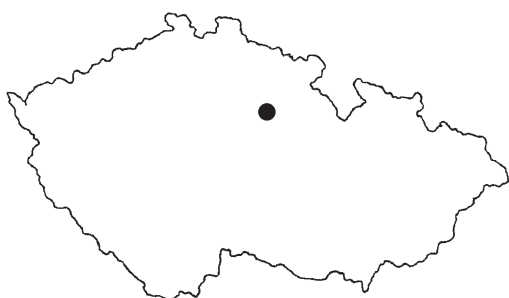


HIGH MEDIEVAL LONG-SWORD FROM KLAMOŠ IN THE CONTEXT OF CONTEMPORARY DECORATION TECHNIQUES¹

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An amateur metal detector survey conducted in the cadastral territory of Klamoš in 2015/2016 yielded, among other things, a well-preserved long-sword. Based on the typo-chronological analysis, the sword can be classified as an Oakeshott Type XIIIa, J, 2, and dated to the course of the 14th c. A conservation-restoration survey revealed remains of maker's marks on the blade and, mainly, richommel decoration that is thus far unique. The latter is further discussed in detail in terms of a both formal evaluation and the applied decoration technology, the identification of which has been based on a detailed survey of the weapon and experimental work. A metallographic examination of the blade was finally omitted due to its compact preservation.

INTRODUCTION

In 2015–2016, an amateur metal detector find of a well-preserved long-sword was made in a forest in the cadastre of Klamoš in East Bohemia. In 2019, the find was handed over through the East Bohemian Museum in Pardubice to the collections of the Museum of East Bohemia in Hradec Králové. Because the exact location of the find spot was not documented, it can be determined today only approximately with an accuracy of plus or minus 100 m.² The find was made in the eastern part of a forested complex called Klamošsko consisting mainly of deciduous cultures, which is dominated in the north-west by Tátrum Hill (263 m amsl; Fig. 1).

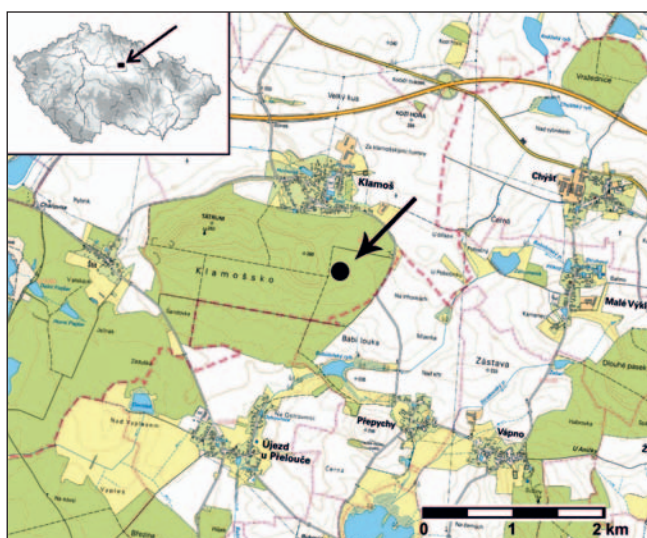


Fig. 1. The discovery location of the sword shown on map. By P. Drnovský.

SETTLEMENT-HISTORICAL CONTEXT

Although the find was made in a forest, its immediate surroundings are characterised by a relatively long settlement tradition (Žohová 2017). The area near the Cidlina River valley, where the river changes its north-south direction of flow to approximately east-west,

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² At about the same time, roughly 700 m southwest of the place of discovery of the sword, a spearhead was found by the same person and handed over to the museum under the same circumstances.

is today divided between three large territorial administrative units, but during the high medieval to Modern-age periods belonged mostly to the region of Hradec Králové, and since the Early Middle Ages was a border zone between Central Bohemia and East Bohemia. The strategic role of the area is also evidenced by early mentions in written sources, for example, in connection with the invasion of Poles along the Cidlina River in 1110, when the village of Lučice is mentioned (*Musil 2009b*, 229). An important 'Polish' (Kłodzko) road also passed through Dolní Pocidliní, which was probably divided into several branches in the area around the confluence of the Cidlina and Bystřice rivers and the adjoining Urbanická brána (cf. *Musil 2009a*, 165, 171–173). The connections and significance of the area around Chlumec nad Cidlinou in the Early Middle Ages are also indicated by the denarius hoard from the late 10th c. recently discovered near Chýšť (*Nekvapil 2016*).

The village of Klamoš, situated north of the place of discovery, is first mentioned in 1356 in connection with Heřman of Klamoš (*Profous 1949*, 229). The first mention of a fortified house in the village comes from 1397 (*RT I*, 571; *Sedláček 1887*, 297). At the end of the 14th c., Klamoš was the centre of an aristocratic estate, which included several surrounding villages or their parts (e.g. *Sedláček 1887*, 297). The demise of the fortified house is then associated with the annexation of Klamoš into the neighbouring estate in Chlumec nad Cidlinou in 1521 (*Křížek/Řezník 1992*, 40; *Sedláček 1887*, 297). The village of Rtanov, mentioned since the end of the 14th c., was located northwest of Klamoš. The village was first mentioned as abandoned in 1571; despite its renewal, it is again described in the Chlumec land register as deserted in 1670 (*Kuča 1995*, 187; *Roubík 1959*, 100; *Žohová 2017*, 129). Nové Město, first mentioned in 1397 (*RT I*, 572), is located north of Klamoš. The development of this settlement complex is connected with neighbouring Chlumec nad Cidlinou (*Žohová 2017*, 130–133). A record from 1439 mentions the existence of a manor house as well as town status (*RT I*, 109). The village of Chýšť, situated east of Klamoš, is mentioned in written sources since 1368 (*Kapras 1907*, 56).

