.5	10.3
318	Foča, Northeastern Herzegovina	Z4	XIXa	13	98.5	86	12.5	5	10

Table 19 – Typological and metrological traits of the family P swords.

¹⁷ See the chapter on the cross-guards of Type 13.

¹⁸ Truhelka 1914, 241-242, fig. 49, T.I; Милосављевић 1993, 30, 34, к. бр. 22, 23, 24. To these later derivatives of the family P swords could be attributed, in my opinion, the unpublished sword housed in the museum of the Shkoder fortress, northwestern Albania.

used mostly by the local population in the central and western Balkans. The inhabitants, who did not emigrate to Hungary or to the areas under the Venetian control after the fall of Serbia in 1459 and Bosnia in 1469, were to a great extent included in the military potentials of the Turkish

empire. Some of them converted to Islam in order to improve their social status and other maintained their Christian faith. The local population was also included in the certain type of militia, so-called *martolozi*, who also took part in clashes with Venice, Hungary and Austria. The participation of the local Christians in the army and sometimes also in the administration was also accompanied by still relatively favorable social and economic conditions until the 17th century. This situation also reflected in the local artisan production, which as the applied art and aesthetics illustrates the continuity of the medieval traditions and the western influences in this area. Therefore, the workshops producing the swords of family P should be sought in the centers of craftsmanship in this part of the Balkans, in the towns on the Adriatic coast and in the hinterland.

The sword housed in the Croatian History Museum in Zagreb¹⁹ (cat. no. 330) according to the statement of the collector Milan Praunsberger from Zagreb who donated it to the Museum in 1940 and also published it three years later,²⁰ allegedly belonged to Nikola Banić of Lendava who was the ban of Croatia, Slavonia and Dalmatia in two turns (1345–1346 and 1353–1356). The sword is in perfect condition and has many unusual characteristics. The decorated ivory cover of the hilt and bronze also lavishly decorated cross-guard are almost unique among the medieval swords while the pommel shape is also unusual but it still could be defined as variation of the pear-shaped pommels of typological group T. It is closest to the Type T3 but it has the spherical ornament on the top, which is not characteristic of these pommels. This ornament appears very rarely in the period from which this sword eventually date and that is the 14th and 15th century and as an example could be quoted two pommels of Type Rb on the 15th century swords from the eastern Slovakia (cat. nos. 41, 40, Fig. 21). The

blade of this sword is not, however, of unusual shape as its other parts and it could be attributed to Type XIXa but it has certain distinctions, first of all somewhat longer fuller and longer hilt. Nevertheless, clearly profiled fuller as well as the general dimensions of the blade make it close to the specimens of this type. The representations of the four-legged animal, which is usually identified as wolf have also been encountered on Type XIXa blades (cat. nos. 134, 282, Pl. 18:4b, 318). Particularly similar are an animal representation and three letters x on the blade of a sword of family P that is housed in the Ethnographic Museum in Belgrade (cat. no. 281). Also, covering the hilt with ivory was not unfamiliar practice in the Middle Ages as it is confirmed by the information about thus decorated swords in the Dubrovnik archive.²¹

The typological traits, first of all the pommels and blades, suggest the 15th century as the time when this sword could have been forged. This date is indirectly indicated by the ornamental plate in the center of the cross-guard that were most popular during the 15th century and by the pronouncedly stylized cross-guard, which is exceptionally rare and could be encountered also on the specimens from that century, for instance, on the sword of Hungarian king and Holy Roman Emperor Sigismund of Luxembourg (1386–1437) (cat. no. 126). Nevertheless it could not be accepted on the basis of the mentioned traits that the sword belonged to the mentioned historical personage, i.e. that it dates from the middle of the 14th century. Its characteristics generally indicate the 15th century but considering many almost unique sword traits this period could not be reliably restricted. The sole part of this sword, which could be rather reliably dated, is the blade suggesting the second half of that century. In any case, if it is not just the later copy it is the ceremonial weapon, which has been carefully taken care of and was never deposited in the ground. There is as it seems little likelihood that it is a copy but even it is the case it is a skillful work and some authentic parts of the medieval swords have been also used.

¹⁹ Šercer 1976, 44, cat. no. 10. T. I.

²⁰ M. Praunsberger, *Oružje starih Hrvata*, Zagreb, 1943, unavailable to me. During the Second World War Praunsberger was the director of the mentioned museum and he donated rich family collection of the old weapons to the museum.

²¹ *Testamenta notariae* 9, fol. 44'. It is the *teatamnet* of Mikoč Batković '...una spada cum palatizo cum ossa, la spada sie pento e cum oro'. quoted after Petrović 1976, 24.

Single-edged Swords

We collected in this work a total of 12 single-edged swords (cat. nos. 401-412), which all generally date from the 14th – 15th century. These specimens have certain common traits. The hilts are for one hand or for hand-and-a-half, without pommels but with rounded upper part while wooden plating (in contrast to the double-edged swords) was attached with rivets – usually three to five that joined two parts of the plating and passed through the metal tang. This is confirmed by the holes on almost all tangs of the single-edged swords. The tangs are mostly straight and symmetrical and with slightly curved upper part on few rare specimens (cat. nos. 402, 404). Many single-edged swords did not have the cross-guards and on those that did (cat. nos. 401 – 405, Pl. 12:4) the cross-guards were distinctively short and sometimes with stylized ends. There was used instead of a cross-guard just a thicker segment, sometimes of the ring shape, at the junction of blade and hilt (cat. nos. 407, 410). Specimen from the Perast municipality, south Montenegro (cat. no. 410) that is somewhat later than other finds has in addition to the ring, which had the role of cross-guard also a metal bar in order to protect the hand. This hilt shape indicates rather elaborate systems of hand protection that were encountered also on some contemporary types of two-edged swords. Somewhat closer analogy could be the double-edged sword from the museum in Saint Petersburg¹ that is a transitional form between the swords of family O and the classic schiavone swords. Such systems of hand protection will later evolve in the baskets made of many intersecting metal bars.

The blades are of single-edged type meaning that one edge is sharp and the other blunt,

i.e. that they had thickened back of the blade. Its function was to increase the mass of the blade in order to deliver stronger blow and also to prevent the breaking of the blade. The point of the most of these blades was sharpened on both sides making possible successful thrusting while just few specimens have the rounded point (cat. no. 405, Pl. 12:4). Almost all specimens have a narrow fuller running along the most of blade's length, not along the middle but closer to the back. The dimensions of these weapons are usually within relatively uniform range. The length is around 90 to 110 cm and the blade is mostly around 75–85 cm long although shorter specimens have also been encountered (cat. nos. 407?, 412). The blades of most specimens are conspicuously narrow in comparison with the double-edged swords and they are of relatively uniform maximum width of around 3–3.8 cm. Nevertheless, three specimens from Serbia (cat. nos. 408–410) have considerably wider blades (5 cm ± 0.7 cm), which are within a common range for the double-edged swords.

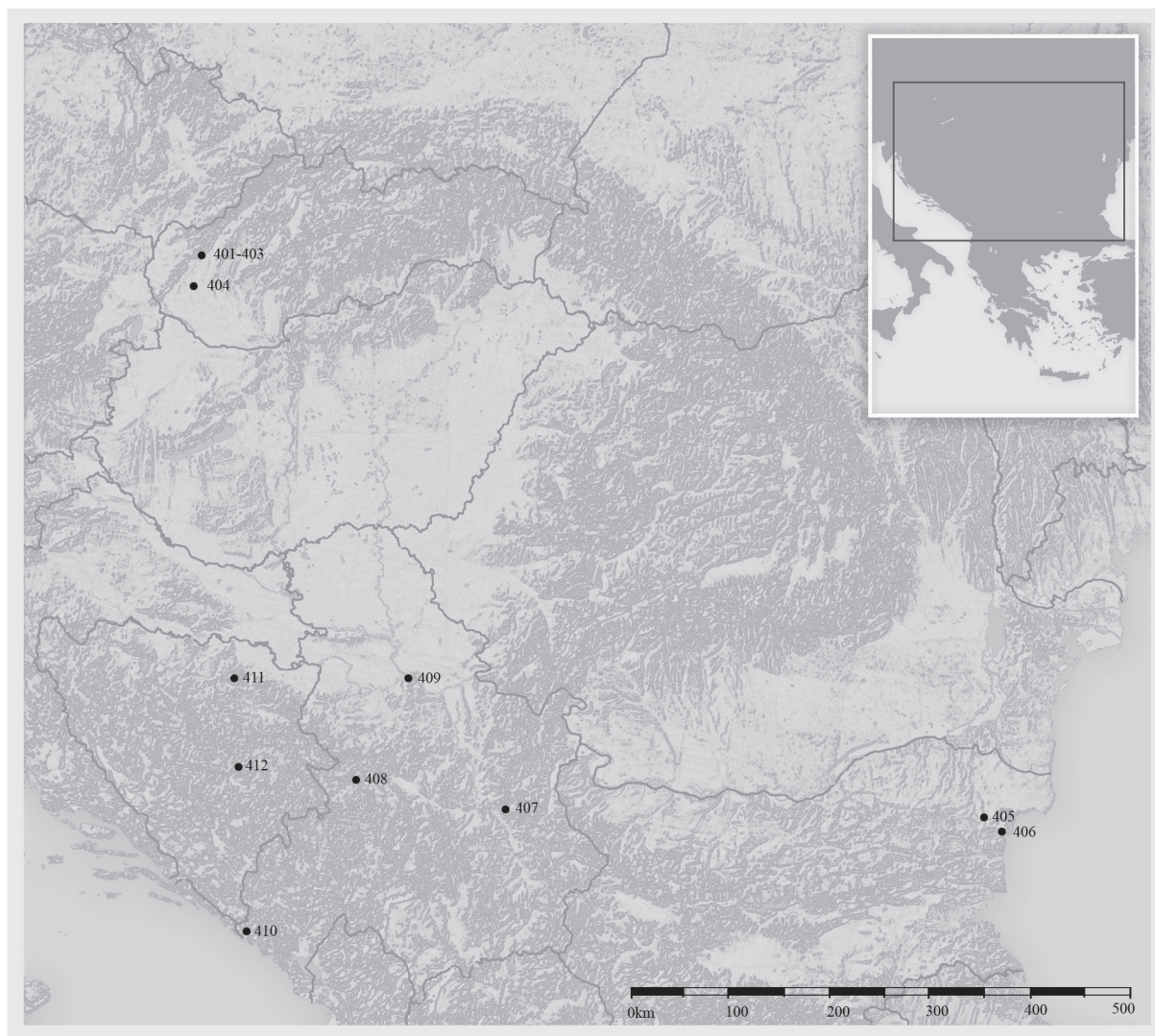
Such forms of the single-edged swords are also represented on some rare visual representations from the southeast Europe. For example in the fresco of the founders family Balea in the church in Criscior, in the vicinity of Hunedoara, western Transylvania from the 15th century² or on a silver medallion from the glass tumbler from Temska near Pirot, south Serbia, from the end of 14th and the beginning of the 15th century but with slightly curved blade.³ The rivets on the hilt (seven in total) are noticeable on this sword and they were also encountered on the most of the discovered specimens.

Although the distribution of finds includ-

¹ Oakeshott 1991, 242.

² Pinter 1999, 83, Pl. 24/a.

³ Хан 1960-61, 51-52, Сл. 1.



Map 11 – Distribution pattern of single-edged swords in southeast Europe.

ed in this work indicates higher concentration of the single-edged swords only within certain areas of the southeast Europe (Map 11) it should be emphasized that it is the consequence of the fact that material of this kind was not equally available to me. Namely, the works of synthetic character studying late medieval swords did not include, as a rule, the single-edged swords. Also, I do not know about the studies concerning this particular issue in the southeast Europe and those possibly including the material from other areas were not available to me.

The single-edged swords are most probably those known as 'corda' and 'curtelesa' often mentioned in the Dubrovnik archive from the end of the 13th century and usually belonging to the lower social classes, the common people.⁴

⁴ Petrović 1976, 40.

Among them could have been many people of Slavic descent that brought with them this, by all appearances, simple and popular weapon. However, the archaeological material from Serbia and Bosnia (cat. nos. 407-412) whence most of the immigrants came to Dubrovnik does not differ substantially in any element from the specimens discovered in other parts of the southeast Europe. Also, there is not a single indicator that these specimens nor the other from the southeast Europe are earlier than around the second half of the 14th century. These weapons from the Dubrovnik archives could possibly relate to the single-edged swords with cross-guards typical for the double-edged swords, which have been represented on the monuments known as *stećci* but material finds do not confirm so far the existence of such weapons. The single-edged swords were in use in the late Middle Ages also in the other parts of

the continent, in Italy⁵ and so-called Ruggerli in Switzerland.⁶

The amount of the so far known specimens of the single-edged swords reveal that they were in use rather infrequently and visual sources suggest that they were used by the feudal lords and citizens of the medieval towns. All four specimens from Slovakia come from the hoards. Three of them (cat. nos. 401–403) were found in the vicinity of the village Drahovce in western Slovakia together with the double-edged sword (cat. no. 53), which according to its typological traits (K, XIIIa?, 1) should not be considered earlier than the 14th century while the single-edged specimens were dated extensively, in the 14th – 15th century.⁷ In the hoard found near the village Dvorníky, also in western Slovakia together with the single-edged sword (cat. no. 404) was also found a coin of the Holy Roman Emperor Sigismund I (1427–1437).⁸ The sword from Vladislavov, eastern suburb of Varna, the assumed battle-field where Vladislav III, Polish (1434) and Hungarian (1440) king who headed the Crusade army was defeated and lost his life in 1444, could be dated sometime earlier than this year. The sword from the medieval fortress Stalać in central Serbia most probably dates from the end of the 14th or the beginning of the 15th century when this town was finally destroyed by the Turks.⁹ The sword from the Perast municipality besides being lavishly decorated with semi-precious stones also has on its blade a representation of two-headed eagle, letter P (Cyrillic R) and inscription mentioning Vukša Stepanović. Because this person was not known from historical sources, much more useful for its dating is the shape of its hilt, more precisely the ring and hand-guard. Considering in the first place the similarities with the mentioned specimen from the museum in Saint Petersburg it could not be earlier than around the end of the 15th century.

It could be concluded on the basis of the available data that different types of the single-edged swords from the period between the 12th

and 15th century have been in use in the southeast Europe during the later segment of this period. All the finds could be generally dated around the second half of the 14th century and in the 15th century. Taking into account the finds, which could be more precisely dated their more frequent use could be confirmed from the first half of the 15th century. The available visual sources suggest that they were used by the higher social classes, nobility and citizens and the find from the vicinity of Varna possibly indicates that they were also the element of military equipment, i.e. that they were used in wars.

⁵ Petrović 1976, 38, with earlier literature unavailable to me.

⁶ Sijarić 2004, 89.

⁷ Bača and Krupa 1991, 19.

⁸ Urminský 1995, 132.

⁹ Сталаћ 1979, 19.

Signs, Ornaments and Inscriptions on Swords

The decoration of swords in different manners is known also from the earlier epochs. In the Middle Ages the signs were usually placed on blades and less frequently on pommels and cross-guards. The inscriptions and signs were mostly executed by techniques of engraving or inlay. The method of inlay was to make first the engravings, i.e. narrow channels into which a wire usually of another metal was inlaid. In the late medieval period it was almost always the metal of yellow color, then the wire was hammered flat and entire surface was smoothed and polished. The yellow metal was mostly bronze, rarely copper or gold but it was established just in few cases what metal actually was used. Because the intention was to achieve a contrast with the color of an iron blade, various alloys of conspicuous color have been used. Therefore, most of the authors use the term yellow metal as we also did in this work. In rather rare cases the inlay was made of the iron or silver wire.

Ornaments and inscriptions on pommels

Sometimes the pommels and very rarely cross-guards besides the blades were also decorated in the advanced Middle Ages. Just the Greek cross was represented on the pommels from the southeast Europe while some exceptional pieces had lavish decoration or inscription (cat. nos. 57, 126, 157-159, 160). The representation of the Greek cross mostly inlaid with rather thick yellow metal appear on circular protrusions of the pommels of Type K, rarely on K1 and Z3. Such decorated pommels often also have a decorated rivet and sometimes some other ornament of yellow metal (cat. nos. 100, Pl. 3:2, 101, 105, 115, 138, 141, 211, 217, 240-242, Fig. 17, 18, 245-247, Pl. 14:2, 14:3, 248, Pl. 15:1, 303, 321, Pl. 11:3, 322, Pl. 11:4). Some specimens, mostly from Hungary, have four small crosses depicted on pommels (cat. nos. 62, 64). The Greek cross on circular protrusions was encountered also on some Type Z3 pommels (cat. nos. 275, Pl. 7:1, 294), possibly also on one Type T2 specimen (cat. no. 363). The pommels with circular protrusions decorated with the Greek cross were the most popular during most of the 14th century and in the beginning of the 15th century. This is confirmed by their shapes (Types K1, T2, Z3), which date from the later part of this period while it seems that Type K pommels, which have in addition also the rivets decorated with yellow metal date from the 14th century.

The pommel of a sword, today in the Topkapi Palace Museum in Istanbul (cat. no. 157) has the Cyrillic inscription mentioning Stephen the Great, duke of Moldavia (1457–1504). The inscription runs along the edge of a pommel while in the center is the Maltese cross. According to the luxurious decoration of high quality it resembles the pommel of the sword of Holly Roman Emperor Sigismund of Luxembourg from around 1434 (cat. no. 126). Emperor Sigismund presented in 1425 to Friedrich IV der Streitbare, Elector of Saxony a sword (cat. no. 57) with also very luxuriously decorated pommel. On one side is the coat of arms of the German Empire – eagle on the shield and on the other is the heraldic design consisting of transversal lines and a reared lion – heraldic symbols of Hungary and Bohemia. All these specimens date from the 15th century and they are precisely dated indicating that such luxurious specimens were produced in this part of Europe mostly toward the end of the medieval period. There are not many swords with such lavishly decorated pommels in the eastern Europe and worth mentioning is the polygonal

pommel of the 15th century sword decorated with rich and carefully executed relief motifs on both sides. This sword was discovered in a tomb in the church of the Holy Trinity in Pskov, northwestern Russia.¹

Heraldic representations resembling those on the pommel of the sword of Emperor Sigismund from 1425 – eagle within shield on one side and reared lion within shield on the other were also encountered on the pommel of a sword in the Art-History Museum in Berlin that is ascribed to German Emperor Albrecht II von Habsburg (1438–1439).² In the same museum is also housed the sword found in the Pregola river in northern Poland that has similar heraldic representations on the pommel. These motifs as well as the finding place prompted some authors to ascribe it to Konrad von Thüringen, the Fifth Grand Master of the Teutonic Order (1239–1240).³ Marian Głosek analyzed in detail these heraldic motifs and dated the sword in the second half of the 14th or the first half of the 15th century.⁴

The eagle on the coat of arms was the heraldic symbol of the German empire but also was the heraldic symbol used in Poland and some other duchies (Silesia, Moravia, Brandenburg, Tyrol, Carinthia). The reared lion with flower-like (three-pointed) tail end was the symbol of Bohemia from around the middle of the 13th century and with simple tail as depicted on the pommel of this sword it was on the coat of arms of the families of Habsburg and Luxembourg. So, the heraldic symbols do not point at least not directly to Konrad von Thüringen. The finding place in the northern Poland was also one of the arguments to associate the sword with The Teutonic Order but on the pommel was not encountered the single representation referring to the symbols of the Order (cross potent, lily as symbol of the Virgin and bread and baskets as symbols of St. Elisabeth) except the eagle, which as the symbol of Empire was allowed to be worn only by the Grand Master of the Order but in combination with the cross.

Signs on tangs

The practice of engraving signs on the sword tangs was very rare before the advanced Middle Ages. Among the swords gathered in this work the earliest one with a sign is the sword from Vojlovica near Pančevo, northeast of Belgrade (cat. no. 228, Fig. 6) dating from around the second half of the 11th and the first half of the 12th century. On the tang of its hilt is impressed the sign – mark of the Greek cross without bottom arm (perhaps damaged?) inscribed within a circle. The Greek cross within a circle is very widely distributed representation in the Middle Ages that is frequently encountered also on the blades of later swords and it is very often used on the Slavic pottery. Nevertheless, nothing more could be said about the significance of this sign but that it is most probably the stamp of the blacksmith who manufactured the sword.

All other swords, which have the signs on the tangs are not earlier than the second half of the 13th century. By far the most numerous among them are those, which have incised lines, usually intersecting in the form of St Andrew's cross but there is sometimes just one diagonal line or two lines joined as the Latin letter V.

The most numerous is the group of swords with St. Andrew's cross on the tang (cat. nos. 59, 62, 77, 212, 233, (237, Pl. 13:4)). Then follow in quantity the specimens with the signs resembling a heart or letter V (cat. nos. 66, 118, 233, 235, Pl. 16:1) and one specimen had three instead of two intersecting lines (cat. no. 306, Pl. 10:1). The swords from Herzegovina and northern Croatia have just one diagonal line (cat. nos. 308, 322, Pl. 11:4) and the swords from the museum in Budapest (cat. no. 100, Pl. 3:2) and eastern Serbia (cat. no. 250, Fig. 32) have on the tangs a diagonal line with three triangles underneath. On the sword from Serbia there are five triangles in two rows on the other side of the tang, just as it is the case on the sword from Višnjica near Belgrade (cat. no. 240) and two specimens from the Baltic coast in Poland.⁵ The sword from western Bosnia (cat. no. 302) has three engraved parallel lines on the tang.

¹ Кирпичников 1966, 56-57, Т. XXVI-1.

² Głosek 1984, 146, cat. no. 120, with earlier literature.

³ Müller and Kölling 1980, 159, 362, that accepts also Oakeshott in Oakeshott 1991, 94.

⁴ Głosek 1984, 74-75. See chapter on Type I1 pommels.

⁵ Unknown site, Museum Szczecin and sword retrieved from the Baltic Sea near the town of Leb, Głosek 1984, 159, cat.nos. 271, 168, cat. no. 378.

The signs resembling St Andrew's cross were analyzed in detail by M. Głosek who explained them as the signs of the workshops from the territory of medieval Hungary. In addition to three pieces from Hungary Głosek attributed to this group also three specimens from Poland.⁶ He ascribed to the group of swords with usually five triangles on the hilt two specimens from Poland and five from the territory of former German Democratic Republic. These triangles were engraved with a sharp tool at an angle of 45° to the metal surface.⁷ It should be said that all these signs were rather crudely executed so it remains unanswered why the blacksmiths who certainly could and had motif did not mark their products even in such a hidden place in a more skilful way. Therefore, I think that we should not rule out the possibility that these signs were used to mark every fifth (sign like Latin letter V) or every tenth (St. Andrew's cross or Roman number X) sword produced in the smithy and forwarded to the swordsmith for final polishing and making of hilt cover and the scabbard. In both cases, it was certainly the practice employed in the distinct group of smithies, which according to the distribution of these finds were mostly located in the territory of medieval Hungary (numbers V and X) or in Germany (five triangles).

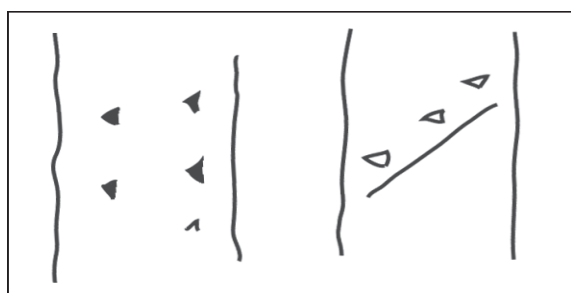


Fig. 32 – Signs on both sides of tang of sword from site Vrčež, Klokočevac, near Majdanpek, eastern Serbia, cat. no. 250.

Considering the period from which the swords with these signs date, Głosek suggested second half of the 13th century and first half of the 14th century for both groups on the basis of their typological traits.⁸ The material from the southeast Europe indicates that there are also specimens, which date from the later period (cat.

nos. 62, 66, 118, 237, Pl. 13:4, 322, Pl. 11:4). Actually, typological traits of the most of specimens with these signs suggest the 14th and the beginning of the 15th century. Such somewhat later date of using the signs of Roman numbers V and X is also suggested by the sword, which got Arabic inscription in the Alexandria Arsenal that dates it in the period 1401-1408.⁹ Considering that this is two-handed sword with Type K pommel decorated in the same way as many specimens from the southeast Europe¹⁰ we can recognize on this sword also the typological resemblance with the swords, which also has the sign of letter X on the tang. Thus, we could date the custom and practice of impressing these signs on the tangs most probably to the period around the 14th century and even more precisely about the middle and second half of that century.

In addition to these most frequent signs on the tangs there are also the motifs consisting of two parallel arrows (cat. nos. 76, 78), inscribed small stars (cat. no. 110) or concentric circles (cat. nos. 72), two rings (cat. nos. 65, 119), one, two or three arched lines (cat. nos. 29, 101, 270), the fields with six dots (cat. no. 33). This latest sign is identified as the mark of the German blacksmiths.¹¹ These swords also mostly date from the 14th or 15th century.

Inscriptions on blades

Decorating or placing the signatures or inscriptions on the sword blades is a phenomenon known already from the early Middle Ages. From that period date also some blade inscriptions, which were most widely distributed among the finds from all medieval epochs. These are the signs of the ULFBERHT workshop discovered on over 125 so far identified finds and the signatures of INGEL(RII) group encountered on around 39 swords.¹² Both signatures represent the name of the blacksmith, i.e. the workshop producing these swords in a period much longer than a human lifetime or active life. After analyzing the

⁶ Głosek 1984, 45, cat. nos. 273, 276, 372.

⁷ Ibid., cat. nos. 271, 377, 149, 169, 188, 196, 207.

⁸ Głosek 1984, 45-46.

⁹ Askeri Museum Istanbul (inv. 10924). Alexander 1985, 108, cat. 35.

¹⁰ See the chapter on Type K pommels.

¹¹ Głosek 1984, 142, cat. no. 57.

¹² Geibig 1991, 123-126, 195, Liste 6; Петровић и Вучинић 2001, 266-268.

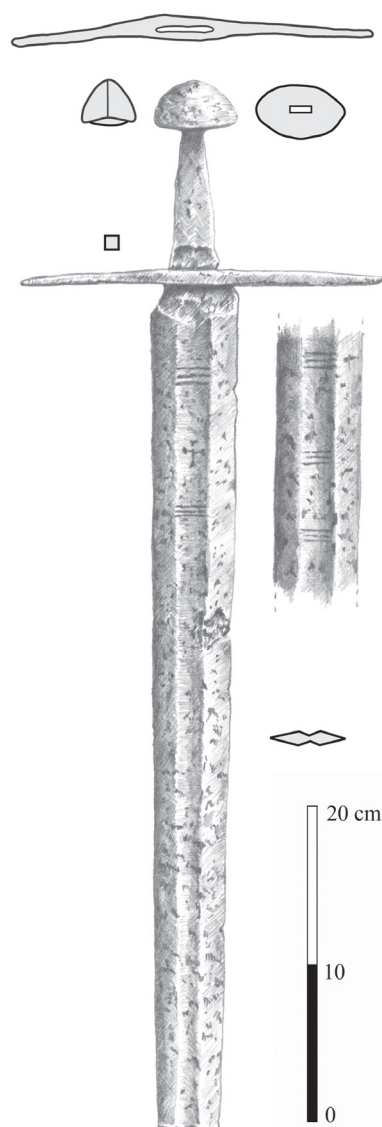


Fig. 33 – Sword from vicinity of Koprivnica, northern Croatia, cat. no. 323, Type: B1, X, 1.

I included in this work the swords, which also have such inscription on their blades but which could be eventually later than the 11th century es-

pecially if we take into consideration their other parts like the cross-guards and pommels. One of these is the sword from the vicinity of Glamoč, southwestern Bosnia (cat. no. 298, Pl. 9:2) that has the inscription of this group +INGEII+FEZI± on one side of the blade and on the other side is the geometric ornament common on the blades of the groups ULFBERHT and INGEL(RII). The sword from the Zeta river near Podgorica has the inscription INGELRII on one side and on the other side is the decoration of the same type (cat. no. 284). Both swords have very similar cross-guard of the same type (4a), which is not particularly chronologically relevant so at first glance these two obviously related specimens date from the period when this signature was used, that is in the period until the first half of the 11th century. However, their pommels, especially the one on the sword from Glamoč suggest approximately a century later date.¹⁷

Among the blade inscriptions on the earliest specimens studied in this work are those, which consist of proper name and formula ME FECIT. Such inscription was encountered on the blade of a sword from the unknown site in Croatia (cat. no. 349) while the inscription HAKIAI on the other side of the blade could be related according to my knowledge to the proper name Haki that is mentioned in the Nordic saga about the Viking hero, Erik 'the Red' Thorvaldsson from the second half of the 10th century.¹⁸ Geibig dated such inscription composition (proper name on one side and formula ME FECIT on the other side of the blade) in the second half of the 10th and the first half of the 11th century.¹⁹

Certain invocations, i.e. the texts of religious character of which most popular were those from the group IN NOMINE DOMINI, IN NOMINE DEI, HOMO DEI and the like were rather frequent from the 12th century onward.²⁰ These particular invocations have not been encountered in the material from the southeast Europe

¹³ Geibig 1991, 119-120, Abb. 32.

¹⁴ For dating of both groups of signatures, Geibig 1991, 154-157, Abb. 41. See also Wegeli 1904, 181-183; Ypey 1959, 301.

¹⁵ Ruttkay 1975/76, 252-255, 199, cat. no. V-1, Abb. 10:2, 24:5, 25:4, 28:6; Glosek 1984, 141, cat. no. 49.

¹⁶ Glosek 1984, 172, cat. no. 434, Tabl. XXI, fot. 1.

¹⁷ More about these two characteristic swords in chapters about blades of Type X and cross-guards of Type 4a.

¹⁸ Eirik the Red's Saga, chapter 7, page 24. This is the name of a Scotsman.

¹⁹ Geibig 1991, 155-156, Abb. 41. Such inscription formula reappears again in the end of 11th and in the first half of the 12th century but considering the typological traits of the sword from Croatia it is not the case here.

²⁰ Bruhn-Hoffmeyer 1963, 8.

but there are invocations of another kind. Thus on the blade from the vicinity of Požarevac, Serbia (cat. no. 227, Pl. 5:4) is impressed the text DOICTANH that was read as religious invocation D(ominus) O(mnipotentis) I(esus) C(hristus) T(er) A(ltissimi) (i)N N(omine) or DO(minus) I(esus) C(hris)T(us) A(ltissimi) (i)N N(omine).²¹ The letters S O S inlaid on one side and O S O on the other side of the sword from the Hungarian National Museum in Budapest (cat. no. 96) have been explained as the abbreviation of S(alus) O(mnium) S(alus), and O(mnium) S(alus) O(mnium) or more probably S(alvator) O(mnipotens) S(alvator), and O(mnipotens) S(alvator) O(mnipotens).²² An identical inscription was encountered on the sword from Roding, south Germany, that also has Type B pommel and Type Xa blade²³ and on the sword from an unknown site in the Hermitage Museum in Saint Petersburg that has a discoid pommel and which is dated considerably later, i.e. in the 13th – 14th century.²⁴

The letter S is engraved also on the sword blade from Vojlovica near Pančevo, north Serbia, (cat. no. 228, Fig. 6) while on the other side is illegible Latin inscription probably of the religious character. Likewise, the letter S is engraved on the blade of a sword from the Ljubljana river, Slovenia (cat. no. 383) and the same letter but inscribed in a circle was encountered on both sides of the blade of a sword from the Hungarian National Museum in Budapest (cat. no. 94). On the 12th – 13th century swords from Europe are frequent shorter or longer rows of letters, i.e. the inscriptions, which are almost all explained as the abbreviations of the religious character. However, they are not very frequent among the material gathered in this book.

In addition to the already mentioned examples there is also a sword housed in the Danubian Museum in Komárno, southwestern Slovakia (cat. no. 26, Pl. 1:3) ascribed to the Bohemian king Otakar II (1253-1278). The letters TADS and NIC and the cross of yellow metal were also inlaid on the blade in addition to the circular medallions with representations of eagle and lion.

The first text has not been explained while the reading N(omen) I(esu) C(risti) is suggested for the other.²⁵ Another also rather lavishly decorated sword is from Slovakia as well, i.e. from the site Dlhá nad Váhom, near Šaľa (cat. no. 4, Pl. 2:1). It has an illegible inscription of which just the letters O, V and I could be recognized. Some other specimens from Slovakia and also few from Hungary and other areas have on their blades few letters or inscriptions impossible to interpret ...IE-IRS., and ..RWI.. (cat. no. 3), MVSEMDNUS (cat. no. 8), NR.A.IAIAINI (cat. no. 31), S E + D S, and on the other side + + S A + (cat. no. 60), E, and EAI (cat. no. 61), STIHRI (cat. no. 68), + S . . N +, (cat. no. 69), И M N (cat. no. 95), illegible long inscription (cat. no. 98), S..S..SISIS (cat. no. 287), +IHININihVILPIDHINihVILAN+ (cat. no. 195), +INIISI INIISI ISIN..., and + R C R C R C R C R C C (cat. no. 223).

Rather interesting are the inscriptions G U O R A G U I S > I (cat. no. 163, Pl. 3:4) and G U (cat. no. 172) on two swords from Banat, western Romania, that have identical typological traits – I, X, 2, and they most probably identify the blacksmith who made them. The inscription ScS BENEDICTUS on the sword from the Ljubljana river, Slovenia (cat. no. 375) obviously denotes the name of St Benedict. Among these inscriptions consisting all of the Latin letters, just one from the museum in Varna, eastern Bulgaria (cat. no. 207) stands out because of the inscription in Greek alphabet CAPAH on one side and the letter Z (zeta) on the other side of the blade. The name of the Byzantine town of Sardis in Asia Minor suggests the origin of this atypical blade and letter Z is perhaps the signature of the craftsman or workshop that operated within larger smithy similar to the signs on the Byzantine coins that denoted distinct workshops within the complex of the Constantinople mints. All these specimens mentioned above date from the 11th – 13th century.

Such inscriptions or few letters could be encountered also on rare somewhat later swords dated in the first half of the 14th century (RHAP or UDG N) (cat. no. 10, Pl. 1:4). Also interesting is the Cabalistic inscription AGLA on the sword from the Ljubljana river, Slovenia (cat.

²¹ Миленковић 1992, 58.

²² Glosek 1984, 111, with earlier literature.

²³ Geibig 1991, 241, Kat.-Nr. 42, Taf. 31.

²⁴ Кирпичников 1966, 88-89, cat. no. 41, T. XXIX,3.

²⁵ Glosek 1984, 114.

no. 378) that belongs to a group of finds indicating the presence of the Jewish tradition in the medieval applied art in Europe.²⁶ Rather complex inscriptions on blades appear once again more frequently during the 15th century when the pommels were also more lavishly decorated. The mentioned sword of Hungarian king (1386-1437) and Holy Roman Emperor Sigismund I of Luxembourg (cat. no. 126) bears on its blade the following inscription COLOMANUS EPS REX HUNGARIE. The sword from the Hungarian National Museum in Budapest has the hilt of a later date but on its blade is the inscription MATIAS CORVINUS REX UNGARIAE on one side and PRO REGE DIVINA LEGE ET GREGE on the other, referring to the Hungarian king Matthias Corvinus (1458-1490).

In the meantime the practice of engraving individual letter or two letters on the blade has been maintained and the most frequent were still the letter S (cat. nos. 20, 70, 211, 212) and letter S ligated with letter I (cat. nos. 88, 303). Of other letters on the 14th and 15th century swords that could also be inscribed in a circle are interesting those of the Cyrillic or most probably of the Cyrillic alphabet as they could point to the local workshops. One such inscription on a sword from the vicinity of Varna, eastern Bulgaria (cat. no. 212) is consisting of three circular medallions on both sides of the blade within which are alternately engraved Latin letter S and the Maltese cross and between them are Cyrillic letters ДЕ and Д and ДЕ. Letter E and the Cyrillic Slavic sign Я are engraved on one side and same letters and another Я on the other side of the blade of a sword from Knjaževac, eastern Serbia (cat. no. 278, Fig. 34).

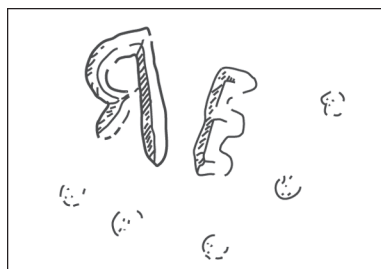


Fig. 34 – Cyrillic letters on blade of sword from site Kadijski Krst near Knjaževac, eastern Serbia, cat. no. 278.

Signs and ornaments on the blades

By far the most frequent sign engraved on the medieval swords in Europe and also in its southeastern part was the main Christian symbol – the cross. Just as the Christianity was not only the leading religion but also the main ideology and the source of ethic and moral values in the medieval Europe thus on the sword as distinctive symbol of the period prevailed the representation of the cross in various forms and shapes. We have already discussed the representations of cross on the pommels as well as on the hilts of swords in the southeast Europe and it could be concluded for the representations of this symbol on the blades that they are not only pronouncedly abundant during the entire medieval period but that they are standing out because of the diversity of variants of shapes and stylizations. The representations of the cross, Greek or Latin, cross potent, cross fourchee, the Maltese cross, more or less stylized appear independently, often inscribed in a circle, at the beginning and at the end of an inscription or within more complex heraldic or ornamental motif.

The independent representations of the cross either at the beginning or at the end of an inscription and sometimes within the inscription as well are known already from the Early Middle Ages. Of the swords with texts or letters that we already mentioned the cross was encountered on many specimens (cat. nos. 4, Pl. 2:1, 10, Pl. 1:4, 26, Pl. 1:3, 60, 69, 99, 126, 205, 223, 298, Pl. 9:2. 378). An independent representation of the cross fourchee usually inscribed in a circle is rather frequent on the swords with Type 12 cross-guards and Type Z pommels from Hungary, northern Balkans and the neighboring regions, (cat. nos. 108, 121-124, 136, 266, Pl. 6:4, Fig. 35, 268, Pl. 6:2, 269, Pl. 17:4b, 337, 382) dating from the end of the 14th and from the 15th century. Rather characteristic motif on the blades of the 12th – 14th century swords is the Maltese cross or cross potent inscribed in a circle in combination with the letter S also inscribed in a circle and they appear on specimens from Slovakia and Bulgaria (cat. nos. 8, 10, Pl. 1:4, 20, 211, 212) but there are also analogies in Bohemia and Poland.²⁷

²⁶ Nabergoj 2002, 44–52.

²⁷ Glosek 1984, cat. no. 76 (Bohemia), cat. nos. 280, 281 (Poland).

However, it will be discussed later the representation of a cross in combination with other figural or heraldic motifs.

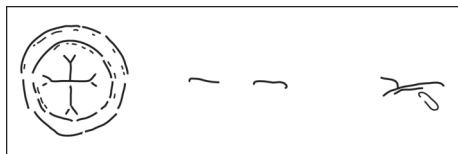


Fig. 35 – Signs on blade of sword from r. Sava near Šabac, western Serbia, cat. no. 266.

The representations of more or less stylized cross also appear on many swords. The Latin cross on a 'pedestal', i.e. with a base of asymmetrical geometric shape appears on the sword from eastern Slovakia (cat. no. 33), northern Hungary (cat. no. 66) and western Serbia (cat. no. 252). This sign has analogies with the specimens from Germany and the neighboring countries and it was explained as the sign of the German blacksmiths because, among other things, of the fact that it was depicted on the sword belonging to the knight Friedrich von Griffenstein († 1386).²⁸ The motif of an elaborate cross resembling almost a rosette and inscribed in a circle like a medallion appeared on some specimens from around the first half of the 15th century in Slovakia and Hungary (cat. nos. 41, 116) as well as on some specimens from Poland and eastern Germany.²⁹ Even more stylized cross resembling floral (cat. no. 125) or anthropomorphic motif, which also resembles an evolved lily (cat. nos. 36, 251) was represented during rather long period of time.

Among the symbolic representations worth mentioning because of their quality of execution is the inlaid made by copper wire on a blade discovered by chance at the site Pirlitor north Montenegro³⁰ (cat. no. 295, Fig. 36). This representation reveals an artisan who made it in a spirit of the Byzantine tradition while the quality of execution, which distinguishes it from most of similar finds indicates some larger urban center where the Byzantine artisans were working. It

could be some town in the Byzantine territory but also in some other region in the Mediterranean considering that sword on the basis of its typological traits indicates the period around first half of the 12th century. According to its typological traits this sword does not distinguish from the contemporary products of the leading west European workshops, so the assumption that it is the Byzantine sword could not be accepted without certain doubts. It seems possible for the time being that it is the sword produced outside the Byzantine borders and cultural influences and that it was subsequently decorated by the prominent Byzantine artisan. The symbolic meaning of the cherub became increasingly popular among the European knights in the time of the Crusades.



Fig. 36 – ornaments on the blade of Sword from Pirlitor, northern Montenegro, cat. no. 295.

The sword retrieved from the Danube near the Tahi island in the wider surroundings of Budapest (cat. no. 81) has lavish ornament on the blade executed using the silver wire and the yellow metal wire. The ornament consists of two medallions with rosettes, the motif of the lily and the female figure en face with raised hand (perhaps position of adoration). The skirt and long hair confirm without doubt that it is a female figure and that should limit the possibility of identification but whether it was some concrete historical character from the 13th century or the saint is not apparent.³¹

The representation of a four-legged animal mostly recognized as wolf has been discovered on 45 swords studied in this work not including the representations, which are not sufficiently intelligible. The sign of a wolf was used by the swordsmiths from the German town of Passau, as it is confirmed in a charter from 1340. Herzog Albrecht of Austria gave permission to the guild of

²⁸ Glosek 1984, 61-62, cat. nos. 93 (Bohemia), 140, 207 (Germany), 330 (Poland).

²⁹ Glosek 1984, 59-60, cat. nos. 274, 282, 339 (Poland), 202 (Germany).

³⁰ I wish to thank Mr. Radoman Rista Manojlović from the Regional Museum in Pljevlja who kindly provided the information on this sword and the illustrations.

³¹ Glosek 1984, 102.

swordsmith in this southeastern Bavarian town to put the sign of a wolf from the town coat of arms on the blades they produced. Albert III, bishop of Passau confirmed this right in a new charter from 1368: 'That stamp, which we call wolf we restore, verify and acknowledge. And it is our will that also our swordsmiths here in Passau engrave the same sign of a wolf on each blade'.³² These representations were in most cases of low or mediocre quality thus making difficult defining of distinct groups of these signs. They are rather heterogeneous in execution so even when there is conspicuous similarity between certain representations it is not absolutely clear whether these were the products of a single workshop or they were just copies of certain signs.³³ In any case, many of these representations could be rather recognized as some other four-legged animal, horse, dog, unicorn or most often quite indiscernible animal.

Although all these representations could not generally be classified into distinct subgroups it is still possible to identify certain related images. Similar animal representations of which one is certainly a unicorn have been encountered on the swords of identical type from Višnjica near Belgrade (cat. no. 244), from the museum in Budapest (cat. no. 70), from the vicinity of Jajce in Bosnia (cat. no. 302) and from the private collection in Croatia (cat. no. 358) that are all dated here in the period around the middle or second half of the 14th century. Relatively similar group of representations of the four-legged animal was engraved on some swords, which also date from around the second half of the 14th century (cat. no. 80, 105, 250, Fig. 37) although not all the representations are well preserved and this impeded the establishing of closer resemblance.

Of the swords with representation of the four-legged animal on one side of the blade, on 22 specimens the four-legged animal was also engraved on the other side (cat. nos. 23, 35, 38, 39, 52, 70, 80, 87, 100, 102, 104, 234, 235, 240, 244, 250, Fig. 37, 262, 291, 302, 309, Pl. 10:2, 310, 322, Pl. 11:4). These representations were mostly explained as wolf on one side and the unicorn on the other. Despite its characteristic shape,

the unicorn could not be recognized on all these representations but it is accepted in this work that if there are four-legged animals on both sides of the blade they are conditionally explained as wolf and unicorn. As not all representations resemble unicorn nor wolf thus also this amount of 22 blades must be accepted with reservation as there is high probability that on the remaining 23 blades the animal representation on the other side is not preserved.

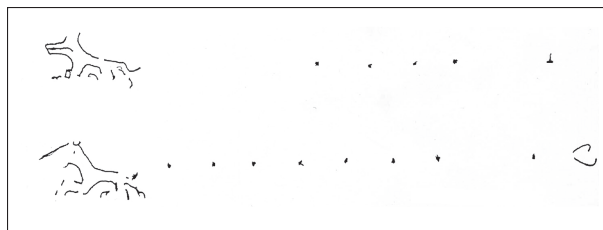


Fig. 37 – Signs on both sides of blade of sword from site Vrčež, Klokočevac, near Majdanpek, eastern Serbia, cat. no. 250.

Four of the blades with the images of the four-legged animals on both sides have also the representations of a cross (on the side with wolf) and heart (on the side with unicorn) and on some specimens is also preserved a series of few small crosses or stars. Three of these swords come from the northern Serbia and the fourth one is from the unknown site and now in the museum in Budapest (cat. nos. 104, 240, 244, 250, Fig. 37). Such composition could be assumed on another four specimens from the Hungarian National Museum in Budapest where certain elements of the composition are missing but it does not mean that they did not exist. On one sword the unicorn was substituted for the shield. Cat. nos. 80 and 100 – the heart is missing, cat. no. 105 – heraldic motif of a shield is engraved instead of unicorn, cat. no. 115 – wolf is missing.

All these eight swords do not have identical typological traits but they are related to a certain extent so they could all be dated in the 14th century, more precisely around the second half of that century. The animal representations are not similar except on three already mentioned specimens (cat. nos. 80, 105, 250, Fig. 37) but on three of these eight swords the signs (triangles) were encountered on the tang (cat. nos. 100, 240, 250, Fig. 32). Such composition of motifs was encountered also on two specimens from Poland

³² Birtašević 1966, 103, with earlier literature, unavailable to me.

³³ Glosek 1984, 50-53.

and on one from Germany and Bohemia respectively.³⁴

Of other animal representations worth mentioning is the representation of a bird on a sword from an unknown site, now in the Hungarian National Museum (cat. no. 106). This representation is explained as Turul, mythical ancestor of Arpad and symbol of the Hungarian tribe from the time immemorial. He is most often depicted as eagle and it is also present on the Hungarian coat of arms. The mythical bird Turul was frequently depicted in the Middle Ages as the symbol of Hungary, first of all of the Arpad dynasty. The family, which had Turul in its coat of arms was Hunyady – Corvin dynasty that entered the political scene during the reign of Sigismund of Luxembourg in the first half of the 15th century.³⁵ Taking into account the earlier dating of this sword it could not be linked with that family but this assumption should not be ruled out in case of the bird representation on the sword from Slavonia, north Croatia (cat. no. 337) that could be dated in the 15th century.

We have already discussed the heraldic motifs on pommels and considering those on the sword blades we selected here just the motifs shaped as the coat of arms, that is the shield on which various motifs and symbols were depicted. The most frequent motif is the shield of approximately triangular shape divided in three fields by two transversal lines (cat. nos. 59, 105, 303). To this group could be also attributed to a certain degree the representation of a shield of identical shape but with five transversal lines (cat. no. 107) and perhaps also the representation on the sword from the vicinity of Szarvas, southeastern Hungary (cat. no. 79) that resembles the shield but could also be the fish or eventually the helmet. In any case, first four swords are typologically and chronologically close while the fifth one dates from the earlier period, i.e. from the first half of the 13th century.

Such heraldic motif was explained in the earlier Hungarian literature as the coat of arms of the Abov family and double cross on the other side of the blade from the Balaton lake (cat. no. 59) as the coat of arms of the town of Levoč, pres-

ent-day eastern Slovakia, that was the domain of this Hungarian feudal family.³⁶ The town Kasau, upper Hungary, has been assumed as the place of its production but Glosek claims that this family had marginal political role after the 1312 so it has no possibility or need to produce distinctively decorated swords.³⁷ On the other hand, he states that such coat of arms, triangular shield divided into three horizontal fields that he explained as the coat of arms of Austria and that was represented on the sword ascribed to the Bohemian king Otakar II Přemysl, (1253–1278) suggests his political ambitions towards Austria. Considering that double cross, which is an element of the heraldic motif on the other side of the blade from Balaton is almost without doubt the Hungarian symbol, Glosek looked for the owner of this sword among the Hungarian rulers having political ambitions toward Austria and he identified him as king Bela IV (1235–1270) who ruled over Styria for a short time, from 1254 to 1260. As possible owners are mentioned also some other Hungarian rulers (Sigismund of Luxembourg, 1387–1437) as well as the rulers of Austria who have claims to Hungary (Fridrich III, 1457–1493).³⁸ It should be noted that as no color is preserved on any heraldic representation and that possibly there was no color at all the motif of a shield divided into three horizontal fields should not be identified without reservations as the coat of arms of Austria. In the Middle Ages almost every feudal family and also towns and provinces throughout Europe had their coats of arms. Likewise, the heraldic motifs on swords need not without reservation indicate particular ruler let alone his political aspirations. Rather large amount of swords with this coat of arms suggests that they most probably did not belong to one particular person but their typological traits as explained in this work mostly indicate the 14th century and most probably the middle or second half of that century.³⁹ Therefore, it seems that the sword from Balaton could not be connected with king Bela IV but it dates from a later period.

³⁶ Nagy 1894, 315-324; Glosek 1984, 82, with earlier literature.

³⁷ Glosek 1984, 82. See about this also Петровић и Вучинић 2002, 282.

³⁸ Glosek 1984, 83-86.

³⁹ See the chapter on Type K pommels.

³⁴ Glosek 1984, 62, cat. nos. 325, 401 (Poland), 77 (Bohemia), 198 (eastern Germany).

³⁵ Glosek 1984, 87-88. Word *turul* is of Turkish origin.

The sword from Balaton has the sign of St. Andrew's cross or Roman numeral X engraved on its tang, so if it belonged to this Hungarian king it would be conspicuously the earliest example of this distinct marking. Such heraldic sign was encountered also on a sword from the unknown site in the National Museum of Bosnia and Herzegovina in Sarajevo (cat. no. 303) and on the other side is represented a triangular shield with the Latin cross on it. The triangular shield divided into three horizontal fields was encountered in addition to the swords included in this work also on the sword ascribed to the Bohemian king Otakar II, now in the World Collection of the Kunsthistorisches Museum in Vienna, on the sword from the collection in the castle of town Zagórze Śląski, south Poland,⁴⁰ and on still another sword with inscription SHILR on the blade that is in my opinion rather boldly explained as S(igismundus) H(ungariae) I(llyriae) L(odomiriae) R(ex) and ascribed to the Hungarian king and Holly Roman Emperor Sigismund of Luxembourg.⁴¹

In addition to the triangular shield divided into three (cat. nos. 59, 105, 303) or seven (cat. no. 107) horizontal fields and identical shield with double (cat. nos. 59, 242?, Pl. 14:1) and Latin cross (cat. no. 303) the shield of identical shape with representation of a key on it was encountered on the sword retrieved from the Danube near Visegrád, northern Hungary (cat. no. 88). All the mentioned representations on these six swords have the shield of identical shape that is usually enframed, i.e. it has prominent border hence, the impression is that they are of related provenance. This impression is emphasized by the fact that all these swords have similar typological traits (K or I(a/1), XIIIa, 2) and their distribution also indicates a related origin. The remaining two swords with such signs do not have pommels and cross-guards or the published data are rather insufficient so for the time being such assumptions could not be confirmed nor denied. The distribution of finds suggests the territory of Hungary while the first decades of reign of Sigismund of Luxembourg but also slightly earlier time is in my opinion most probably the period

of their manufacture. The key is depicted also on three more specimens (cat. nos. 74, 84?, 89) in addition to the sword already mentioned. And at the end should be mentioned also the indistinguishable representations for which it could only be said that they probably represent heraldic shield-like motifs (cat. nos. 34, 39).

⁴⁰ Glosek 1984, 171, cat. no. 417, Type: –, XVIa, –.

⁴¹ Glosek 1984, 82, notes 90, 91 with earlier literature, unavailable to me, B. Engel, *Schwertinschrift, Zeitschrift für Historische Waffenfunde*, 5 (1909-1911), 157.

Conclusion

Taking into account all the above stated observations certain general conclusions could be drawn about the late medieval swords in the southeast Europe. Certain traditions inherited from the preceding period and more or less evolved are generally perceptible on the earlier specimens dating from the 12th and 13th century. Most of the swords from this area reveal the relationship with the material from other parts of Europe. The earliest blades are characterized by long and broad fuller while among the pommels prevail those of lense or mushroom shape. Such swords could be mostly understood as the later phase in evolution of the western European spathe, the weapon, which was very popular throughout almost entire Europe in the earlier centuries.

The significant changes of the sword shapes took place in Europe at the end of 11th and particularly in the 12th century and more precise picture of these modifications is provided by the investigation of Alfred Geibig on the material from the territory of Germany. Changes of the blade types are most conspicuous in size and dimensions of fuller as well as in the form of a complete blade. The measures of maximum fuller width, first of all on Types X and Xa reveal that they were clearly getting smaller in a period around the end of the 11th century. The blades of Geibig Types 4 and 5, which generally correspond to Oakeshott Type X have the fuller, which is never less than 1.8 cm wide below the cross-guard while the types emerging in Germany in the second half of the 11th century (Geibig Type 6) or sometime later (Types 7 – 11) have the fuller, which is always of a smaller width. The earliest blades with narrower fuller are denoted

as Oakeshott Types Xa and XI.¹

The most popular pommels in the southeast Europe as in the most of the continent during the 11th and 12th century were the specimens of Types A, B and B1 although other shapes have also been encountered. The cross-guards are mostly straight (Type 1, rarely Type 3) and it could be noticed that they were generally getting more and more slender in the course of time. Thus, by the end of 12th and in the beginning of the 13th century their length reached 25 cm or more. Similar conclusions could be also drawn for most of the finds from the southeast Europe but there was certain amount of swords having somewhat different traits. The blades with distinctively narrow fuller, ca 1.2 cm (Geibig Type 13) or 0.7–1.1 cm (Type 12) have been prevailing since the year 1200. The fuller length did not change in such conspicuous way although it could be noticed that it was generally getting shorter. The fuller almost running along the entire length of a blade was the characteristic of swords already in the early Middle Ages. Those with somewhat shorter fuller, around four fifths or three quarters of the blade length (Oakeshott Types Xa, XI) became more frequent from the 12th century while the blades with even shorter fuller prevailed in the next centuries.

It could be noticed considering the general sword dimensions that the average blade length gradually increased although almost not a single precise conclusion could be drawn. The average length of the sword blades from Germany was between ca 82 and 92 cm during almost the entire period from the middle of the 10th to the 12th century although the longer ones became

¹ On conditional comparison of the Oakeshott and Geibig typology of blades see at the end of the chapter on blade shapes.

more frequent from the 12th century onward. The blades around 94 cm long or even longer generally did not appear before the year 1200. The material from the southeast Europe reveals similar characteristics suggesting also that there had been used and most probably also produced the swords after the models from the western Empire. Thus, it could be concluded that general characteristics of the 11th – 13th century material from the most of Europe apply to the most of finds from the southeast Europe as well.

Such morphological traits of weapons could eventually indicate the main techniques of their use in the 12th and 13th century. A tendency of increasing the blade length, which was an advantage in battles is evident. The longer and mostly heavier blade made possible the stronger blow and better success against the good armor in addition to the reduction of fighting distance as well. The tendency towards the combat techniques, which meant stronger and heavier blows is indirectly confirmed by the appearance of the swords with hilts suitable for two hands. The earliest historical evidence for this technique is as far as I know in the *Novel of Alexander* from around 1180.² The earliest such swords of the western European characteristics had actually the hand-and-a-half hilts and in most instances they have the blades of Type Xa and XI. During the second quarter of the 13th century even squatter and heavier swords of Type XIII with such hilts were introduced and also the swords with two-handed hilts appeared around the middle of the 13th century. The most frequent types of the 12th century sword pommels remained Type E and R1b specimens besides those, which could be possibly understood as the latest derivatives of the pommels characteristic of the Frankish *spathe* (Types A, B and B1) while slightly later are the Types D, N and R1a.

There are among the 12th and 13th century swords in the southeast Europe also some specimens with somewhat different traits and their origin could be mostly sought in the eastern Mediterranean. One of the most conspicuous differences considering the western European swords is the fact that some types of the Byzantine swords did

not have a fullered blades. This characteristic was also recorded in some earlier historical sources³ and could be recognized on some finds but also in the 12th century visual sources.⁴ As good example for this weapon type could be used the blade from the museum in Varna, northeastern Bulgaria (cat. no. 207, Pl. 5:3). It has no fuller and on one side is engraved the inscription CAPΔH while on the other is the Greek letter Z (zeta). The pommel and cross-guard of this sword are missing so further analogies for these sword parts could not be established nor its more reliable dating is possible. There are some more finds from the southeast Europe for which it could be concluded that they belong to the same blade type (cat. nos. 203, 206, Fig. 25, 227, Pl. 5:4, 200?) and there are even earlier finds from the southeast Europe that are generally of the same type.⁵

Despite certain earlier finds from the western and northern Europe the origin of circular, discoid or wheel-shaped pommels are generally connected to the Mediterranean tradition of swords production. That discoid pommels had not been produced in greater quantity in the workshops in the territory of the Western Empire is confirmed by the finds from that area where they were very rare before the 13th century.⁶ In addition to many visual sources,⁷ the sword from the northeastern Bulgaria (cat. no. 206, Fig. 25) could also indicate that many of the swords with the Byzantine blade types had before the 13th century this pommel shape. As the Mediterranean tradition in sword production could be also identified certain pommels of spherical or almost spherical shape from that period (Type Ra).⁸

Thus the cultural and political circumstances discernible in the overlapping of traditions from the east and west to which the area of the southeast Europe in the Middle Ages was

³ Кирпичников 1966, 46 with earlier literature.

⁴ For example in the illustrated copy of the *Skylities' chronicle* from the 12th century, Bruhn-Hoffmeyer, 1966, Fig. 16-1, 4, 8, 12

⁵ For example Kiss 1987, 204-205, Abb. 5; Апостолов 1991, 7-8, фиг. 1,а; Йотов 2004, 40-42, к. бр. 421.

⁶ Geibig 1991.

⁷ About these examples and generally about the appearance of the discoid pommels see the chapter on Type G pommels.

⁸ Bruhn-Hoffmeyer 1963, 12; Bruhn-Hoffmeyer 1966, 96; Kollias 1988, 141.

² 'Il trait le bone espée a II espieus molus.', Oakeshott 1981, 43, note 54, with mentioned historical source unavailable to me.

prone, could be also recognized in a development of blacksmith's and swordsmith's trade in this area. Local workshops accepted the technology of production available to them and they produced the swords, which functionally and aesthetically corresponded to their environment and time. In the characteristics of these swords are reflected the influences from the areas where production of swords had strong tradition, which had been taken over completely or it was combined with other influences but we can also notice certain distinctions, which were the result of handicraft achievements and aesthetics of this area.

As the characteristics of swords from the southeast Europe that perhaps could be best explained as a result of local production but under the influences from the Mediterranean and continental Europe respectively, could eventually be identified some other pommel shapes (Type D1), blade forms (Type II) and also more diversified shapes of cross-guards. The wheel-shaped or spherical pommels, somewhat shorter blades with more acute points and heterogeneous shapes of cross-guards (e.g. cat. nos. 44, 222, 231, Pl. 6:1, 284, 285, Pl. 8:1, 287, 298, Pl. 9:2) are generally characteristics of swords used and produced in the south Europe and some other regions of the Mediterranean. Byzantium was an integral part of that region but although it belongs to the area studied in this work it was not the sole source of such influences reaching other parts of the southeast Europe. The towns on the Adriatic coast were during the entire medieval period urban, political and cultural centers that spread their influence far into its Balkan hinterland. They were also the intermediaries, particularly from the economic and cultural point of view, between the west, Italian coast of the Adriatic, primarily Venice and the Slavic states in the Balkans. Historical sources bear witness to the fact that it was the case also with technology of sword production where the local swordsmiths worked together with the Venetian artisans.⁹ Such character of the local production probably best explains the mentioned characteristics of swords from the southeast Europe of that time.

The collected material indicates that we

can count on the advanced sword production in Transylvania from around the middle of the 13th century as it is suggested also in some later historical sources. The distribution of swords with Type E1 pommels, Type XIII blades with characteristically many fullers and Type 1 cross-guards (Map 2) as well as of the swords with Type I pommels, Type X blades and Type 2 cross-guards (Map 6) indicates that significant and to a certain extent distinctive sword production developed in the eastern part of that time Hungary. Typological traits of both groups of swords suggest that these were local variants of the shapes known in western Europe. The origin of Type E1 pommels perhaps should be most probably sought in the territory of the Holy Roman Empire¹⁰ and that indirectly points to the German ethnic community in Transylvania that was recorded in the historical sources concerning the sword production in the towns Sibiu and Braşov. On the blade of one sword and perhaps on yet one more specimen of second group was discovered a name, most probably of the blacksmith G U O R A G U I S > I indicating that he was the member of the Slavic community, which was also present in Transylvania and to even greater extent in the neighboring Banat region.

The later swords from the 14th and 15th century generally reveal even more similarities to the finds from other parts of the continent. In that period had been prevailing a large knightly sword of two-handed type with massive usually fullered blade (mostly Types XIIIa, XVIa) while most frequent were the discoid pommels (mostly Types K and H1) but there were also other shapes (K1, Types T, Z). In addition to these general characteristics, which were common also in the other parts of the continent, the workshops in this area produced certain sword types, which could be understood as local variations of these characteristics. Such are, for instance, the swords with distinctive oval pommels of Type H2, with Type XVIa blades and Type 6 cross-guards (cat. nos. 257, 258, Fig. 15, 315). Considering the small amount of these finds, which are typologically but also metrologically very similar, it could be assumed that they come from one or a small number of related workshops most probably in west-

⁹ About historical sources from Dubrovnik, Kotor and other archives of the Dalmatian towns see in the introductory chapter of this book.

¹⁰ See the chapter on Type E1 pommels.

ern Serbia.¹¹ There are, however, the swords in the southeast Europe that indicate according to their traits and quantity the mass production of various typologically distinctive swords.

Most of the nowadays known swords having the earlier shapes of horizontally curved cross-guards of letter S shape (Type 12) come from the southeast Europe. Almost all of them have the pommel (if preserved) of a square shape (Types Z) indicating the distinct typological characteristics of this sword group. An exception to this rule are the later swords, mostly from around the middle and second half of the 15th century when such cross-guards have become popular in some other parts of Europe where they occur also with other pommel shapes (mostly Type T and V).

Typologically very similar swords with cross-guards of subtype 12c and square pommels of mostly Type Z3 and Type XIXa blades (Pl. 17:3) have been produced in Italy and most probably in the east Adriatic in that time. The swords having such typological traits are classified in this work as the sword family O and in the Venetian historical sources they are known as spade schiavonesche. The schiavone swords evolved from these swords in the 16th century. This weapon type got its name after the Slavs from Dalmatia who were in the Venetian service and were armed with such swords.¹² The collected swords mostly from the western Balkans as well as the historical data from the Dubrovnik archive could be of some help in looking for the origin of these weapons.

The earliest shapes of horizontally curved cross-guards selected in this work (subtype 12a) were used on the swords whose typological traits suggest the period preceding for a few decades the assumed date of production of the schiavonesche swords from the Venetian written sources. These are still large knightly swords with square pommels and massive fullered blades (Types XVIa, XIIIa) and according to this their emergence could be assumed sometimes during the second half of the 14th century. This time, in addition to the typological traits, is also indicated by the data from the testament of the blacksmith Dobrič Bunisalić from 1391 where '....doe spade

schiavonesche' are mentioned.¹³

The shape of these two swords is not described in this quotation from the Dubrovnik archive but considering that the identical term was used in Venice for slightly later but typologically similar swords it could be assumed that it was the same type of the weapons, which evolved in the course of time into the swords of family O.¹⁴ According to the facts, which are known to us today, the swords of family O could not have been produced in the end of the 14th century but at least half a century later but the swords with earliest cross-guards of subtype 12a coming almost exclusively from the western Balkans had been produced in that time (Map 8). The term Sclavonia was mostly used in medieval Dubrovnik to denote Serbia,¹⁵ so the information from 1391 if it really concerns these swords could be also understood as an indirect evidence for their provenance.

We identified in this work still another group of swords with Type 12 cross-guards and Type Z square pommels that are denoted as family N. Besides the mentioned characteristics they also have the distinctive blades of Type XXb with two or three fullers which are generally of similar size. The cross-guards of these swords are almost exclusively of the subtype 12b and in contrast to the subtype 12a they represent rather restricted group from the morphological point of view (Table 17). Almost all the swords with Type XXb blade come from the territory of medieval Hungary (Map 10) as it also could be assumed that the processional sword of this type from the Topkapi Museum, Istanbul (cat. no. 395 and probably also cat. nos. 394 and 396) comes from the Hungarian Royal Arsenal.¹⁶ Most of the nowadays known swords with cross-guards of subtype 12b also point to the same area (Map 8). And while the distribution of swords with Type XXb blades and cross-guards of subtype 12b indicates the territory of medieval Hungary, almost all swords with the earliest form of these cross-guards (subtype 12a) come from the territory of medieval Serbia

¹¹ See the chapter about Type H2 pommels.

¹² Franzoi 1990, 29.

¹³ The Dubrovnik archives, Testamenta notariae 8, fol. 2, quoted after Petrović 1976, 25. See also the chapter about cross-guards of Type 12.

¹⁴ See the chapter about swords family N.

¹⁵ Динић 1966.

¹⁶ Alexander 1987, 22, 25.

(Map 8). Likewise, it could be noticed that not a single sword from west Balkans known so far has Type XXb blade. The production of distinctive Type XXb blades could be dated around the first half and middle of the 15th century.¹⁷

The finds of Type 12 cross-guards reveal that they are conspicuously the most damaged of all types in the southeast Europe. In addition, most of them were curved just in one direction thus also suggesting the conclusion that they do not owe their shape to the fashion of that time but mostly to the role they had in battles. In the chapter on these cross-guards I tried to reconstruct the possible combat technique, which could have been most successful against the curved blade of the Turkish sabre that was at that time expanded in its upper third. The area and time of distribution of the earliest shapes of these cross-guards point to the territory where most of the military clashes in the course of Turkish conquest of Europe took place in the second half of the 14th century (Map 12).

The most important battles of that time between the Christian armies using the large knightly swords as prevailing weapons and the Turkish army using the sabres were the battle on the Maritsa river (1371), battle of Kosovo (1389) and battle of Nicopolis (1396). Second half of the 14th century was also filled with smaller skirmishes and military operations¹⁸ and the cross-guards of subtype 12a, which could have been the answer to the successful use of sabre by the Turkish army also occurred in that time. The Serbian army played active role in these earlier conflicts with the Turks and the distribution of the earliest swords with horizontally curved cross-guards also points to the territory of medieval Serbia (Maps 8, 12).

These conflicts were followed by the emigration of population that became more intensive after the final fall of the Serbian state in 1459. These people had been settled in the south Hungary and in the Hungarian and Venetian domains in the Adriatic and its role was to prevent

further Turkish conquests there. Since the end of the 14th century Hungary was directly exposed to the Turkish attacks and king Sigismund of Luxembourg took the initiative in the battle against the Turkish conquests in the southeast Europe and for that purpose he assembled also the rulers of the remaining Balkan states. So, the swords with horizontally curved cross-guards could have spread in such historical circumstances from the mediaeval Serbia in the territory of Hungary. When large workshops in Hungary and Venice took over the production of these swords they got clearly defined typological traits, which could be recognized in the swords of families N and O.

Despite the fact that these sword groups reveal certain distinctions they generally do not exceed the general framework, which characterized the largest amount of swords produced in other parts of Europe during the 14th and 15th century. Other finds from the southeast Europe dating from that time reveal even to a greater extent the resemblance to the types, which could be recognized as common general characteristics of the European swords of that time. The economic and political progress experienced by the Balkan countries in the 13th and 14th century made possible in the course of time also the progress of metallurgy and metal-working crafts including also the sword production. It could be concluded to the even greater extent for the region of the Carpathian basin, i.e. medieval Hungary where the development of this production was almost contemporary with the technological progress in leading centers of swordsmithy in Europe. The progress in iron processing and improving of new kinds of steel in that time resulted in the distinctive golden age of arms and armour of the medieval warriors that are the leading achievements of the material culture of that very epoch.

¹⁷ See the chapter on this type of blades.

¹⁸ For example battle on the Vijose river, Albania (1385), fall of Sofia (1385), fall of Niš (1386), battle of Pločnik, south Serbia (1387), battle of Bileća, east Herzegovina (1388), battle of Karanovasa (1394) and battle of Rovine (1395) in Wallachia.

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JAZU – Jugoslavenska akademija znanosti i umjetnosti, Zagreb

ГСАД – Гласник Српског археолошког друштва [Journal of the Serbian Archaeological Society]

Slov. Arch. – Slovenská Archeológia

VVM – Vesnik vojnog muzeja u Beogradu

ЗРВИ – Зборник радова Византолошког института [Byzantine Studies]

WKK – Zeitschrift der Gesellschaft für historische Waffen- und Kostümkunde, Zeitschrift für historische Waffenkunde.

Abbreviations

L – sword length;

BL – blade length;

BW – blade width;

BW' – blade width 60 cm from the cross-guard;

FL – fuller length; in brackets: on the tang;

FW – fuller width;

FW' – fuller width 40 cm from the cross-guard;

HL – hilt length;

TL – tang length;

CL – cross-guard length;

CW – cross-guard width;

PH – pommel height; in brackets: rivet height;

PW – pommel width;

PT – pommel thickness;

***** – broken;

rec. – reconstructed value;

v. – village;

r. – river;

Catalogue

SLOVAKIA

1. Bardejov, northeastern Slovakia. Saris Museum Bardejov (inv. nr. 88). Type: T, XIIIa?, 1. L= 103.5; BL= 83.3; HL= 20.2; BW= 4.5; CL= 22; PW= 3.4; PH= 3.3. Dat.: end of XV – XVI c.? Lit.: Glosek 1984, 137, cat. 1.
2. r. Danube at Bratislava. Slovakian national museum. Type: Z2b, XXb, 12b. Blade has four fullers on each side. L= 88.4*; BL= 67.3*; HL= 21.1; BW= 5; CL= 14.3*; PW= 5.8; PH= 4.2. Dat.: ½ XV c. Lit.: Glosek 1984, 137, cat. 2, T. XXXVI: 1.
3. Site Červeník, vicinity of Hlohovec, western Slovakia. Homeland Museum, Hlohovec. Type: –, XI, –. Inscriptions *IEIRS*. on one, and *RWI* on the other side of the blade are inlaid with a bronze wire. L= 89.5*; BL= 86.4; HL= 3.1*; BW= 4.7. Dat.: XII c. Lit.: Ruttkay 1975/76, 135, 165, 279, Abb. 13:6, 29:4a,b; Glosek 1984, 137, cat. 3.
4. Pl. 2:1. r. Váh, site Dlhá nad Váhom, near Šaľa, western Slovakia. Archaeological Institute SAN, Nitra (inv. nr. 1468/63). Type: R1a, XIIb?, 1. On one side of the blade, inlaid with a bronze wire, are presentations of Greek crosses, cross-shaped signs, circles and letters (*O*, *V*, *I*), and on the other S-motive line ornament. L= 106.5*; BL= 85.2*; HL= 21.3; BW= 6.3; CL= 25; PW= 7.2; PH= 5.1. Dat.: 2/2 XIII c. Lit.: Ruttkay 1975/76, 138, 163, 279, Abb. 5: 5, 12:2, 29:11a,b; Glosek 1984, 137-138, cat. 5, T. XXXII: 1.
5. r. Váh, site Dlhá nad Váhom, near Šaľa, western Slovakia. Archaeological Institute SAN, Nitra (inv. nr. 1468/63). Type: I, XIIb?, 2. On the blade, inlaid with a bronze wire, badly preserved sign (coat of arms?). L= 92*; BL= 72*; HL= 20; BW= 5.5; CL= 19.4; PW= 5.7; PH= 5.7. Dat.: end of XIII – ½ XIV c. Lit.: Ruttkay 1975/76, 138, 169, cat. 32-1, Abb. 5:1, 14:1; Glosek 1984, 138, cat. 6.
6. r. Váh, site Dlhá nad Váhom, near Šaľa, western Slovakia. Archaeological Institute SAN, Nitra (inv. nr. 1468/63). Type: I, XIIb(Xa)?, 1. L= 84*; BL= 64*; HL= 20; BW= 5.3; CL= 25.6; FL= 64*; PW= 6.1; PH= 6.1; Dat.: end of XIII - 1/2 XIV c. Lit.: Ruttkay 1975/76, 138, 169, cat. 32-2, Abb. 5:3, 14:2; Glosek 1984, 138, cat. 7.
7. Site Posádka, vicinity of Gajary, county of Bratislava, western Slovakia. Slovakian National Museum, Bratislava (inv. nr. HF-134).; Type: G, XIII?, 1. L= 36.6*; BL= 20*; HL= 16.6; BW= 6; CL= 20; PW= 5.7; PH= 5.5. Dat.: XIII c?. Lit.: Ruttkay 1975/76, 143, 162, Abb. 11:5; Glosek 1984, 138, cat. 8.

- 8.** Vicinity of Husiná, southern Slovakia. Gemer - Malohont Museum Rimavská Sobota (inv. nr. 171/69). Type: D1?, XI?, 1. On blade on one side inlaid *MVSEMDNUS*, and on the other inscribed in the circle Greek cross potent between two, also inscribed in the circle, letters 'S'. L= 62.5*; BL= 46*; HL= 16.5; CL= 19.5; BW= 4.6; FL= 46*; PH= 3.6; PW= 5.6; Dat.: 2/2 XII - 1/2 XIII c. Lit.: Ruttkay, 1975/76, 145, 257, cat. 57, Abb. 2:3, 13:3, 26:3, 28:7; Glosek 1984, 138, cat. 9.
- 9.** Jablonove, vicinity of Bratislava, western Slovakia. Slovakian National Museum, Bratislava (inv. nr. HA 30001). Type: I1?, XI?, 1?. L= 72.4*; BL= 47.8*; HL= 14.6; BW= 4.7; CL= 22.5*; PW= 5.4; PH= 4.8. Dat.: 2/2 XII - 1/2 XIII c. Lit.: Ruttkay, 1975/76, 146, cat. 64; Glosek 1984, 138, cat. 10.
- 10.** Pl. 1:4. r. Hron, site Kalna nad Hronom, county of Levice, southwestern Slovakia. Tekovian Museum, Levice (inv.nr. 2976). Type: K, XVIa, 5. On one side of the blade, inlaid with a bronze wire, inscription *RHAP* which starts with a cross, and ends with an *S* letter inscribed in circle, and on the other inscription *UDGN* which starts with a presentation of heart and ends with an, in circle inscribed, cross fourchee. L= 112*; BL= 87*; HL= 25; BW= 5.7; CL= 18.5; PW= 7.7; PH= 6.2. Dat.: 1/2 XIV c. Lit.: Ruttkay, 1975/76, 148, 165 (4), 278, Abb. 7:1, 13:4, 27:2, 29:6; M. Glosek 1984, 138, cat. 11.
- 11.** Water reservoir, site Kostolná - Záriečie, Trenčín suburbia, northwestern Slovakia. Trenčín Museum (inv.nr. H-3144). Type: B1, Xa, 1. On blade, inlaid with a bronze wire, ornament of lilies and other indistinct ornaments, on both sides. L= 106; BL= 88; HL= 18; CL= 26.6; BW= 5.8; PH= 3.5; PW= 8. Dat.: 2/2 XII – beg. of XIII c. Lit.: Ruttkay, 1975/76, 148, 150, 256, cat. 71, Abb. 5:2, 12:3, 29:3; Glosek 1984, 138, cat. 12.
- 12.** Pl. 2:3. Vicinity of Mužla, Nové Zámky county, southern Slovakia. Archaeological Institute SAN, Nitra. Type: H1, XVIa?, -. On blade, inlaid with a bronze wire, indistinct sign in a shape of a slip-knot. L= 97.5*; BL= 68.5*; HL= 29; BW= 5.9; PW= 7.6; PH= 6.1. Dat.: 2/2 XIV - beg. of XV c. Lit.: Ruttkay 1975/76, 159, 179, Abb. 5:4, 15:3; Glosek 1984, 139, cat. 17.
- 13.** Pl. 1:2. Vicinity of Myjava, Senica county, northwestern Slovakia. Slovakian National Museum in Martin (inv.nr. H-865). Type: E1, XIII?, 1. On blade, inlaid, unreadable inscription *N.O.* L= 74*; BL= 55*; HL= 19; CL= 27; BW= 5.6; FL= 55*; PH= 6.7; PW= 7.2. Dat.: around midd. of XIII c. Lit.: Ruttkay, 1975/76, 160, 257-258, cat. 103-A, Abb. 7:2, 13:5, 24:6; Glosek 1984, 139, cat. 19.
- 14.** r. Nitra near Nové Zámky, southwestern Slovakia. Slovakian National Museum Bratislava (inv. nr. HF-580). Type: G, XVIa?, 12. On each side of the blade, inlaid with a yellow metal, one Greek cross fourchee. L= 111.8*; BL= 82*; HL= 29.8; BW= 5; CL= 25.4; PW= 5.9; PH= 5.6. Dat.: around midd. of XV c. Lit.: Glosek 1984, 139, cat. 20.
- 15.** vicinity of Ploštín, near Liptovský Mikuláš, northern Slovakia. Slovakian National Museum in Martin (inv. nr. H-870, H-1010). Type: I, ?, 1. L= 48*; BL= 26.2*; HL= 21.8; BW= 5.5; CL= 22.2; PW= 6.4; PH= 6.1. Dat.: 2/2 XIII – 1/2 XIV c. Lit.: Ruttkay 1975/76, 168-169, Abb. 14:6; Glosek 1984, 139, cat. 24.
- 16.** Pl. 1:1. r. Váh near Skýcov, county of Nitra, western Slovakia. Private collection, E. Černjanský, Nitra. Type: A, Xa, 1 (bent). On blade, inlaid, indistinct letters. L= 109; BL= 96; HL= 13; CL= 17; BW= 5.3; PH= 2.7; PW= 8. Dat.: around 1/2 XII c. Lit.: Ruttkay, 1975/76, 177, 252-255, cat. 144-B, Abb. 7:3, 12:1; Glosek 1984, 139, cat. 28.