South of Klamoš is the village of Újezd (near Přelouč), which is mentioned as early as 1299 as a part of the Hradiště domain (*Profous/Svoboda 1957*, 427). Today's northeast and structurally separated part of the village was apparently originally an independent village of Ostrovnice – as indicated by the name of both the local pond and the adjacent land – first mentioned in 1397 (*Roubík 1959*, 115, 116; *RT I*, 571). The defunct village of Jistřice, mentioned also in 1397 (*Roubík 1959*, 99; *RT I*, 571), was situated between Liplesy, Újezd and Klamoš, at the crossroads by the ponds between Klamoš and Přepychy. As early as 1337, the neighbouring village of Přepychy is mentioned as a property belonging to the Hradištko Castle (*Profous 1951*, 468). The Hradištko manor, held by the Rosenberg family since the mid-1330s and consisting of two towns and more than 20 villages (*Šimák 1938*, 357–360), also included the nearby village of Vápno, first mentioned in 1337 (*Profous/Svoboda 1957*, 477).

For the immediate vicinity of the place of discovery, we lack direct evidence of possible military activities with which the loss of the sword could hypothetically be connected. From the end of the first quarter of the 14th c., we have mentions of damage to the property of Dětoch of Třebelovice, owner of Hradištko, Žiželice and some surrounding villages, caused by his neighbours; e.g. by esquires (*zemani* in Czech) of Zachrašťany and Kratonohy (*Sedláček 1887*, 293). A record from 1425 mentions that the Hussite army conquered a fortified house

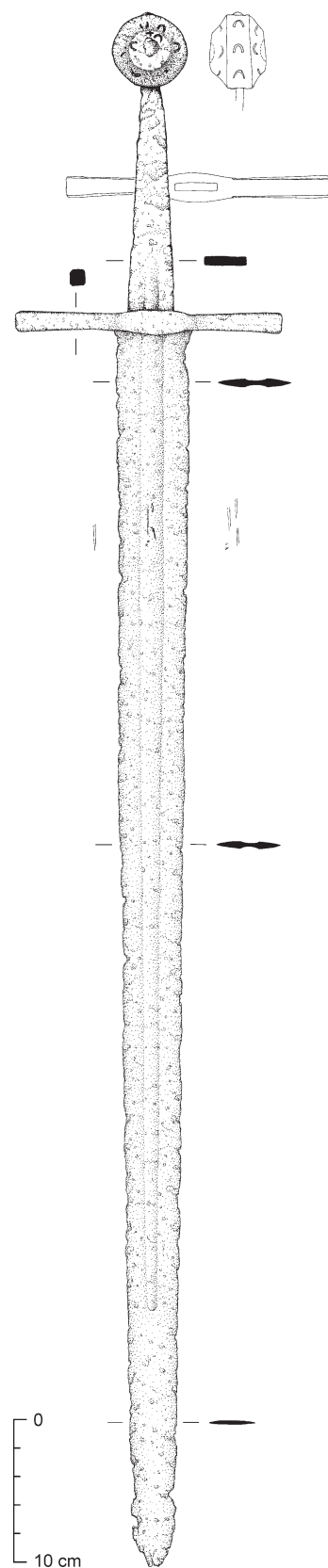


Fig. 2. Drawing of the longsword from Klamoš. Drawing by P. Žákovský.



Fig. 3. Hilt of the sword from Klamoš. Photo by P. Žákovský.

in Chlumec nad Cidlinou (*FRB III/2*, 15, 64, 101, 188, 389; Šimek F. 1937, 48; Šimek/Kaňák 1959, 86; Wolf/Musil 2009, 553). Another mention of a violently resolved conflict comes from 1492, when the robber nobleman J. Kozel was to have been captured during a military conflict by Vilém of Pernštejn. J. Kozel damaged the property of his neighbours, but Vilém destroyed his fortified house and, probably, also the village of Sušina, which was located south of the village of Vápno (*Musil 2001; Sedláček 1882, 73*).

Description of the sword

The nearly intact long-sword is 1073 mm long and is provided with 846 mm-long and (at most) 52 mm-wide double-edged blade which parabolically tapers towards a relatively indistinct point (Fig. 2; 3). The thickness of the blade decreases in the same manner, i.e., smoothly and parabolically, from 5 mm to 3 mm. The blade fullers are relatively narrow, shallow, weakly outlined, beginning nearly on the tang and ending roughly 180 mm before the point. The remains of a maker's mark, originally inlaid with non-ferrous metal, are found in the fuller on both sides of the 'strong' part of the blade. The marks are poorly preserved in the form of a few difficult-to-interpret parallel lines; despite this, the possibility that they originally represented the so-called 'Passau wolf' cannot be ruled out (Fig. 16). The tang is 227 mm long, rectangular in cross-section, and towards the pommel it smoothly tapers from 31 mm (width just above the crossguard) to 15 mm (width just below the pommel). Likewise, its thickness decreases from 4 mm to 7 mm. The crossguard is 184 mm long, the quillons are square to almost octagonal in cross-section and they smoothly and regularly expand from the écusson towards their terminals (both their width and thickness increases from 11 mm to 15 mm).