- 17.** Vicinity of Trenčín, northwestern Slovakia. Trenčín Museum(inv.nr. H-3143). Type: I, XIV, 5. On one side of the blade, inlaid with a yellow metal, leaf-shaped sign on a stand, and on the other indistinct motive. L= 101; BL= 88; HL= 13; BW= 5.7; CL= 16.2; PW= 5.6; PH= 6.2. Dat.: 4/4 XIII – 1/2 XIV c. Lit.: Ruttkay 1975/76, 147, 169, 208, 279, Abb. 5:6, 14:3, 29.5a,b; Glosek 1984, 139-140, cat. 29.
- 18.** Pl. 2:2. r. Váh near Trenčín, northwestern Slovakia. Trenčín Museum (inv.nr. H-3145). Type: H1, XVII, 1. Indistinct signs on the blade. L= 121*; BL= 93.1*; HL= 27.9; BW= 5.4; CL= 24.8; PW= 7.2; PH= 6.7. Dat.: end of XIV – beg. of XV c. Lit.: Ruttkay 1975/76, 147, 179, 182, Abb. 5:7, 15:4; Glosek 1984, 140, cat. 30.
- 19.** Unknown site. Saris Museum, Bardejov, northeastern Slovakia (inv. nr. 1285). Type: I, XII, 1. The Point of the blade is missing in a length of around 2. L= 104.6*; BL= 88.8*; HL= 15.8; BW= 4.3?; CL= 19.2; PW= 4.4; PH= 4. Dat.: 2/2 XIII c. Lit.: Glosek 1984, 140, cat. 33, T. XXIV: 2.
- 20.** Unknown site. Saris Museum Bardejov, northeastern Slovakia (inv. nr. 117). Type: I1b/K1, XIIIa/XVIa, 1. On one side of the blade, inlaid with a yellow metal, presentation of, in circle inscribed, Greek cross with triangular ends and one more Greek cross, and on the other, in circle inscribed S letter and circle. L= 121; BL= 91.2; HL= 29.8; BW= 5.6; CL= 22.6; PW= 6.1; PH= 5.5. Dat.: end of XIV – 1/2 XV c. Lit.: Glosek 1984, 140, cat. 34, T. XXXIII: 4.
- 21.** Unknown site. Slovakian National Museum Bratislava (inv. nr. HF-821). Type: H, XVa, 12. L= 120.6; BL= 90.4; HL= 30.2; BW= 2.7?; CL= 20.1; PW= 4.9; PH= 5.3. Dat.: 1/2 XV c. Lit.: Glosek 1984, 140, cat. 36, T. XXX: 3.
- 22.** Unknown site. Slovakian National Museum Bratislava (inv. nr. HF-724). Type: H, XVIa, 1. There are remains of covering of wood and leather on the hilt. L= 121*; BL= 93.4*; HL= 27.6; BW= 5.4; CL= 21.1; PW= 7.2; PH= 6.4. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 140, cat. 37.
- 23.** Unknown site. Bratislava City Museum, southwestern Slovakia. Type: T4, XVIa, 11a. On the pommel there is indistinct stamp. On the blade, on both sides inlaid with a yellow metal wire, presentations of, in circle inscribed Greek cross with cross-shaped arms, fourlegged animal (wolf?) and cross-shaped motive. Hilt is covered with wood and leather. L= 131; BL= 98.4; HL= 32.6; BW= 6.9; CL= 26.9; PW= 5; PH= 7.2. Dat.: end of XIV – beg. of XV c. Lit.: Glosek 1984, 140, cat. 38, T. XXXIII: 5.
- 24.** Unknown site. Bratislava City Museum (inv. nr. 104.091). Type: I, XI/XIIb?, 1. L= 90.1*; BL= 73*; HL= 17.3; BW= 3.1?; CL= 15.6*; PW= 5.1; PH= 5.1. Dat.: XIII c. Lit.: Glosek 1984, 140, cat. 39.
- 25.** Unknown site. Bratislava City Museum (inv. nr. 104.097). Type: G, XVIIIb?, 6. L= 131.3; BL= 103.5; HL= 28.8; BW= 3.4?; CL= 21.7; PW= 5; PH= 5.3. Dat.: 2/2 XV c. Lit.: Glosek 1984, 140, cat. 40.
- 26.** Pl. 1:3. Unknown site, southwestern Slovakia. Museum of the Magyar Culture and Danube Komárno (inv. nr. III-2062). Type: –, XII, –. On the blade, inlaid with a bronze wire, on one side medallion with a presentation of eagle and inscription *TADS*, and on the other medallion with a presentation of lion, inscription *NIC* and latin cross. L= 101.5*; BL= 87.3*; HL= 14.2*; BW= 5.1. Dat.: midd. of XIII c. The sword of Ottokar II, King of Bohemia (1253-1278)? Lit.: Ruttkay 1975/76, 165, 198, 203, 278, Abb. 13:1, 25:1, 27:3a,b; Glosek 1984, 141, cat. 50.

27. Pl. 2:4. Unknown site, southwestern Slovakia. Museum of the Magyar Culture and Danube Komárno (inv. nr. III-138). Type: –, XVIa, 1. On the blade, inlaid with a bronze wire, indistinct signs. L= 124.9; BL= 101; HL= 23.9; BW= 5.9; CL= 22.9. Dat.: XIV c. Lit.: Ruttkay 1975/76, 179, 198, 200, Abb. 15:2, 25:2; Glosek 1984, 141, cat. 51.

28. Unknown site, southwestern Slovakia. Museum of the Magyar Culture and Danube Komárno (inv. nr. III-15). Type: Na, Xa?, 1. L= 34.4*; BL= 16*; HL= 18; CL= 17* (rec. ca 25); BW= 5.1; PH= 2.7; PW= 7.7; TL= 14.4. Dat.: ¼ XIII c. Lit.: Ruttkay, 1975/76, 199, 258, cat. V-2, Abb. 13:2, 25:5. Glosek 1984, 141, cat. 52, T. XXXII:2.

29. Unknown site, southwestern Slovakia. Museum of the Magyar Culture and Danube Komárno (inv. nr. III-449). Type: I, ?, 5. On the tang of hilt there is stamp of two semicircular lines. On the blade, inlaid with a bronze wire, on one side presentation of a fist from which three arrowheads emerge, and on the other two concentric circles. L= 52*; BL= 29*; HL= 23; BW= 6.5; CL= 22; PW= 6.9; PH= 6.9. Dat.: 2/2 XIII – ½ XIV c. Lit.: Ruttkay, 1975/76, 198, 203, 279, Abb. 14:5, 25:6, 29:5a,b; Glosek 1984, 141, cat. 53.

30. Unknown site, southwestern Slovakia. Danubecki Museum, Komárno (inv. nr. III-143). Type: I, ?, 1. \overline{D} = 69*; BL= 41.6*; HL= 27.4; BW= 5.7; CL= 21.7; PW= 5.2; PH= 5.2. Dat.: 2/2 XIII – ½ XIV c. Lit.: Ruttkay 1975/76, 169, 198-200, Abb. 14:4, 25:3; Glosek 1984, 141, cat. 54.

31. Unknown site. Eastern Slovakia Museum, Košice (inv. nr. 39 – 589). Type: R1a, XI?, –. On the blade, inlaid with a silver wire, inscription *NR.A.IAIAINI*, and on the other side ornament in the shape of series of rhombs. L= 72.8*; BL= 56.6*; HL= 16.2; BW= 4.8; PW= 7.4; PH= 4. Dat.: XIII c. Lit.: Glosek 1984, 141-142, cat. 55.

32. Unknown site. Eastern Slovakia Museum, Košice. Type: K?, XIII, 2. On the blade, inlaid with a yellow metal wire, presentation of a Greek cross. L= 115; BL= 98; HL= 17; BW= 6; CL= 22; PW= 5.5; PH= 6. Dat.: 2/2 XIII - ½ XIV c. Lit.: Ruttkay 1975/76, cat. VI-C-1; Glosek 1984, 142, cat. 56.

33. Unknown site. Eastern Slovakia Museum, Košice (inv. nr. 2982). Type: K, XVIa, 5. On the tang of hilt there is stamp of a rectangular field with six dots in it. On the blade, on both sides, inlaid with a yellow metal, sign of stylized latin cross with forked stand. L= 130.4; BL= 102.4; HL= 28; BW= 6.6; CL= 18.3; PW= 7.4; PH= 6.3. Dat.: XIV c. Lit.: Glosek 1984, 142, cat. 57, T. XXXIII: 6.

34. Unknown site. Eastern Slovakia Museum, Košice (inv. nr. 1648 F 9227). Type: K, XVIa, 2. On both sides of the blade, inlaid with a yellow metal wire, smaller sign of triangular shield with a reversed triangle on it. L= 126.8; BL= 99.4; HL= 27.4; BW= 5.1; CL= 18.2; PW= 5.8; PH= 6.1. Dat.: ½ XIV c. Lit.: Glosek 1984, 142, cat. 58, T. XXXI: 1.

35. Unknown site. Eastern Slovakia Museum, Košice (inv. nr. F 9183). Type: I, XII?, ?. On both sides of the blade, inlaid with a yellow metal wire, presentation of fourlegged animal (horse, unicorn, wolf?). L= 99.4*; BL= 76.9*; HL= 22.5; BW= 4.9; CL= 11.5*; PW= 6; PH= 4.6. Dat.: 2/2 XIII - ½ XIV c. Lit.: A. Ruttkay, 1975/1976, 206, cat. VI-B-1; Glosek 1984, 142, cat. 59.

36. Unknown site. Eastern Slovakia Museum, Košice. Type: I1, ?, 1. On one side of the blade, there is engraved presentation of very stylized latin cross with a stand. L= 80*; BL= 68*; HL= 12; CL= 18; BW= 4.5. Dat.: XV c?. Lit.: Ruttkay 1975/76, cat. VI-C-4; Glosek 1984, 142, cat. 60.

37. Unknown site. Spišské Museum, Levoča, northeastern Slovakia (inv. nr. 334). Type: T3, XIIIa/XXb?, 11a. On the hilt there is preserved leather covering. $D=114$; $BL=88.7$; $HL=25.3$; $BW=4.6?$; $CL=26.5$; $PW=5.8$; $PH=5.6$. Dat.: XV c. Lit.: Glosek 1984, 142, cat. 63.

38. Unknown site. Spišské Museum, Levoča, northeastern Slovakia (inv. nr. 333). Type: T6, XVIa?, 11a. On the blade, on both sides, inlaid with a yellow metal, presentations of two concentric circles connected with transverse lines, fourlegged animal (wolf?) and indistinct letter. $L=130.8$; $BL=98.3$; $HL=32.5$; $BW=5$; $CL=30.9$; $PW=5.4$; $PH=5.4$. Dat.: 2/2 XV c. Lit.: Glosek 1984, 142, cat. 64, T. XXVIII: 4.

39. Unknown site. Spišské Museum, Levoča, northeastern Slovakia (inv. nr. 337). Type: T3, XX, 11a. On both sides of the blade, inlaid with a yellow metal, presentations of wolf and small shield with a slanting line. $L=117.3$; $BL=92.3$; $HL=25$; $BW=5.5$; $CL=23.4$; $PW=4.3$; $PH=4.9$. Dat.: XV c. Lit.: Glosek 1984, 142, cat. 65.

40. Fig. 21. Unknown site. Spišské Museum, Levoča, northeastern Slovakia (inv. nr. 335). Type: Rb, XX, 11. On one side of the blade there is presentation of fourlegged animal, inlaid with a yellow metal wire, with scarce transversal lines. On the hilt, leather covering is preserved. $L=113.4$; $BL=86.2$; $HL=27.2$; $BW=6.4$; $CL=22.9$; $PW=4.4$; $PH=5.4$. Dat.: 2/2 XV c. Lit.: Glosek 1984, 142, cat. 66, T. XXXV: 4.

41. Unknown site. Spišské Museum, Levoča, northeastern Slovakia (inv. nr. 336). Type: Rb, XVIa, 11. $L=113.5$; $BL=87.5$; $HL=26$; $BW=6.2$; $CL=26.8$; $PW=5.4$; $PH=4.5$. On one side of the blade, inlaid with a yellow metal wire, medallion with a rosette – flower, and on the other medallion with stylized Greek cross. There is leather covering preserved on the hilt. Dat.: XV c. Lit.: Glosek 1984, 142, cat. 67, T. XXXV: 5.

42. Unknown site. Gemer - Malohont Museum Rimavská Sobota, southern Slovakia (inv. nr. 172/69). Type: I1b, XVIa, 1. On both sides of the blade, inlaid with a yellow metal, presentation of cross with stylized upper arm and a sign which resembles rope with a slip-knot. $L=110.9$; $BL=85.8$; $HL=25.1$; $BW=6.1$; $CL=23.7$; $PW=6.4$; $PH=6.2$. Dat.: 2/2 XIV – beg. of XV c. Lit.: Ruttkay 1975/76, 151, 179, 208, Abb. 7:5, 15:1, 29:7; Glosek 1984, 145, cat. 105.

43. Unknown site. Western Slovakia Museum, Trnava (inv. nr. 13348/76). Type: Z, XXb, 12. $L=78.9*$; $BL=61.4*$; $HL=17.5$; $BW=4.8$; $CL=14$ (*?); $PW=3.9$; $PH=3.5$. Dat.: XV c. Lit.: Glosek 1984, 145, cat. 106.

44. Unknown site. Municipal Museum Zlaté Moravce, western Slovakia. Type: D1, I?, 1. The blade is without fuller or a ridge. Dat.: XIII c. Lit.: Ruttkay, 1975/76, 210, 258, Abb. 2:3, cat. XII.

45. r. Váh, site Dlhá nad Váhom, near Šaľa, western Slovakia. Archaeological Institute SAN, Nitra. At least one two-edged blade of a late mediaeval sword. Type and dimensions are unknown. Lit.: Ruttkay, 1975/76, 138.

46. Unknown site, western Slovakia. County Museum, Hlohovec. Discoid pommel, with circular convexities on both sides. Cross-guard is straight, while blade is fractured. Dimensions are unknown. Dat.: XIV? c. Lit.: Ruttkay, 1975/76, 199, cat. IV.

- 47.** Danube near village of Radvaň, vicinity of Virt, southwestern Slovakia. Museum of the Magyar Culture and Danube, Komárno (inv.nr. III-3170). Discoid pommel, with circular convexities on both sides, cross-guard is straight, slim, of rectangular sectionplane and with rounded ends. Dimensions are unknown. Dat.: XIV? c. Lit.: Ruttkay, 1975/76, 188, cat. 173.
- 48.** Site Solyvar, vicinity of Prešov, eastern Slovakia. Saris Museum Bardejov (inv.nr. 682-H-26). Discoid pommel, with circular convexities on both sides, cross-guard is straight, and blade has wide fuller in the middle. Dimensions are unknown. Dat.: 2/2 XIII – XIV? c. Lit.: Ruttkay, 1975/76, 171, cat. 129.
- 49.** site Hradište (mediaeval fortification), outskirts of Trakovice, Trnava county, western Slovakia. Archaeological Institute SAN, Nitra. Thinner discoid pommel. Cross-guard is straight, and blade is fullered, fractured. Dimensions are unknown. Dat.: XIV? c. Lit.: Ruttkay, 1975/76, 181, 260, cat. 161.
- 50.** Chance find near village of Kluknava, eastern of Krompachi, northwestern of Košice, eastern Slovakia. Study collection of Spis Castle. Pommel is thinner, discoid, hilt is for two hands, cross-guard is straight. Blade is fullered. Dimensions are unknown. Dat.: XIV - XV c. Lit.: Ruttkay, 1975/76, 148, 260, cat. 67.
- 51.** Castle Garaj in fortress of Devin - Bratislava, building in eastern part of fortress, archaeological excavations. Type: K, XVII?, –. On both sides of the blade, in upper parts, inlaid with a yellow metal, signs in shape of stylized cross or of indistinct sign. L= 126,9; BL= 98.5; HL= 28.4; BW= 6; PH= 5.5; PW= 5.6. Dat.: 2/2 XIV c. Lit.: Plachá and Hlavicová 1980, 223-225, Obr. 117:2.
- 52.** Spišská Nová Ves – Smižany, central Slovakia, chance find. Type: –, XIIIa?, 1. On one side of the blade, inlaid with a bronze wire, presentation of a running wolf, and on the other two curved parallel lines and an indistinct sign. L= 93*; BL= 72*; HL= 21*; BW= 5.7; CL= 21.3; CW= 1.2; FL= 72*; FW= 1.2; t= 1845 g*. Dat.: XIV c. Lit.: Ruttkay 1987, 92-94, Obr. 42.
- 53.** Chance find of a hoard (?) of four swords (one double-edged and three single-edged), site Baková-Tajvan, village Drahovce, county of Trnava, western Slovakia. Military Museum, Piešťany. Type: K, XIIIa?, 1. The blade has two fullers on each side. L= 120.5; HL= 25; BL= 94.5; BW= 5.4; CL= 18.2. Dat.: around 2/2 XIV c. Lit.: Bača and Krupa 1991, 19 - 20, Obr. 2:2.
- 54.** Dead backwater of r. Váh, site Pasínek, near Šoporňa, western Slovakia, chance find. Type: I, ?, 2. L= 33.4*; BL= 15.7*; HL= 18.2; CL= 18.7; BW= 4.5; PH= 5.5; PW= 6; TL= 11.5. Dat.: around 2/2 XIII – beg. of XIV c. Lit.: Katkin 1996, 106, Obr. 73.
- 55.** Vicinity of Myjava, Senica county, northwestern Slovakia. Slovakian National Museum in Martin. Type: A, X?, 3. L= 43.1*; BL= 29.8*; HL= 13.3; BW= 4.6; CL= 13.7; PW= 6; PH= 2.8. On one side of the blade, inlaid with an iron, inscription *INGELRII*, and on the other geometrical ornament. Dat.: around ½ XI c. Lit.: Ruttkay 1975/76, 160, 161, ryc. 10 (3); (II), 276, ryc. 25 (3a,3b), 279, ryc. 28 (5a,5b); Glosek 1984, 139, cat. 18.
- 56.** Unknown site. Bojnice Museum (Bojnický zámok), northwestern Slovakia (inv. nr. H-641). Type: A, X, 3. L= 104; BL= 89.4; HL= 14.6; BW= 7.7?; CL= 13.3; PW= 6; PH= 2.9. On one side of the blade, inlaid with a bronze wire, presentation of a star between two circles, and on the other two Greek crosses with vertical line between. Dat.: around ½ XI c. Lit.: Ruttkay 1975/76, 199, 161-2, 279, ryc. 10:1, 11:3, 29:2a,2b; Glosek 1984, 140, cat. 35.

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57. Dresden State Art Collections, Armoury (Dresden, Staatliche Kunstsammlungen, Rüstkammer), eastern Germany (inv. nr. HMD VI/413). Type: G, XVa, 1 (twisted). On the pommel, done with silver, gilding and enamel, on one side there is coat-of-arms with presentation of eagle, and on the other coat-of-arms consisted of four fields, two of which have four red and four white horizontal stripes, and other two have presentation of lion on his back feet. On the blade, on one side there is engraved presentation of wolf and a star, and on the other just wolf. L= 118 (117);ⁱ BL= 92 (90); HL= 26 (27); CL= 24.5 (24.5); BW= 5.8 (5.8) PH= 6; PW= 6. Dat.: Present of Hungarian King Sigismund of Luxembourg to Austrian Herzog Friedrich IV in the 1425. Lit.: G. Nagy 1894, 315-318, T. I; Bruhn-Hoffmeyer 1954, 72, 93, 134, 192, kat. nr. III d 73, pl. XXVI a; Kalmar 1971, 63, 106. kép; Glosek 1984, 147, kat. nr. 131.

58. Lake Balaton, western Hungary. Hungarian National Museum, Budapest (inv. nr. 53.174). Type: Z?, XVIa, 5 (twisted). On the blade, on each side, inlaid with a yellow metal wire, one smaller presentation of a sword. L= 116.3*; BL= 90.3*; HL= 26; BW= 5.1; CL= 21.7; PW= 8.1; PH= 6.7. Dat.: 2/2 XIV – 1/2 XV c? Lit.: Glosek 1984, 171, cat. 418.

59. Lake Balaton, western Hungary. Hungarian National Museum, Budapest (inv. nr. 55.3115). Type: K, XIIIa, 2. On the tang of the hilt there are two stamped crossed lines (St. Andrew's cross). On the blade, inlaid with a yellow metal, heraldic presentations: on one side double cross on a triangular shield, and on the other triangular shield divided in three fields with two horizontal lines. L= 124.8; BL= 101; HL= 23.8; BW= 5.5; CL= 22.7; PW= 6; PH= 5.4. Dat.: 3/4 XIII c. (?), the most probably sword of Hungarian King Bela IV (1235 – 1270). Lit.: Kalmar 1894, T. II:3; Glosek 1984, 171, cat. 419, T. XXXIV: 2; Lugosi and Temesváry 1988, 225, cat. 10.

60. site Barcsenyi, not far from r. Drava, southwestern Hungary. Hungarian National Museum, Budapest (inv. nr. 52.81). Type: H, XI, 1. On the blade, inlaid with a yellow metal, letters *SE + DS*, and on the other side *++ SA +*. Crosses are of cross potent type. L= 116; BL= 97.8; HL= 18.2; BW= 4.8; CL= 22; PW= 5.6; PH= 5. Dat.: around 2/2 XII c. Lit.: Glosek 1984, 171, cat. 420; Lugosi and Temesváry 1988, 226, cat. 12.

61. Budapest, site Margetsziget, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 52.21). Type: B, X, 1. On the blade, on one side there is engraved letter *E*, cross without lower arm and one more cross potent, and on the other letters *EAI*. L= 97.4; BL= 84.2; HL= 13.2; BW= 5.5; CL= 19.1; PW= 6; PH= 4. Dat.: around 1/2 XI c. Lit.: Glosek 1984, 171, cat. 421; Lugosi and Temesváry 1988, 225, cat. 5.

62. r. Danube near Budapest. Military History Museum, Budapest (inv. nr. 70.88.1). Type: II?, XIIIa, 1. On the pommel on each side, inlaid with a yellow metal wire, four Greek crosses, and on the blade, presentation of a wolf on one side, and framed triangular shield with latin cross with a circle on its top and a flower on the other. On the tang of the hilt there are two stamped crossed lines (St. Andrew's cross). L= 127; BL= 98.2; HL= 28.8; BW= 5.7; CL= 19; PW= 5.3; PH= 5.1. Dat.: around 2/2 XIV c. Lit.: Glosek 1984, 171, cat. 422.

63. r. Danube near Budapest. Hungarian National Museum, Budapest (inv. nr. 53.184). Type: K, XII-Ia, 1. On one side of the blade, inlaid with a yellow metal wire, presentation of fourlegged animal. L= 131.6; BL= 104.5; HL= 27.1; BW= 5.1; CL= 20.7; PW= 6.2; PH= 6. Dat.: XIV c. Lit.: Glosek 1984, 172, cat. 423.

ⁱ Dimension values out of brackets are taken from: Glosek 1984, 147, kat. nr. 131, and those in brackets from: Bruhn-Hoffmeyer 1954, kat. nr. III d 73 (Kat. page 30).

- 64.** r. Danube near Budapest. Hungarian National Museum, Budapest (inv. nr. 53.187). Type: K, XII-Ia, –. On the pommel, inlaid with a yellow metal wire, four Greek crosses on each side, and on the blade on one side presentations of a cross, indistinct stylized sign and a running animal (wolf?), and one more stylized sign on the other side. L= 123.8; BL= 97.5; HL= 26.3; BW= 5.9; PW= 5.6; PH= 5.8. Dat.: XIV c. Lit.: Glosek 1984, 172, cat. 424.
- 65.** Budapest, site Zuglo. Hungarian National Museum, Budapest (inv. nr. 53.187). Type: H1, XVIa/XIIIc, 1. On the tang of the hilt there are two stamped circles, one above the other. L= 111.6; BL= 86.5; HL= 25.1; BW= 5.6; CL= 21.7; PW= 6.7; PH= 4.6. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 172, cat. 425.
- 66.** r. Danube near Budapest. Hungarian National Museum, Budapest (inv. nr. 60.8095). Type: I?, XVII?, –. On the tang of the hilt there is imprinted sign in a shape of latin letter *V*. On the blade on both sides, inlaid with a yellow metal, presentations of latin cross with forked stand. L= 132.1; BL= 104.2; HL= 27.9; BW= 6; PW= 7.1; PH= 5.9. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 172, cat. 426.
- 67.** Village of Csákberény, north of Székesfehérvár, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 52.18). Type: B, XI?, 1. On one side of the blade, inlaid with a yellow metal, unreadable stylized inscription. L= 104.5; BL= 91.9; HL= 12.6; BW= 5.2; CL= 17.5; PW= 5.8; PH= 4.1. Dat.: 2/2 XI – 1/2 XII? c. Lit.: Glosek 1984, 172, cat. 427.
- 68.** Village Csomád, northeastern outskirts of Budapest. Hungarian National Museum, Budapest (inv. nr. 52.83). Type: Ra, XI, 1. On both sides of the blade, inlaid with a yellow metal, long, rich ornament of tendrils, heads of fantastic animals and other motives. There is also an inscription *STIHRI*. L= 102.5; BL= 88.9; HL= 13.6; BW= 4.6; CL= 18.1; PW= 4.2; PH= 3.4. Dat.: XII c. Lit.: Kalmar 1971, 61, kép. 101/c; Glosek 1984, 172, cat. 428.
- 69.** r. Danube. Hungarian National Museum, Budapest (inv. nr. 59.7793). Type: –, XII, 1. On the blade there is engraved inscription + *S* . . *N* +. Crosses are of cross potent type. L= 87.2*; BL= 81.4*; HL= 5.8*; BW= 6.2; CL= 20.8. Dat.: XIII c. Lit.: Kalmar 1894, T. II:6; Glosek 1984, 172, cat. 429.
- 70.** r. Danube. Hungarian National Museum, Budapest (inv. nr. 53.191). Type: K, XIIIa, 1. On the blade, inlaid with a yellow metal wire, letter *S* and running wolf on one side, and letter *R* and running unicorn on the other. Letters are written reversed, 180° in relation to presentations of animals. L= 125.5; BL= 99.5; HL= 26; BW= 5.6; CL= 21; PW= 6.3; PH= 5.8. Dat.: XIV c. Lit.: Glosek 1984, 172, cat. 430.
- 71.** r. Danube. Hungarian National Museum, Budapest (inv. nr. 54.2265). Type: I1, XIIIc?, 1. On both sides of the blade, inlaid with a yellow metal, ornament of series of dots – notches, and one side there are also motives of crescents and crosses. L= 100; BL= 78.4; HL= 21.6; BW= 4.1; CL= 22.4; PW= 4.8; PH= 4.5. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 172, cat. 431.
- 72.** r. Danube. Hungarian National Museum, Budapest (inv. nr. 53.156). Type: I1, XIIIc?, 1. On the tang of hilt, there is stamped dot framed with two concentric circles, outer of which is damaged. L= 108; BL= 82.1; HL= 25.9; BW= 4.8; CL= 23.6; PW= 5.6; PH= 4.7. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 172, cat. 432.

73. Village Endröd near Gyoma, southeastern Hungary. Hungarian National Museum, Budapest (inv. nr. 53.165). Type: I, XIIIa, 5. On one side of the blade, inlaid with a yellow metal, presentation of a running wolf. L= 115.1*; BL= 87.7*; HL= 27.4; BW= 6; CL= 18.8; PW= 7.1; PH= 5.8. Dat.: midd. of XIV c. Lit.: Glosek 1984, 172, cat. 433.

74. Site Majk - Budapest. Military History Museum, Budapest (inv. nr. 60.8089). Type: T1, XVII?, 11 (straight). Cross-guard is twisted around its axis. On the blade, there are remains of yellow metal wire. L= 125.1; BL= 94.5; HL= 30.6; BW= 4.9; CL= 24.9; PW= 4.4; PH= 6.8. Dat.: 2/2 XV c. Lit.: Csillag 1971, cat. 30; Glosek 1984, 172, cat. 435.

75. r. Danube near Nagytétényi street, southwestern outskirt of Budapest. Hungarian National Museum, Budapest (inv. nr. 72.9545). Type: –, XVIa, 5. On the blade, there are remains of yellow metal inlaying. L= 125.8*; BL= 111.4; HL= 14.4*; BW= 4.8; CL= 20.7. Dat.: XIV c. Lit.: Glosek 1984, 172-173, cat. 436.

76. Site Gömör, Pohoroká, northeastern Hungary, near the border of Slovakia. Hungarian National Museum, Budapest (inv. nr. 53.150). Type: I1b, XVII, 5. On the tang of hilt there is stamped sign of two parallel arrowheads. On the blade, on one side there is engraved sign in a shape of a key. L= 124.5; BL= 95.3; HL= 29.2; BW= 4.1; CL= 24.3; PW= 5.3; PH= 5. Dat.: 1/2 XV c. Lit.: Glosek 1984, 173, cat. 437, T. XXXIV: 7; Lugosi and Temesváry 1988, 226, cat. 14.

77. Site Putzipusta, north of Kaposvár, southwestern Hungary. Hungarian National Museum, Budapest (inv. nr. 55.3148). Type: K1, XVIa, 2. On the pommel, inlaid with a yellow metal, Greek cross. On both sides of the tang of hilt there is imprinted sign of two slanting crossed lines (St. Andrew cross). On both sides of the blade, inlaid with a yellow metal wire, presentations of an arrow, and crossbow respectively. L= 134.8; BL= 108.3; HL= 26.5; BW= 5.6; CL= 21.9; PW= 7.3; PH= 6.2. Dat.: 2/2 XIV c. Lit.: Glosek 1984, 173, cat. 438; Lugosi and Temesváry 1988, 225-226, cat. 11.

78. Solymár, northwestern outskirt of Budapest, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 55.3133). Type: Z2b, XXb, 12c. On the tang of hilt there is imprint of two arrowheads. Blade has three fullers and on both sides inlaid with a yellow metal, presentation of, in circle inscribed, cross fourchee. L= 119.2; BL= 93.5; HL= 25.7; BW= 4.8; CL= 15; PW= 6; PH= 5.2. Dat.: ½ or midd. of XV c. Lit.: Nagy 1898, 228, T. II:3; Glosek 1984, 173, cat. 439, T. XXXVI: 3; Lugosi and Temesváry 1988, 226, cat. 18.

79. Vicinity of Szarvas, southeastern Hungary. Hungarian National Museum, Budapest (inv. nr. 55.130). Type: Na, Xa, 1. On both sides of the blade, inlaid with a yellow metal, heraldic (?) sign with two transversal lines. L= 107.6*; BL= 90.3*; HL= 17.3; BW= 5.1; CL= 25.4; PW= 8.2; PH= 2.6. Dat.: ¼ XIII c. Lit.: Glosek 1984, 173, cat. 441, T. XXVIII: 1; Lugosi and Temesváry 1988, 225, cat. 7.

80. r. Tisa (Tisza) near Szolnok, central Hungary. Hungarian National Museum, Budapest (inv. nr. 55.169). Type: I, XVIa, 1. On the blade, inlaid with a yellow metal, presentation of a wolf on one side and unicorn and two small Greek crosses on the other side. L= 130; BL= 101.5; HL= 28.5; BW= 5.7; CL= 25.5; PW= 7.5; PH= 6.2. Dat.: XIV c. Lit.: Glosek 1984, 173, cat. 442.

81. r. Danube near Tahi island, upstream of Budapest, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 67.8521). Type: A?, XII?, 1. On the blade, inlaid with silver and yellow metal, figure of a woman and floral motive on one side, and two medallions with a rosette, on the other side. L= 98.1; BL= 84.7; HL= 13.4; BW= 5.3; CL= 16.6; PW= 5.5; PH= 2.8. Dat.: XII – XIII c.? Lit.: Glosek 1984, 173, cat. 443.

- 82.** r. Danube near Tahi island, upstream of Budapest, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 67.8509). Type: I1, XVa?, 1. On the blade, , inlaid with a yellow metal, smaller St. Andrew's cross and latin cross with forked stand ?. L= 124.5; BL= 94.4; HL= 30.1; BW= 6; CL= 26.2; PW= 5.9; PH= 5.2. Dat.: XV c. Lit.: Glosek 1984, 173, cat. 444.
- 83.** r. Danube near Tahi island, upstream of Budapest, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 67.8526). On the blade there is, inlaid with a yellow metal wire, presentation of a wolf. Dat.: XV c?. Lit.: Glosek 1984, 173, cat. 445.
- 84.** r. Danube near Vác, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 68.9083). Type: B, XI, 1. On both sides of the blade there is imprinted complex geometric ornament. L= 101.4; BL= 87.3; HL= 14.1; BW= 4.2; CL= 22.7; PW= 6.1; PH= 3.9. Dat.: around ½ XII c. Lit.: Glosek 1984, 173, cat. 446; Lugosi and Temesváry 1988, 225, cat. 2.
- 85.** Vicinity of Vatta, south of Miskolcz, northeastern Hungary. Hungarian National Museum, Budapest (inv. nr. 53.177).; Type: I, XVIa?, 2. On the blade, on one side, inlaid with a yellow metal, letter R and a flower, and on the other medallion with indistinct motive as well as other indistinct motives. L= 116.2*; BL= 92.4*; HL= 23.8; BW= 5.9; CL= 20.7; PW= 5.6; PH= 4.8. Dat.: XIV c. Lit.: Glosek 1984, 173, cat. 447.
- 86.** r. Danube near Visegrád, northern Hungary. King Matthias Corvinus Museum, Visegrad (inv. nr. 73.1.1.1). Type: I1, XIIIa, 1. On both sides of the blade, inlaid with a yellow metal wire, cross with widened arms and a hammer on one side, and presentation of a key on the other? L= 123.1; BL= 97; HL= 26.1; BW= 5.2; CL= 18.6; PW= 5.8; PH= 5.5. Dat.: end of XIV – beg. of XV c. Lit.: Glosek 1984, 173, cat. 448.
- 87.** r. Danube near Visegrád, northern Hungary. King Matthias Corvinus Museum, Visegrad (inv. nr. 74.128.1). Type: –, XIIIa?, –. On one side of the blade, inlaid with a yellow metal presentation of a wolf and letters U and I, and on the other of unicorn (?). L= 75.7*; BL= 48.8*; HL= 26.9; BW= 5.8. Dat.: XIV c. Lit.: Glosek 1984, 173-174, cat. 449.
- 88.** r. Danube near Visegrád, northern Hungary. King Matthias Corvinus Museum, Visegrad (inv. nr. 74.133.1). Type: ?, XVIa?, 1?. On the blade, on one side, inlaid ligature of crossed letters S and I, and somewhat lower, framed triangular shield with a sign in a shape of stylized key (?). L= 114.6; BL= 89; HL= 25.6; BW= 5.5; CL= 21. Dat.: end of XIII – XIV c. Lit.: Glosek 1984, 174, cat. 450.
- 89.** r. Danube near Visegrád, northern Hungary. King Matthias Corvinus Museum, Visegrad. Type: –, XVIa, 1. On one side of the blade, inlaid with a yellow metal wire, presentation of a unicorn or a bird (?). L= 83.4*; BL= 72.4*; HL= 11*; BW= 6.5; CL= 21.6. Dat.: XIV c. Lit.: Glosek 1984, 174, cat. 451.
- 90.** r. Danube near Visegrád, northern Hungary. Hungarian National Museum, Budapest (inv. nr. 73.9653). Type: H, XVIa?, 1. On one side of the blade, inlaid with a yellow metal wire, damaged presentation of a fourlegged animal (wolf ?). L= 92*; BL= 62.5*; HL= 29.5; BW= 6; CL= 18.5*; PW= 7; PH= 6. Dat.: 2/2 XIV – ½ XV c. Lit.: Glosek 1984, 174, cat. 452.
- 91.** Vicinity of Zalaegerszeg, western Hungary. Hungarian National Museum, Budapest (inv. nr. 55.3134). Type: K1, XVIa, 1. On both sides of the blade, inlaid with a yellow metal wire, smaller sign in a shape of key. L= 124.5; BL= 99.1; HL= 25.4; BW= 4.2*; CL= 22.5; PW= 6.8; PH= 6. Dat.: XIV c. Lit.: Glosek 1984, 174, cat. 453, T. XXXIV: 3; Lugosi and Temesváry 1988, 226, cat. 13.

- 92.** Pl. 3:1. Unknown site. Military History Museum, Budapest (inv. nr. 52.84). Type: G, Xa, 2. L= 96.5; BL= 80.7; HL= 15.8; BW= 5.7; CL= 22.1; PW= 4.5; PH= 4.3. Dat.: XII c. Lit.: Csillag 1971, 33, cat. 23; Glosek 1984, 174, cat. 454.
- 93.** Unknown site. Military History Museum, Budapest (inv. nr. 72.8.1). Type: I1, XIIIa, 1. L= 125.1; BL= 101.8; HL= 23.3; BW= 5.6; CL= 22.2; PW= 5.7; PH= 5.5. Dat.: XIV c. Lit.: Glosek 1984, 174, cat. 455.
- 94.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 59.7846). Type: –, XI?, 1. On both sides of the blade, inlaid with a yellow metal wire, letter *S* in a circle. L= 98.8*; BL= 79.4*; HL= 19.4; BW= 4.7; CL= 21.6. Dat.: 2/2 XII – 1/2 XIII c. Lit.: Glosek 1984, 174, cat. 456.
- 95.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 60.8132). Type: –, XII, –. On one side of the blade, there are engraved letters *H M N* as well as irregular recess, and on the other side, circle between ornaments each of two framed transversal zig-zag lines and a cross fourchee. L= 97.8*; BL= 85.6; HL= 12.2; BW= 5.4. Dat.: XIII c. Lit.: Glosek 1984, 174, cat. 457.
- 96.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 52.61). Type: C?, Xa?, 1. On one side of the blade, inlaid with a silver wire, letters *O S O*, and on the other *S O S*. L= 109.9; BL= 95.5; HL= 14.4; BW= 5.8; CL= 16.8; PW= 8; PH= 3.7. Dat.: around 1/2 XII c. Lit.: Nagy 1896, 356, T. III/1 (?); Glosek 1984, 174, cat. 458.
- 97.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 52.86). Type: D, Xa/XIIb?, 1. On one side of the blade, irregular recess is visible, and on the other side cross fourchee, inlaid with a yellow metal wire. L= 111.4; BL= 94; HL= 17.4; BW= 5.8; CL= 21.4; PW= 7.2; PH= 4.6. Dat.: 1/2 XIII c. Lit.: Glosek 1984, 174, cat. 459.
- 98.** Pl. 3:3. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.127). Type: Nb, Xa/XIII, 1. On the blade, there are engraved cross potent cross between two letters *S* and some other indistinct signs. L= 110.3; BL= 93.1; HL= 17.2; BW= ca. 5-5.2; CL= 27.7; PW= 7.4; PH= 3,4. Dat.: 1/2 XIII c. Lit.: Glosek 1984, 174, cat. 460, T. XXVIII: 2.
- 99.** Unknown site. Hungarian National Museum, Budapest. Type: K?, Xa/XIIb?, 1. On one side of the blade, there is engraved, long and wide unreadable inscription with more presentations of Greek cross. On the other side inscription can hardly be seen, and it begins with a presentation of, in circle inscribed, Greek cross. L= 102.7; BL= 83.6; HL= 19.1; BW= 5.5; CL= 23.7; PW= 5.9; PH= 5.6. Dat.: 2/2 XIII c. Lit.: Glosek 1984, 174, cat. 461.
- 100.** Pl. 3:2. Unknown site. Hungarian National Museum, Budapest (inv. nr. 55.3114). Type: K1, XVIa/XVII, 1. On the pommel, there is a presentation of a Greek cross, inlaid with a yellow metal inserts. On the tang of the hilt, there is imprinted sign in a shape of slanting line with three smaller triangular recesses next to it. On one side of the blade, inlaid with a yellow metal wire, are presentations of a wolf and St. Andrew's cross, and on the other, unicorn and latin cross. L= 121.2; BL= 93.7; HL= 27.5; BW= 5.5; CL= 23.7; PW= 6.8; PH= 5.5. Dat.: end of XIV – beg. of XV c. Lit.: Nagy 1898, 230-231, T. I/2; Csillag 1971, 33, cat. 24; Glosek 1984, 174, cat. 462.

101. Unknown site. Hungarian National Museum, Budapest (inv. nr. 55.194). Type: K, XIIIa, 1. On the pommel, there is imprinted presentation of Greek cross in circle, and on the tang of the hilt imprinted sign in a shape of three crescents around one dot. On the blade are visible remains of inlaying - two spots of yellow metal. L= 125.5; BL= 101.6; HL= 23.9; BW= 4.8; CL= 17.5; PW= 5.3; PH= 4.7. Dat.: 1/2 XIV c. Lit.: Glosek 1984, 174-175, cat. 463.

102. Unknown site, Hungary. Hungarian National Museum, Budapest (inv. nr. 53.142). Type: I, XII-1a, 5. On one side of the blade, inlaid with a yellow metal wire, presentation of a fourlegged animal and letters *R* and *A*, and on the other side indistinct presentation of a fourlegged animal (?) and two indistinct signs or letters. Letters are written reversed, 180° in a relation to animal. L= 106.7; BL= 83.6; HL= 23.1; BW= 5.2; CL= 17.8; PW= 5.7; PH= 5.2. Dat.: 1/2 XIV c. Lit.: Glosek 1984, 175, cat. 464.

103. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.192). Type: J, XIII, 1. On both sides of the blade is engraved presentation of Greek cross potent. L= 114.5; BL= 97.5; HL= 17; BW= 5.3; CL= 22.7; PW= 5.3; PH= 4.9. Dat.: around 2/2 XIII c. Lit.: Glosek 1984, 175, cat. 465.

104. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.195). Type: I, XIIIa, 1. On the blade are engraved, on one side presentations of a wolf and Greek cross, and on the other of a unicorn and a heart. L= 123.1; BL= 98.6; HL= 24.5; BW= 6; CL= 26.5; PW= 5.6; PH= 5.7. Dat.: XIV c. Lit.: Glosek 1984, 175, cat. 466.

105. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.152). Type: K, XIIIa?, 2. On the pommel, inlaid with a yellow metal inserts, presentations of a Greek cross. On the blade, there is on one side presentation of a fourlegged animal (wolf?) and a Greek cross, and on the other of framed triangular shield with two transversal lines and a heart. The cross and the heart are engraved, while the animal and the shield are inlaid with a yellow metal wire. L= 129.3; BL= 100.2; HL= 29.1; BW= 5.6; CL= 19.8; PW= 6.3; PH= 5.8. Dat.: XIV c. Lit.: Nagy 1894, T. II:7; Glosek 1984, 175, cat. 467, T. XXIX: 1.

106. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.193). Type: I, XVIa?, 1. On one side of the blade there is engraved presentation of a bird. L= 101.3*; BL= 78*; HL= 23.3; BW= 5.3; CL= 26; PW= 5.3; PH= 5.3. Dat.: 1/2 XIV c. Lit.: Glosek 1984, 175, cat. 468.

107. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.1799). Type: I, XIIIa, 2. On one side of the blade there is heraldic presentation of triangular coat-of-arms with five transversal lines. L= 116.5*; BL= 91.5*; HL= 25; BW= 5.5; CL= 23; PW= 5.8; PH= 5.3. Dat.: end of XIII – 1/2 XIV c. Lit.: Nagy 1894, T. II:4; Glosek 1984, 175, cat. 469, T. XXIX: 2.

108. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.373). Type: J1, XV, 4. On one side of the blade are imprinted two parallel lines and a presentation of Greek cross with splitted arms. L= 70; BL= 51; HL= 19; BW= 4.8; CL= 14.9; PW= 6.1; PH= 5.5. Dat.: XV c.?. Lit.: Glosek 1984, 175, cat. 470, T. XXX: 2.

109. Unknown site. Hungarian National Museum, Budapest (inv. nr. 52.79). Type: K, XVIa, 1. On both sides, inlaid with a yellow metal, presentation of smaller Maltese cross with splitted arms. L= 116.1; BL= 92.7; HL= 23.4; BW= 4.9; CL= 20.3; PW= 5.1; PH= 5.3. Dat.: 1/2 XIV c. Lit.: Glosek 1984, 175, cat. 471.

110. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.171). Type: I1, XVIa?, 2. On the pommel, there is imprinted unknown presentation. On the tang of the hilt, star-shaped motive in a circle. On the blade there is engraved damaged presentation of a fourlegged animal. L= 101.2*; BL= 82.4*; HL= 18.8; BW= 5.4; CL= 19.9; PW= 5.4; PH= 4.3. Dat.: XIV c. Lit.: Glosek 1984, 175, cat. 472.

111. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.167). Type: I, XVIa?, –. On the blade, inlaid with a yellow metal, indistinct signs. L= 95.7*; BL= 66.6*; HL= 29.1; BW= 5.4; PW= 6.5; PH= 5.2. Dat.: XIV c. Lit.: Glosek 1984, 175, cat. 473.

112. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.181). Type: K, XVIa?, 1. On both sides of the blade, inlaid with a yellow metal, presentations of a cross potent in a circle and smaller crosses between its arms. L= 109.5*; BL= 84*; HL= 25.5; BW= 5.8; CL= 23.8; PW= 5.7; PH= 5.4. Dat.: XIV c. Lit.: Glosek 1984, 175, cat. 474.

113. Unknown site. Hungarian National Museum, Budapest (inv. nr. 52.1759). Type: K, XVIa, 1a. On one side of the blade, inlaid with a yellow metal wire, presentation of a latin cross with forked stand and rhombs on its arm ends. L= 104.5*; BL= 79.7*; HL= 24.8; CL= 20.1; PW= 8; PH= 6.9. Dat.: XIV c. Lit.: Glosek 1984, 175, cat. 475.

114. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.172). Type: I1, XIIIc, 1. On each side of the blade there is one vertical line, letter I or remain of a larger motive (?). L= 113.3; BL= 87.3; HL= 26; BW= 5.6; CL= 21.4; PW= 5.9; PH= 4.7. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 175, cat. 476.

115. Unknown site. Hungarian National Museum, Budapest (inv. nr. 57.6124) Type: K, XVIa, 5. On one side of the pommel, inlaid Greek cross. On one side of the blade, inlaid with a yellow metal, presentation of a wolf or unicorn and a heart, and on the other of Greek cross. L= 85*; BL= 58.2*; HL= 26.8; BW= 5.2; CL= 18.1; PW= 5.6; PH= 6.5. Dat.: XIV c. Lit.: Glosek 1984, 176, cat. 477.

116. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.148) Type: I1, XVIa/XIIIc, 1. On the tang of the hilt, there is imprinted stamp. On the blade, on both sides, inlaid with a yellow metal, medallion with motive of stylized cross and one St. Andrew's cross. L= 102.8; BL= 79.4; HL= 23.2; BW= 5.4; CL= 25.5; PW= 5.3; PH= 5.3. Dat.: 2/2 XIV - beg. of XV c. Lit.: Glosek 1984, 176, cat. 478.

117. Unknown site. Hungarian National Museum, Budapest (inv. nr. 70.9380) Type: –, XVIa?, –. On one side of the blade, there are engraved presentations of arc-shaped motives and two groups of three dots each. L= 98.3*; BL= 77*; HL= 21.3(*); BW= 3.9(*). Dat.: XIV? c. Lit.: Glosek 1984, 176, cat. 479.

118. Unknown site. Hungarian National Museum, Budapest (inv. nr. 59.7788) Type: –, XVII?, –. On the tang of the hilt there is engraved sign in a shape of letter V. L= 130.7*; BL= 99*; HL= 31.7; BW= 6.7. Dat.: 2/2 XIV – beg. of XV c? Lit.: Glosek 1984, 176, cat. 480.

119. Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.155) Type: I1, XIIIc, 1. On the tang of the hilt there is imprinted stamp in a shape of number 8. On the blade, inlaid with a yellow metal, indistinct signs. L= 103.5; BL= 76.6; HL= 26.9; BW= 5.4; CL= 20.9; PW= 5.7; PH= 4.8. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 176, cat. 481.

- 120.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.168) Type: H1, XVII, 1. On the blade on one side, inlaid with a yellow metal, two, and on the other side, one presentation of a sword. L= 142.9; BL= 113.9; HL= 29; BW= 5.1; CL= 26; PW= 7.6; PH= 6.2. Dat.: 2/2 XIV – beg. of XV c. Lit.: Glosek 1984, 176, cat. 482.
- 121.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.315) Type: Z, XXb, 12. On the blade, inlaid with a yellow metal, presentations of fourlegged animal and cross fourchee in a circle. Dat.: XV c. Lit.: Glosek 1984, 176, cat. 483.
- 122.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.308) Type: Z, XXb, 12. On the blade, there is inlaid presentation of cross fourchee in a circle on both sides, and on one there is also three-armed cross-shaped motive. Dat.: XV c. Lit.: Glosek 1984, 176, cat. 484.
- 123.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.314) Type: Z, XXb, –. On the blade there is indistinct motives inlaid with a yellow metal. Dat.: XV c. Lit.: Glosek 1984, 176, cat. 485.
- 124.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.310) Type: Z3, XIIIa, 12b. On both sides of the blade there is engraved presentation of a cross fourchee. Dat.: ½ или midd. of XV c. Lit.: Glosek 1984, 176, cat. 486, T. XXXVI: 4.
- 125.** Unknown site. Hungarian National Museum, Budapest (inv. nr. 53.312) Type: Z, XXb, 12. On both sides of the blade, inlaid with a yellow metal, presentation of cross-shaped floral motive. Dat.: XV c. Lit.: Glosek 1984, 176, cat. 487.
- 126.** Kunsthistorisches Museum Vienna, Collection of Arms and Armour. Type: J1?, XXI, ?. On the blade, there is inscription: *COLOMANUS EPS REX HUNGARIE* as well as complex ornament. The pommel is discoid and richly ornamented, while the cross-guard is stylized in a form of dragon, with twisted ends. Dat.: 1433–1434. r. Sword of Sigismund I of Luxembourg, Hungarian King (1386 – 1437) and Holy Roman-German Emperor (1410 – 1437). Lit.: Kalmar 1971, 64–65, kép. 110; Boccia and Coelho 1975, fig. 95–96; Oakeshott 1981, pl. 42B; Glosek 1984, 177, cat. 490.
- 127.** York, eastern England. Type: T, XVa, 4. On the blade there is complex floral ornament with a Greek (?) cross in its middle. L= 132.1; BL= 98; HL= 34; CL= 34.5; BW= 6.8. Dat.: 1387 – 1400. Present of Hungarian King Sigismund I of Luxembourg to English King Richard II (1377 – 1400). Lit.: Kalmar 1971, 64, kép. 107; Glosek 1984, 177, cat. 491.
- 128.** Unknown site. Hungarian National Museum. The pommel and the cross-guard (basket) are from the beginning of XVII c. Type of the blade: XIX. On the blade there is inscription *MATIAS CORVINUS REX UNGARIAE* on one side and *PRO REGE DIVINA LEGE ET GREGE* on the other side. Dat. of the blade: 1458 – 1490. Lit.: Kalmar 1971, 68, kép. 118, 119.
- 129.** Unknown site, Hungary. Type: B1, XI, 1. L= 111*; BL= 93*; HL= 18; CL= 16; BW= 3.5; FL= 93*. Dat.: around 2/2 XII c. Lit.: Nagy 1896, 354, T. II/5.
- 130.** Village Isztimér, county Fejér, some 20 km NW of Székesfehérvár, northwestern Hungary. Hungarian National Museum, Budapest, obtained in 1871. Type: D?, Xa, 2. L= 117; BL= 101; HL= 16; TL= 11.5; CL= 18; BW= 5.5. Dat.: around ½ XIII c. Lit.: Nagy 1896, 356, T. III/3.

- 131.** Region Szabolzi northeastern Hungary, found in 1886. Museum Nyíregyháza. Type: B, Xa, 1. L= 61*; BL= 47*; HL= 14; TL= 9.7; PH= 4.3; PW= 8.3; BW= 5.5; CL= 17.3. Dat.: 2/2 11 - ½ XII c. Lit.: Nagy 1898, 228, 230, T. I/3.
- 132.** Site Belen, some 7 km northwest of Bekes?, 1882., southeastern Hungary. Hungarian National Museum. Type: Z2b, XXb/XIIIc, 12b. L= 83; BL= 62; HL= 21; BW= 4.5. Dat.: ½ or midd.of XV c. Lit.: Nagy 1898, 228, T. II/1.
- 133.** Site Szucs?, northern or northwestern Hungary obtained in 1870. Hungarian National Museum. Type: Z2b, XXb, 12b. L= 111*; BL= 90*; HL= 21; BW= 5. Dat.: ½ or midd.of XV c. Lit.: Nagy 1898, 228, T. II/5.
- 134.** Unknown site, Hungary. Museum, Budapest. Type: Z3, XIXa, 12c. On one side of the blade, there is presentation of a running wolf. Dimensions are unknown. Dat.: 2/2 XV c. Lit.: Nagy 1894, 321, fig. 9.
- 135.** Unknown site. Hungarian National Museum, Budapest. Type: B, Xa, 1. Dimensions are unknown. Dat.: XII c. Lit.: Kalmar 1971, 60, kép. 100/d.
- 136.** Unknown site. Hungarian National Museum, Budapest. Type: N1, Xa, 1. Dimensions are unknown. Dat.: 2/2 XI – beg.of XII c. Lit.: Kalmar 1971, 60-61, kép. 100/e.
- 137.** Unknown site. Hungarian National Museum, Budapest. Type: E, X/Xa, 1. Dat.: 2/2 XI - ½ XII c. Lit.: Kalmar 1971, 61, kép. 100/f.
- 138.** Unknown site. Hungarian National Museum, Budapest. Type: K, XVIa, 1. On both sides of the pommel, on lateral discs, there is presentation of Greek cross. Dimensions are unknown. Dat.: around 2/2 XIV c. Lit.: Kalmar 1971, 61, kép. 101/a.
- 139.** Unknown site. Hungarian National Museum, Budapest. Type: J2, XVIa/XVII?, 1. Dimensions are unknown. Dat.: XIV c. Lit.: Kalmar 1971, 61, kép. 101/b.
- 140.** Unknown site. Hungarian National Museum, Budapest. Type: H?, XVIa, 5. Dat.: around beg. of XV c. Lit.: Kalmar 1971, 61, kép. 101/d.
- 141.** Unknown site. Hungarian National Museum, Budapest. Type: K1, XVIa, 2. On both sides of the pommel, on central circular convexities, there is presentation of Greek cross. Dimensions are unknown. Dat.: around 2/2 XIV c. Lit.: Kalmar 1971, 62, kép. 101/e.
- 142.** Unknown site. Hungarian National Museum, Budapest. Type: Z2b, XXb, 12b. Dimensions are unknown. Dat.: ½ or midd.of XV c. Lit.: Kalmar 1971, 62, kép. 101/f.
- 143.** Unknown site. Hungarian National Museum, Budapest. Type: Z1, XXb, 12b. The blade has on each side, two (or three) narrow fullers. Dat.: ½ or midd.of XV c. Lit.: Kalmar 1971, 62, kép. 101/g.
- 144.** Unknown site. Hungarian National Museum, Budapest. Type: Z2b, XVII?, 12b. Dimensions are unknown. Dat.: ½ or midd.of XV c. Lit.: Kalmar 1971, 62, kép. 101/h.
- 145.** Taken out of Danube. Military History Museum, Budapest. Type: A/B?, Xa, 1. L= 110-120? Dat.: end of XI - ½ XII c. Lit.: Csillag 1971, 32, cat. 22.

146. Fig. 31. Unknown site, Hungary. Type: Z1, XXb, 12b. Dimensions are unknown. Dat.: $\frac{1}{2}$ or midd. XV c. Lit.: Csillag 1971, 34, cat. 25.

147. Unknown site, Hungary. Type: A, Xa, 1. Dimensions are unknown. Dat.: end of XI - $\frac{1}{2}$ XII c. Lit.: Csillag 1971, 32, 33, cat. 26.

148. Unknown site, Hungary. Type: T5, XVIa?, 2. Other data unknown. Dat.: $\frac{1}{2}$ XV c. Lit.: Csillag 1971, 33, cat. 29.

149. Unknown site. Mátyás Király Múzeum, Visegrád, northern Hungary. Type: Z2b, XVIa?, 12a. Dimensions are unknown. Dat.: end of 14 - $\frac{1}{2}$ 15 c. Lit.: <http://www.ceu.hu/medstud/manual/SRM/arms1.htm> (28. 05. 2007).

150. Unknown site. Mátyás Király Múzeum, Visegrád, northern Hungary. Type: Z2b, XVIa/XXb?, 12b. Dimensions are unknown. Dat.: $\frac{1}{2}$ 15 c. Lit.: <http://www.ceu.hu/medstud/manual/SRM/arms1.htm> (28. 05. 2007).

151. Site Kunszentmárton, some 20 km northeastern of Csongrád southeastern Hungary. Type: Ia, XII, 1. On one side of the blade there is presentation of triangular shield with five horizontal lines, and on the other side of triangular shield with indistinct motive. Dimensions are unknown. Dat.: midd. - $\frac{2}{2}$ 13. c. Lit.: Gyula 1986, 278-279.

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152. Site Cături, village Grid, vicinity of Călan, county Honedoara, western Romania. National Military Museum, Bucharest. Type: –, XIII, 1. L= 95.3*; BL= 82*; HL= 13.3*; CL= 26; BW= 5.5; FL= 65. Dat.: around $\frac{2}{4}$ – $\frac{3}{4}$ XIII c. Lit.: Popa 1972, 75-77.

153. Pl. 4:2. Site Bâta Doamnei, vicinity of Piatra Neamt, northeastern Romania, archaeological excavations, XIII c. layer. Type: E1, XIII, 1. The blade has on each side two fullers. In lower part of the blade there are two signs in shapes of an arrow and a pine bough. L= 118; BL= 97; HL= 21; CL= 25; BW= 5; FL= 68. Dat.: around $\frac{2}{4}$ – $\frac{3}{4}$ XIII c. Lit.: Scorpan 1965, 446-447, Fig. 5/1; Pinter 1999, Taf. 40-a.

154. Site Bâta Doamnei, vicinity of Piatra Neamt, northeastern Romania, archaeological excavations. Type: –, XII?, –, BL= 94*; FL= 66. Dat.: XIII c. Lit.: Scorpan 1965, 446-447, Fig. 5/2.

155. Vicinity of Buzau, Wallachia, Southeastern Romania. Slatineanu collection, Bucharest. Type: Na, Xa, 1. L= 112.4; BL= 94.6; HL= 17.8; TL= 14; CL= 22.2; BW= 5.1; PH= around 2.8. Dimensions are unknown. Dat.: $\frac{1}{4}$ XIII c. Lit.: Barlett-Wells 1958, 267-268, 273, Pl. LXXV/b, LXXVI/c; Nicolle and Mc Bride 2002, 8; Pinter 1999, 130, Taf. 37-c.

156. Village Curtea de Arges, some 34 km northwestern of Pitesti, central – southern Romania. Slatineanu collection, Bucharest. Type: I1, XVIa?, 1 (bent). On the pommel, there is brand in a shape of cross with stand and thickened ends. L= 125.5; BL= 95.9; HL= 29.5; TL= 22.2; CL= 21.6; BW= 6.5; PH= 5.7. Dat.: $\frac{2}{2}$ XIV – beg. of XV c. Lit.: Barlett-Wells 1958, 266-267, Pl. LXXV/a, LXXVI/a; Pinter 1999, Taf. 37-a; Nicolle and Mc Bride 2002, 8.

157. Unknown site. Topkapi Saray Museum, Istanbul. Type: J1, XX, 2. On bronze pommel, there is Maltese cross and Cyrillic inscription with a mention of Stephen the Great, Duke of Moldova (1457–1504, born in 1434). The blade has four fullers on each side. There are four engraved small crosses on it. L= 125.9; BL= 102.3; HL= 23.6; IICD= 5; CL= 21.1. Dat.: around 1480. Lit.: Alexander 1987, 24-25, 36, 47, kat.br. 100; Nicolle and Mc Bride 2002, 46.

158. Topkapi Museum Istanbul (inv.nr. 1/2637). Type: J1, XX, 2. On bronze pommel, in the medallion, on one side there is presentation of a bull's head, star, crescent and rosette – coat-of-arms of Moldova, and on the other heraldic shield divided in two fields. In the left there are cross and crescent and in the right three horizontal bars. The blade has four fullers and four engraved small crosses. L= 127; BL= 104; HL= 23; BW= 4.4; CL= 21.1; PH= 5.7. Dat.: 2/2 15 c., Moldova. Lit.: Alexander 1987, 22, 24-25, 36, 47, kat.br. 101.

159. Topkapi Museum Istanbul (inv.nr. 1/2638). Type: J1, XX, 2. The pommel is of bronze. The blade has four fullers and four engraved small crosses. L= 129.2; BL= 104.1; HL= 25.1; BW= 5.2; CL= 21.2. Dat.: 2/2 15 c., Moldova. Lit.: Alexander 1987, 23-25, 36, 47, kat.br. 102.

160. Topkapi Museum Istanbul (inv.nr. 1/2635). Type: J1, XX, 2. The pommel is decorated with silver granulation and silver wire in a shape of the star in which center is medallion with bull's head in it, and on the other side heraldic shield with two stars, arrow and a crescent on the bottom. On the top there is ornamented rivet. Cross guard has same silver decoration. The blade has four fullers and four engraved small crosses, quadruped, unicorn, and coat-of-arms of Drágffy family. L= 127.3; BL= 100.2; HL= 27.1; BW= 5.6; CL= 23. Dat.: 2/2 15 c., Moldova. Lit.: Alexander 1987, 23-25, 36, 47, kat.br. 103.

161. Vicinity of Nerău, western Romania, near the border of Serbia. Museum of Banat, Timisoara (Inv. nr. 4957). Type: I, ?, -. L= around 29*; HL= around 13.8; BW= around 5.3. Dat.: around 2/2 XIII c. Lit.: Pinter 1998, 377, Pl. I-2; Pinter 1999, 139, Taf. 41-c.

162. Site Pădurea Verde, region of Timisoara, western Romania. Museum of Banat, Timisoara (inv. nr. 3198). Type: I, Xa?, 1. L= 56*; BL= 39*; HL= 17; FL= 39*; PH= 5.2; TL= 10.8; BW= around 5.4; FW= ca 1.3. Dat.: around 2/2 XIII c. Lit.: Pinter 1998, 377, Pl. I-3; Pinter 1999, 139, Taf. 42-c.

163. Pl. 3:4. Unknown site, western Romania? Museum of Banat, Timisoara (inv. nr. 3221). Type: I, X, 2. On one side of the blade there is inscription, inlaid with a metal wire, *G U O R A G U I S > I*. L= 105.5; BL= 88.1; HL= 17.4; CL= 22; BW= 5.2; FL= 72.6; FW= 1.9; PH= 5.8; TL= 10.6. Dat.: around 2/2 XIII c. Lit.: Pinter 1998, 375-376, Pl. I-4; Pinter 1999, 139, Taf. 42-d.

164. Site Santuri, near the village of Bucova, some 70 km northeastern of Reșița, western Romania. Museum in Resita. Type: I, Xa?, -. L= 70.8*; BL= 54.6*; HL= 16.2; FL= 54.6*; BW= 4.8*; FW= 1.37; PH= 5.2; PL= 3,3. Dat.: around 2/2 XIII c. Lit.: Pinter i Teicu 1995, 252-262; Pinter 1999, 134, Taf. 41-b.

165. Excavated in 1878. in fortification near village of Seica Mică, some 25 km north of Sibiu, central Romania. Brukenthal Museum, Sibiu (inv. nr. A. 3736). Type: E1, Xa/XIII, 1. L= 100; BL= 82.5; HL= 17.5; CL= 20.5. Dat.: around 2/4 – 3/4 XIII c. Lit.: Nagy 1896, 356, T. III/4; Rill 1983, 81-82, Abb. 1/1; Pinter 1999, 133-134.

166. Village Vurpăr, some 15 km northeastern of Sibiu, central Romania. Brukenthal Museum, Sibiu (inv. nr. M. 3812). Type: Na, Xa?, 1. L= 88*; BL= 70.5*; HL= 17.5; CL= 22.5. Dat.: 1/4 XIII c. Lit.: Rill 1983, 81-82, Abb. 1/2; Pinter 1999, 130, Taf. 37-b.

- 167.** Village Șelimbăr, some 3 km southeastern of Sibiu, central Romania, hoard. Brukenthal Museum, Sibiu (inv. nr. M. 6296). Cross-guard of circular sectionplane. Type: —, —, 2. CL= 21. Dat.: ½ XIII c. Lit.: Horedt 1957, 336, 339, Taf. 2.9, kat. 9; Rill 1983, 82.
- 168.** Village Șelimbăr, oko 3 km southeastern of Sibiu, central Romania, hoard. Brukenthal Museum, Sibiu (inv. nr. M. 6297). Type: —, —, 1. The cross-guard has quadrilateral sectionplane. CL= 17,7. Dat.: 2/2 XII – ½ XIII c. Lit.: Horedt 1957, 336, 339, Taf. 2. 10, kat. 10; Rill 1983, 82.
- 169.** Village Șelimbăr, some 3 km southeastern of Sibiu, central Romania, hoard. Brukenthal Museum, Sibiu. The pommel of sword. Type: Na, —, —. PH= 2.7; PW= 6.7. Dat.: ¼ XIII c. Lit.: Horedt 1957, 336, 339, Taf. 3. 26, kat. 26; Rill 1983, 82, Abb. 2/3; Pinter 1999, 130, Taf. 38-c.
- 170.** Village Șelimbăr, some 3 km southeastern of Sibiu, central Romania, hoard. Brukenthal Museum, Sibiu. Type: —, XI?, —. L= 92*; BL= 76.5*; HL= 15.5*; BW= 4.6; FL= 72. Dat.: ½ XIII c. Lit.: Horedt 1957, 337, 339, Taf. 5. 43, kat. 43; Rill 1983, 82, Abb. 2/1; Pinter 1999, 130, Taf. 38-a.
- 171.** Village Șelimbăr, some 3 km southeastern of Sibiu, central Romania, hoard. Brukenthal Museum, Sibiu (inv. nr. M. 6304). Part of the blade of sword, with fuller. BL= 41.5*; BW= 4.6. Dat.: ½ XIII c. Lit.: Horedt 1957, 337, 339, Taf. 5. 50, kat. 50; Rill 1983, 82, Abb. 2/2.
- 172.** Village Hamba, some 10 km northeastern of Sibiu, central Romania, chance find. Brukenthal Museum, Sibiu (inv. nr. M. 3876). Type: I, X, 2. On the blade there is inscription, with partly readable letters (*G U.*) and geometric ornament. L= 133.6?; BL= 111.2?; BW= 5.3; FL= 78; FW= 1.7; PH= 5.3; rJ1= 3.2. HL= 17.5; CL= 20.5. Dat.: oko 2/2 XIII c. Lit.: Rill 1983, 83, Abb. 3/1; Pinter 1999, Taf. 42-a.
- 173.** Bruuiu, fortification Steinburg, vicinity of Agnita, some 50 km northeastern of Sibiu, central Romania, chance find. Brukenthal Museum, Sibiu (inv. nr. M. 4387). Type: H1/K1, XIIIa, 6. L= 120.5; BL= 96.5; HL= 23.5; CL= 22. Dat.: around end of a XIVc. Lit.: Rill 1983, 83, Abb. 3/2; Pinter 1999, 146, Taf. 44-b.
- 174.** Village Râsnov, vicinity of Brașov, central Romania. Type: I, X?, 2. Dimensions are unknown, but similar to cat. 185. Dat.: around 2/2 XIII c. Lit.: Pinter 1998, 376, note 26.
- 175.** Unknown site. Historical Museum, Timisoara, western Romania. Type: T3/T5, XXb, 11 (straight). The blade is je extraordinary wide with completely rounded point. Sword for executions. Dimensions are unknown. Dat.: 2/2 XV – ½ XVI c.
- 176.** Fortification Neagra Codlea near village of Măgura Codlea, some 12 km northwestern of Brașov, central Romania. Archaeological excavations, XIII c. layer. Museum, Brasov (inv.nr. 1081). Type: Nb, Xa/XIII, 1. L= ca 115.5; BL= 97.2; HL= around 18.3; TL= around 14.2; CL= 22.8; CW= 1; BW= 5.1; PH= 3.2; PW= 7.6; PL= 6,2. center of gravity: 23 from cross-guard. Dat.: ½ XIII c. Lit.: Pinter 1999, 127, Taf. 36-b.
- 177.** Vicinity of village Sînpetru, near Brașov, central Romania, chance find. Museum, Brasov, Casa Sfatului (inv.nr. 1638). Type: Na, Xa?, 1. L= oko 87.2*; BL= around 70.4*; HL= around 16.9; TL= around 13.25; CL= around 23.1; BW= around 5.1; PH= around 3; PW= around 7.2; PL= around 6.5. Dat.: ¼ XIII c. Lit.: Pinter 1999, 130, Taf. 36-a.

178. Fig. 11. Tarnava Mica near village Coroi, some 25 km northwestern of Sighișoara, central Romania, chance find in 1985. Museum Sighișoara. Type: E1, XIII, 1. The blade has two fullers. L= 110; BL= 91; HL= 19; TL= 12; CL= 23.4; BW= 6.1; FL= around 55; FW= 2.1; PH= 6.9; PW= 7; PL= 3.4. Dat.: 2/4 - 3/4 XIII c. Lit.: Pinter 1999, 131, Taf. 39-b.

179. Pl. 4:3. site Dejan, vicinity of Brașov, Transylvania, central Romania. Museum Făgăraș (inv. nr. AM-120). Type: E1, XIII(b), 1. Dimensions are unknown. The blade and the cross-guard are fractured. Dat.: 2/4 – 3/4 XIII c. Lit.: Pinter 1999, 132, Taf. 39-a.

180. Vicinity of Făgăraș, central Romania. National Museum, Budapest. Type: E1, XIII, 1. L= 115; BL= 96; HL= 19; TL= 11.6; CL= 22.5; FL= 85 (3); PH= 6.4. Dat: 2/4 – 3/4 XIII c. Lit.: Nagy 1896, 354, 356, T. III/5.

181. Unknown site. Museum Sighișoara. Type: –, Xa?, 1. Dimensions are unknown. Lower part of the blade and upper part of the hilt are missing. Dat.: 1/2 XIII c. Lit.: Pinter 1999, 130, Taf. 36-c.

182. Site Poiana Prisacii near village Otelu Rosu, some 15 km northeastern of Caransebeș, Banat, western Romania. Museum Caransebeș (inv.nr. 13464). Type: B, Xa, 1. On the pommel, the cross-guard and the blade there are indistinct ornaments. L= 105.2* (rec. ca 110); BL= 87.4* (rec. around 92); HL= 18.8; CL= 22; CW= 1.2; TL= 12.8; BW= 5.8; FL= around 66.5; FW= 1.3; PH= 4.8; PW= 6.2; PL= 3.8. t= 1750 (rec. around 1800-1850)g. Dat.: XII c. Lit.: Pinter 1987, 363-369; Pinter 1999, 128, Taf. 34- c.

183. Museum of National History of Transylvania, Cluj-Napoca. Type: B, Xa, 1. On the pommel there are indistinct ornaments. Dimensions are unknown. Dat.: around 1/2 XII c. Lit.: Pinter 1999, 128.

184. Site City Stadium, Sighișoara, central Romania, chance find. Museum Sighișoara (inv.nr. 2485). Type: Ia, X/XIII?, 1. The blade has two fullers on each side. L= 80.5*; BL= 61.5*; HL= 19; CL= 17.6; CW= 1.4-1.2; TL= 12.2; BW= 5.6; FL= 61.5 (2.2)*; FW= 2.3; PH= 5.4; PL= 3.6; t= 1126g*. r1= 4.5. Dat.: around 2/2 XIII c. Lit.: Heitel 1995, 63-64, fig. 1/a-b, 2/a; Pinter 1999, 134, Taf. 41-a.

185. Făgăraș, Transylvania, central Romania. Museum Făgăraș (inv.nr. AM-23). Type: I, X, 2. L= 107.8; BL= 92.2; HL= 15.6; TL= 9; CL= 20.9; CW= 0.9-1.1; BW= 4.9; FL= 74 (2); FW= 1.9; PH= 5.5; t= 1205 g. Dat.: around 2/2 XIII c. Lit.: Pinter 1999, Taf. 42-a.

186. Northwestern Romania. Museum Dej (inv.nr. 634). Type: I, X?, 2. Dimensions are unknown. Dat.: around 2/2 XIII c. Lit.: Pinter 1999, 139.

187. Alba Iulia, some 40 km northwestern of Sibiu, Transylvania, central Romania. Type: I, Xa?, 2. L= 113.2; BL= 94.6; HL= 18.6; TL= 11.8; CL= 19.2; CW= 1.2-1.4; BW= 4.8*; PH= 5.6; PL= 3.2. Dat.: 2/4 – 3/4 XIII c. Lit.: Pinter 1999, 140.

188. Oraștie, some 20 km southwest of Hunedoara, western Romania, Alexandru Ioan Cuza street, Nr. 26, Chance find in 1986. Museum Oraștie. Type: Ia, XVI, –. The pommel has circular recess on each side, in the center. L= 85*(rec. oko 90); BL= 71*(rec. around 76); HL= 14; TL= around 8.8; BW= 3.3*; FL= 55; FW= 0.5; PH= 4.8; rJ1= 3.2; t= 870* (rec. around 1000) g. The sword is very damaged by corrosion. Dat.: 1/2 XIV c. Lit.: Pinter 1999, 151, Taf. 46-a.

189. Siret, some 35 km north of Suceava, northern Romania, near the border of Ukraine. National Historic Museum, Bucharest. Type: H1/K1?, ?, 6?. Dimensions are unknown. Dat.: 2/2 XIV – ½ XV c. Lit.: Pinter 1999, 147.

190. Site Făget near Bruiu, some 50 km eastern of. Sibiu, central Romania. Historic Museum, Agnita (Inv. nr. 3563). Type: Z2b?, XVIa?, 2. L= 116; BL= 96; HL= 20; CL= 19.5; BW= 6; PH= 5. Dat.: 2/2 XIV – ½ XV c. Lit.: Heitel 1995, 63, fig. 1/c, 2/b; Pinter 1999, 148.

191. Oradea, northwestern Romania. Museum Oradea. Type: K1, XVIa, 2. L= 111.2*; BL= 81.6*; HL= 29.6; CL= 19.5; CW= 1.7; BW= 5.4; FL= 48; FW= 1.4; PL= 3.1. Dat.: 2/2 XIV c. Lit.: Pinter 1999, 149, Taf. 46-b.

192. Oradea, northwestern Romania. Museum Oradea (inv.nr. 8036). Type: K1, XVIa, 1. Dimensions are unknown, but similar to cat. no. 191. Dat.: 2/2 XIV c. Lit.: Pinter 1999, 150, Taf. 46-c.

193. Pl. 4:1. site Jupa, some 800 m sothwestern of site Tibiscum, Caransebeş, Banat, western Romania. Museum Caransebeş (inv. nr. 13766). Type: I1b, XIII, 1. The blade has three fullers on each side. L= 101.5*; BL= 81*; HL= 20.5; CL= 23; TL= 14; BW= 5.5; PH= 5.5; PW= 5.5. Dat.: around 2/2 XIII c. Lit.: Pinter 1989, 385-388; Pinter 1999, 69-70, 142-143, Taf. 44-a.

194. Popoveni, near Craiova, (jud. Dolj), southern Romania. Type: ?. L= 110.5; BL= 91.5; HL= 19; BW= 5.5. On the blade, there are inlaid presentations of a cross, letter S and ornament. Dat.: ?. Lit.: Heitel 1995, 65-66.

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195. Pernik, fortification, western Bulgaria, archaeological excavations. Archaeological Museum, Sofia (inv.nr. 2044). Type: –, XI, –. On one side of the blade there is, inlaid with a silver wire, inscription: +IHININIhVILPIDHINIhVILAN+. L= 96.2*; BL= 84.2; HL= 12*; BW= 4.6. Dat.: XII c. Lit.: Манова 1966, 75; Щерева 1975, 55-59, fig. 2; Михайлов 1985, 46-47; Чангова 1992, 166-168, fig. 150, 2.

196. Pernik, fortification, western Bulgaria, obj. nr. 54. Type: R1b, Xa, 1. L= 105(?); BL= 92.5; HL= 12.5; BW= 5.5; CL= 18; TL= 7.5; PH= 4; CW= 1. Dat.: XII c. Lit.: Щерева 1975, 55-59, fig. 1; Й. Чангова 1992, 166-168, fig. 150,1.

197. Pl. 5:2. vicinity of Vrbitsa, eastern Bulgaria. Museum BAN, Preslav. Type: I, Xa/XII?, 6. L= 81*; BL= 65*; HL= 16; CL= 19; PH= 6. Dat.: 2/2 XII – ½ XIII c. Lit.: Бобчева 1958, 60, fig. 21,2; Рашев 1972, 79, fig. 16, 26.

198. Danube near village Tsar Simeonovo, vicinity of Vidin, northwestern Bulgaria. Museum Vidin. Type: E, Xa, 3. L= 104; BL= 89; HL= 15; BW= 6. Dat.: around ½ XII c. Lit.: Герасимов 1950, 307, fig. 255,2; Бобчева 1958, 61, fig. 22,3.

199. Pl. 5:1. Vicinity of Preslav, eastern Bulgaria. Museum BAN, Preslav (inv.nr. 1891). Type: H/I1a, Xa, 1. Point of the blade is missing in a length of around 1. L= 101*; BL= 85*; HL= 16; CL= 25; TL= 10; PH= 5.5; t= 1185 g. Dat.: around beg. of XIII c. Lit.: Бобчева 1958, 60, fig. 22,2; Рашев 1972, 79, fig. 1a, 2a.

200. Gradina near village Gornya Vrabcha, vicinity of Radomir, western Bulgaria; part of the hoard. Type: –, ?, –. On the base of published drawing it is not clear whether the sword has a fuller or a ridge. L= 89*; BL= around 80; HL= around 10*. Dat.: XI – XIII? c. Lit.: Герасимов 1955, 590-593, fig.7,6.