The maximum thickness of the écusson is 19 mm. The relatively massive and roughly circular pommel is 51 mm long and a maximum of 53 mm wide. The sidewalls are heavily convex and form central discs; therefore, the thickness of the pommel varies when measured from the bottom towards the top between 15, 18, 36 and 39 mm. The middle of the central discs is provided with a relatively shallow and

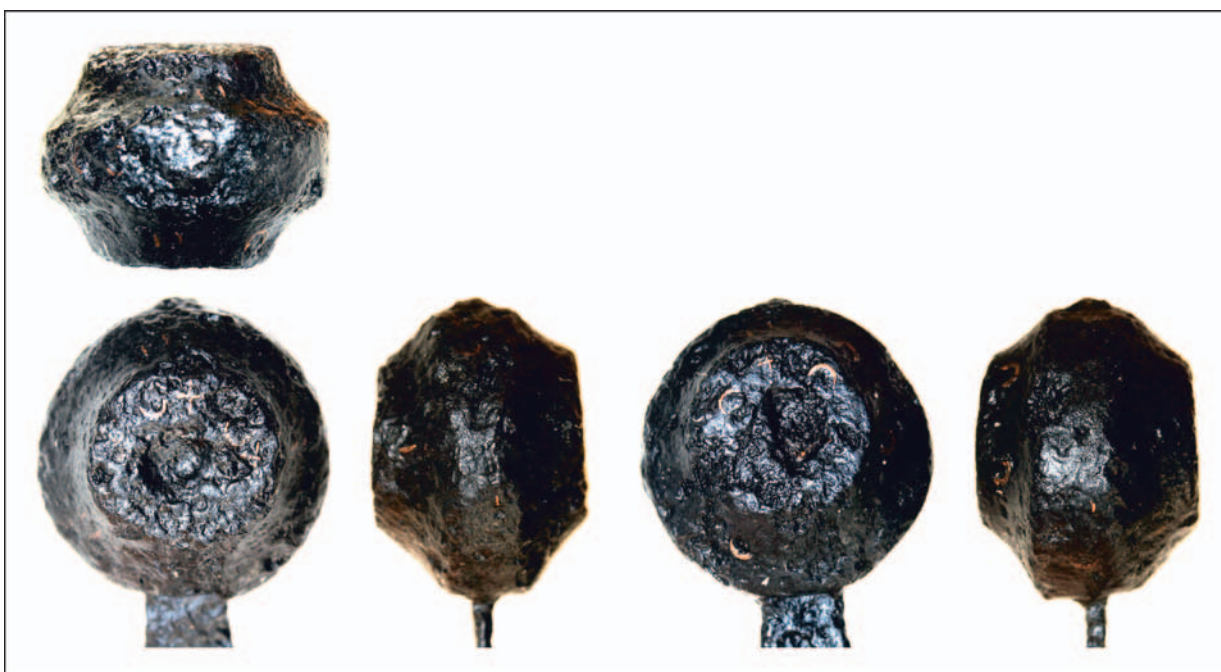


Fig. 4. Pommel of the sword from Klamoš. Photo by P. Žákovský.

indistinctly outlined depression. Conservation of the sword revealed decoration on the pommel that became the subject of a material and technological analysis conducted at the Institute of Archaeology in Brno. The whole pommel surface is decorated by crescents and equilateral crosses originally inlaid with non-ferrous metal. Traces of the inlay material were also detected in the depressions in the middle of the central discs (Fig. 4). The total weight of the weapon reaches 1395 g, with a point of balance about 115 mm below the crossguard.

Typo-chronological analysis

The sword is equipped with a relatively flat blade that can be, on the basis of its main features, classified as Oakeshott Type XIIIa, which dates from the late 13th to the early 15th c. (e.g. *Aleksić 2007, 84; Głosek 1984, 28; Oakeshott 1964, 42–47; 2002a, 95*). Type XIIIa blades were those used for newly developed long-swords, but at the same time belonged to the most widespread types of blades in the given period of time. However, these blades still appeared at the end of the 15th c., when they became characteristic of magistrates' swords. In individual cases, however, similarly shaped blades could still be used for long-swords from the first half of the 16th c. Their great popularity, especially during the 14th c., can also be demonstrated on material registered from the territory of today's Czech Republic, where 53 Type XIIIa blades have been documented so far; this represents about half of all long-sword blades from the period recorded to date (*Hošek/Košta/Žákovský 2020*). This is consistent with the situation in other European regions (*Aleksić 2007, 84; Głosek 1984, 28*).

The crossguard of the weapon can be positively classified as an Oakeshott Type 2, which is characterised by slight expansion of straight quillons, which often have chamfered edges and hence an essentially octagonal cross-section (*Oakeshott 1964, 114*), as is also the case of the sword from Klamoš. Crossguards of this type were used in the construction of weapons virtually across the entire high- and late-medieval period, but are characteristic especially of 14th c. long-swords.