- 201.** Site Skrebtina, vicinity of Teteven, northern Bulgaria. Museum, Vidin. Type: I1, XVIa?, 2?. L= 124. Dat.: around 2/2 XIV? c. Lit.: Герасимов 1950, 306,307, fig. 255,1; Бобчева 1958, 61, fig. 22,4; Манова 1966, 75.
- 202.** Site Paradzhik, near villages of Ignyatievo and Aksakovo, vicinity of Varna, northeastern Bulgaria. Archaeological Museum, Sofia (inv.nr. 677). Type: J2, XVII, 1. L= 132; BL= 103.5; HL= 28.5; BW= 4.2; PH= 6; TL= 21. Dat.: 2/2 XIV – beg.of XV c. Lit.: Бобчева 1958, 60, fig. 21,1; Манова 1966, 78,79, fig. 17a; Апостолов 1988, 103-104, fig. 1/6.
- 203.** Village Beloslav, between Beloslav lake and Varna lake, vicinity of Varna, eastern Bulgaria. Archaeological Museum, Varna (inv.nr. IV 61). Type: I, XVI, 6. L= 103.5. Dat.: ½ XIV c. Lit.: Бобчева 1958, 59,60, fig. 21,1; Кузев 1973, 149, Т. II,2.
- 204.** Vicinity of Vidin, eastern Bulgaria. Archaeological Museum, Sofia (inv.nr. 525). Type: I1, XIIIa, 6?. Dimensions are unknown. Dat.: XIV c. Lit.: Манова 1966, 75,77, fig. 176.
- 205.** Unknown site. Archaeological Museum, Sofia (inv.nr. 1078). Type: K, XIIIa?, 1. On the tang of the hilt, there is a brand in a shape of cross inscribed in two concentric circles. Between each of its arms there is a single dot. L= 116.6; BL= 92.5; HL= 24; CL= 20.5; BW= 4.7?; FL= 58; PJ= 5. Dat.: ½ or midd.of XIV c. Lit.: Манова 1966, 75; Апостолов 1988, 102-103, fig. 1:3, 5.
- 206.** Fig. 25. Between Shumen and Trgovishte, northeastern Bulgaria. Museum in Dobrich. Type: G, Ia, –. The blade is without a fuller or a ridge. L= 86.5; BL= 67.5; HL= 19; TL= 12; PH= 7. Dat.: XI – XIII c. Lit.: Парушев 1999, 140, fig. 6.
- 207.** Pl. 5:3. Unknown site. Museum in Varna, northeastern Bulgaria. Type: –, I, –. The blade has short fuller? On one side of the blade there is inscription in Greek *CAPIH*, and on the other letter Z (zeta). L= 83*; BL= 71.5; HL= 11.5*. Dat.: around XII c.? Lit.: Парушев 1999, 140-141, fig. 7.
- 208.** Northern slope under the Gradina near village of Dolishte, vicinity of Varna, northeastern Bulgaria. Chance find. Museum in Varna. Type: –, I, –. The blade is without a fuller or a ridge. L= ca 80-85*; Dat.: around XII c. ? Lit.: Парушев 1999, 141, fig. 8.
- 209.** Site Slamata, village Debrene, vicinity of Varna, northeastern Bulgaria. Type: Ia, XII?, 1. Dimensions are unknown. Dat.: XIII c. Lit.: Парушев 1999, 141-142, fig. 9.
- 210.** Village Kardam, vicinity of General Toshevo, northeastern Bulgaria. Type: I, XIIIa?, 2. L= ca 85*; TL= 16.5. Dat.: ½ XIV c. Lit.: Парушев 1999, 142-143, сл 10.
- 211.** Vicinity of Vratsa, northwestern Bulgaria. National Military History Museum, Sofia (inv.nr. I-3-231). Type: K, XIIIa, 1. The cross-guard is forged of iron different from the other parts of sword. On circular convexities of the pommel there is presentation of Greek cross. On each side of the blade, inlaid with brass, three circles with letter S and Greek cross fourchee alternately. L= 119.5; BL= 94.2; HL= 25.3; CL= 20; BW= 6.5; FL= 61; PJ= 5.5; TL= 18.5; Dat.: XIV c. Lit.: Апостолов 1988, 99-100, 102, fig. 1:1, 2; http://www.md.government.bg/nvim/_en/orajie/o2.html (28. 05. 2007).

- 212.** Village Zornitsa, some 25 km northwestern of Varna, eastern Bulgaria. Private collection, Varna. Type: Z2c, XIIIa/XVIa, 1. On the tang of the hilt, there are engraved two, under sharp angle crossed lines – St. Andrew's cross. On one side of the blade, inlaid with a brass wire, three round medallions with letter S and cross fourchee alternately. Between them, on one side there are Cyrillic letters *ДЕ*, and on the other *Д* and again *ДЕ*. L= 110*; BL= 85*; HL= 25; CL= 22.5; BW= 5.8; FL= 59. Dat.: 2/2 XIV – 1/2 XV c. Lit.: Апостолов 1988, 100-102, fig. 1/2, 3, 4.
- 213.** Village Debreane, some 20 km north of Varna, northeastern Bulgaria, 1892. г. Archaeological Museum, Sofia (inv.nr. 40). Type: K1, XVIa, 6. L= 132; BL= 105; HL= 27; CL= 19; BW= 5.5; FL= 45; PH= 6. Dat.: 2/2 XIV c. Lit.: Апостолов 1988, 103, fig. 1/4.
- 214.** Village Debreane, some 20 km north of Varna, northeastern Bulgaria. Military Memorial Park, Varna. Type: H1, XVIa, 5. On the blade are visible indistinct signs. L= ca 130. Dat.: 2/2 XIV – beg. of XV c. Lit.: Апостолов 1988, 103, fig. 1/5; Апостолов 1983, 103-104.
- 215.** Village Vglen, near Varna, northeastern Bulgaria. Type: Z2c, XVIa, 6. On circular convexities there are engraved greek crosses. L= 105; BL= 81; HL= 24; CL= 20.5; BW= 6.3; TL= 18.5; PH= 4.2; PW= 5.2. Dat.: 2/2 XIV – 1/2 XV c. Lit.: Плетьов 2002, 195-196, обр. 1,а.
- 216.** Pl. 4:4. village Govezhda, Montana, northwestern Bulgaria. Historical Museum, Montana. Type: N1a, Xa, 1. L= 98; BL= 84; HL= 14; CL= 18; BW= 5.5; FL= 70. Dat.: end of XI – 1/2 XII c. Lit.: Първанов 2002, 221-222, Йотов 2004, 43-44.
- 217.** Site Latinsko Groblye, vicinity of village Lopyan near Etropole, western Bulgaria. Historical Museum, Etropole. Type: K, XIIIa, 1. On circular convexities of the pommel there is engraved presentation of a Greek cross. L= 90*; BL= 70*; HL= 20; CL= 14; FL= 70*; PH= 3.5; TL= 15.5. Dat.: XIV c. Lit.: Димитров 2002, 223-224.
- 218.** г. Danube near Svishtov, northern Bulgaria. Archaeological Museum, Sofia (inv.nr. 596). Type: H1, XVII, 6?. L= 119.5; BL= 94.5; HL= 25; CL= 25; BW= 4.2; PH= 5.5; PW= 7; TL= 18. Dat.: 2/2 XIV – beg. of XV c. Lit.: Апостолов 1991, 8-9, фиг. 1б.
- 219.** Village Devnya, some 40 km west of Varna, eastern Bulgaria. Military Memorial Park Varna (inv.nr. 47). Type: H?, XVIIIa?, 1. The blade is without visible fuller or a ridge. L= 97; BL= 79; HL= 18; CL= 17; BW= 3.8; t= 950 g. Dat.: 1/2 XV c. Lit.: Апостолов 1991, 10, фиг. 1с.
- 220.** Village Potop, some 50 km northwestern of Varna, northeastern Bulgaria. Military Memorial Park, Varna (inv.nr. 46). Type: I, Xa, 1. L= 104; BL= 85; HL= 19; CL= 21.5; BW= 5; FL= 71; PH= 4.5; PW= 5.5; t= 1500 g. Dat.: 2/2 XII – 1/2 XIII c. Lit.: Апостолов 1991, 10-11 фиг. 1г.
- 221.** Bulgaria (?). Military Memorial Park, Varna (inv.nr. 3), Present (or reparation?) from Hungary. Type: H, XI, 2. In upper part of the blade, on both sides there is imprinted presentation of Greek cross with rounded thickenings on its ends and in the center. L= 114; BL= 97; HL= 17; CL= 20; BW= 4.5; FL= 76; PH= 5; TL= 11; t= 1500 g. Dat.: 2/2 XII – beg. of XIII c. Lit.: Апостолов 1991, 11, фиг. 3а, б.
- 222.** Village Vuchitrn, some 20 km eastern of Pleven, northern Bulgaria. Museum Pleven (inv.nr. 2949). Type: ?, XI, 1 (bent). (B)L?= 102; BW= 4.6. Dat.: 2/2 XII – 1/2 XIII c. Lit.: Аспарухов 1992, 55-56, фиг. 1а.

223. Unknown site, northern Bulgaria. Historical Museum, Pleven (inv.nr. 3779). Type: R1b?, XI?, 1. On one side of the blade, inlaid with a yellow metal, inscription of 24 letters, some of them readable: +*INIISI INIISI ISIN.*, and on the other side 12 letters: + *R C R C R C R C R C C _*. Crosses on beginning of inscriptions have widened ends. L= 84.5*; BL= 71.5*; HL= 13. Dat.: XII c. Lit.: Аспарухов 1992, 56, fig. 16, 2.

224. Vicinity of Varna, northeastern Bulgaria. Historical Museum of Bulgaria, Sofia (Inv. nr. 33733). Type: K, XIIIa, 6. Dimensions are unknown. Dat.: XIV c. Lit.: <http://www.historymuseum.org/html/mainset.php?page=3> (02. 11. 2005).

225. Vicinity of Varna, northeastern Bulgaria. Historical Museum of Bulgaria, Sofia (inv. nr. 33733). Type: Z1, XIIIa?, 12b. Dimensions are unknown. Dat.: ½ XV c. Lit.: <http://www.historymuseum.org/html/mainset.php?page=3> (02. 11. 2005).

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226. Pl. 8:4. r. Bregalnica near site Blato, vicinity of Kočani, eastern Macedonia. Museum of Macedonia, Skopje. Type: H1, XIIIa?, 2/6. On one side of the blade, inlaid, presentation of a running wolf. L= 113.8; BL= 89.5; HL= 24.3; CL= 22; PH= 5.2 (1.1); PW= 6.5; Dat.: 2/2 XIV c. Lit.: Костадиновски 1995, 227-231.

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227. Pl. 5:4. r. Velika Morava near village Lučica, Požarevac, Serbia. Private collection. Type: –, I, –. On the blade, imprinted inscription *DOICTANH*, from the other side looks like convexity. L= 81.7*; BL= 76; HL= 5.7*; BW= 5.7; Dat.: XI - XII c. Lit.: Миленковић 1992, 57 - 59.

228. Fig. 6. Village Vojlovica near Pančevo, Serbia. National Museum in Pančevo (inv. nr. 2741). Type B, Xa?, 1. On the tang of the hilt, imprinted brand in a shape of cross in the circle, without lower arm. On one side of the blade engraved unreadable latin writing, and on the other side letter *S*. L= 24.5*; BL= 12*; HL= 12.5; CL= 19.5; BW= 5; FL= 14*; FW= 1.7; PH= 3.5; PW= 6; TL= 8. Dat.: 2/2 XI – ½ XII c. Lit.: Брмболић 1989, 38-40, М. и Ђ. Јанковић 1990, 84-85, cat. 31.1.

229. Pl. 13:1. Unknown site. Military Museum in Belgrade (inv. nr. 16079). Type: B, Xa, 1. L= 93*; BL= 78.2*; HL= 14.8; CL= 19; BW= 4.9*; BW'= 3.5*; FL= 61*; FW= 1.3; FW'= 1.2; PH= 4.3; PW= 6.3; PL= 3.3; TL= 8.5. Dat.: XII c. Lit.: Петровић 1977, 130; Петровић 1996, 144, fig. 1(б); Милосављевић 1993, 5, 23, cat. 1.

230. Vicinity of village Salakovac near Požarevac, Serbia. Belgrade City Museum (inv. nr. 2126). Type: –, XI, 1. On the blade, inlaid with a yellow metal, unreadable inscription on one side, and multiple zig-zag line on the other. The point of the blade is missing in a length of around 1. L= 85.5*; BL= 76*; HL= 9.5*; CL= 22.5; BW= 4.6; BW'= 3.15; FL= 69; FW= 0.8; HW= 2.8 - 1.5. Dat.: XII c.

231. Pl. 6:1. r. Velika Morava near site Sprud, village Staro Lanište, vicinity of Jagodina, central Serbia. Regional Museum, Jagodina. Type: D1, Xa, 1 (bent). L= 106; BL= 91; HL= 15; CL= 19; BW= 6; FL= 72.5; FW= 1; PH= 4; PW= 6. Dat.: around XII c. Lit.: Vetnić 1983, 142, T. V/1.

232. Pl. 13:2. Unknown site. National Museum in Belgrade (inv. nr. 2200). Type: I, Xa, 1. L= 103; BL= 85.5; HL= 17.5; CL= 20.3; BW= 5.4; FL= 70; FW= 1.3; PH= 4.8; PW= 5.4; TL= 11.5. Dat.: XIII c.

233. r. Danube near Zemun port, Belgrade. National Museum in Belgrade (inv. nr. 644). Type: I, XIIIa, 2. On the tang of the hilt, on one side there are engraved two St. Andrew's crosses, and on the other sign resembling letter V. On the blade, inlaid with a yellow metal, Maltese cross. L= 64.7*; BL= 43.7*; HL= 21; CL= 20; BW= 5.3; FL= 45.6*; PH= 5.5 (0.3); PW= 5.8; FW= 1.2. Dat.: end of XIII – ½ XIV c. Lit.: Нинковић 2003, 29-33.

234. r. Kolubara near village Jabučje, Lajkovac, central Serbia. Historical Museum of Serbia (inv. nr. 472). Type: I, XVIa?, 2. On one side of the blade, inlaid in bronze, presentation of a wolf, and on the other of unicorn. L= 103*; BL= 81*; HL= 22; CL= 18.5; BW= 4.5; FL= 55; FW= 1.5; PH= 5.5 (0.5); PW= 5.3. Dat.: end of XIII - ½ XIV c. Lit.: Поп - Лазић 1983, 190, cat. 3; Поп - Лазић 1996, 5; Поп - Лазић 1997, 5.

235. Pl. 16:1. left bank of r. Sava opposite to village Barič, vicinity of Belgrade. City Museum Belgrade (inv. nr. O - 23). Type: K, XVIa, 2. On the tang of the hilt, there are irregular recesses in a heart-like shape. On one side of the blade, inlaid in bronze, presentation of a wolf, and on the other of unicorn. L= 112; BL= 88; HL= 24; CL= 21.5; BW= 5.4; FL= 38; FW= 1.4; PH= 5.8; PW= 6.3. Dat.: ½ XIV c. Lit.: Шкриванић 1957, 54, fig. 19/3, note 223; Обреновац 1963, 54, 56; Бирташевић 1968, 84, 87, T. II/1, 1a.

236. Pl. 13:3. Unknown site. Military Museum in Belgrade (inv. nr. 16834). Type: I, Xa/XIIb, 1. L= 117.5; BL= 98.5; HL= 19; CL= 27; TL= 12.5; BW= 5; BW'= 3.4; FL= 62 (*); PH= 5.5 (0.3); PW= 5.3; PL= 4. Dat.: around midd. of XIII c. Lit.: Петровић 1976, 210, fig. 2; Петровић 1996, 149, fig. 6,6; Милосављевић 1993, 8, 24, cat. 5.

237. Pl. 13:4. Unknown, Military Museum, Belgrade (inv. nr. 21446). Type: I, XIIIa, 2. On the hilt, there are two engraved crossing lines. On the blade, on both sides, inlaid with a yellow metal, eight-petal flower. L= 120.5; BL= 96.5; HL= 24; CL= 21.5; BW= 5.8; BW'= 4.4; FL= 61; FW= 0.7; PH= 5; PW= 5.8; TL= 17.5; Gravity center – cca. 11 from cross-guard. Dat.: 2/2 XIV c. Lit.: Милосављевић 1993, 23, cat. 3; Петровић 1996, 147-148, fig. 5.

238. Site Vodica in Jakovački Ključ forest, vicinity of village Surčin near Belgrade. Croatian Historical Museum, Zagreb (inv. nr. 1061). Type: K, XVIa, 1. L= 109; BL= 89.5; HL= 19.5; BW= 4.5. Dat.: ½ XIV c. Lit.: Šercer 1976, 43-44, cat. 8, T. I/2.

239. Vicinity of village Salakovac near Požarevac, Serbia. City Museum Belgrade (inv. nr. 1172). Type: K, XVIa, 2. L= 78*; BL= 56*; HL= 22; CL= 19.3; BW= 4.6; PH= 4.8; PW= 5.3; HW= 3.1 - 1.7. Dat.: ½ XIV c.

240. Pl. 7:3, 16:2, Fig. 17. Danube near village Višnjica, vicinity of Belgrade. City Museum Belgrade (inv. nr. 1/540). Type: K, XIIIa, -. On both sides of the pommel, inlaid with a bronze inserts, presentation of a Greek cross, while the rivet is wrapped in bronze panelling. On the tang of the hilt, there are five triangles impressed in two rows. On one side of the blade. There are presentations of a cross and a wolf, and on the other side of a heart and of unicorn, inlaid with a yellow metal. The point of the blade is missing in a length of around 1. L= 124*; BL= 97*; HL= 27; BW= 5.8; FL= 61.5; FW= 2; PH= 6.3 (1.3); PW= 5.8; TL= 19. 5; HW= 3.6 - 1.6. Dat.: around 2/2 XIV c. Lit.: Birtašević 1968, 84, 87, T. I/1-1d.

241. Vicinity of Sremska Kamenica near Novi Sad. City Museum Novi Sad (inv. nr. Ac - 245). Type: K, XIIIa, 1. On both sides of the pommel, there is a presentation of Greek cross, inlaid with bronze inserts. Along its perimeter, at the middle of central disc, there is annular thicker bronze wire, while the rivet of the pommel is ornamented with bronze panelling. L= 93*; BL= 65*; HL= 28; CL= 20.3; BW= 5.8; FL= 5*; PH= 6.25 (1); PW= 5.8; HW= 3.1 - 1.9. Dat.: around 2/2 XIV c.

242. Pl. 14:1, Fig. 18. Unknown site. Military Museum in Belgrade (inv. nr. 21447). Type: K, XVIa, -. On the pommel there is a Greek cross, inlaid with a bronze, on both sides, and its flank sides are deeply impressed (bronze inserts are missing). The rivet of the pommel is ornamented with a bronze tin. On the blade, on both sides, inlaid with a yellow metal, Greek cross, eight-petal flower and heraldic motif in a shape of shield with a latin cross on one side, and indistinct motive on the other. L= 120.5*; BL= 96*; HL= 24.5; BW= 4.5; BW'= 3.4; FL= 59; FW= 0.8; PH= 5.3 (1.3); PW= 5.3. Dat.: around 2/2 XIV c. Lit.: Милосављевић 1993, 8, 23, cat. 2; Петровић 1996, 160, 161, fig. 13.

243. Vicinity of monastery Dečani, Kosovo, southern Serbia. Military Museum in Belgrade (old inv. nr. 75/271). Type: K, XIIIa?, ?. L= 121; BL= 97.5; HL= 23.5; CL= 22; FL= 62.5; CW= 1.5. Dat.: around 2/2 XIV c. Lit.: Шкриванић 1957, 49, note 209, fig. 16/4.

244. Village Opovo, eastern Banat, Serbia. Museum of Vojvodina, Novi Sad (inv. nr. Ac 1947). Type: K, XIIIa?, 1 (bent). On one side of the blade, there is inlaid presentation of a wolf, and on the other of fourlegged animal (leopard, unicorn ?) and a heart. L= 112.5*; BL= 87*; HL= 25.5; CL= 19.2; BW= 5.6. Dat.: around 2/2 XIV c. Lit.: Nagy 1894, 319, T. II/5; Kalmar 1959, 190-191, fig. 3-5; Birtašević 1968, 84, 87, T. II/2; Петровић, 1996, 130-131.

245. Pl. 14:3. Unknown site. Military Museum in Belgrade (inv. nr. 12750). Type: K, XIIIa, 2. On both circular convexities, as well as on the flank sides of central disc of the pommel, there is deeply engraved Greek cross. The cross-guard is ulteriorly bent sharply towards the tang. The blade is thinned due to sharpening on a grindstone. L= 131; BL= 102; HL= 29; TL= 23; CL= 18.5 (rec. ca 20); BW= 5.9; BW'= 3.8*; PH= 5 (0.8); PW= 5.4. Dat.: around 2/2 XIV c. Lit.: Петровић 1976, 20; Милосављевић 1993, 8, 24, cat. 4.

246. Pl. 14:2. Unknown site. Military Museum in Belgrade (inv. nr. 12751). Type: K, ?, 5. On both sides of the pommel, engraved Greek cross. L= 65.5*; BL= 38.8*; HL= 26.7; CL= 19; BW= 5.6; PH= 5 (0.5); PW= 6.2. Dat.: around 2/2 XIV c. Lit.: Петровић 1976, 211, fig. 4(б); Милосављевић 1993, 25, cat. 9.

247. Unknown site. National Museum in Šabac (inv. nr. O/50). Type: K, XVIa, 2. On both circular convexities, as well as on the flank sides of central disc of the pommel, inlaid with a brass, and engraved respectively are Greek crosses. L= 118*; BL= 83.5*; HL= 24.5; TL= 17; CL= 19; BW= 5; FL= 60. Dat.: XIV c. Lit.: Милутиновић 2005, 112-113, T. 1.

248. Pl. 15:1. Unknown site. Military Museum in Belgrade (inv. nr. 17180). Type: K1, XIIIa, 5. On both sides of the pommel, inlaid with a yellow metal, Greek cross. L= 112; BL= 86.5; HL= 22.5; CL= 20.5; BW= 4.9; BW'= 3.9; FL= 40*. Dat.: 2/2 XIV c. Lit.: Милосављевић 1993, 30, cat. 13.

249. Pl. 14:4. Unknown site. Military Museum in Belgrade (inv. nr. 12758). Type: K1, XIIIa, 5. L= 127; BL= 99.5; HL= 27.5; CL= 20.5; BW= 5.3; PH= 5.6 (0.7); PW= 6.6; Dat.: 2/2 XIV c. Lit.: Милосављевић 1993, 30, cat. 15; Петровић 1996, 160, fig. 12(a).

250. Fig. 25, 32, 37. Site Vrčež near Klokočevac, some 10 km south of Majdanpek, eastern Serbia. Chance find of two swords (cat. no. 253). Museum of Krajina in Negotin. Type: I1b, XIIIc, 2. On one side of the tang of the hilt, there are five triangles impressed in two rows, and on the other side three triangles and slanting line beneath them. On one side of the blade, inlaid with a brass, presentation of a wolf, four stars and damaged presentation of a cross(?), and on the other of unicorn, eight stars and a heart. Appr. 24 from the cross-guard are visible traces of blade repairing. L= 100.8; BL= 73; HL= 27.8; CL= 20.4; BW= 5.6; BW'= 3.5; FL= 46; FW= 1.7; FW'= 0.7; PH= 5 (0.5); PW= 5.3; HW= 3.3 - 1.3. Dat.: 2/2 XIV – beg. of XV c. Lit.: Јанковић 1974, 84, 88; Миловановић 1985/6, 118, cat. 290.

251. r. Zapadna Morava near Čačak, western Serbia. National Museum in Čačak (inv. nr. A-1093). Type: I, Xa/XIIb, 2. On both sides of the blade, inlaid presentation of a stylized anthropomorphic cross. L= 107.5; BL= 90; HL= 17.5; CL= 24.5; BW= 5.5; FL= 59; PH= 5.2; PW= 5.7. Dat.: around midd., 2/2 XIII c. Lit.: Марковић 1989a, 137-138, T. I.

252. r. Zapadna Morava near village Pekčanica, near Kraljevo, western Serbia. National Museum in Kraljevo (inv. nr. A60). Type: G/H1, XVIa, 6. On both sides of the blade, inlaid presentation of stylized cross with forked stand. L= 85.5*; BL= 61*; HL= 24.5; CL= 19; BW= 4.7; FL= 29. Dat.: 2/2 XIV – beg. of XV c. Lit.: Поп-Лазих и Богосављевић-Петровић 1996, 8, cat. 10; Марковић 1989a, 139, T. IV.

253. Pl. 7:2. Site Vrčež near Klokočevac, some 10 km south of Majdanpek, eastern Serbia. Chance find of two swords (cat. no. 250). Museum of Krajina in Negotin. Type: G/H1, XIIIc, 2. On the tang of the hilt there is impressed circular sign. On one side of the blade, inlaid with a brass, presentation of Greek cross in a circle, and on the other side – same sign and engraved star. L= 98.8; BL= 73.4; HL= 25.4; CL= 20.7; BW= 5.4; BW'= 3.6; FL= 44.5; PH= 5.6; PW= 6.7; FW= 1.7; FW'= 0.88; Dat.: 2/2 XIV – beg. of XV c. Lit.: Јанковић 1974, 84, 88; Миловановић 1985/6, 117, cat. 288.

254. r. Sava near Šabac, western Serbia. Historical Museum of Serbia (inv. nr. 63). Type: G/H1, XVIa, 1. On one side of the blade, there is engraved Greek cross in a circle, and on the other side – same sign with one more smaller cross on the top. L= 125.5; BL= 98.5; HL= 27; CL= 19.5; BW= 5.5; BW'= 3.5; FL= 52; FW= 1.8; PH= 4.3; PW= 5.5; HW= 3.2-1.2. Dat.: 2/2 XIV – beg. of XV c. Lit.: Поп-Лазих 1983, 189, 190, cat. 1.

255. Pl. 15:4. Danube near Golubac, eastern Serbia. Military Museum in Belgrade (inv. nr. 17197). Type: H1, XVIa, –. L= 125; BL= 95.5; HL= 29.5; BW= 5.3; PH= 5.5 (0.3); PW= 6.4. Dat.: 2/2 XIV – beg. of XV c. Lit.: Милосављевић 1993, 8, 25, cat. 12.

256. Pl. 15:3. Mouth of r. Sava in Danube under the Belgrade fortress. Military Museum in Belgrade (inv. nr. 26049). Type: K1, XVII, 5. L= 133; BL= 104; HL= 29; CL= 21.5; BW= 5.4; BW'= 3.4; FL= око 25; FW= 1.8; PH= 5.8; PW= 6.5; TL= 22.5; HW= 3-2. Dat.: 2/2 XIV – beg. of XV c.

257. r. Zapadna Morava, old riverbed near village Zablaće near Čačak, western Serbia. National Museum in Čačak (inv. nr. A/1297). Type: H2, XVIa, 6. The point is missing in a length of around 0.5. L= 114; BL= 90; HL= 24; CL= 20.5; BW= 5.4. FL= 53. Dat.: ½ XV c. Lit.: Марковић 1989b, 154; Марковић 1989a, 138, T. II.

258. Fig. 15. Site Kovačnica, village Kalenički Prnjavor vicinity of monastery Kalenić, wider vicinity of Kraljevo, central Serbia. Allegedly found with a dozen more of swords and daggers, which are not preserved. Regional Museum in Jagodina. Type: H2, XVIa, 6. On both sides of the blade, visible traces of inlay, but motives are indistinct. L= 116.5; BL= 91.5; HL= 25; CL= 20; BW= 5.5; FL= 59; FW= 1.5; PH= 6; PW= 9.5; HW= 2-3. Dat.: ½ XV c. Lit.: Vetnić 1983, 143, T. V/2.

259. Village Ledinci, near Novi Sad, northern Serbia. Croatian Historical Museum, Zagreb (inv. nr. 1871). Type: H1, ?, –. The blade has two fullers on each side. L= 103*; BL= 76,7*; HL= 26,3; BW= 5,2. Dat.: end of XIV – beg. of XV c?. Lit.: Šercer 1976, 45-46, cat. 16.

260. Pl. 16:3. Unknown site. Military Museum in Belgrade (inv. nr. 16104). Type: T2, XVIIIc, 1 (bent). L= 110; BL= 86; HL= 24; CL= 23; BW= 4.3*; PH= 5.3; PW= 5.5; TL= 17.8. Dat.: 2/2 XIV – beg. of XV c. Lit.: Petrović 1976, 22, 210, sl. 3; Petrović 1977, 131, sl. 16; Петровић 1996, 161, fig. 1a; Милосављевић 1993, 25, cat. 8.

261. Pl. 15:2. Unknown site. Military Museum in Belgrade (inv. nr. 17179). Type: K1, XVII, 6. L= 123; BL= 98; HL= 25; CL= 20; BW= 4.7; FL= 41; PH= 5.5; PW= 6.8. Dat.: end of XIV – beg. of XV c. Lit.: Милосављевић 1993, 25, cat. 11.

262. r. Zapadna Morava near village Sirča, Kraljevo, western Serbia. National Museum in Kraljevo (inv. nr. A/59). Type: K1, XIIIa, 6. On one side of the blade, inlaid presentation of a running wolf, and of unicorn on the other side. L= 114.5; BL= 89.5; HL= 25; CL= 19.5; BW= 5.4; FL= 56; PH= 6.5(0.5); PW= 6. Dat.: 2/2 XIV – beg. of XV c. Lit.: Миловановић 1985/6, 117, cat. 289; Марковић 1989a, 138, T. III; Поп-Лазвић 1996, 8, cat. 9.

263. Pl. 6:3. Site Jusupovac, village Gornja Vranjska, some 5 km south of Šabac, western Serbia. National Museum, Šabac (inv. nr. O/1). Type: Z2c, XVIa, –. On one side of the blade, there is engraved letter T and sign in a shape of crossbow. L= 119; BL= 94; HL= 25; BW= 5; FL= 50. Dat.: 2/2 XIV – ½ XV c. Lit.: Милутиновић 2005, 114, T. 2.

264. Unknown site. Military Museum in Belgrade (inv. nr. 12749). Type: Z2a, XVIa?, 12a. L= 91.5*; BL= 69*; HL= 22.5; CL= 16; BW= 5.5; BW'= 4.6; FL= 55*. Dat.: end of XIV – ½ XV c. Lit.: Petrović 1976, 27, 211, sl. 4/c; Петровић 1996, 159, fig. 12(б); Милосављевић 1993, 25, cat. 10.

265. Danube near Novi Sad, northern Serbia. City Museum Novi Sad (inv. nr. Aц 240). Type: Z2c, XVIa, 12a?. The cross-guard is straight, but it seems that originally it was horizontally curved, and then straightened. L= 111.5; BL= 86; HL= 25.5; CL= 22.7; BW= 5.3; BW'= 4; FL= 32.5; FW= 1.4; PH= 4.8; PW= 5.2; HW= 3.5-1.5. Dat.: end of XIV – ½ XV c.

266. Fig. 35. Pl. 6:4. Vicinity of Šabac, right bank of Sava. National Museum in Šabac (inv. nr. O/413). Type: Z2c, XIIIa, 6/12a?. The cross-guard is straight, but it seems that originally it was horizontally curved, and then straightened. On one side of the blade, inlaid in brass, there are presentations of cross fourchee inscribed in two concentric circles, St. Andrew's cross and two lines. L= 99*; BL= 77*; HL= 22; TL= 18; CL= 22; BW= 5.5; FL= око 49; PH= 4.5; PW= 5.5. Dat.: 2/2 XIV – ½ XV c. Lit.: Бајаловић-Хаџи-Пешић 1985, 150-151, T. II/11; Милутиновић 2005, 114-115, T. 3.

267. Pl. 17:1. Village Bačin Brdo near Petrovo Selo, vicinity of Kladovo, eastern Serbia. Military Museum in Belgrade (inv. nr. 17291). Type: Z2b, XIII, 12b. On the blade there are two impressed affronted stylized letters E and some other unreadable signs. L= 96*; BL= 77*; HL= 19; TL= 14; CL= 17; BW= 4.6; BW'= 3.85; PH= 4; PW= 6; PL= 2.1; FL= 28*; FW= 1.1. Dat.: ½ or midd. of XV c. Lit.: Милосављевић 1993, 31, cat. 21.

268. Pl. 6:2. Vicinity of village Slepčević some 10 km west of Šabac, western Serbia. National Museum in Šabac (inv. nr. O/206). Type: –, XIIIa/XVIa, 12a. On one side of the blade there is presentation of a cross fourchee. L= 104.5*; BL= 92; HL= 12.5*; CL= 21; BW= ca 5; FL= ca 49. Dat.: around ½ XV c. Lit.: Бајаловић-Хаџи-Пешић 1985, 150-151, note. 29; Милутиновић 2005, 115-116, T. 4.

- 269.** Pl. 17:4. Unknown site. Military Museum in Belgrade (inv. nr. 17176). Type: I1a, XIIIa, 12b. The cross-guard is fractured. On the blade there is a brand that looks like crossbow, cross fourchee in a circle and sign similar to letter "T". L= 118; BL= 95; HL= 23. Dat.: around ½ XV c. Lit.: Милосављевић 1993, 24, cat. 6.
- 270.** City fortress in Užice, western Serbia. Regional Museum in Užice (inv. nr. 1). Type: I1, XVa, 12a. L= 111.3; BL= 88.5; HL= 22.8; CL= 21.5; BW= 6.1. On the tang of the hilt there is impressed sign in a shape of crescent. Dat.: end of XIV – ½ XV c. Lit.: Шкриванић 1957, 53, fig.19/2; Миловановић 1985/6, 145, cat. 372; Ужице 1989, 157-158; Поповић 1995, 75, fig. 33.
- 271.** Unknown site. Military Museum in Belgrade (inv. nr. 5711). Type: T4/T2, XVIIIb, 12a. Dimensions are unknown. Dat.: XV c. Lit.: Милосављевић 1993, 30, cat. 14.
- 272.** Pl. 7:4. r. Danube near Stari Slankamen, northern Serbia. Historical Museum of Serbia (inv. nr. 463). Type: Z1, XIIIa, 12b. L= 118.5; BL= 97; HL= 21.5; CL= 16.5; BW= 4.9; FW= 36; FW= 2; PH= 4.5; PW= 5.4; HW= 2.7-1.2. Dat.: ½ or midd.of XV c.
- 273.** Pl. 17:2. Unknown site. Military Museum in Belgrade (inv. nr. 17195). Type: Z1, XIIIa, 12a. L= 118; BL= 95; HL= 23; CL= 19; BW= 5.8; FL= 53; PH= 4.8; PW= 5.3. Dat.: 4/4 of 14 – ½ 15 c. Lit.: Petrović 1977, 131, sl.18a; Милосављевић 1993, 31, cat. 19.
- 274.** Pl. 16:4. Unknown site. Military Museum in Belgrade (inv. nr. 17196). Type: Z3, XVIa?, -. The greater part of the length of the blade is thinned, probably due to sharpening on the grindstone. L= 107.5; BL= 84; HL= 23.5; BW= 5.9; BW= 2.9; FL= 27*; FW= 1.5; PH= 4; PW= 5; PL= 2. . Dat.: around midd.of XV c. Lit.: Petrović 1977, 131, fig.18; Милосављевић 1993, 31, cat. 18.
- 275.** Pl. 7:1. Lipski Potok, Užice, western Serbia. National Museum in Užice (inv. nr. 160). Type: Z3, ?, 12a. On the pommel there is presentation of Greek cross? L= 36*; BL= 25*; HL= 11; CL= ?*. Dat.: ½ XV c. Lit.: Шкриванић 1957, 49, note 212; Ужице 1989, 157-158; Поповић 1995, 75, fig. 33.
- 276.** Pl. 17:3. Unknown site. Military Museum in Belgrade (inv. nr. 17292). Type: Z3, XIXa, 12c. Д= 113; BL= 96.5; HL= 16.5; CL= 12; BW= 5; FL= 32.5; PH= 5.3; PW= 5.8. Dat.: around 2/2 XV c. Lit.: Милосављевић 1993, 31, cat. 20. Petrović 1976, 27, 211, sl. 4d; Petrović 1977, 131, fig. 19.
- 277.** Pl. 18:1. Unknown site. Military Museum in Belgrade (inv. nr. 862). Type: Z2b, XXc, 13. L= 86*; BL= 71.5*; HL= 14.5. Dat.: around midd.of - 2/2 XV c. Lit.: Милосављевић 1993, 30, cat. 16.
- 278.** Fig. 34. Site Kadijski Krst in Knjaževac, eastern Serbia. National Museum in Knjaževac (inv. nr. 40/0). Type: Z2b, XIXa, 13. On one side of the blade there are impressed Cyrillic letter Я and letter E surrounded by dots, and on the other side same two letters and one more letter Я (?). The cross-guard is fractured. L= 98; BL= 85; HL= 13; FL= 25; CL= ?*. Dat.: around midd.of - 2/2 XV c. Lit.: Јовановић 1991, 81-84; Петровић и Јовановић 1997, 124, cat. 10.
- 279.** Vicinity of Prizren, Kosovo, southern Serbia. National Museum in Vranje (inv. nr. 204). Type: Z4, XXc, 13. On one side of the blade there is impressed brand in a shape of three bees. L= 98.5; BL= 86; HL= 12.5; CL= 10; BW= 5. Dat.: around 2/2 XV c. Lit.: Миловановић 1985/6, 145, cat. 371.
- 280.** Pl. 18:2. Unknown site. Military Museum in Belgrade (inv. nr. 17290). Type: Z4, XIXa, 13. L= 94.5; BL= 82.5; HL= 12; TL= 7.2; CL= 12.4; BW= 4.5; PH= 4; PW= 4.5; PL= 2.5. Dat.: around 2/2 XV c. Lit.: Милосављевић 1993, 30, cat. 17.

281. Unknown site. Ethnographical Museum in Belgrade (inv. nr. 8283). Type: Z4, XIXa?, 13. On one side of the blade there is impressed brand in a shape of three letters *X* and inlaid presentation of a wolf. The sword is in wooden scabbard covered in leather (in the middle it is woven). The cross-guard is fractured. L= 103; BL= 89.5; HL= 13.5; BW= 4.5. Dat.: 2/2 XV – 1/2 XVI c. Lit.: Бирташевић 1968, 91, Т. IV/3, cat. 8; Шкриванић 1957, 53, fig. 19/1.

282. Pl. 18:4. Unknown site. Military Museum in Belgrade (inv. nr. 16071). Type: Z4, XIXa, 13 (straightened). The pommel is ornamented with inserts of enamel or coloured glass. The hilt is covered with wood, and a ring of bronze wire under the pommel. On one side of the blade inlaid with a yellow metal is presentation of a wolf. L= 102; BL= 89.5; HL= 12.5; CL= 18; BW= 4.5. Dat.: 2/2 XV – 1/2 XVI c. Lit.: Шкриванић 1957, 44, note 205; Бирташевић 1968, 87, cat. 3; Petrović 1977, 153, sl. 6; Милосављевић 1993, 24, cat. 7; Петровић 1996, 149, fig. 6a.

283. Pl. 18:3. Unknown site. Treasury of Monastery Dečani, Kosovo. Type: –, XIXa, –. L= 99*; BL= 85.3; HL= 13.7*; BW= 4.8; FL= 30.5. Dat.: 2/2 XV – 1/2 XVI c. Lit.: Шкриванић 1957, 44, note 210, fig. 16/3.

284. r. Zeta, site Vraničke Njive near Podgorica. Private collection of Stevo Vučinić from Podgorica. Type: B1, X, 4a. On one side of the blade, inlaid with a metal wire, inscription *INGELRII*, long 12,5 and wide 2,5 cm. On the other side, inlaid, geometric motive of a serie of joined rhombs. L= 82.8; BL= 70.8; HL= 12; BW= 4.5; CL= 12.3; FL= 35; PH= 2.8; PW= 6.8; TL= 8.7. Dat.: blade X-XI? c.; hilt XII c. Lit.: Петровић и Вучинић 2001, 263-264, fig. 2.

285. Pl. 8:1. r. Zeta, site Vraničke Njive near Podgorica. Private collection of Stevo Vučinić from Podgorica. Type: Ra, II, 6. On one side of the blade there is engraved presentation of irregular square divided in four unequal rhombs, as well as, inlaid with iron, presentations of latin letter H and maltese cross which upper arm is stylized in a shape of heart. On the other side there are, inlaid, letter H and maltese cross with a rhomboid widening in the middle. L= 90; BL= 77; HL= 13; CL= 16; BW= 5; FL= 69; PH= 4; PW= 2.8; TL= 9. Dat.: The blade X? c.; hilt around 1/2 XII c. Lit.: Петровић и Вучинић 2001, 270-273, fig. 7-9.

286. r. Zeta, site Vraničke Njive near Podgorica. Private collection of Stevo Vučinić from Podgorica. Type: –, XII?, –. L= 104.8*; BL= 89.3*; HL= 15.5; BW= 4.8; FL= 57; FW= 1. Dat.: 2/2 XII – 1/2 XIII c.? Lit.: Петровић и Вучинић 2001, 273, fig. 11.

287. r. Zeta, site Vraničke Njive near Podgorica. Private collection of Stevo Vučinić from Podgorica. Type: B, Xa, 5. On one side of the blade there is latin inscription *S.S.SISIS* inlaid with a thicker wire of soft iron. L= 102.4; BL= 88; HL= 14.4; CL= око 18; BW= 5; FL= 68; PH= 4; PW= 6; TL= 9. Dat.: XII c. Lit.: Петровић и Вучинић 2001, 273-275, fig. 12, 14.

288. r. Zeta, site Vraničke Njive near Podgorica, Montenegro. Private collection of Stevo Vučinić from Podgorica. Type: A, XI, 1. L= 99.5; BL= 86; HL= 13.5; CL= 20; BW= 4.5; FL= 64; PH= 3; PW= 6; TL= 9.5. Dat.: around 1/2 XII c. Lit.: Петровић и Вучинић 2001, 275-276, fig. 15.

289. r. Zeta, site Vraničke Njive near Podgorica, Montenegro. Private collection of Stevo Vučinić from Podgorica. Type: G, Xa/XII, 1. L= 112; BL= 97; HL= 15; CL= 19; BW= 5.5; PH= 5; TL= 9. Dat.: around 2/2 XII c. Lit.: Петровић и Вучинић 2001, 276-277, fig. 16.

290. r. Zeta, site Miletina Njiva, near Podgorica, Montenegro. Private collection of Stevo Vučinić from Podgorica. Type: Z2, XVIa?, 13. L= 74*; BL= 52*; HL= 22; CL= 15; BW= 4.7; PH= 5; PW= 4.5; TL= 15. Dat.: around ½ XV c. Lit.: Петровић и Вучинић 2001, 277-280, fig. 17.

291. r. Zeta, site Miletina Njiva near Podgorica, Montenegro. Private collection of Stevo Vučinić from Podgorica. Type: Z3, XIIIa?, —. The pommel is of bronze. On one side of the blade there is engraved presentation of running wolf, and on the other of a cross and damaged presentation of some animal (wolf?). L= 113; BL= 88.5; HL= 24.5; BW= 6; FL= 57; TL= 20. Dat.: ½ - midd.of XV c. Lit.: Петровић и Вучинић 2001, 280-281, fig. 20, 20a.

292. Pl. 8:2. r. Zeta, site Miletina Njiva near Podgorica, Montenegro. Private collection of Stevo Vučinić from Podgorica. Type: Z2, XIII?, 13. The blade is without visible fuller or a ridge. On both sides of the blade there are presentations of a cross inscribed in a circle and a brand in a shape of complex triangle. L= 109.5; BL= 91; HL= 18.5; BW= 7; CL= 14; PH= 4.3; PW= 5.4; TL= 14. Dat.: ½ - midd.of XV c. Lit.: Петровић и Вучинић 2001, 284-285, fig. 22, 23.

293. Pl. 8:3. r. Zeta, site Benat, near Podgorica, Montenegro. Private collection of Stevo Vučinić from Podgorica. Type: Z2, XVIa/XXb?, 12a. Blade has two fullers on each side. L= 115; BL= 93.5; HL= 22.5; BW= 4.6; CL= 18; FL= 59; PH= 5.3; PW= 4.5; TL= 16. Dat.: around ½ XV c. Lit.: Петровић и Вучинић 2001, 285-286, fig. 24.

294. r. Zeta, site Vraničke Njive near Podgorica. Private collection of Stevo Vučinić from Podgorica. Type: Z3, XIIIa, 12a. On the pommel, inlaid with a brass wire, there is Greek cross, and on the blade, in same technique, brand in a shape of two opposed arched lines and indistinct latin letter A or H. L= 113; BL= 90; HL= 23; CL= 20.5; BW= 5.3; BW`= 3.5; FL= 52; PH= 4; PW= 5; PT= 1; TL= 16.5. Dat.: ½ XVc. Lit.: Петровић и Вучинић 2001, 286-288, fig. 25-27.

295. Fig. 36. Pirlitor fortification, northern Montenegro. Regional Museum, Pljevlja. Type: B, XI, 1. On one side of the blade, inlaid with a copper wire, there is presentation of cherub? in byzantine art tradition, and long motive of spiral on both sides. L= 102*; BL= 88.3; HL= 14; BW= 4.5; FL= 72; FW= 1.5; CL= 25.8; PH= 3; PW= 5; PT= 2.2; TL= 10; Dat.: 2/2 XII c. Lit.: Спасић 1999, 86-87, Fig. 4.

296. Fig. 22. Dubrovnik Treasury. Waffensammlung in the Kunsthistorisches Museum Wien (inv. nr. A141). Type: U, XVa, 6. The hilt covering is of gildened silver. The cross-guard is ornamented with motive of leaf tendril on the background of small crosses, and this motive can be found also on the pommel and on the metal fittings around the mouth and on the top of scabbard. Fittings of scabbard are of gildened bronze, and on their mouth there is, besides above-mentioned motive, a row of lilies; and on the fittings of the top there is presentation of a lion's head. On the blade there is presentation of an anchor, inlaid with a bronze. L= 110; BL= 86; HL= 24; CL= 17; BW= 4. Dat.: Present of Hungarian King Matthias Corvinus to Dubrovnik, 1466.g. Lit.: Bach 1970, 61-73.

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297. Pl. 9:1. r. Sava near Bosanska Gradiška, northern Bosnia, National Museum BiH (inv. nr. 6894). Type: A, X, 1. On the blade, inlaid with a yellow metal, *SINIGELRINIS*, and on the other side netting of interlaced rhombs between two letters S. L= 97; BL= 83; HL= 14; CL= 20.3; BW= 5.5; BW`= 4.1; FL= 71; FW= 3.1; FW`= 2.5; PH= 2.7; PW= 5.2; TL= 10.3; t=677 g. Dat.: XI c. Lit.: Kalmär 1959, 189-190, Abra 1, 2; Sijarić 2004, 14-25, cat. 1, T. I, sl. 1.

298. Pl. 9:2. vicinity of Glamoč, below a stećak (stone monument), sothwestern Bosnia. National Museum BiH, Sarajevo (inv. nr. 117). Type: R1, X, 4a. On the blade, on one side there is inlaid +*INGEII*+*FEZI*±, and on the other side St.Andrew's cross in rectangular frame between two parallel vertical lines on each side. L= 92.5; BL= 79; HL= 13.5; CL= 13.5; BW= 5.4; BW`= 3.6; FL= 67.5; FW= 2; FW`= 1.8; PH= 2.9; PW= 4.2; TL= 10; t= 678.1 g. Dat.: blade: 2/2 X - ½ XI, pommel: XII c.? Lit.: Klaić 1882, fig. на страни 364; Truhelka 1914, 241, sl. 49, T. I/2; Ćurčić 1943, 85-86, sl. 97; Шкриванић 1957, 43; Sijarić 2004, 25-31, cat. 2, T. II, sl. 2.

299. Unknown site. Regional Museum, Travnik, central Bosnia (inv. nr. 182). Type: B, X, 1. The point of the blade is missing in the lenth of around 5. L= 89*; BL= 76.9*; HL= 12.1; CL= 17; BW= 4.8; BW`= 3.3; FL= 60.3; FW= 1.9; FW`= 0.9; PH= 3.7; PW= 6.3; TL= 8; t= 814.5 g. Dat.: around XI c. Lit.: Sijarić 2004, 32-35, cat. 3.

300. r. Sava near Brezovo Polje, vicinity of Brčko, northern Bosnia. National Museum BiH, Sarajevo (inv. nr. 794). Damaged blade of the sword. BL= 63.1*; BW= 5; BW`= 3.8; FL= 55*; FW= 1.3; FW`= 0.9; Dat.: XI – XII c. Lit.: Sijarić 2004, 36-37, cat. 4, T. IV.

301. Unknown site. National Museum BiH, Sarajevo (inv. nr. 6895). Type: Ia, XVIa/XIIa?, 2. L= 76*; BL= 52.5*; HL= 23.5; CL= 23.6; BW= 4.5; BW`= 3.4; FL= 54 (1.5); FW= 1.5; FW`= 1.2; PH= 4.8; PW= 6; TL= 17.5; t= 989.3*g. Dat.: 2/2 XIII – ½ XIV. Lit.: Sijarić 2004, 40-43, cat. 5, T. V, sl. 5.

302. Village Lubovo near Jajce, western Bosnia. National Museum BiH, Sarajevo (inv. nr. 770). Type: H1, XIIIa?, 2. On the hilt there are engraved three parallel short slanting lines. On one side of the blade there is, inlaid, presentation of running unicorn and cross, and on the other side damaged presentation of some fourlegged animal. L= 97,5*; BL= 69*; HL= 28,5; CL= 22.5; BW= 5.7; BW`= 4.2; FL= 48.5; FW= 1.7; FW= 1; PH= 5.6; PW= 7.3; TL= 22; t= 1491*g; Dat.: 2/2 XIV – beg.of XV c. Lit.: Sijarić 2004, 44-49, cat. 6, T. VI, sl. 6.

303. Unknown site. National Museum BiH, Sarajevo (inv. nr. 6896). Type: K, XIIIa, 2. On circular convexities of the pommel there is presentation of Greek cross and the rivet is ornamented. On the tang there are engraved two slanting crossed lines (St.Andrew's cross). On one side of the blade there is engraved ligature of latin letters S and I, an slightly lower, inlaid with a brass wire, heraldic presentation of framed shield horizontally divided in three fields, and on the other side of framed shield with a latin cross. L= 123.3*; BL= 98.6*; HL= 24.7; CL= 21.3; BW= 5.5; BW`= 4.1; FL= 62.2; FW= 2.2; FW`= 0.8; PH= 6; PW= 5.7; TL= 17.7; t= 1909 g. Dat.: 2/4 – ¾ XIV c. Lit.: Sijarić 2004, 50-57, cat. 7, T. VII, sl. 7.

304. Pl. 9:4. Ostojićevo near Bijeljina, northeastern Bosnia. Museum of Semberija, Bijeljina (inv. nr. A-26). Type: R1, Xa?, 6. L= 75.5*; BL= 61.4*; HL= 14.1; CL= 23.8; BW= 5; BW`= 3.6; FL= 61.4*; FW= 1.5; FW`= 1.2; PH= 4.5; PW= 5.4; TL= 9.2; Dat.: XII c. Lit.: Sijarić 2004, 58-60, cat. 8, T. VIII.

305. Kupres, western Bosnia, allegedly found below a stećak. National Museum BiH, Sarajevo (inv. nr. 116). Type: K(1), XVIa?, 2. The blade has two fullers. L= 102.8*; BL= 75.5*; HL= 27.3; CL= 21; BW= 5.2; BW`= 3.7; FL= 53; FW= 3; FW`= 2; PH= 5.6; PW= 5.8; TL= 20.8; t= 1328 g. Dat.: XIV c. Lit.: Klaić 1882, fig. on page 364; Truhelka 1914, 241, sl. 49, T. I/3; Шкриванић 1957, 55, note 255, fig. 19/5; Sijarić 2004, 62-65, cat. 9, T. IX, sl. 9.

- 306.** Pl. 10:1. vicinity of Glamoč, southwestern Bosnia. Regional Museum, Travnik (inv. nr. 452). Type: Z1, XVIa, 6. On the tang there are impressed three crossed lines. L= 116; BL= 91.8; HL= 24.2; CL= 27.4; BW= 5.8; BW'= 3.4; FL= 60; FW= 2; FW'= 0.8; PH= 4.1; PW= 5.7; TL= 17.9; t= 1543 g. Dat.: 2/2 XIV – ½ XV c. Lit.: Sijarić 2004, 65-70, cat. 10, T. X, sl. 10.
- 307.** Kriva Jaruga, Glamočko Polje, southwestern Bosnia. National Museum BiH, Sarajevo (inv. nr. 376). Type: T1, XVI, 11. The sword is of extraordinary small dimensions. L= 59.8; BL= 47.4; HL= 12.4; CL= 13.6; BW= 2.8; BW'= 1.6; FL= 34 (8); FW= 1.2; FW'= 0.4; PH= 3; PW= 3.2; TL= 8.5; Dat.: The blade ½ XIV c., pommel 2/2 XIV-beg. of XV c. Lit.: Sijarić 2004, 72-73, cat. 11, T. XI, sl. 11.
- 308.** Found in a cave near Glavatičevo, some 30 km northeast of Mostar, central Herzegovina. Collection of Franciscan monastery, Humac (inv. nr. 8). Type: H1, XVII, 2. On the tang there is impressed slanting line. On both sides, inlaid with a copper wire, cross-shaped sign. L= 130; BL= 102; HL= 28; CL= 21.5; BW= 5.7; BW'= 3.5; FL= 48; FW= 1.1; FW'= 0.9; PH= 4.6; PW= 6.1; TL= 22.5; t= 1667 g. Dat.: 2/2 XIV – beg. of XV c. Lit.: Sijarić 2004, 74-76, cat. 12, T. XII, sl. 12.
- 309.** Pl. 10:2. Site Mahala Jelac, village Donji Brodac, vicinity of Bijeljina, northeastern Bosnia. National Museum BiH, Sarajevo (inv. nr. 115). Type: V1/T5, XVIIIc, 12b. On both sides of the blade there is inlaid presentation of a wolf. L= 113.5; BL= 89.5; HL= 24; CL= 16; BW= 4.7; BW'= 3; PH= 6.2; PW= 4.7; TL= 17.6; t= 1055 g. Dat.: ½ XV c. Lit.: Ćurčić 1943, 87-88, sl. 99; Г. Шкриванић 1957, 55, fig. 19/4; Truhelka 1914, 241, T. I/3, sl. 49. Sijarić 2004, 77-80, cat. 13, T. XIII, sl. 13.
- 310.** Mountain Velebit near Počitelj, central Herzegovina, National Museum BiH, Sarajevo (inv. nr. 95). Type: Z4, XXc, 13. On both sides of the blade there is impressed presentation of a fourlegged animal (wolf, dog?) and eight-petal flower. The blade has three narrow fullers. L= 98.5; BL= 85.4; HL= 13.1; CL= 10.3; BW= 4.5; BW'= 3.7; FL= 24; FW= 1.4; FW'= 1.4; PH= 3.6; PW= 3.8; TL= 8.4; t= 790.6 g. Dat.: 2/2 XV – ½ 16 c. Lit.: Truhelka 1914, 242, T. I:4, sl. 49; Sijarić 2004, 81-85, cat. 14, T. XIV, sl. 14.
- 311.** Unknown site. National Museum BiH, Sarajevo (inv. nr. 121). Type: XXII. L= 61; BL= 46; HL= 15; CL= 16.3; BW= 10.2; FL= 42.6; FW= 7; FW'= 1.5; TL= 8.5; t= 918.5 g. Dat.: end of XV – beg. of XVI c. Lit.: Sijarić 2004, 92-94, cat. 17, T. XVII, sl. 17.
- 312.** r. Sava near Dubočac, northern Bosnia. Croatian Historical Museum, Zagreb (inv. nr. 1897). Type: Ia, ?, 2/5. On the blade there are presentations of alpine goat or kneeled horse, shield and helmet. L= 84*; BL= 60*; HL= 24; BW= 5.5. Dat.: 2/2 XIII – ½ XIV c. Lit.: Šercer 1976, 41, cat. 3.
- 313.** r. Sava near Stara (Bosanska) Gradiška, northern Bosnia. Croatian Historical Museum, Zagreb (inv. nr. 1818). Type: K, XIIIa?, 2/5. L= 131*; BL= 102*; HL= 29; BW= 6. Dat.: XIV c. Lit.: Šercer 1976, 43, cat. 6.
- 314.** Mountain Osječenica near Kulen Vakuf, western Bosnia. Croatian Historical Museum, Zagreb (inv. nr. 979). Type: H1, XVa?, ?. L= 118.5; BL= 93.5; HL= 25; BW= 5. Dat.: 2/2 XIV – beg. of XV c. Lit.: Šercer 1976, 45, cat. 14.
- 315.** r. Sava near Dubočac, northern Bosnia. Croatian Historical Museum, Zagreb (inv. nr. 1891). Type: H2, XVIa?, 5?. L= 120; BL= 94; HL= 26; BW= 5.5. Dat.: ½ XV c. Lit.: Šercer 1976, 45, cat. 15.
- 316.** Village Laktaši near Banja Luka, northern Bosnia. National Museum BiH, Sarajevo (inv. nr. 114). Type: I?, XIIIa?, 2. L= 106.7*; BL= 84*; HL= 22.7; CL= 24. Dat.: around ½ XIV c. Lit.: Truhelka 1914, 241, sl. 49; Шкриванић 1957, 44.

317. Vicinity of village Srbac under mountain Motajnica, right bank of Sava. Croatian Historical Museum, Zagreb (inv. nr. 315). Type: Z2b, ?, 12. L= 81*; BL= 63*; HL= 18; BW= 5. Dat.: око ½ XV c. Lit.: Šercer 1976, 47, cat. 22.

318. Foča (Srbinje), southeastern Bosnia. National Museum, Sarajevo (inv. nr. 97). Type: Z4, XIXa, 13. On one side of the blade there is engraved presentation of a wolf. L= 98.5; BL= 86; HL= 12.5; CL= 10; BW= 5; FL= 17. Dat.: 2/2 XV – ½ XVI c. Lit.: Бирташевић 1968, 91, Т. IV/2, cat. 7; Truhelka 1914, 242, sl. 49.

319. Necropolis on site Ravna Trešnja, vicinity of Tuzla, northeastern Bosnia, archaeological excavations in 1879. The sword is lost. Type: ?, XVa?, 7?. Dimensions are unknown. Dat.: 2/2 XIV – ½ XV c. Lit.: Sijarić 2004, 77, 79.

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320. Site Šoderica, old riverbed of Drava, vicinity of Koprivnica, northern Croatia. City Museum Koprivnica (inv. nr. 3254). Type: I(a), XIIIa?, 2. On the blade there is inlaid presentation of a heart. L= 83*; BL= 62*; HL= 21; CL= 23; BW= 6; FL= 62 (3)*; PH= 5.7; PW= 6.15; TL= 16; t= 1745* g. Dat.: 2/2 XIII - beg. of XIV c. Lit.: Demo 1983/4, 225-228, T. 1:3; 4:1.

321. Pl. 11:3. Site Šoderica, old riverbed of Drava, vicinity of Koprivnica, northern Croatia. City Museum Koprivnica (inv. nr. 43). Type: K, XIIIa?, 2. On circular convexities of the pommel there is presentation of Greek cross. On the blade, inlaid with a bronze wire, presentation of running wolf. L= 74*; BL= 49*; HL= 25; CL= 21; BW= 5.3; FL= 49*; PH= 5.15; PW= 6.55; TL= 19; t= 1510 g*. Dat.: 2/2 XIV c. Lit.: Demo 1983/4, 228-231, T. 2:1, 4:2.

322. Pl. 11:4. Site Šoderica, old riverbed of Drava, vicinity of Koprivnica, northern Croatia. City Museum Koprivnica (inv. nr. 533). Type: K/K1, XVIa?, 2. On circular convexities of the pommel there is engraved Greek cross. On the tang of the hilt there is engraved slanting line. On one side of the blade there is inlaid presentation of unicorn, and on the other of running wolf. L= 91.5*; BL= 66.5*; HL= 25; CL= 21; BW= 5.1; FL= 52; PH= 4.7; PW= 6.3; TL= 18.8; t= 1675 g*. Dat.: 2/2 XIV c. Lit.: Demo 1983/4, 228-231, T. 2:2, 4:3.

323. Fig. 33. Site Šoderica, old riverbed of Drava, vicinity of Koprivnica, northern Croatia. City Museum Koprivnica (Inv. nr. 532). Type: B1, X, 1. On one side of the blade there is inlaid presentation of cross potent between two sheaves of three horizontal parallel lines, and on the other side three sheaves of three horizontal lines. L= 66.4*; BL= 54*; HL= 12.5; CL= 22; BW= 5; PH= 2.9; PW= 4.6; PL= 3.1; FL= 54*; FW= 2; TL= 8.7; CW= 0.85; t= 840* g. Dat.: ½ 12 c. (The blade 11 c.). Lit.: Demo 1983/4, 218-225, T. 1:2, 3:2; Kolomanov put 2003, 164, cat. 20.

324. Pl. 11:2. r. Kupa between Ozalj and Trg, vicinity of Karlovac, western Croatia. Regional Museum in Ozalj. Type: Ia, XIIIa?, 1. On one side of the blade, inlaid with a bronze, motives in shapes of fish-bone and three crosses, and on the other side schematic presentation of a fish and a cross. L= 50.1*; BL= 29.2*; HL= 20.9*; CL= 26; BW= 5.5; FL= 29*; PH= 5.6; PW= 5.8; TL= 14.3; t= 1162 g*; Dat.: end of XIII – beg. of XIV c. Lit.: Demo 1983/4, 228-229, note 109, T. 5:2, 7:1-3.

325. Village Gornji Muć, vicinity of Split, central Dalmatia. Croatian Historical Museum (inv. nr. 310). Type: Ia, XVIa, 2. L= 104*; BL= 79*; HL= 25; BW= 6; Dat.: 2/2 XIII – ½ XIV c. Lit.: Šercer 1976, 41, cat. 1, T. I.

326. Village Ribnik, vicinity of Karlovac, western Croatia. Croatian Historical Museum (Inv. nr. 311). Type: Ia, XIIIa?, ?. L= 118.5; BL= 94.5; HL= 24; BW= 5.5; Dat.: 2/2 XIII – ½ XIV c. Lit.: Šercer 1976, 41, cat. 2.

327. r. Kupa near Sisak, central Croatia. Croatian Historical Museum (inv. nr. 1820). Type: Ia, XII-Ia?, ?. On the blade there are indistinct presentations of an animal (?), a shield, a hoop or letter O. L= 104*; BL= 77*; HL= 27; BW= 5.8; Dat.: 2/2 XIII – ½ XIV c. Lit.: Šercer 1976, 41, 43, cat. 4.

328. r. Kupa near Sisak, central Croatia. Croatian Historical Museum (inv. nr. 1819). Type: K, XIIIa?, ?. On the blade there are indistinct signs. L= 132; BL= 103.5; HL= 28.5; BW= 6. Dat.: XIV c. Lit.: Šercer 1976, 43, cat. 7.

329. Village Ribnik, vicinity of Karlovac, western Croatia. Croatian Historical Museum (Inv. nr. 312). Type: K, ?, ?. L= 121.5; BL= 95; HL= 26.5; BW= 5.3; Dat.: XIV c. Lit.: Šercer 1976, 44, cat. 9.

330. Unknown site. Croatian Historical Museum (inv. nr. 2840). Type: T3?, XIXa?, ?. The sword has preserved handle covering of ivory which has carved presentations of praying angel in a niche on one side, and cross in a niche on the other side. The cross-guard of bronze has widened and slightly bent ends, and it is ornamented with a plant tendril. On its middle there is heart-shaped ornamental plate with a stylized presentation of a lily. On one side of the blade there is engraved presentation of a fourlegged animal (wolf?) and a row of three St. Andrew's crosses, and on the other side three more. Allegedly belonged to Nikola Banfy (Banić) of Lendava, Ban of Croatia, Slavonia and Dalmatia (1345 – 1346, 1353 – 1356). Copy? L= 117.5; BL= 98.5; HL= 19; BW= 4.2; Dat.: XV c? (the hilt is copy?) Lit.: Šercer 1976, 44, cat. 10. T. I.

331. Unknown site. Croatian Historical Museum (inv. nr. 21841). Type: H1, XVIa?, 2 (bent). On both sides of the blade there is indistinct brand in a shape of somewhat bigger circle. The point of the blade is missing in a length of around 3 – 4 cm. L= 115*; BL= 88.7*; HL= 26.3; BW= 6. Dat.: 2/2 XIV – beg. of XV c. Lit.: Šercer 1976, 44, cat. 11, T. I.

332. r. Mura near Kotoriba, some 40 km west of Varaždin, northern Croatia. Croatian Historical Museum (inv. nr. 2270). Type: H1, ?, ?. L= 130.5; BL= 101.5; HL= 29; BW= 5.6. Dat.: 2/2 XIV – beg. of XV c. Lit.: Šercer 1976, 45, cat. 12.

333. Village Podravske Sesvete, some 22 km northwest of Virovitica, northern Croatia. Croatian Historical Museum (inv. nr. 2201). Type: I1a, ?, 7. L= 99*; BL= 74.5*; HL= 24.5; BW= 5.5. Dat.: 2/2 XIV – beg. of XV c. Lit.: Šercer 1976, 45, cat. 13.

334. Village Podravske Sesvete, some 22 km northwest of Virovitica, northern Croatia. Croatian Historical Museum (inv. nr. 24344). Type: –, ?, –. The blade has no visible fuller or a ridge. L= 78*; BW= 3,8*. Dat.: XIV – XV c?. Lit.: Šercer 1976, 46, cat. 18.

335. Unknown site. Croatian Historical Museum (inv. nr. 21842). Type: J2, XVII?, 11?. On the blade there are remains of unreadable signs. L= 115*; BL= 92.5*; HL= 22.5; BW= 4. Dat.: oko ½ XV c. Lit.: Šercer 1976, 46, cat. 19.

336. Village Doljani, some 13 km east of Otočac, Lika. Croatian Historical Museum (inv. nr. 313). Type: J2, XVa/XVII?, 11?. L= 117.5; HL= 22.5; BL= 95; BW= 4.7. Dat.: around ½ XV c. Lit.: Šercer 1976, 46, cat. 20.

337. Brook Česma near village Narta, some 6 km southwest of Bjelovar, northern Croatia. Croatian Historical Museum (inv. nr. 1043). Type: Z1, XIIIa?, 12b. On one side of the blade there is presentation of caligraphically written letter B, in circle inscribed cross fourchee with dots between its forked ends and stylized presentation of an animal (bird ?). L= 123; BL= 100; HL= 23; BW= 6. Dat.: ½ XV c. Lit.: Šercer 1976, 46–47, cat. 21.

338. Vukovar, site Vineyard of Đ. Mihajlović, eastern Slavonia. Croatian Historical Museum (inv. nr. 316). Type: Z2, ?, 12. L= 67*; BL= 48.5*; HL= 18.5; BW= 5.3. Dat.: XV c. Lit.: Šercer 1976, 47, cat. 23.

339. Zagreb, site Borongaj. Croatian Historical Museum (inv. nr. 314). Type: T1, XVII?, 6?. L= 101; BL= 78.5; HL= 22.5; BW= 3.4. Dat.: 2/2 XIV – beg. of XV c. Lit.: Šercer 1976, 47, cat. 24.

340. Unknown site. Croatian Historical Museum (inv. nr. 24367). Type: T(?), XVa?, 12. On the blade on one side there is star-shaped brand. L= 109; BL= 82.5; HL= 26.5; BW= 3. Dat.: 2/2 XV c. Lit.: Šercer 1976, 47–48, cat. 25.

341. Unknown site. Croatian Historical Museum (inv. nr. 2269). Type: –, XVII?, 12. L= 129,5*; BL= 100; HL= 29,5*; BW= 4. Dat.: end of XIV – ½ XV c. Lit.: Šercer 1976, 47, cat. 26.

342. Pl. 11:1. r. Kupa near Karlovac, western Croatia. City Museum, Karlovac (or vicinity of Mrkonjić Grad, western Bosnia?). Type: A, Xa, 1. On one side of the blade there is engraved ornament in a shape of rosette and letter (R?) and on the other side in a shape of opposing accolade with a reversed letter B on its ends. L= 81.4*; BL= 68*; HL= 13.4; CL= 17; PH= 3.4; PW= 8.4; PL= 4.6; TL= 9; BW= 5; BW/BW' ≈ 3.4; FL= 68*; FW= 1.5; FW/FW' ≈ 1.1; t= 1295*g (?). Dat.: 2/2 XI – ½ XII c. Lit.: Demo 1983/4, 220–221, note 42, T. 5:1, 6; Kolomanov put 2003, 163–164, cat. 19; <http://mdc.hr/karlovac/hr/5-kulturno/5-1-kulturno.html> (13. 01. 2006.)

343. Village Podravske Sesvete, site Draganci, northern Croatia. Private collection of Željko Kovačić, Podravske Sesvete. There is no data on shape or dimensions of the sword. Dat.: 'late middle ages.'. Lit.: Demo 1983/4, 212, note 6.

344. r. Sava near Jasenovac, border of Croatia and northwestern Bosnia. Regional Museum, Našice. Type: A?, Xa?, 1. On one side of the blade, below the cross-guard, there are remains of inlaid unreadable inscription, and on the other side of a cross with circles on its ends. L= 46.8*; BL= 32.8*; HL= 14; CL= 10.2*(rec. 22.3); BW= 5.3; FL= 32.8*; PH= 3.5; PW= 6.6; TL= 9.5. Dat.: oko ½ XII c. Lit.: Tomićić 2002.

345. Unknown site. Croatian Historical Museum, Zagreb (inv. nr. 427). Type: XXII. There is preserved wooden covering and metal fittings on the hilt. On both sides of the blade there is a brand in a shape of stylized geometric motive. L= 87; BL= 72; HL= 15; BW= 8.5. Dat.: end of XV – beg. of XVI c. Lit.: Šercer 1976, 110, cat. 237.

346. r. Sava near Jasenovac, central Croatia, border with Bosnia. Croatian Historical Museum, Zagreb (inv. nr. 31811). Type: B, X, 1. L= 105; BL= 87.5; HL= 17.5?; BW= 5. On the blade there is hardly readable inscription *UI UCUS U...* Dat.: XI c. Lit.: Tomićić 2002, 153–154, note 3, Sl. 11, 1 (map); Kolomanov put 2003, 164–165, cat. 21.

- 347.** r. Sava near Jasenovac, central Croatia, border with Bosnia. Croatian Historical Museum, Zagreb (inv. nr. 31812). Type: R?, XIII, 2. On the blade, on one side there is inscription *RBTBAS B...*, and on the other side *FIAR*. The top is broken, but ulteriorly triangularly pointed. L= 90(*); BL= 75.7(*); HL= 14.3; BW= 5.5. Dat.: around 2/2 13 c. Lit.: Kolomanov put 2003, 166, cat. 23.
- 348.** r. Sradtka near Hodošani, some 20 km east of Čakovec, northwestern Croatia Museum of Medjimurje, Čakovec. Type: A/B, ?, ?. Dimensions are unknown. Dat.: around XI c. Lit.: Tomičić 2002, 154, note 4, Sl. 11, 3 (map).
- 349.** Unknown site, river find. Private collection of S. P. (inv.nr. 406). Type: A, X, 1. On one side of the blade, inlaid with a yellow metal, inscription *HAKIAI* between two Greek crosses, and on the other *ME FECIT*. L= 94; BL= 81; HL= 13; BW= 5; CL= 14.7. Dat.: around ½ 11 c. Lit.: Kovač 2003, 16, cat. 9.
- 350.** Unknown site, river find. Private collection of S. P. (inv.nr. 706). Type: B, Xa, 1. L= 104.5; BL= 90; HL= 14.5; BW= 5.2; CL= 16.4. Dat.: end of 11 – ½ 12 c. Lit.: Kovač 2003, 17, cat. 10.
- 351.** Unknown site, river find. Private collection of S. P. (inv.nr. 240). Type: B/E, Xa, 1. L= 104.5; BL= 90; HL= 14.5; BW= 5.5; CL= 19.5. Dat.: around ½ 12 c. Lit.: Kovač 2003, 17, cat. 11.
- 352.** Unknown site, river find. Private collection of S. P. (inv.nr. 582). Type: B/E, XIII?, 2. L= 88.5*; BL= 72*; HL= 16.5; BW= 5.8; CL= 18.8. Dat.: around the middle of 13 c. Lit.: Kovač 2003, 18, cat. 12.
- 353.** Unknown site, river find. Private collection of S. P. (inv.nr. 714). Type: N, XIII/XIb, 1. On the blade, indistinct signs. L= 110.4; BL= 94.7; HL= 15.7; BW= 4.7; CL= 24. Dat.: ¼ 13 c. Lit.: Kovač 2003, 19, cat. 13.
- 354.** Unknown site, river find. Private collection of S. P. (inv.nr. 587). Type: H, XIV?, 2. On the blade on one side, inlaid, heraldic presentation of a shield (?), and on the other - profile of the breast armour (?). L= 103; BL= 84.8; HL= 18.2; BW= 5.5; CL= 16.7. Dat.: 2/2 13 c. Lit.: Kovač 2003, 19, cat. 14.
- 355.** Unknown site, river find. Private collection of S. P. (inv.nr. 573). Type: H1, XIIIa, 6. On the blade, indistinct signs (coat-of-arms?). L= 99*; BL= 70.3*; HL= 28.7; BW= 5.6; CL= 21.4. Dat.: 2/2 14 – beg. 15 c. Lit.: Kovač 2003, 19, cat. 15.
- 356.** Unknown site, river find. Private collection of S. P. (inv.nr. 260). Type: J, XIIIa, 2. Preserved metal fittings of a scabbard tip. L= 126; BL= 101; HL= 25; BW= 5.4; CL= 21. Dat.: ½ 14 c. Lit.: Kovač 2003, 20, cat. 16.
- 357.** Unknown site, river find. Private collection of S. P. (inv.nr. 601). Type: K, XIIIa, 2. On one side of the blade presentation of the running wolf, and on the other coat-of-arms (?). L= 122.5; BL= 98.5; HL= 24; BW= 5; CL= 18.5. Dat.: ½ 14 c. Lit.: Kovač 2003, 20, cat. 17.
- 358.** Unknown site, river find. Private collection of S. P. (inv.nr. 687). Type: K, XIIIa, 2. On the pommel, on both circular convexities, there is presentation of Greek cross of yellow metal inserts, as well as ornament on the rivet. On the blade there is presentation of a fourlegged animal (unicorn?). L= 130.2; BL= 102.8; HL= 27.4; BW= 5.7; CL= 20.5. Dat.: midd.of- 2/2 14 c. Lit.: Kovač 2003, 21, cat. 18.

- 359.** Unknown site, river find. Private collection of S. P. (inv.nr. 551). Type: H1, XVIa, 2. The blade has two fullers on each side. On the blade there are remains of inlay. L= 126.8; BL= 98.5; HL= 28.3; BW= 5.4; CL= 22.4. Dat: end of 14 – beg. of 15 c. Lit: Kovač 2003, 21, cat. 19.
- 360.** Unknown site, river find. Private collection of S. P. (inv.nr. 416). Type: K1, XV, 1. The ridge in the middle of the blade is very emphasized, actually it's in a shape of a plastic rib. L= 99; BL= 80; HL= 19; BW= 6.5; CL= 19.5. Dat: end of 15 c. Lit: Kovač 2003, 22, cat. 20.
- 361.** Unknown site, river find. Private collection of S. P. (inv.nr. 340). Type: I1b, XVI, 1. On the pommel, there is a sign of unknown shape. On the blade, indistinct signs. L= 109.5; BL= 86; HL= 23.5; BW= 6.2; CL= 23.8. Dat: 2/2 14 – beg. of 15 c. (The blade ½ 14 B) Lit: Kovač 2003, 22, cat. 21.
- 362.** Unknown site. Private collection of S. P. (inv.nr. 200). Type: G/G1, XV, 11. Preserved handle covering of bone, fastened with three star-shaped rivets on each side and with iron fittings on its ends. The ends of the cross-guard stylized in a shape of an oak-apple. L= 112.5; BL= 94; HL= 18.5; BW= 5.5; CL= 22. Dat: around midd. of 15 c. Lit: Kovač 2003, 23, cat. 22.
- 363.** Unknown site. Private collection of S. P. (inv.nr. 326). Type: T2, XVII, 2. On both sides of the pommel there are flattened circular surfaces with a presentation of Greek cross. On both sides of the blade there is a presentation of an arrow. L= 113.5; BL= 89; HL= 24.5; BW= 4.2; CL= 24.3. Dat: 4/4 14 c. Lit: Kovač 2003, 23, cat. 23.
- 364.** Unknown site, river find. Private collection of S. P. (inv.nr. 781). Type: G (oval), XVIa, 2. On the tang there is a sign of unknown shape. On the blade on both sides there is a shield with presentation of a sword (?). Above the shield there are some more letters signs, Y, V ?. L= 121.3; BL= 97.8; HL= 23.5; BW= 4.2; CL= 16.5. Dat: 14 c?, Lit: Kovač 2003, 24, cat. 24.
- 365.** Unknown site, river find. Private collection of S. P. (inv.nr. 812). Type: G, XI, 2. On the blade there is slightly visible presentation of a circle (with a cross in it?). L= 103*; BL= 82.5*; HL= 20.5; BW= 4.5; CL= 19. Dat: around midd. of 13 c. Lit.: Kovač 2003, 24, cat. 25.
- 366.** Unknown site, river find. Private collection of S. P. (inv.nr. 432). Type: W, XI?, 1. On the pommel, inlaid with yellow metal, three crossed lines. L= 113; BL= 95.2; HL= 17.8; BW= 4; CL= 20.5. Dat: ½ 13 c. Lit.: Kovač 2003, 25, cat. 26.
- 367.** Unknown site, river find. Private collection of S. P. (inv.nr. 632). Type: W, Xa, 1. L= 114.8; BL= 95.7; HL= 19.1; BW= 5; CL= 24.6. Dat.: ½ 13 c. Lit.: Kovač 2003, 25, cat. 27.
- 368.** Unknown site, river find. Private collection of S. P. (inv.nr. 620). Type: Z3, Xa?, 12c. On the blade, inlaid with a silver, inscription *SOS MENR SOS* as well as cross potent in a circle, and just below the cross-guard, stylized cross in a circle and maltese cross of greater dimensions. L= 105; BL= 88; HL= 17. Dat.: 2/2 15 c. (blade 12 c.). Lit.: Kovač 2003, 27, cat. 28.
- 369.** Unknown site, river find. Private collection of S. P. (inv.nr. 681). Type: G, XVII, 1. The blade is very narrow. L= 130; BL= 101; HL= 28.5; BW= 2.2. Dat: 15 c. Lit.: Kovač 2003, 52, cat. 69.

SLOVENIA

370. Pl. 12:3. r. Ljubljana, near Crna Vas, some 2 km upstream of Ljubljana. Private property (inv. nr. of National Museum in Ljubljana ZN 1/4). Type: Na, Xa?, 1. On upper part of the blade, on both sides there is presentation of a cross, inlaid with a copper wire. L= 46.5*; BL= 30*; HL= 16.5; CL= 26; BW= 5; FL= 30*; PW= ca 8.5; PH= ca 3. Dat.: ¼ XIII c. Lit.: Nabergoj 1997, 262-263, cat. 66.1, sl. 38a, t. 18:2.

371. Pl. 12:2, Fig. 8. r. Ljubljana, near Crna Vas, some 2 km upstream of Ljubljana. Private property (inv. nr. of National Museum in Ljubljana ZN 2). Type: B/N, XIII, 2. On the blade, there are, inlaid with a bronze wire, stylized presentations of rose flower on one side and of rosebud on the other. L= 100*; BL= 82.5*; HL= 17.5; CL= 20.3; BW= 5.3; FL= 67. PH= oko 5; PW= ca 6.5; TL= ca 11.3. Dat.: 2/4 – midd.of XIII c. Lit.: Nabergoj 1997, 263, cat. 66.3, sl. 38c, t. 18:5.