The pommel can be assigned to Oakeshott Type J (*Oakeshott 1964, 96*), which belongs among massive round pommels with bevelled to concave sidewalls and central discs. These pommels undoubtedly developed from flatter round-shaped specimens, which apparently appeared in some regions of Europe as early as the 12th c. For example, ten short, mostly richly decorated swords with circular pommels come from the 11th to 12th c. necropolis at Rikalanmäki, Finland, generally associated with the Nordic crusades,

Tab. 1. Swords with Type J pommels registered in Czech territory.

Site (museum)	Dating	Blade type	Pommel type	Crossguard type	Makers' marks	Bibliography
Děčín-Loubí u Děčína	1350–1450	XVIa	J	1	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 47
Helfenburk Castle	1300–1400	XIIIa	J	2	Maltese cross in a circle; Majuscule letter 'S' in a circle; St. Andrew's cross on the tang	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 56
Hukvaldy Castle	1300–1400	XIIIa	J	2	Remnants of a mark in the form of a rosette (?)	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 65
Choceň	1300–1400	XIIIa	J	2	'Passau wolf'	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 34
Křičeň	1300–1450	–	J	–	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 91
Křtiny	1300–1400	XIIIa	J	2	Heraldic shields	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 92
Líšnice Castle	1350–1450	XVII	J	1	'Passau wolf' and unicorn	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 107
Myslechovice	1300–1400	XIIIa	J	2	Remains of unidentifiable marks and inscription	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 111
Sion (?) Castle	1350–1400	XIIIa	J	–	'Passau wolf' and unicorn; minuscule letters 'a' and 'b' (?)	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 219
Žampach Castle	1300–1400	XIIIa	J	2	'Passau wolf' and unicorn; Greek cross and heart (?)	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 265
Location not specified (MM Hodonín)	1300–1400	XIIIa (?)	J	2	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 300
Location not specified (M Karlovy Vary)	1300–1450	–	J	–	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 317
Location not specified (RM Kolín)	1300–1400	–	J	2	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 321
Location not specified (SM Liberec)	1300–1400	XIIIa	J	2	'Passau wolf' and unicorn; heart	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 327
Location not specified (VM Pardubice)	1300–1400	XIIIa	J	1	Remains of unidentifiable marks	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 352
Location not specified (PM Písek)	1350–1450	XVIa	J	1	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 358
Location not specified (VHÚ Praha)	1300–1400	XIIa	J	1	Cross growing from a heart (?)	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 393
Location not specified (MRV Vsetín)	1300–1400	–	J	2	–	<i>Hošek/Košta/Žákovský 2019</i> , cat. no. 422

and excavated in the early 1950s under the direction of Jorma Leppäaho (*Mäntylä 2007*, 303–305, fig. 5). After all, a total of 40 swords with round pommels generally dating back to the 12th c. are registered from the territory of Finland (e.g. *Leppäaho 1964*, 58–61, pl. 27, 28; *Peirce 2002*, 134, 135; *Tomanterä 1978*, 23, 61). Although many of them do not come from well-dated contexts, and their dating is, therefore, questionable, they form the basis for dating similar specimens from other countries of Western Europe (*Oakeshott 2002a*, 28, 34).

However, circular pommels with straight or concave sidewalls and central discs undoubtedly gained ground in the construction of swords as late as the early 13th c., when they became one of the most used and most popular types of pommels on both short- and long-swords until the beginning of the 15th c. (*Oakeshott 1964*, 95, 96). This fact can be demonstrated, again, at least on the material recorded thus far from Czech territory. A total of 215 swords from the 12th to 15th c. are still fitted with a pommel; of these, 112 specimens have a pommel of circular or oval form, i.e., 52% (*Hošek/Košta/Žákovský 2020*).

The pommel of the Klamoš sword has a regular circular shape, markedly concave sidewalls and quite distinctly delimited central discs; the thickness of the pommel only slightly narrows towards the upper base. These are the characteristic features that allow us to assign the pommels to the Oakeshott Type J (e.g. *Oakeshott 1964*, 96). For the time being, apart from the sword from Klamoš, a total of 18 Type J pommels have been registered thus far from Czech territory, most of which were used on 14th to early 15th c. long-swords. Of course, in the case of solitary finds, we are unable to comment on the type of sword that was originally used.

As can be seen from the Tab. 1, Type J pommels were used mainly for long-swords equipped with relatively long and wide blades of Type XIIIa and mostly crossguards of Type 1 and, especially, Type 2, the quillons of which are straight. Moreover, the find from Klamoš is also classified as a Type XIIIa, J, 2, sword. Hence, we are dealing with a weapon, which by its overall character corresponds to swords of Family C, the occurrence of which is generally dated from the end of the 13th to the 14th c. (*Oakeshott 2002a*, 12). Long-swords of this type are very widespread and, one can even say, typical of the given period of time; therefore, it does not make sense to list individual analogies here.³ Noteworthy, at least, are two typologically analogous finds from the region of East Bohemia: a sword from Choceň (*Hošek/Košta/Žákovský 2019*, cat. no. 34; *Žákovský 2009*, 514, 515) and a sword from Žampach Castle (*Hošek/Košta/Žákovský 2019*, cat. no. 265; *Žákovský 2009*, 509–514).

Decoration of the sword

The conservation survey and treatment of the sword revealed pommel decoration that was subsequently subjected to a detailed material and technological analysis. Based on the obtained results, a hypothesis about a possible employed technique was postulated and subsequently also verified by experimental production of the most accurate copy of the pommel.