372. r. Ljubljana, site Crna Vas, 2 km upstream of Ljubljana. Private property (inv. nr. of National Museum in Ljubljana ZN 70). Type: K, XVIa, 2. On both sides of the blade there are engraved indistinct signs with remains of bronze wire. L= 113.8; BL= 89.6; HL= 24.2; CL= 16.5; BW= 4.7; FL= 43.5. Dat.: ½ XIV c. Lit.: Nabergoj 1997, 263, cat. 66.2, sl. 38b, t. 19:3.

373. r. Ljubljana, site Struga Ljubljane near Rakove Jelši, southern outskirt of Ljubljana. Private property (inv. nr. of National Museum in Ljubljana ZN 68). Type: T2, XVII, 2. On one side of the blade, inlaid with a bronze wire, signs in a shape of cross fourchee and a cross with branching upper arm, and on the other side presentations of two swords or daggers and one more presentation of cross with branching upper arm. L= 110.4; BL= 86; HL= 23.6; CL= 22; BW= 3.8. Dat.: 2/2 XIV – beg.of XV c. Lit.: Nabergoj 1997, 264, cat. 71.2, sl. 38č, t. 19:2.

374. r. Ljubljana, site Struga Ljubljane near Rakove Jelši, southern outskirt of Ljubljana. Private property (inv. nr. of National Museum in Ljubljana ZN 1/1). Type: Rb, XIIIa, 11. The cross-guard has horizontal ring on its middle. On one side of the blade there are two engraved cross-shaped signs. Preserved remains of lower part of sword scabbard – metal fittings. L= 106; BL= 82; HL= 24; CL= 30.6; BW= 5.4; FL= 38. Dat.: 2/2 XV c. Lit.: Nabergoj 1997, 264, cat. 71.1, t. 19:1.

375. r. Ljubljana, Unknown site. National Museum, Ljubljana (inv. nr. 16). Type: A/B?, X/Xa?, 1. On the blade, inlaid with a silver wire, inscription *ScS BENEDICTUS*. L= 97; BL= 83; HL= 14. Dat.: XI - XII c. Lit.: Tancik 1971, 58, cat. 16.

376. Unknown site. National Museum, Ljubljana (inv. nr. 21). A/B?, X/Xa?, 1?. On one side of the blade there are three concentric circles, and on the other zig-zag line inscribed in rectangular field. L= 98; BL= 84; HL= 14. Dat.: XI-XII c. Lit.: Tancik 1971, 63, cat. 60.

377. r. Ljubljana. National Museum, Ljubljana (inv. nr. 1). Type: K1?, XVII?, 1?. On one side of the blade there is stylized presentation of running wolf, inlaid with a coloured metal wire. L= 132.5; BL= 107.5; HL= 25. Dat.: 2/2 XIV – beg.of XV c. Lit.: Tancik 1971, 63, cat. 61; Štamcar 1995, 349, cat. 3.2.46.

378. r. Ljubljana. National Museum, Ljubljana, (inv. nr. 2). Type: K, XIIIa, 2. On one side of the blade there is engraved inscription *AGLA*, as well as smaller signs: engraved lines, arrow, St. Andrew's cross. L= 117.1; BL= 92.9; HL= 24.2; BW= 5.3; CL= 19.4; FL= 59; TL= 17.7; PH= 5.3. Dat.: XIV c. Lit.: Tancik 1971, 63, cat. 62; Štamcar 1995, 350, cat. 3.2.49; Nabergoj 2002, 44-52.

- 379.** Pl. 12:1. r. Ljubljana. National Museum, Ljubljana, (inv. nr. 4). Type: G, XVa, 5. On each side of the blade there are inlaid signs as two presentations of a sword and number 1 (?). L= 116.5; BL= 90.9; HL= 25.6; CL= 23.5; BW= 4.7; PH= 6.2; PW= 7; TL= 19; FL= 49. Dat.: around 1430. Lit.: Tancik 1971, 63, cat. 63; Štamcar 1995, 350, cat. 3.2.50.
- 380.** Unknown site. National Museum, Ljubljana, (inv. nr. 13683). Type: Z3, XIXa, 12c. L= 88.4*; BL= 72.2*; HL= 14.4. FL= 31 (2.5). Dat.: around 2/2 XV c. Lit.: Tancik 1971, 64, cat. 64; Štamcar 1995, 350, cat. 3.2.52.
- 381.** r. Ljubljana. National Museum, Ljubljana, (inv. nr. 7). Type: Z1, XIIIa, 12b. On one side there is inlaid stylized presentation of running wolf, and on the other one more sign. L= 110; BL= 88.5; HL= 21.5. Dat.: midd.of XV c. Lit.: Birtašević 1968, 88, 91, T. IV,1; Tancik 1971, 64, cat. 65; Štamcar 1995, 351, cat. 3.2.54.
- 382.** r. Ljubljana, site Crna Vas, some 2 km upstream of Ljubljana. National Museum, Ljubljana, (inv. nr. V 407). Type: Z2, XVIa?, 12b. On the blade there are inlaid signs in a shape of horseshoe, star, cross fourchee inscribed in circle and letter T with forked ends. L= 124.5; BL= ca 104; HL= ca 20.5. Dat: ½ XV c. Lit.: Štamcar 1995, 324, cat. 2.3.11.
- 383.** r. Ljubljana, site Crna Vas, some 2 km upstream of Ljubljana. National Museum, Ljubljana, (inv. nr. N 38/1). Type: F, Xa?, 2. On one side of the blade there is letter S inlaid with a bronze wire. L= 89.5*; BL= ca 72.3*; HL= around 17.2. Dat.: 2/2 XII – midd.of XIII c. Lit.: Štamcar 1995, 349, cat. 3.2.43.
- 384.** r. Ljubljana, site Crna Vas, some 2 km upstream of Ljubljana. National Museum, Ljubljana, (inv. nr. V 400). Type: R1, XI, 1. L= 98.8; BL= 85; HL= 14; CL= 20; BW= 4.1. Dat: XII c. Lit.: Štamcar 1995, 349, cat. 3.2.44.
- 385.** Unknown site. National Museum, Ljubljana, (inv. nr. N 4380). The pommel is of discoid shape with rivet on top, and cross-guard is straight. Other data are not known. L= 108. Dat.: XIV c. Lit.: Štamcar 1995, 349, cat. 3.2.45.
- 386.** r. Ljubljana, v. Verd near Vrhnika, about 15 km sothwest from Ljubljana. National Museum, Ljubljana, (Inv. nr. V 415). Type: K1?, XVII?, 1?. L= 30.6*. Dat.: 2/2 XIV – beg.of XV c. Lit.: Štamcar 1995, 349, cat. 3.2.47.
- 387.** r. Ljubljana. National Museum, Ljubljana, (inv. nr. 406). Type: –, ?, 1?, On the blade there is, inlaid with a bronze wire, presentation of a fish on one side and fish-bone and fish head on the other. L= 98.4*. Dat.: XIV c.? Lit.: Štamcar 1995, 349, cat. 3.2.48.
- 388.** Unknown site. National Museum, Ljubljana, (inv. nr. N 4382). Type: Z3?, ?, 12. L= 109. Dat.: 2/2 XV c. Lit.: Štamcar 1995, 351, cat. 3.2.51.
- 389.** Unknown site. National Museum, Ljubljana, (Inv. nr. 18085). Type: Z, ?, 12. On the blade, inlaid with yellow metal, some signs. L= 105. Dat.: 2/2 XV c. Lit.: L. Štamcar 1995, 351, cat. 3.2.53.
- 390.** r. Ljubljana near Crna Vas, some 2 km upstream of Ljubljana. National Museum, Ljubljana. Type: B1, ?, 1. Dimensions are unknown. Dat.: XII c. Lit.: Nabergoj 2001, first pic. on the pg. 10.

VARIA

- 391.** Unknown site, Špilberg Brno (inv. nr. 104.098). Type: Z, XXb, 12b. On the blade there is engraved sign of cross with forked stand. L= 108.2; BL= 88.1; HL= 20.1; BW= 4.3?; CL= 21.9; PH= 5.1; PW= 3.7. Dat.: ½ or midd.of 15 c. Lit.: Glosek 1984, 141, cat. 45.
- 392.** Unknown site, Národní muzeum, Praha (inv. nr. 11.779). Type: Z1/Z3, XXb, 12b. L= 115.4; BL= 90.2; HL= 25.2; BW= 4.7; CL= 15.2*; PH= 4.1; PW= 4.8. Dat.: ½ or midd.of 15 c. Lit.: Glosek 1984, 144, cat. 97, Tabl. XXXVI, fot. 2.
- 393.** Use to be in Arsenal in Alexandria. Royal Ontario Museum, Toronto (inv. nr. 930.26.45). Type: Z2b, XXb, 12a. On the blade there is inscription with a name of Mamluk Sultan Al Ashraf Sayf al-Dīn Barsbāy (1422 – 1428). L= 118.7; BL= 91.4; HL= 27.3; TL= 22; BW= 4.8; CL= 22.2; PH= 5.6; PW= 6.8. Dat.: ¼ 15 c. Lit.: Bruhn-Hoffmeyer 1954, 62, cat. III d,1, pl. XXIV b.
- 394.** Topkapi Museum Istanbul (inv.nr. 1/2643). Type: Z2b, XXb, 12b/c. The cross-guard is covered with silver foil. L= 121.2; BL= 99.3; HL= 21.9; BW= 5.1; CL= 12. Dat.: ½ 15 c. Lit.: Alexander 1987, 25, 39, cat. no. 106.
- 395.** Hungarian Royal Arsenal? Topkapi Museum Istanbul (inv.nr. 1/2639). Type: Z3, XXb, 12b. Parade Sword. L= 152; BL= 116.6; HL= 35.4; BW= 5.5; CL= 22. Dat.: ½ 15 c. Lit.: Alexander 1987, 25, 39, cat. no. 107.
- 396.** Topkapi Museum Istanbul (inv.nr. 1/10401). Type: Z2b, XXb, 12b. On both sides of the blade, inlaid with yellow metal wire, presentation of running wolf. L= 108.5; BL= 86; HL= 22.5; BW= 5; CL= 16. Dat.: ½ 15 c. Lit.: Alexander 1987, 25, 39, cat. no. 108.
- 397.** Topkapi Museum Istanbul (inv.nr. 1/14783). Type: Z1, XVIa?, 5. L= 125.3; BL= 99.3; HL= 26; BW= 4.9; CL= 27; PH= 5. Dat: 2/2 14 - beg.of 15 c. Lit: Alexander 1987, 25, 40, cat. no. 109.
- 398.** Askeri Museum, Istanbul (inv. Nr. 21247). Type: Z3, XIXa?, 5. On the blade there are arabic inscription dedicated to the Mamluk Emir Saif-addin al-Ukuz al-Malikī al-Ashrafī (1367-8.) and signs in shape of stylized lyre with cross and three concentric circles. L= 105.5; BL= 88.5; HL= 17; BW= 5.6; CL= 16.5; PW= 6.8. Dat: around midd.of 14 c? Lit: Alexander 1985, 86, cat. no. 47.
- 399.** Askeri Museum, Istanbul (inv. Nr. 2437). Type: Z1, XVIa?, 6. On the blade there are arabic inscription dedicated to the Mamluk Emir al-Saifī Arsitay (1401-8.) and indistinct signs. L= 117.7; BL= 93.6; HL= 24.3; BW= 5; CL= 17.3; PW= 5.5. Dat: around end of 14 c. Lit: Alexander 1985, 86-87, cat. no. 42.
- 400.** Askeri Museum, Istanbul (inv. Nr. 24149). Type: Z1, XVIa?, 2. On the blade there is arabic inscription dedicated to the Mamluk Emir al-Saifī Arsitay (1401-8.). L= 97.2; BL= 76; HL= 21.2; BW= 4.5; CL= 17.1; PW= 5.6. Dat: around end of 14 c. Lit: Alexander 1985, 86-87, cat. no. 46.

SINGLE-EDGED SWORDS

SLOVAKIA

401. Chance find of a hoard (?) consisted of four swords (one double-edged and three single-edged), site Baková - Tajvan, village Drahovce, county Trnava, western Slovakia. Museum, Piešťany. The tang is for one hand, with rounded on upper side, five holes where the rivets for handle covering used to be. The cross-guard is short, horizontal, narrowing towards its ends. The blade is straight, with the edge on one side and the back on the other, and with fuller. L= 108.6; BW= 3.3; CL= 6.8. Dat.: 2/2 XIV - XV c. Lit.: Bača and Krupa 1991, 19, Obr. 1:3.

402. Chance find of a hoard (?) consisted of four swords (one double-edged and three single-edged), site Baková - Tajvan, village Drahovce, county Trnava, western Slovakia. Museum, Piešťany. The tang is for one hand, on the top bent in one side. On lower part are visible three holes for the rivets for handle covering with some remains of it preserved. The cross-guard is short with one arm sharply bent towards the blade and the other one towards the handle. On the middle of the cross-guard there is circular strengthening. The blade is straight, with edge on one side and back on the other. L= 103.2; BW= 3.8. Dat.: around ½ XV? c. Lit.: Bača and Krupa 1991, 19, Obr. 1:2.

403. Chance find of a hoard (?) consisted of four swords (one double-edged and three single-edged), site Baková - Tajvan, village Drahovce, county Trnava, western Slovakia. Museum, Piešťany. The tang is with four holes for the rivets for handle covering which is missing now. On the rounded top of the handle there are preserved remains of bronze panelling. There is no cross-guard and the blade is with edge on one side and back on the other and fuller on its middle. L= 93,5; BW= 3,5 Dat.: XV? c. Lit.: Bača and Krupa 1991, 19, Obr. 2:3.

404. Site Červeníky, village Dvorníky, western Slovakia. Hoard. The handle is longer, for hand-and-a-half, with rounded end which is widened on one side. On the tang there are five holes for the rivets for handle covering which is missing now. The cross-guard is short, horizontal with widened ends. The blade is straight, single-edged with sharp point. L= around 91; BL= around 71; HL= around 20; CL= around 9. Dat.: midd.of XV c. (coins of Sigismund I (1427-1437)). Lit.: Urminský 1995, 132, Obr. 104.

BULGARIA

405. Pl. 12:4. Village Izvorsko, some 20 km northwest of Varna, eastern Bulgaria. The tang is slightly rounded on upper side. On one side it is smooth, and on the other recessed, with three holes for the rivets for handle covering which are missing today. The cross-guard is short, of pyramidal body and heart-shaped end, only on one side of the blade. The blade is with rounded point and with impressed sign of unknown shape near its top. Along the blunt side of the blade there is narrow and long fuller. Dimensions are unknown. Dat.: XV c. Lit.: Парушев 1999, 143, сл 11, 12, 13.

406. Eastern outskirts of Varna Vladislavovo (presumed place of the 1444. battle of Varna), northeastern Bulgaria. The tang is for one hand, somewhat rounded on upper side. On one side it is smooth, and on the other recessed, with three holes for the rivets for handle covering which are missing today. Along the blunt side of the blade there is narrow and long fuller, the point is sharp. L= 97; BL= 81; HL= 16; BW= 3.7. Dat.: XV c. Lit.: Плетньов 2002, 196-197, обр. 1,б.

SERBIA

407. Fortress Stalać, central Serbia, archaeological excavations. National Museum in Kruševac (inv. nr. 242). The tang is elongated with holes for covering fastening and embellishing. Along the blade there is wide fuller. The point is damaged. Between blade and tang there is iron ring. L=38*. Dat.: end of XIV or beg. of XV c. Lit.: Сталаћ 1979, 19, 77, cat. 14; Петровић 1996, 159-160.

408. Užice fortress, western Serbia. National Museum in Užice (inv. nr. 2). The tang is elongated, narrowing towards the blade. Along full length of the back of the blade there is fuller. The point is acute. L=87; BL=76; HL=11; BW=5.7. Dat.: XIV c. (XIV or XV c.). Lit.: Шкриванић 1957, 49, 56, fig. 20/1, note 214, 230; Ужице 1989, 157-158; Поповић 1995, 75, fig. 33.

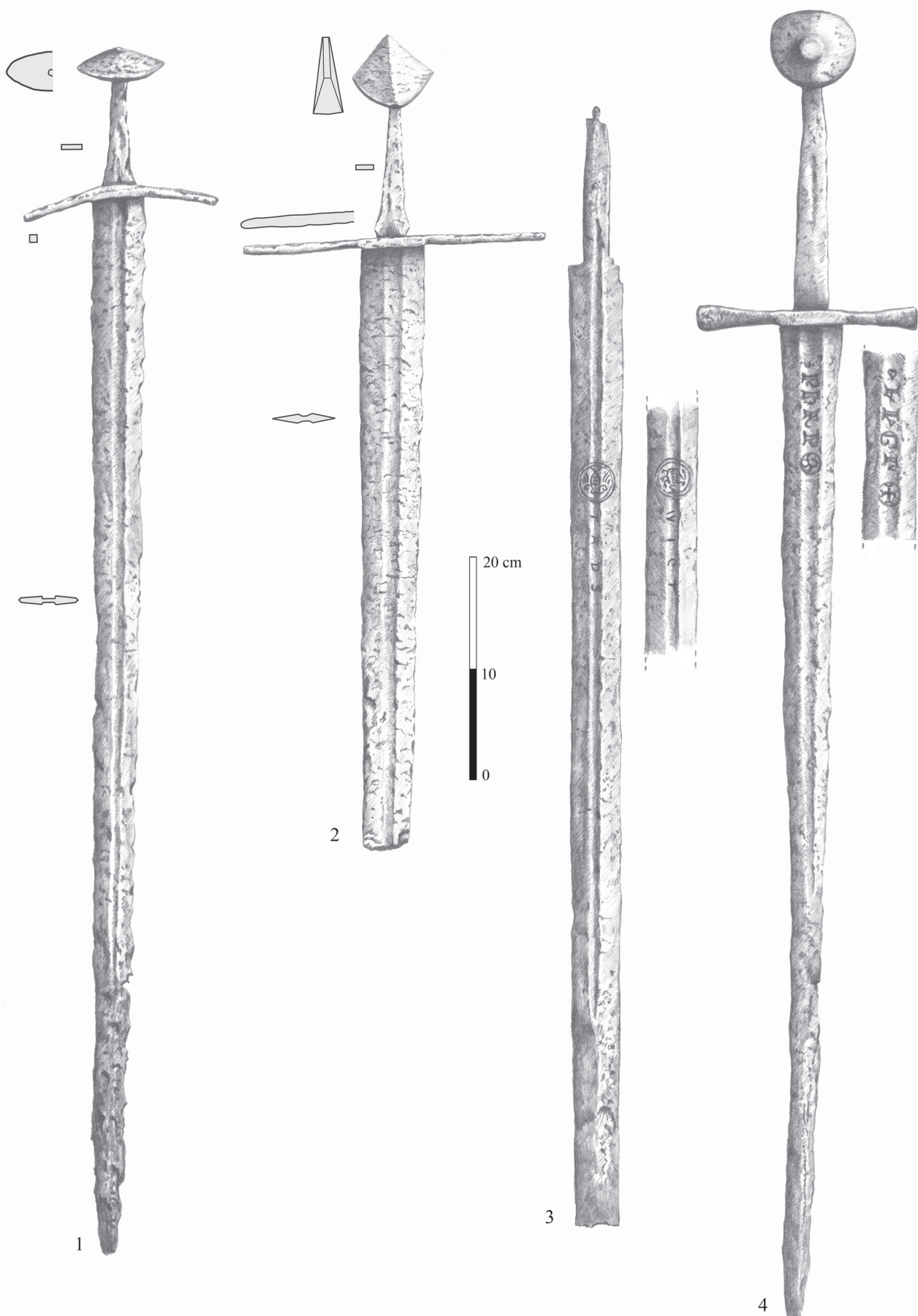
409. Unknown site. City Museum Belgrade (Inv. nr. I 375). The tang is elongated with circular holes for fastening the covering. Along back of the blade, on both sides, there is narrow fuller. The blade is in its lower part fractured, and next to the top it is acute. L=99.8; BL=86.8 (point of fracture 23.3 from the top); HL=13; BW=4.35; FL=61; FW=0.7. Dat.: XV c. Lit.: Шкриванић 1957, 56.

410. Unknown site. Museum in Perast. The hilt has bone covering, with silver fitting and ornamented with seven jewels: two rubies, two amethysts, and one almandine, calcedon and carnelian. It has widened end and guard. The point of blade is sharpened and along blunt side of the blade there is a long fuller. On one side, near the handle, there is engraved presentation of double-headed eagle without a crown, letter *II* and Cyrillic inscription with a name of Vukša Stepanović. Scabbard is of wood, covered with black leather and silver fittings. L=99; BL=85; HL=14; BW=5. Dat.: end of XV - XVI c. Lit.: Шеровић 1924, 191-195; Буторац 1924, 195-200; Шкриванић 1957, 56, fig. 20/3; Ковијанић и Стјепчевић 1957, 187.

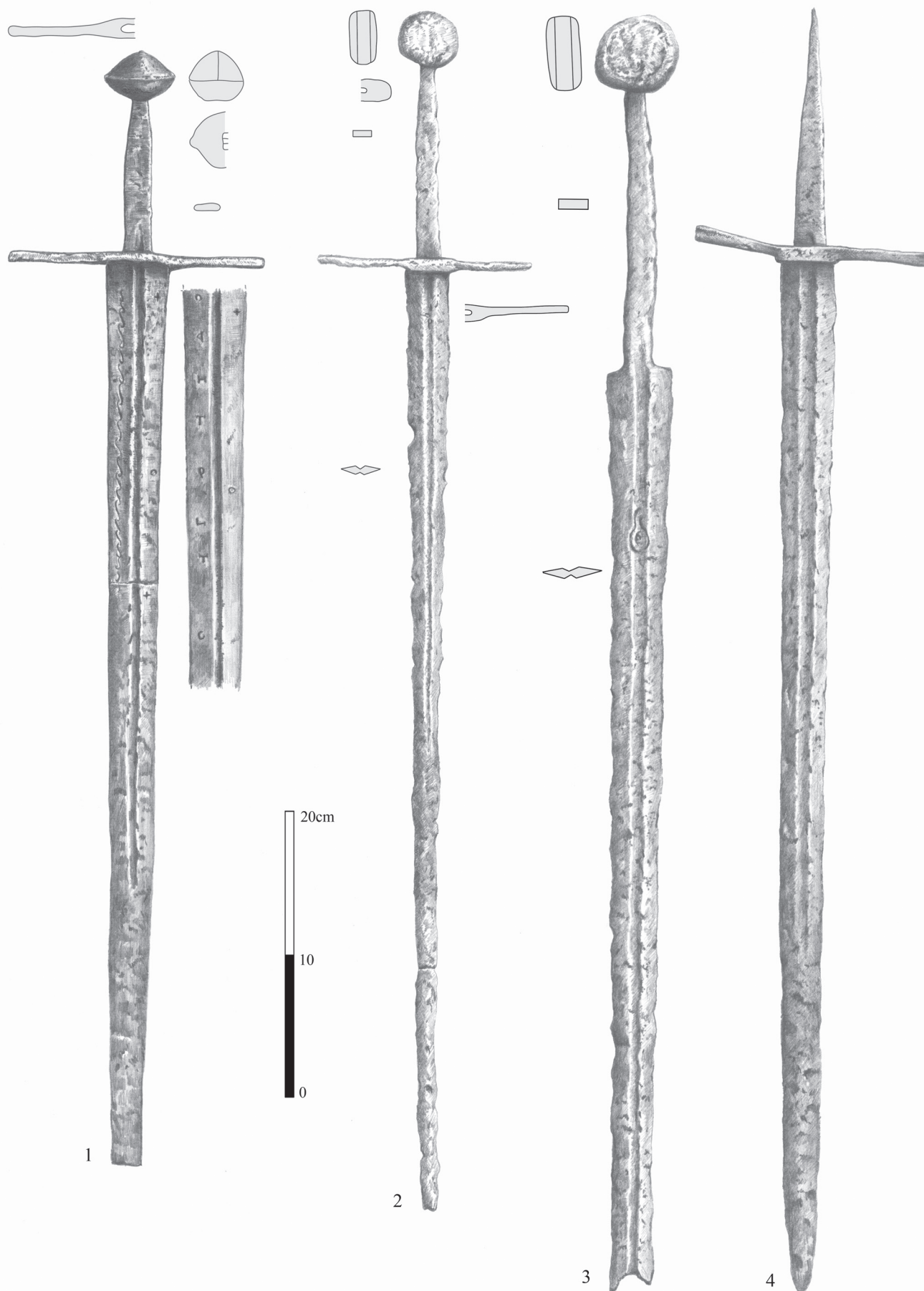
BOSNIA

411. Doboj, northern Bosnia. National Museum BiH, Sarajevo (inv. nr. 112). The tang is damaged, with three circular holes for fastening the covering. Single-edged blade is straight, upper back side is narrowing just next to the top, while the edge is clearly narrowing to its acute point. L= 76.5*; BL= 69.5*; HL= 7*; BW= 5.5; BW`= 2.9; t= 494.1*g. Dat.: XIV/XV c. Lit.: Шкриванић 1957, 49, note 215, fig. 20/2. Sijarić 2004, 86-87, cat. 15, T. XV, sl. 15.

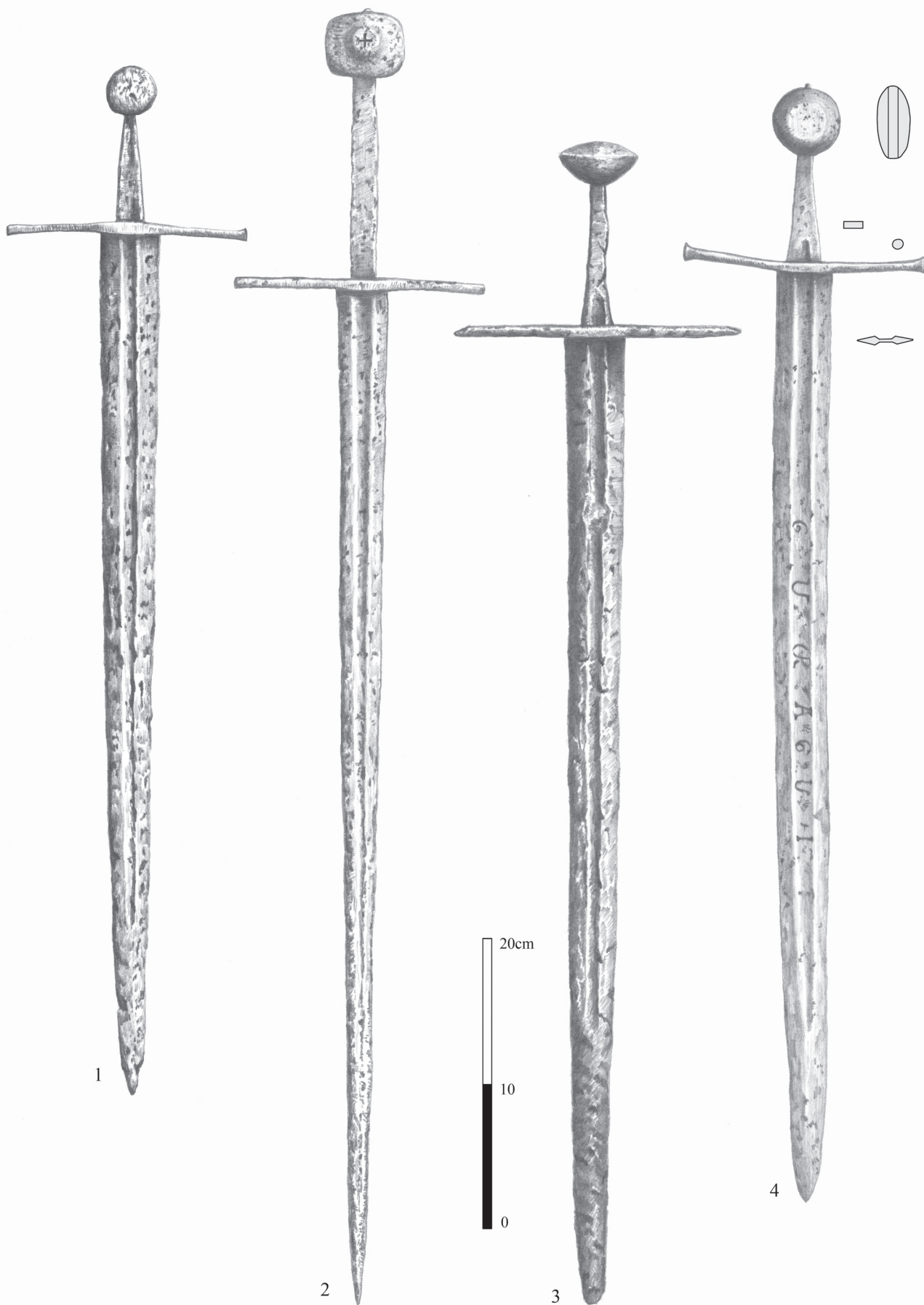
412. 16. Old Town of Visoko, central Bosnia, archaeological excavations. Regional Museum, Visoko (inv. nr. 16). The tang looks like tongue-shaped plate, rounded on the top, with two unequal rivets which used to fasten wooden panelling which is preserved only in remains. The blade is double-edged (?), but sharp only next to the top. On transition of the tang in the blade there is preserved fragment of the protecting bar. L= 65; BL= 54; HL= 11; BW= 5.5; BW`= 3; Dat.: end of XIV – 2/2 XV c. Lit.: Sijarić 2004, 88-91, cat. 16, T. XVI, sl. 16.



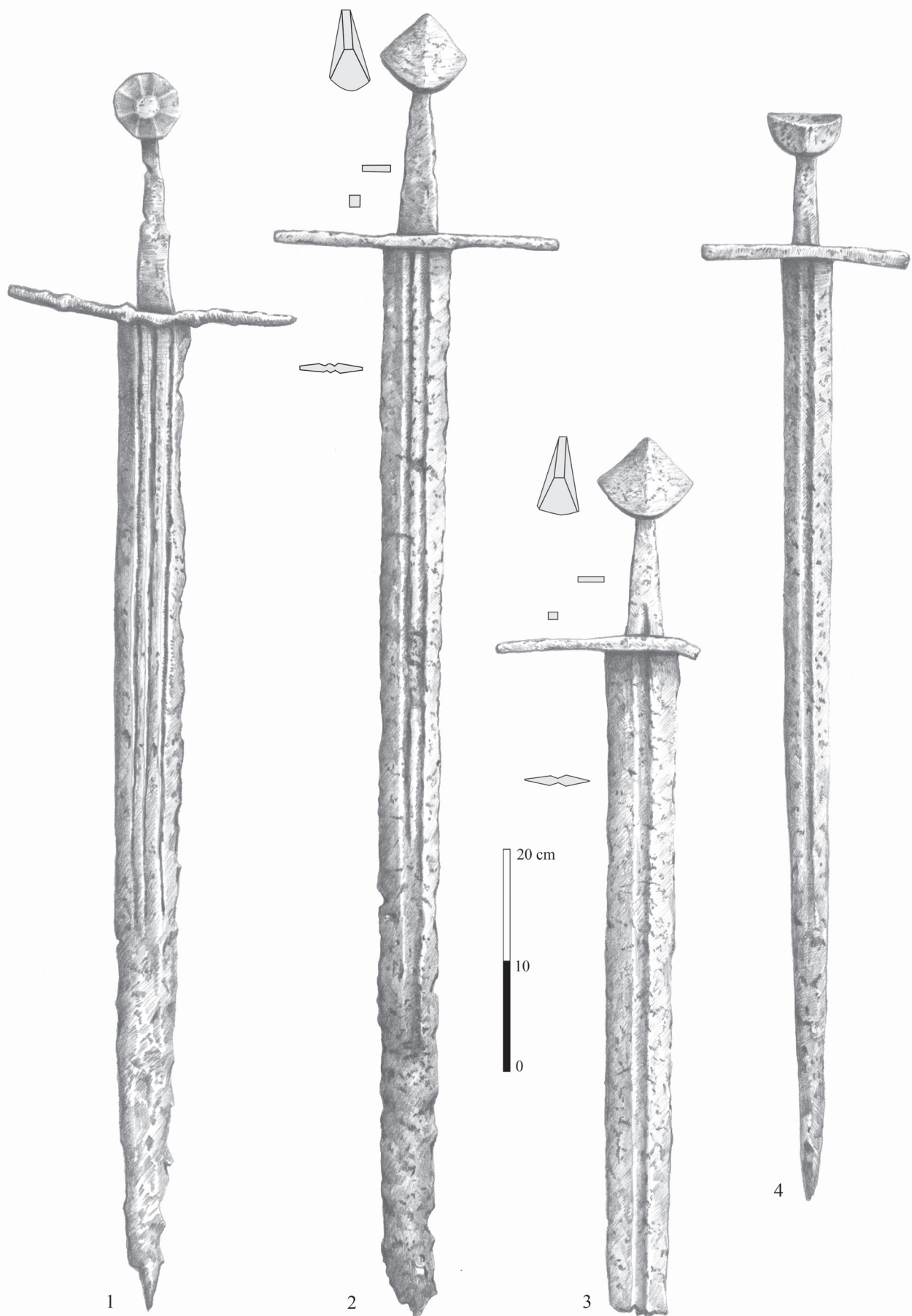
Pl. 1: 1 – cat. no. 16, Skýcov, western Slovakia, Type: A, Xa,1 (bent); 2 – cat. no. 13, Myjava, northwestern Slovakia, Type: E1, XIII?, 1; 3 – cat. no. 26, Museum Komárno, southwestern Slovakia, Type: –, XII, –; 4 - cat. no. 10, Kalna nad Hronom, southwestern Slovakia, Type: K, XVIa, 5.



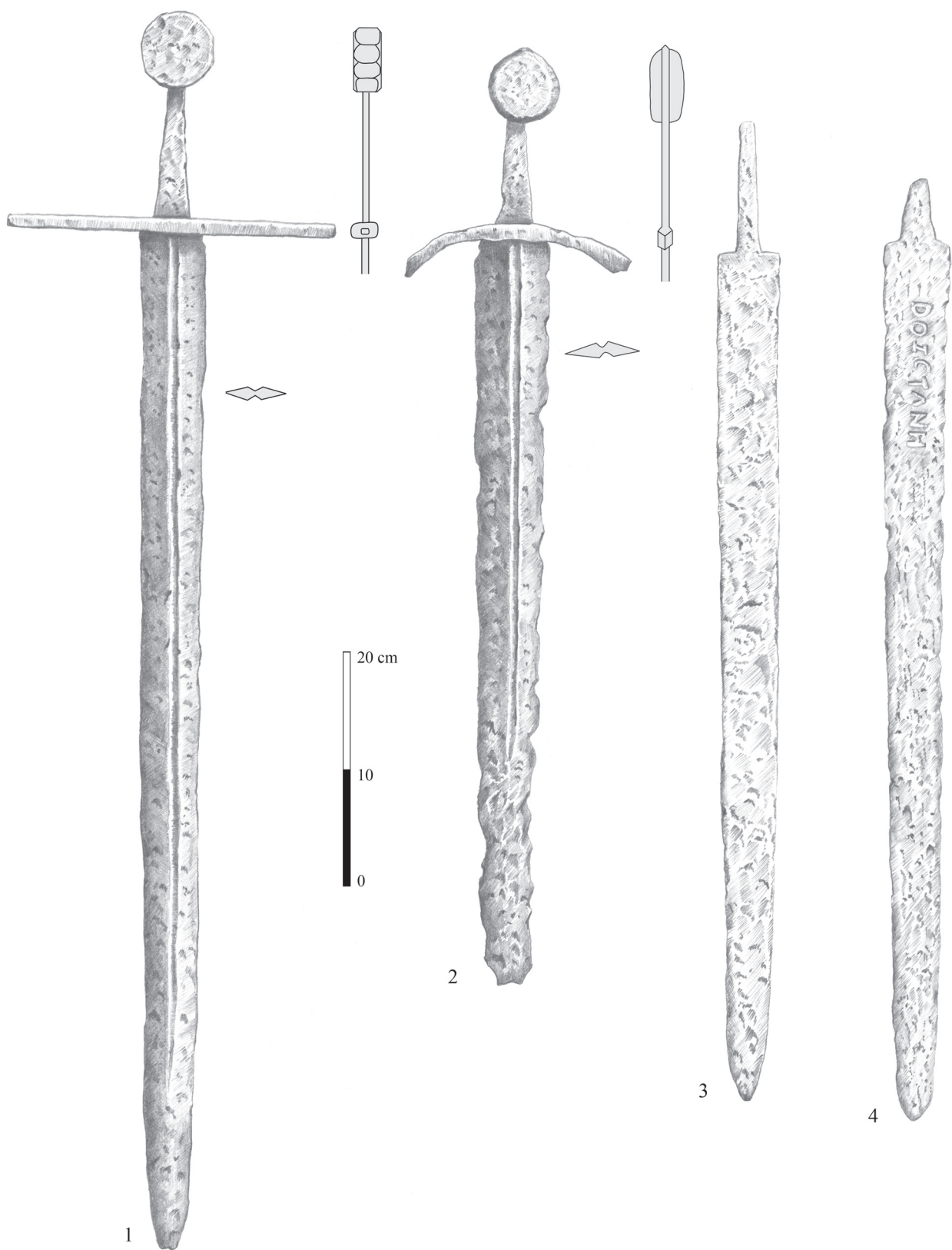
Pl. 2: 1 – cat. no. 4, Dlhá nad Váhom, western Slovakia, Type: R1a, XIIb?, 1; 2 – cat. no. 18, Trenčín, northwestern Slovakia, Type: H1, XVII, 1; 3 – cat. no. 12, Mužla, southern Slovakia, Type: H1, XVIa?, –; 4 – cat. no. 27, Museum Komárno, southwestern Slovakia, Type: –, XVIa, 1.