In general, pommels were one of the main components of medieval swords, and due care was taken in their production. From the swordsmith's point of view, it was also important that the pommel provided space for decoration, which could significantly increase the attractiveness of the manufactured weapon. We must realise that swords were worn in scabbards most of the time and, therefore, the hilt was the only visible part of the weapon representing its owner – of course, if we leave aside any decoration of the weapon's scabbard. Compared to early medieval swords, however, we encounter richly decorated hilts of high and late medieval swords much less frequently. This fact can probably be connected directly to the onset of the mass production of swords, which was stimulated mainly by the mass use of mechanisation – especially water-powered hammers – in the production of their blades. Thanks to this, swords undoubtedly became, especially from the 14th c. on, common weapons across the entire social spectrum, as their acquisition costs dropped significantly compared to previous periods. Swords ceased to be the exclusive property of members of the then elites, and in most cases, therefore, probably no emphasis was placed on the possible representativeness of the weapons as before. This, of course, did not apply to weapons intended for the top of society at the time. In the aristocratic environment, the sword was still understood as one of the basic status symbols, although from the 14th c. it is possible to observe a partial emptying of its symbolic meaning, or its symbolic perception in the lower social classes (cf. *Hošek/Košta/Žákovský 2020*).

Therefore, during the High and Late Middle Ages, swords as one of the basic representative elements of the nobility, were usually given due attention in the aristocratic environment, albeit to a much lesser extent compared to the previous period. After all, it was decoration that distinguished these swords from common utilitarian weapons. There are also a number of written reports of Czech provenance mentioning decorated swords. Already in the Chronicle of the Czechs (written by Cosmas of Prague), we read about a 'golden hilt of the sword' (*zlatém jílcí meče*; *Hrdina 1950*, 128). According to Cosmas, this sword was owned at the end of the 11th c. by Beneda – an influential leader in Bohemia during the reign of Vratislaus II (*Šimůnek 2013*, 298; *Wihoda 2007*, 21). We have many more records of swords decorated in this way from the 15th and 16th c. The records mention, for example, 'silver swords' (*mečích stříbrných*; *KP IV*, 248, no. 1125), 'swords with silver' (*mečích se stříbrem*; *KP VII*, 66, no. 393), 'gilded swords' (*korduláčích pozlatitých*; *Winter 1892*, 811) and 'gilded silver swords' (*mečích stříbrných pozlacených*; *KP VII*, 9, no. 49).

³ So far, a total of seven typologically analogous weapons have been recorded in Czech territory (*Hošek/Košta/Žákovský 2019*, cat. no. 34, 56, 65, 92, 111, 265, 327); in addition, other fragments can most likely also be assigned to them (*Hošek/Košta/Žákovský 2019*, cat. no. 300, 321, 422).

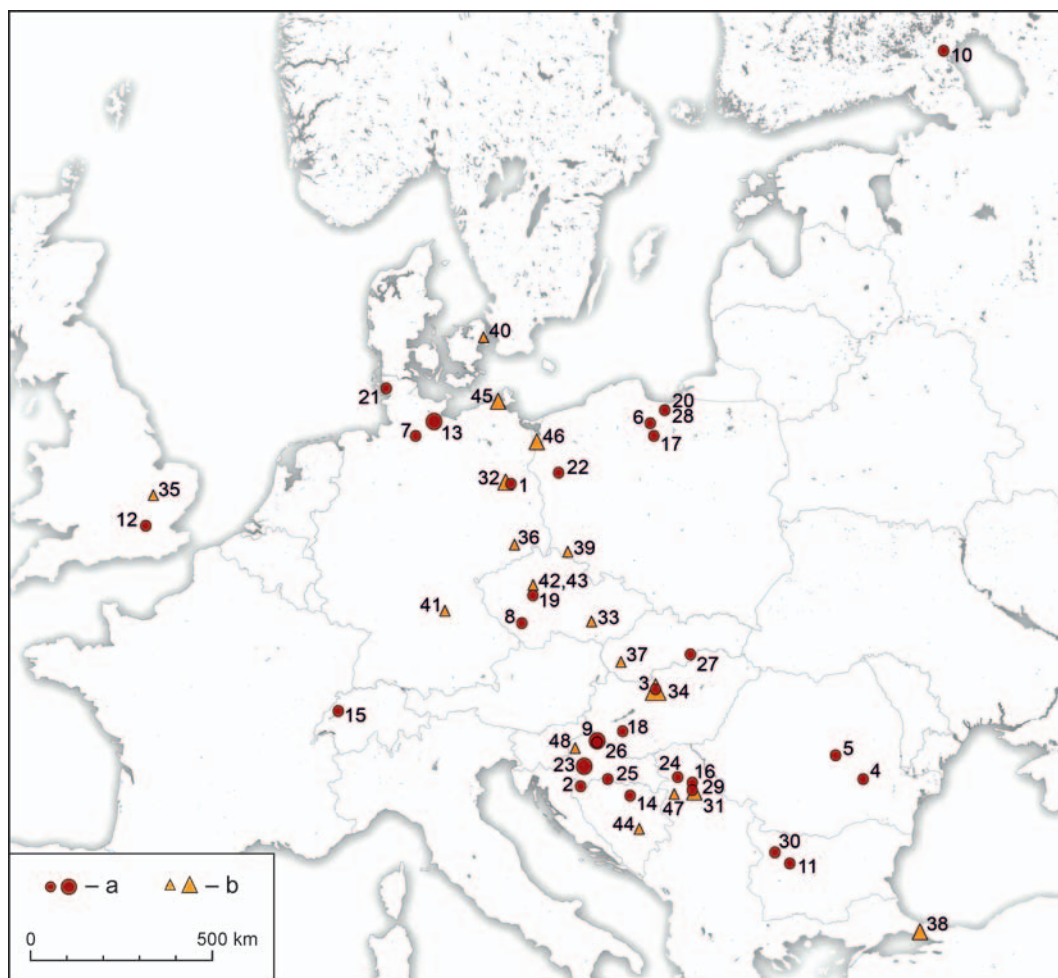


Fig. 5. Sites at which long-swords provided with pommels decorated by various forms of inlaid crosses were found or museums at which they are held. 1 – Berlin-Köpenick; 2 – Bosanska Otoka; 3 – Budapest; 4 – Buzău; 5 – Chichis; 6 – Gniew; 7 – Hamburg; 8 – Helfenburg; 9 – Koprivnica (2 specimens); 10 – Kurkijoki; 11 – Latinsko Groblje (Lopyan); 12 – London; 13 – Lübeck (3 specimens); 14 – Makljenovac; 15 – Murtensee; 16 – Opovo; 17 – Przydatki; 18 – Putzipusta; 19 – Rabyň; 20 – Raczk Elbląskie; 21 – Rungholt; 22 – Santok; 23 – Sisak (2 specimens); 24 – Sremska Kamenica; 25 – Stara Gradiška; 26 – Stari Grad; 27 – Štrkovec; 28 – Tropy Elbląskie; 29 – Višnjica; 30 – Vraca; 31 – Location not specified, Narodni muzej Belgrade (3 specimens); 32 – Location not specified, Deutsches Historisches Museum Berlin (3 specimens); 33 – Location not specified, Muzeum města Brna; 34 – Location not specified, Magyar Nemzeti Múzeum Budapest (6 specimens); 35 – Location not specified, Fitzwilliam Museum, Cambridge; 36 – Location not specified, Staatliche Kunstsammlungen Dresden; 37 – Location not specified, Vlastivedné muzeum v Galante; 38 – Location not specified, Askeri Müzesi Istanbul (3 specimens); 39 – Location not specified, Museum Karkonoskie w Jeleniej Górze; 40 – Location not specified, Nationalmuseet i København; 41 – Location not specified, Germanisches Nationalmuseum Nürnberg; 42 – Location not specified, Národní muzeum Praha; 43 – Location not specified, Vojenský historický ústav Praha; 44 – Location not specified, Zemaljski muzej Bosne i Hercegovine Sarajevo; 45 – Location not specified, Stralsund Museum (2 specimens); 46 – Location not specified, Muzeum Narodowe w Szczecinie (3 specimens); 47 – Location not specified, Narodni muzej Šabac; 48 – Location not specified, Muzeji Hrvatskog zagorja Gornja Stubica (by J. Hošek a P. Žákovský). Legend: a – archaeological sites; b – museums.

During the 16th c., however, richly decorated swords were already available to wealthier burghers, who in this way tried to imitate the lifestyle of the nobility (e.g. *Macek 1998*, 245). For example, in 1515, a 'sword with silver' (*meč se stříbrem*) is mentioned in the estate of the burgher J. Bzenecký from Kutná Hora (*Šimek J. 1907*, 56). According to another will, a 'sword with silver' was also owned by J. Šentigar, a pharmacist from Kutná Hora; according to the inventory from 1584, this sword would have hung on a wall in his chamber (*Šimek J. 1907*, 63), etc.

However, the complete plating of individual hilt components of high and late medieval swords is not a very frequent phenomenon. We encounter decorations in the form of individual decorative symbols,

mostly of religious content, which are typically inlaid with contrasting metal. A relatively significant phenomenon occurred during the 14th c.: circular pommels of Types I, J and K and, to a lesser extent, also oval pommels of Type H₁ or octagonal pommels of Type I₁ have central discs decorated with crosses of various forms. Simple equilateral Greek crosses are the most common, but we also encounter cross potents and Maltese crosses. This decorative motif has led many researchers to believe that these could be the weapons of crusaders, whether heading to the north and northeast of Europe or to the Middle East (*Chodyński 2008*, 104–106; *Michalak 2011*), or weapons directly related to the order's environment (*Hoffmeyer 1954*, 190; *Oakeshott 1954*, 141, 150; *2002a*, 99). With regard to the applied decorative concept (e.g. *Žabiński 2017*, 176–178), this cannot be ruled out in many cases. This hypothesis could also be partially supported by a number of similarly decorated trophy swords in the former Mamluk arsenal in Alexandria, which come from defeated Christian warriors who took part in expeditions to Egypt, Syria, Lebanon, and especially from defeated defenders of Cyprus (*Aleksić 2007*, 57; *Alexander 1985*, 86, cat. no. 25, 31–33, 35).

However, given the number of their finds and their spread across most of Europe (Fig. 5), with the main concentration in Central and Southeastern Europe, their interpretation will probably be somewhat more complicated (*Aleksić 2007*, 54–57; *Głosek 1973*, 81; *1984*, 54; *Marek 2014*, 55; *Žabiński 2017*, 175).