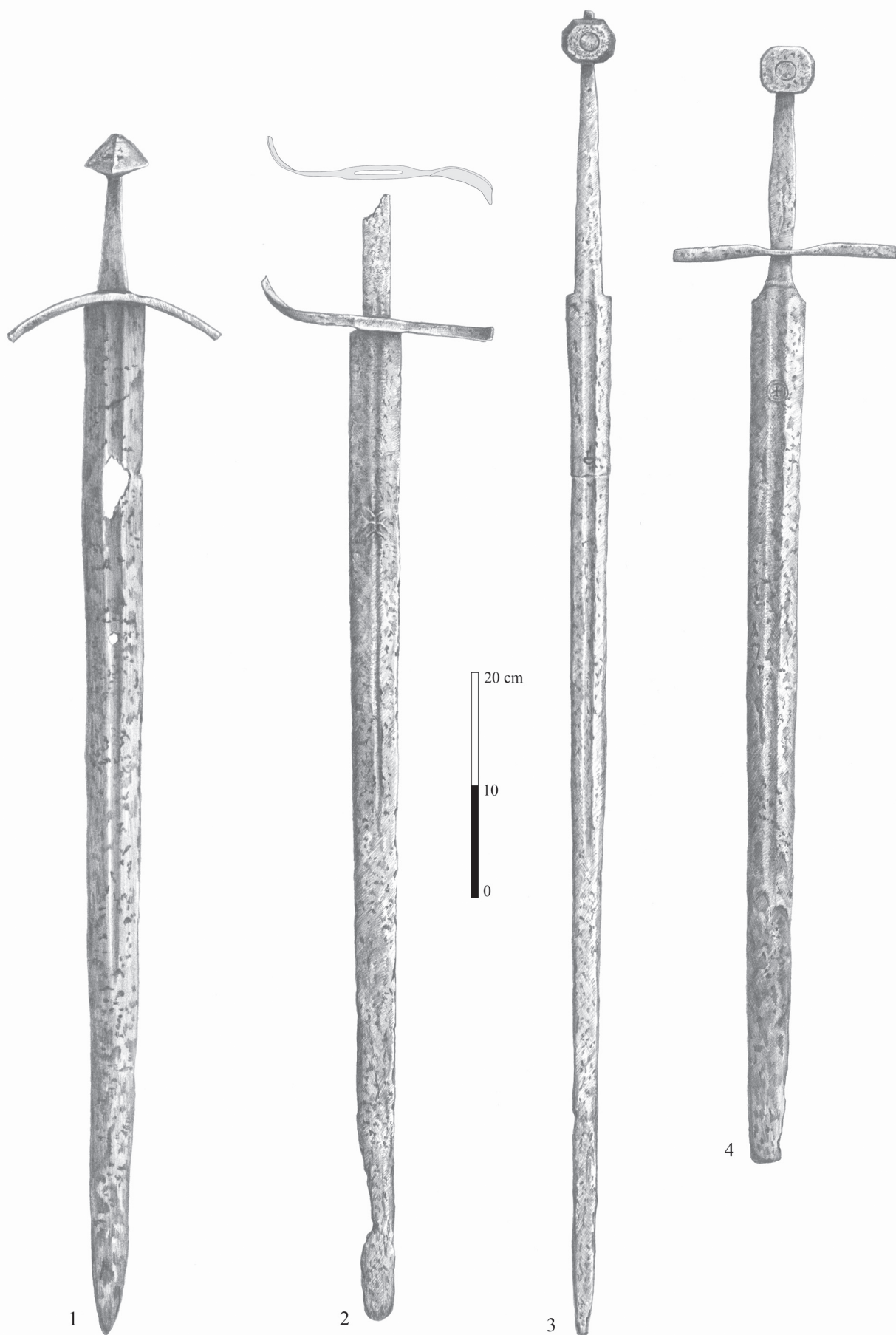
Pl. 3: 1 – cat. no. 92, Museum, Budapest, Type: G, Xa, 2; 2 – cat. no. 100, Museum, Budapest, Type: K1, XVIa/XVII, 1; 3 – cat. no. 98, Museum, Budapest, Type: Nb, Xa/XIII, 1; 4 – cat. no. 163, Museum Timisoara, western Romania, Type: I, X, 2.



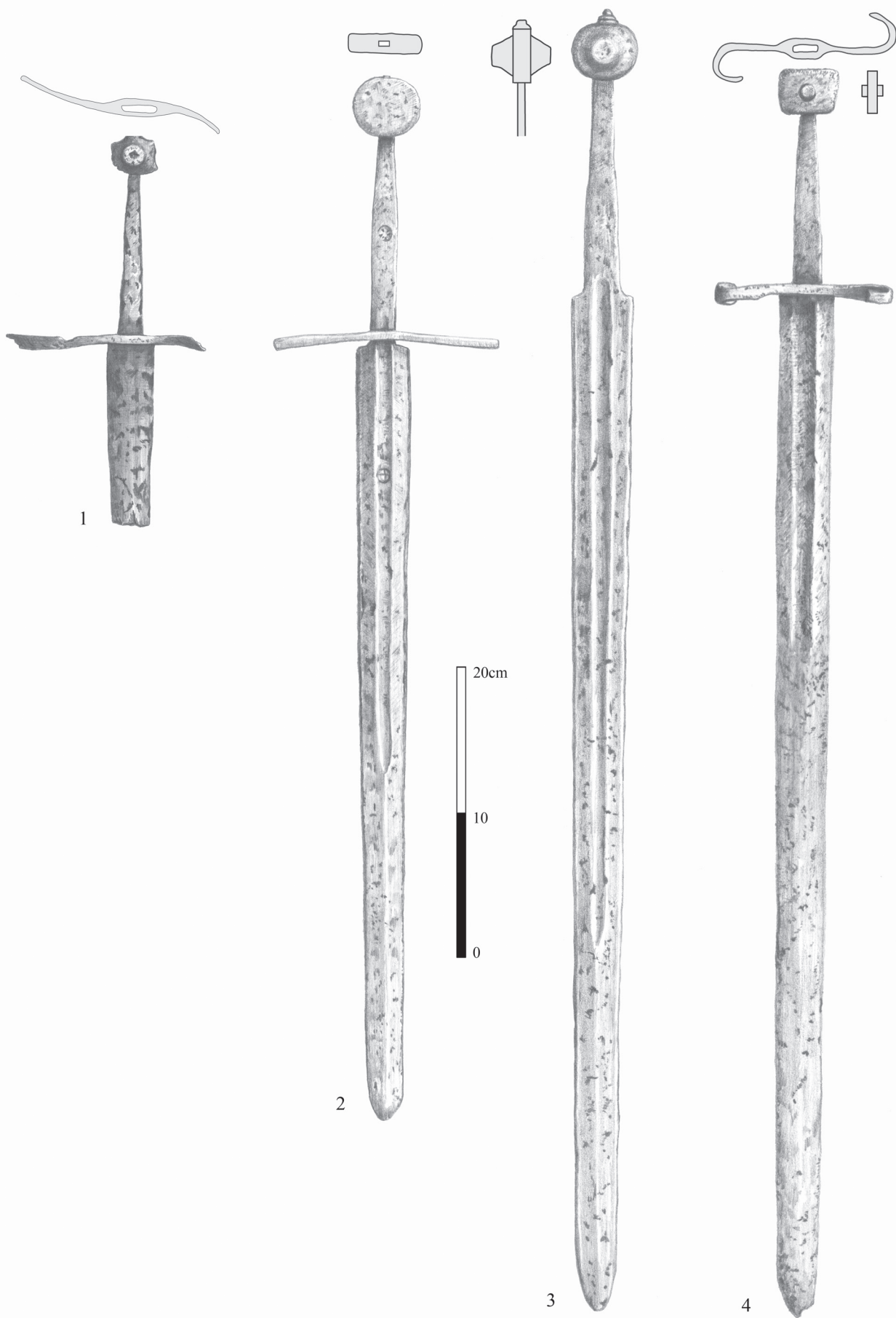
Pl. 4: 1 – cat. no. 193, Jupa, western Romania, Type: IIb, XIII, 1; 2 – cat. no. 153, Bâta Doamnei, northeastern Romania, Type: E1, XIII, 1; 3 – cat. no. 179, Dejan, central Romania, Type: E1, XIII(b), 1; 4 – cat. no. 216, Govezhda, Montana, northwestern Bulgaria, Type: N1a, Xa, 1.



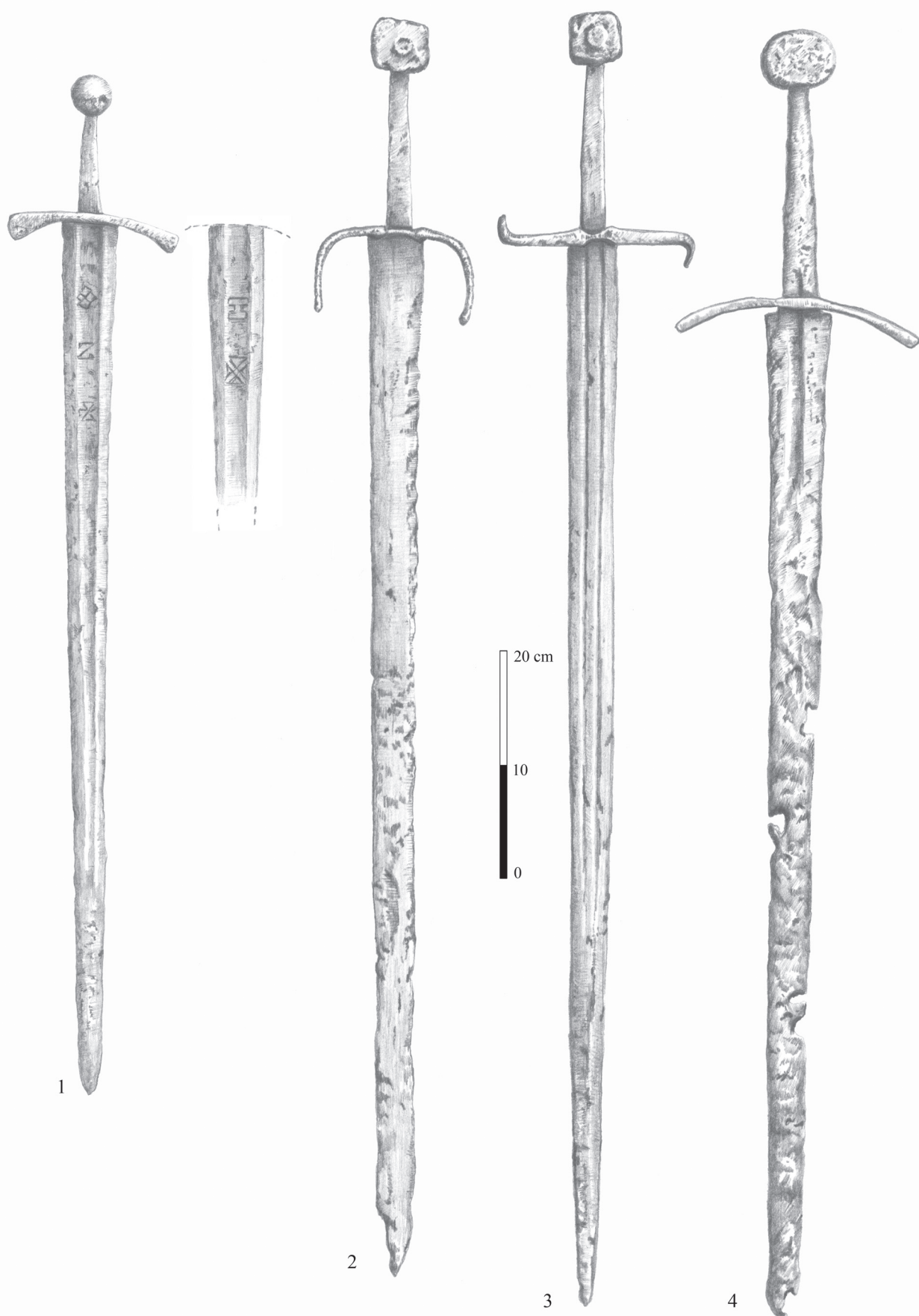
Pl 5: 1 – cat. no. 199, Preslav, eastern Bulgaria, Type: H/11a, Xa, 1; 2 – cat. no. 197, Vrbitsa, eastern Bulgaria, Type: I, Xa/XII?, 6; 3 – cat. no. 207, Museum Varna, northeastern Bulgaria, Type: –, I, –; 4 - cat. no. 227, r. Velika Morava near Požarevac, central Serbia, Type: –, I, –.



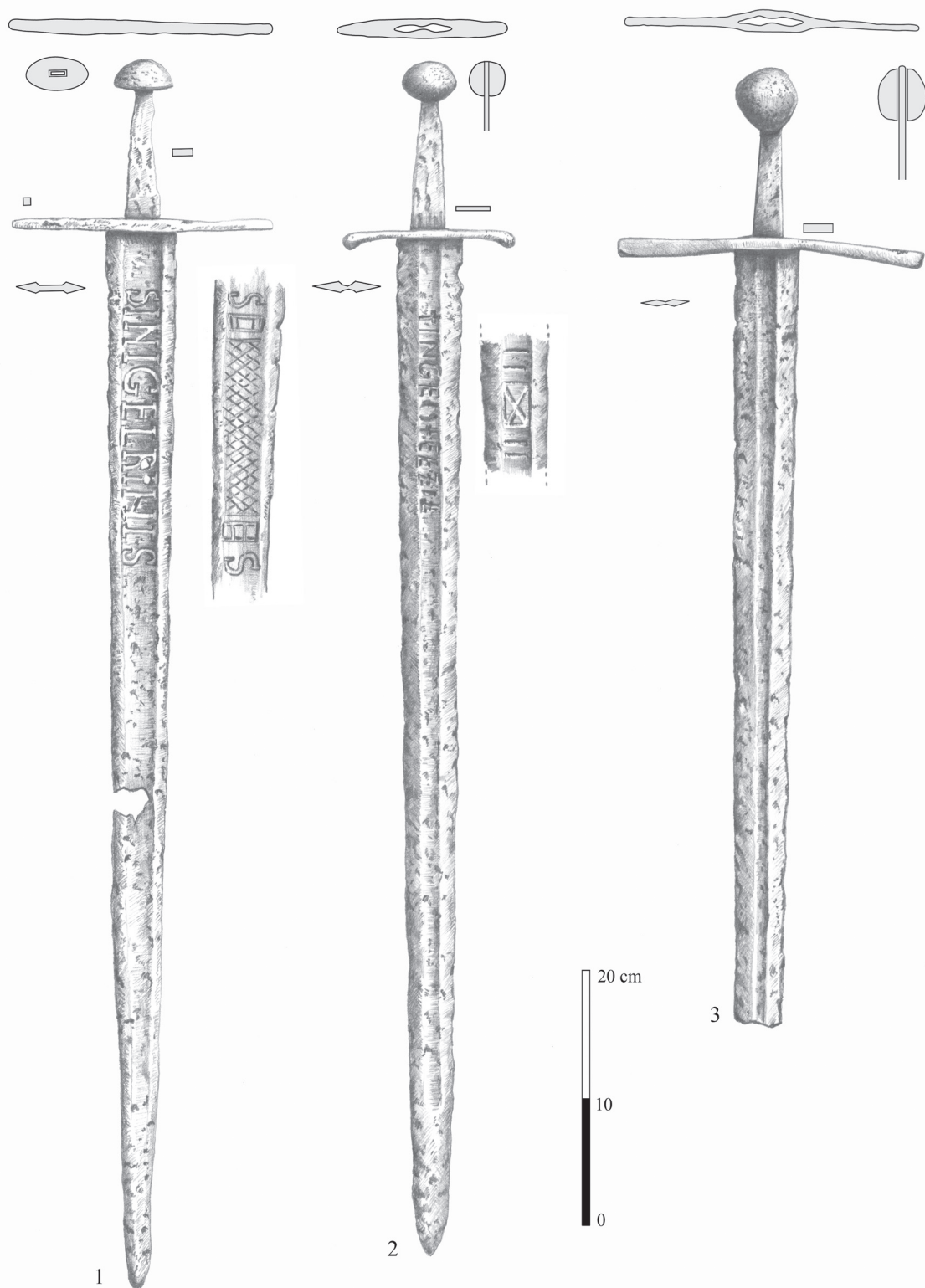
Pl. 6: 1 – cat. no. 231, r. Velika Morava near Jagodina, central Serbia, Type: D1, Xa, 1 (bent); 2 – cat. no. 268, vicinity of Šabac, western Serbia, Type: –, XIIIa/XVIa, 12a; 3 – cat. no. 263, vicinity of Šabac, western Serbia, Type: Z2c, XVIa, –; 4 – cat. no. 266, r. Sava near Šabac, western Serbia, Type: Z2c, XIIIa, 6/12a?.



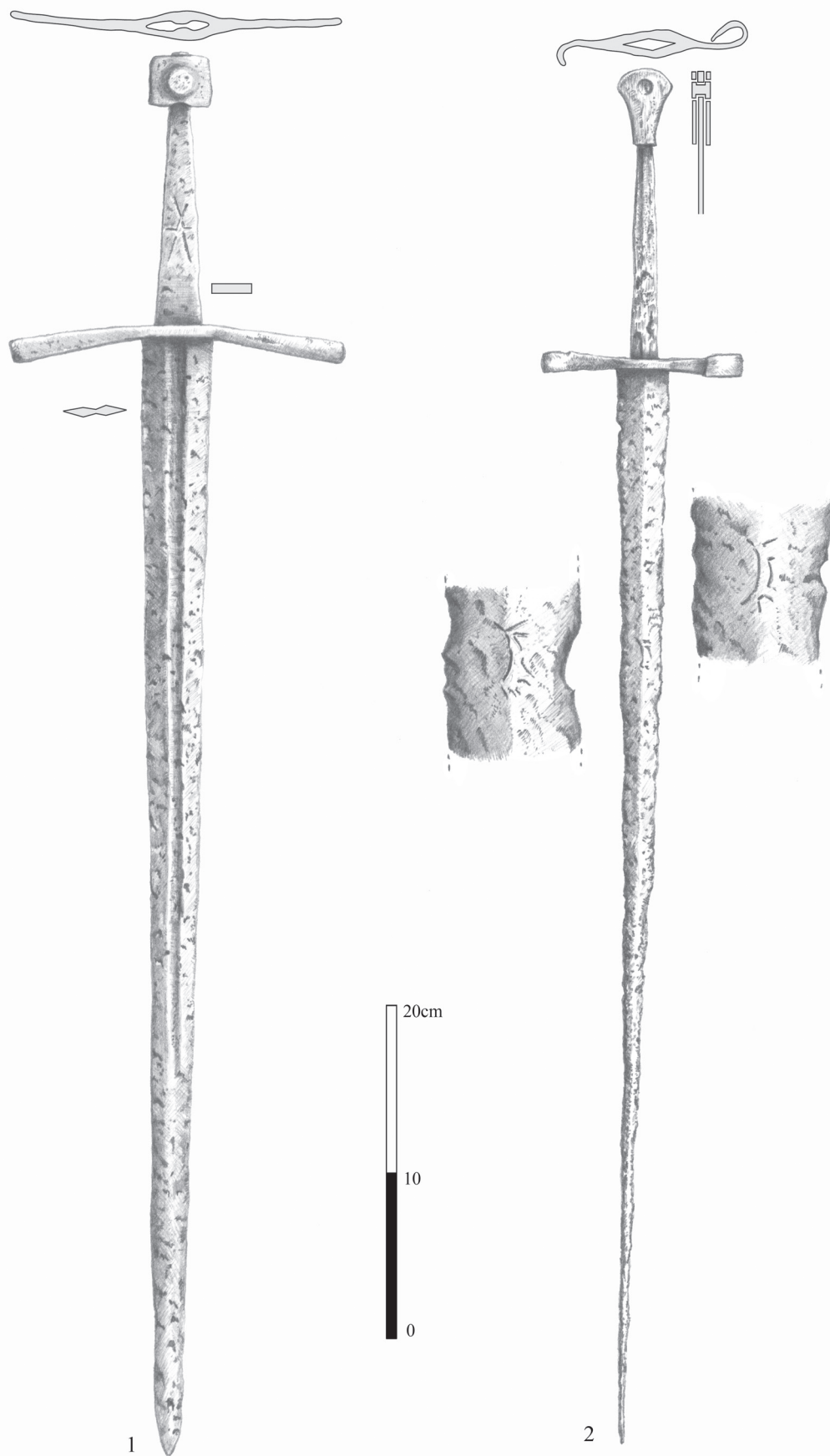
Pl. 7: 1 – cat. no. 275, Užice, western Serbia, Type: Z3, ?, 12a; 2 – cat. no. 253, vicinity of Majdanpek, eastern Serbia, Type: G/H1, XIIIc, 2; 3 – cat. no. 240, Danube near Višnjica, vicinity of Belgrade, Type: K, XIIIa, –; 4 – cat. no. 272, Danube near Stari Slankamen, northern Serbia, Type: Z1, XIIIa, 12b.



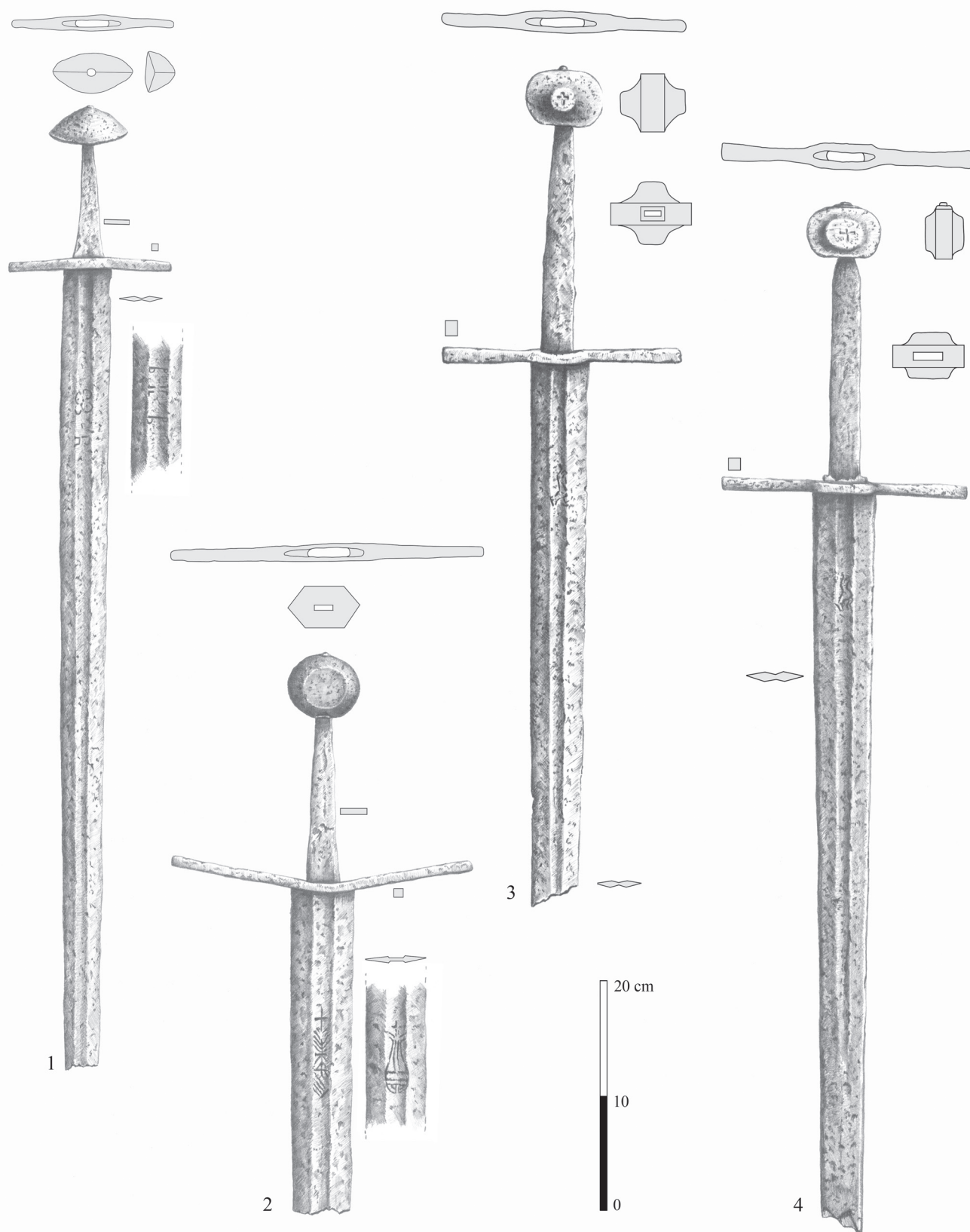
Pl. 8: 1 – cat. no. 285, r. Zeta near Podgorica, Montenegro, Type: Ra, II, 6; 2 – cat. no. 292, r. Zeta near Podgorica, Montenegro, Type: Z2, XIII?, 13; 3 – cat. no. 293, r. Zeta near Podgorica, Montenegro, Type: Z2, XVIa/XXb, 12a; 4 – cat. no. 226, r. Bregalnica, vicinity of Kočani, eastern Macedonia, Type: H1, XIIIa?, 2/6.



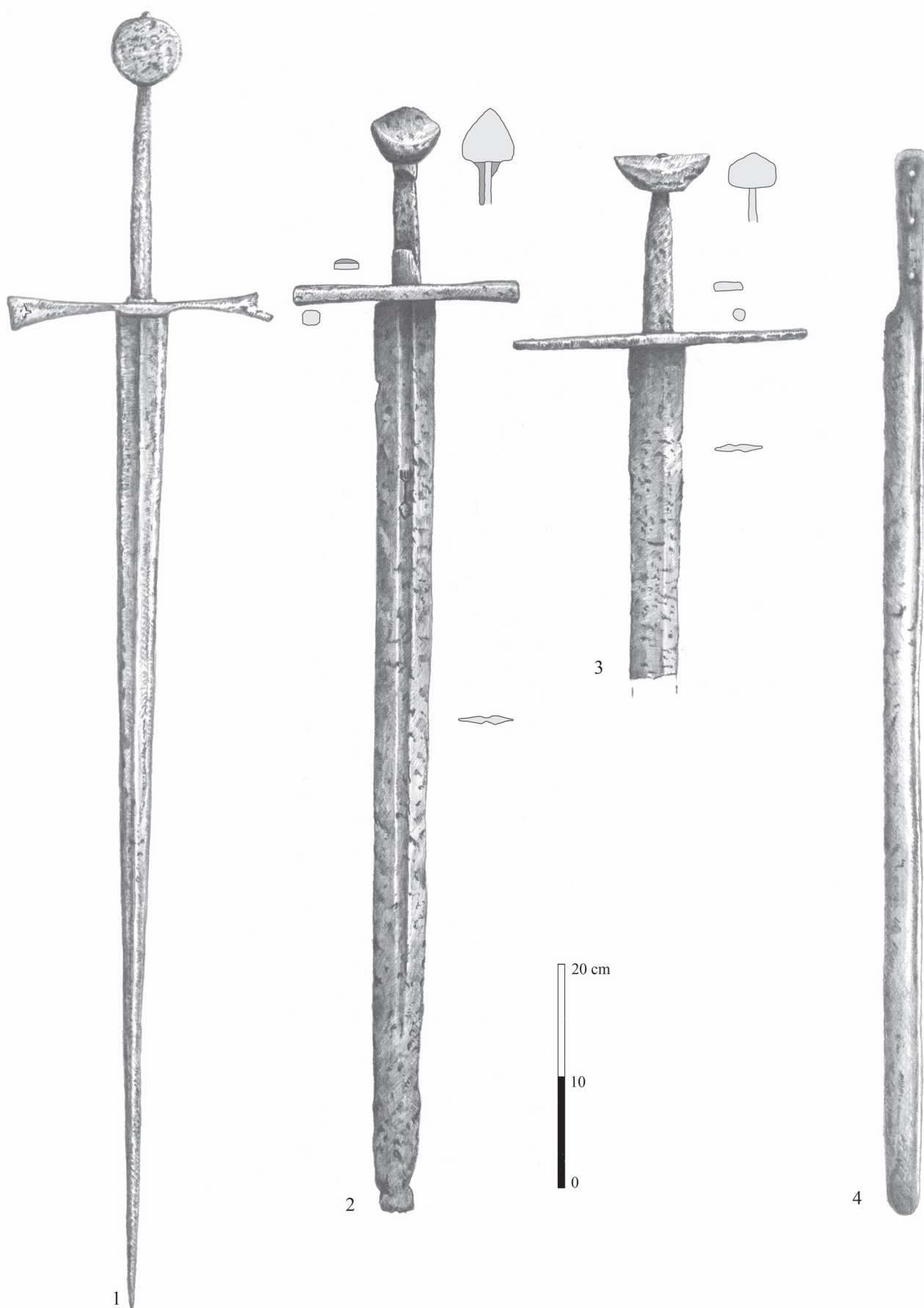
Pl. 9: 1 – cat. no. 297, r. Sava near Bosanska Gradiška, northern Bosnia, Type: A, X, 1; 2 – cat. no. 298, vicinity of Glamoč, southwestern Bosnia, Type: R1, X, 4a; 3 – cat. no. 304, vicinity of Bijeljina, northeastern Bosnia, Type: R1, Xa?, 6.



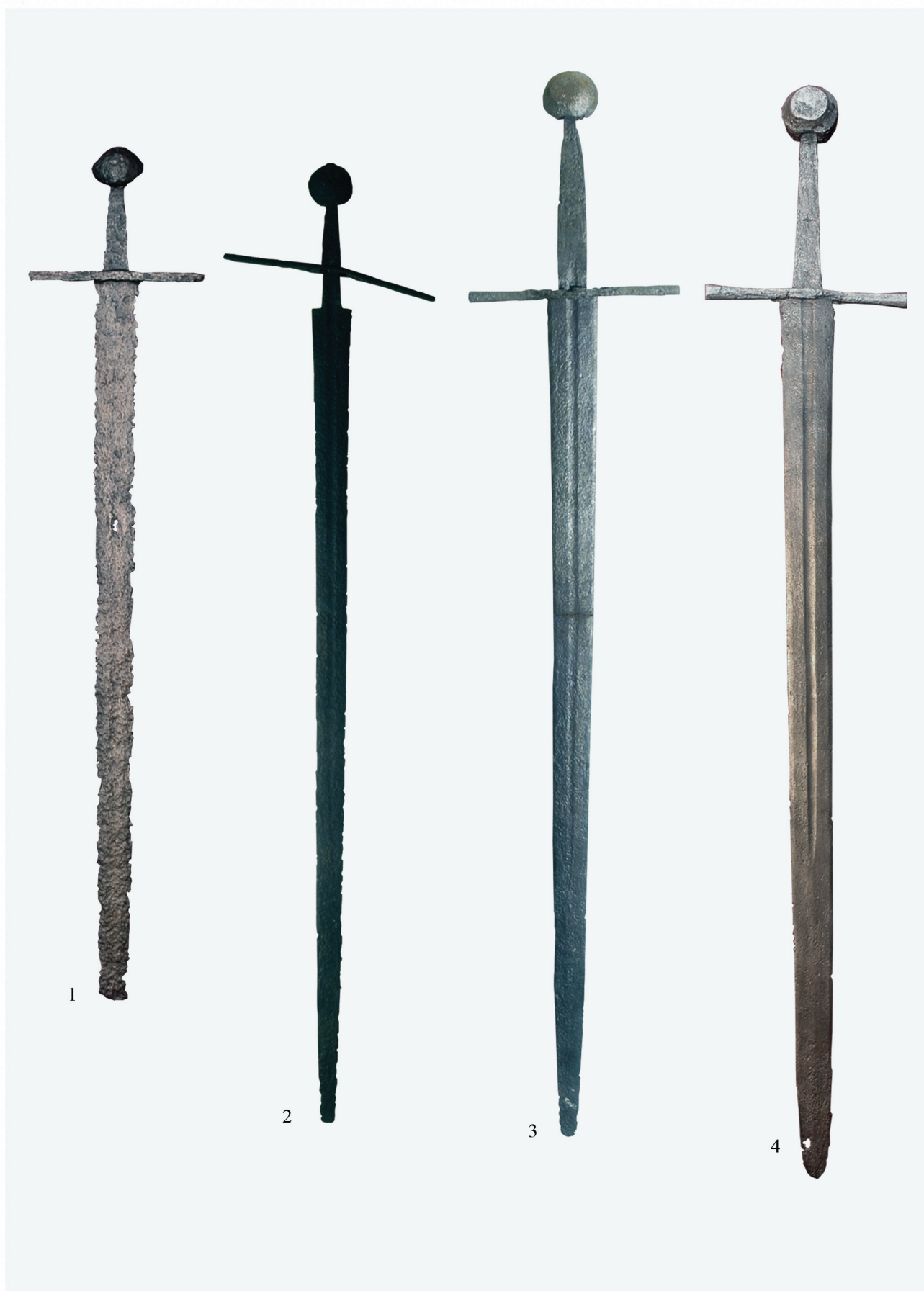
Pl. 10: 1 – cat. no. 306, vicinity of Glamoč, southwestern Bosnia, Type: Z1, XVIa, 6; 2 – cat.no. 309, vicinity of Bijeljina, northeastern Bosnia, Type: V1/T5, XVIIIc, 12b.



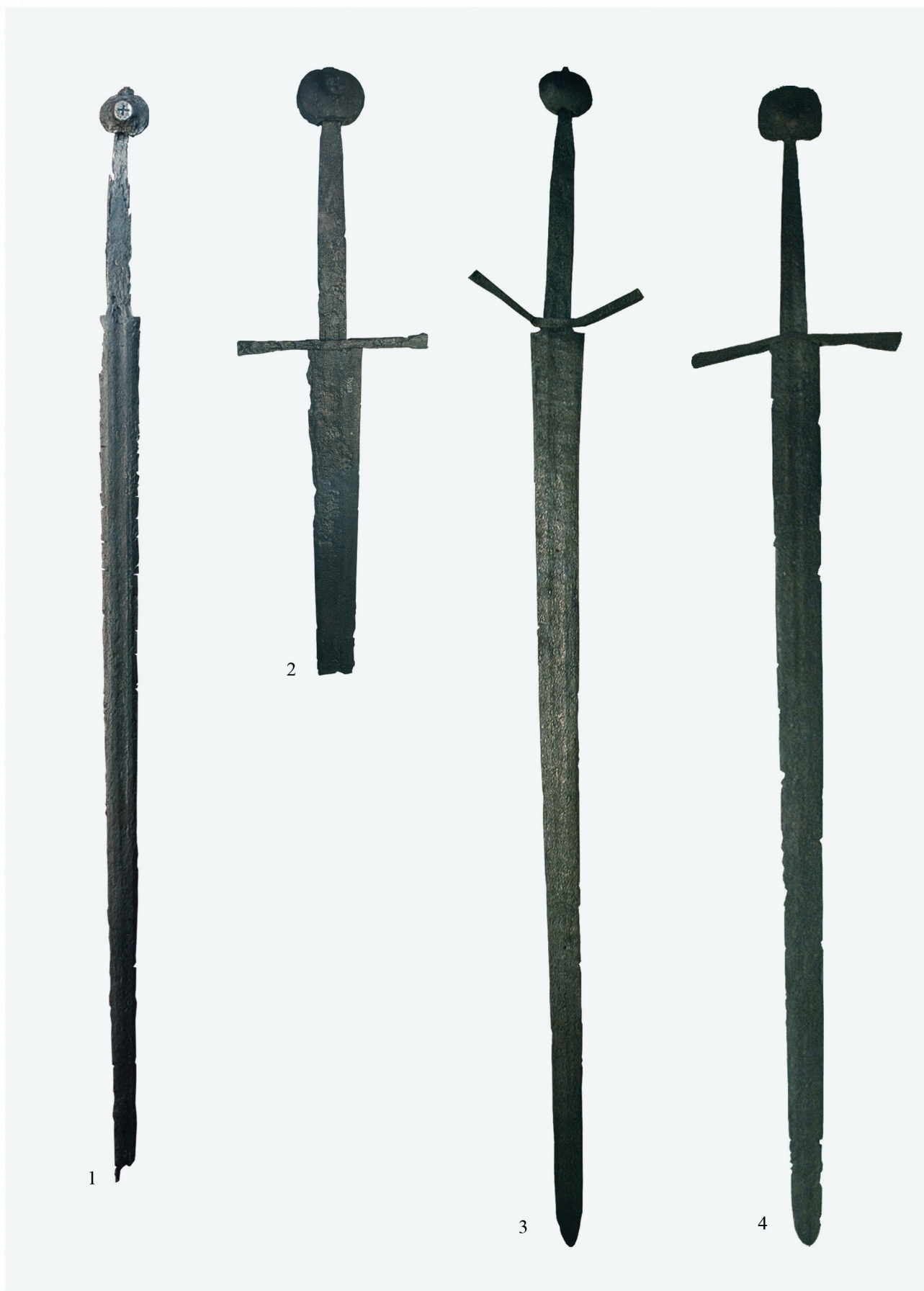
Pl. 11: 1 – cat. no. 342, r. Kupa near Karlovac, western Croatia, Type: A, Xa, 1; 2 – cat. no. 324, r. Kupa, vicinity of Karlovac, western Croatia, Type: Ia, XIIIa?, 1; 3 – cat. no. 321, old riverbed of Drava, vicinity of Koprivnica, northern Croatia, Type: K, XIIIa?, 2; 4 – cat. no. 322, old riverbed of Drava, vicinity of Koprivnica, northern Croatia, Type: K/K1, XVIa?, 2.



Pl. 12: 1 – cat. no. 379, r. Ljubljana, near Ljubljana, Slovenia, Type: G, XVa, 5; 2 – cat. no. 371, r. Ljubljana, near Ljubljana, Slovenia, Type: B/N, XIII, 2; 3 – cat. no. 370, r. Ljubljana, near Ljubljana, Slovenia, Type: Na, Xa?, 1; 4 – cat. no. 405, vicinity of Varna, eastern Bulgaria, single-edged sword.



Pl. 13 – Unknown site. Military Museum in Belgrade: 1 – cat. no. 229, Type: B, Xa, 1; 2 – cat. no. 232, Type: I, Xa, 1; 3 – cat. no. 236, Type: I, Xa/XIb, 1; 4 – cat. no. 237, Type: I, XIIIa, 2.



Pl. 14 – Unknown site. Military Museum in Belgrade: 1 – cat. no. 242, Type: K, XVIa, –; 2 – cat. no. 246, Type: K, ?, 5; 3 – cat. no. 245, Type K, XIIIa, 2; 4 – cat. no. 249, Type: K1, XIIIa, 5.



Pl. 15 – Unknown site. Military Museum in Belgrade: 1 – cat. no. 248, Type: K1, XIIIa, 5; 2 – cat. no. 261, Type: K1, XVII, 6; 3 – cat. no. 256, Mouth of r. Sava near Belgrade fortress. Military Museum in Belgrade, Type: K1, XVII, 5; 4 – cat. no. 255, Danube near Golubac, eastern Serbia. Military Museum in Belgrade, Type: H1, XVIa, –.



Pl. 16: 1 – cat. no. 235, r. Sava near Belgrade, Type: K, XVIa, 2; 2 – cat. no. 240, r. Danube near Belgrade, Type: K, XIIIa, –; 3 – cat. no. 260, Unknown site. Military Museum in Belgrade, Type: T2, XVIIIc, 1; 4 – cat. no. 274, Unknown site. Military Museum in Belgrade, Type: Z3, XVIa?, –.



Pl. 17: 1 – cat. no. 267, vicinity of Kladovo, eastern Serbia, Type: Z2b, XIII, 12b; 2 – cat. no. 273, Unknown site, Military Museum in Belgrade, Type: Z1, XIIIa, 12a; 3 – cat. no. 276, Unknown site, Military Museum in Belgrade, Type: Z3, XIXa, 12c; 4, 4a, 4b – cat. no. 269, Unknown site. Military Museum in Belgrade, Type: I1a, XIIIa, 12b.



1



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4

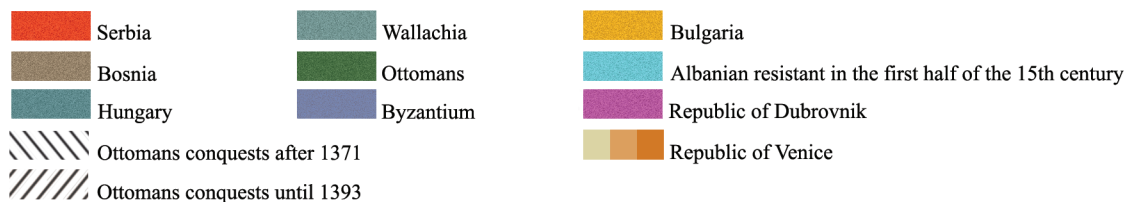


4a



4b

Pl. 18 – Unknown site. Military Museum in Belgrade: 1 – cat. no. 277, Type: Z2b, XXc, 13; 2 – cat. no. 280, Type: Z4, XIXa, 13; 3 – cat. no. 283, use to be in monastery of Dečani, Kosovo, Type: –, XIXa, – . 4, 4a, 4b – cat. no. 282, Type: Z4, XIXa, 13.



Map 12 – Central and eastern Balkans around the end of the 14th and beginning of the 15th century and Ottomans conquests.

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