As follows from Tab. 2, similar pommel decoration appears mainly on a specific type of long-sword provided with a Type XIIIa massive long blade, a Type 2 crossguard with straight quillons and a Type K or J pommel of circular or slightly oval shape and markedly concave sidewalls. Most of these swords are dated mainly to the first half of the 14th c. (*Aleksić 2007*, 57; *Głosek 1984*, 54; *Sijarić 2014*, 101; *Žabiński 2017*, 175), but they undoubtedly remained in circulation until the end of the century.

Metric and shape similarities suggests that most of these weapons could hypothetically have been produced in a relatively short period of time, thus reflecting a certain fashion wave. In addition, swords of this type are connected by many small details. The first of them is the fact that a large percentage of these weapons are equipped with a decorative button (washer) on the top of a pommel. Also, makers' marks, which can most likely be associated with the production centre in Passau, Bavaria, are encountered on blades of these swords with increased frequency. This could suggest that many of these weapons might have been made as part of a bulk order and intended, for instance, for Christian warriors immediately threatened by the gradual expansion of Turks in the Balkans. This hypothesis could also be supported by the increased occurrence of these swords in southeastern Europe (Fig. 5).

As mentioned above, swords with pommels decorated with different variants of crosses were, in the past, attributed to warriors participating in the raids of the Teutonic Order into the Baltics, but in this area, these weapons are relatively rare. A higher concentration of these weapons can be traced thus far in East Germany and Pomerania (Fig. 5; *Žabiński 2017*, 175). Data on the frequency of these weapons in both of the regions can be considered reliable, as research on medieval swords is roughly at the same level in both of these areas. However, we will probably never be able to definitively answer the question of whether the numbers of these weapons can really be evidence of some larger and intentional orders or rather the result of a fashion wave. What is certain in any case is that the crosses on the pommels had an apotropaic function, as did the crosses on sword blades. They were to protect the wielder of the weapon and were at the same time a form of confession of the faith. However, attributing all swords with a similar decorative concept directly to the participants in the Crusades or even members of knightly orders is at least courageous. It is logical that both the events and involvement of knightly orders most likely had an impact on both the iconography and the decorative motifs applied to swords (cf. *Michalak 2011*).⁴

In many cases, the crosses located in the middle of central discs can be supplemented with smaller crosses on both the side and concave walls of the pommel. This is how, for example, a non-localised sword held in the collections of the Deutsche Historisches Museum in Berlin is decorated (*Głosek 1984*, cat. no. 192; *Müller/Kölling 1984*, 364, cat. no. 23). A similarly decorated non-localised weapon is held in the collections of the National Museum in Šabac (Шабац), West Serbia (Fig. 6: 1; *Aleksić 2007*, cat. no. 247; *Milutinović 2005*, 112, 113, pl. 1). Small Greek crosses also decorate the sidewall of a pommel of a long sword from the Croatian site of Stari Grad (Fig. 6: 3; *Aleksić 2007*, cat. no. 242; *Milosavljević 1993*, 23, cat. no. 2; *Nedeljković 1990*, 17, cat. no. 2; *Petrović 1977*, 130; *1996*, 160–161, fig. 13; *2006*, 92) and Lopyan (*Dimitrov 2002*, 223, 224), the pommel of a sword from the Polish site of Przydatki (*Głosek 1973*, 146, cat. no. 33, pl. XIII;

⁴ The popularity of providing the central discs of round to oval pommels with inlaid crosses is also largely reflected in iconographic sources. We have an almost inexhaustible number of them at our disposal and it is not entirely without significance that we very often meet them on monumental funeral sculptures, on which it is possible to assume the depiction of real weapons (e.g. *Hošek/Košta/Žákovský 2020*).

Tab. 2. Long swords from 14th century with circular pommels decorated with various forms of crosses.

No.	No. on the map (Fig. 5)	Site (museum)	Dating	Blade type	Pommel type	Crossguard type	Makers' marks	Bibliography
1	1	Berlin-Köpenick	1300–1400	–	K	–	–	<i>Malliaris 2000</i> , 141, 160, pl. 24: 14
2	2	Bosanska Otoka	1300–1400	XIIIa	K1	5	–	<i>Sijarić 2014</i> , 102–104
3	3	Budapest	1300–1400	XIIIa	K	–	'Passau wolf', letters A and N	<i>Aleksić 2007</i> , cat. no. 64; <i>Glosek 1984</i> , cat. no. 424; <i>Zabiński 2017</i> , 174
4	4	Buzău	1350–1400	XIIIa	K1	6	Letter T and letter S in a circle, geometric motif in a circle	<i>Bordi 2008</i> , 246, 247, pl. 14; <i>2014</i> , 291–293, fig. 17
5	5	Chichiş	1300–1350	XIIIa	K	1	Equilateral cross	<i>Bordi 2008</i> , 246, pl. 12; <i>2014</i> , 289, 290, fig. 15
6	6	Gniew	1300–1350	XIIIa	J	2	Letters 'S' in a double circle, letters 'A', 'R', 'h', 'E', two crosses pattée, a cross crosslet in a circle, a rosette in a circle	<i>Zabiński 2017</i>
7	7	Hamburg	1300–1400	XIIIa	K	2	Rosette and eight-pointed stars	<i>Hoffmeyer 1954</i> , 22, pl. XIII: f; <i>Schwietering 1918–1920</i> , 250–255, fig. 2: a
8	8	Heifenburk Castle	1300–1400	XIIIa	J	2	Maltese cross in a double circle and letter S in a double circle	<i>Hošek/Košťar/Žákovský 2019</i> , cat. no. 56
9	9	Koprivnica	1300–1400	XIIIa	K	2	'Passau wolf'	<i>Aleksić 2007</i> , cat. no. 321; <i>Demo 1984</i> , 228–231, pl. 2: 1; 4: 2
10	9	Koprivnica	1300–1400	XVIa	K	2	'Passau wolf' and unicorn	<i>Aleksić 2007</i> , cat. no. 322; <i>Demo 1984</i> , 228–231, pl. 2: 2; 4: 3; <i>Zabiński 2017</i> , 174
11	10	Kurkijoki	1200–1300	XII	I	1	–	<i>Zabiński 2017</i> , 173
12	11	Latinsko Groblje (Lopyan)	1300–1400	XIIIa	K	1	–	<i>Aleksić 2007</i> , cat. no. 217; <i>Dimitrov 2002</i> , 223, 224
13	12	London	1300–1400	XIIIa	J	2	Sword or dagger	<i>Blair 1962</i> , fig. 26; <i>Oakeshott 1954</i> ; <i>1964</i> , 48; <i>2002</i> , 99
14	13	Lübeck	1300–1350	XIIIa	J	2	Maltese cross in a double circle	<i>Grotkamp-Schepers et al. 2015</i> , 94, 95
15	13	Lübeck	1300–1350	XIIIa	J	2	–	<i>Grotkamp-Schepers et al. 2015</i> , 96, 97; <i>Schwietering 1918–1920</i> , 250–255, fig. 5: a
16	13	Lübeck	1300–1350	XIIIa	K	2	Rosette and eight-pointed star	<i>Schwietering 1918–1920</i> , 250–255, fig. 2: b
17	14	Makljenovac	1300–1400	XIIIa	I	2	–	<i>Sijarić 2014</i> , 80–85
18	15	Murtensee	1300–1400	XIIIa	I	2	–	<i>Wegeli 1929</i> , 17
19	16	Opovo	1300–1400	XIIIa	K	1	'Passau wolf' and unicorn (?)	<i>Aleksić 2007</i> , cat. no. 244; <i>Birtašević 1968</i> , 84, 87, pl. II: 2; <i>Kalmár 1959</i> , 190, 191, fig. 3–5; <i>Nagy 1894</i> , 319, pl. II: 5

Tab. 2. Continuation.

No.	No. on the map (Fig. 5)	Site (museum)	Dating	Blade type	Pommel type	Crossguard type	Makers' marks	Bibliography
20	17	Przydatki	1300–1350	XIII	I	2	–	Glosek 1973, 146, cat. no. 33, pl. XIII; 1984, cat. no. 299; Glosek/Nadolski 1970, 47, cat. no. 48, tab. XVI; Chodyński 2008, 106, fig. 10; Chodyński/Zabiński 2011, 129; Kwiatkowski 2016, 339, fig. 32; b; Nowakowski 1994, 86, 127, fig. 2; Zabiński 2017, 173; Zabiński/Stępiński/Biborski 2014, 120, 121
21	18	Putzipusta	1350–1450	XVla	K1	2	Mark in the form of a crossbow and arrows	Aleksić 2007, cat. no. 77; Glosek 1984, cat. no. 438; Lugosi/Temesváry 1988, cat. no. 11
22	19	Rabyně	1350–1450	XIIla	K1	7	–	Hošek/Koštar/Žákovský 2019, cat. no. 209
23	20	Raczki Elbląskie	1300–1400	XIIla	J	2	Cross potent in a circle	Kwiatkowski 2016, 339, fig. 32; d; Marek 2014, 55, 56, cat. no. 127, fig. 21; Zabiński 2017, 173; Zabiński/Stępiński/Biborski 2014, 56–59, fig. 23; a, b, 119
24	21	Rungholt	1300–1350	XIIla	J	6	–	Baptiste 2017, 147; Siemers/Stawinoga 2014; Zabiński 2017, 174
25	22	Santok	1250–1300	XIIla	I	–	Rich geometric and figural decoration	Bohm 1924; Glosek 1973, cat. no. 36; 1984, cat. no. 309; Glosek/Nadolski 1970, cat. no. 54; Chodyński 2008, 101–103, fig. 1; Kwiatkowski 2016, 338, fig. 31; d; Ławrynowicz 2005, 108; Seger 1912; Zabiński 2017, 173; Zabiński/Stępiński/Biborski 2014, 122
26	23	Sisak	1300–1400	XIIla	K	2	'Passau wolf' and unicorn; heart and cross	Bošković/Doračić 2009, 110–113
27	23	Sisak	1300–1400	XIIla	J	2	'Passau wolf', heraldic shield, letter I	Bošković/Doračić 2009, 118–121
28	24	Sremska Kamenica	1350–1400	XIIla	K	1	–	Aleksić 2007, cat. no. 241
29	25	Stara Gradiška	1300–1400	XIIla	K	2	Cross	Bošković/Doračić 2009, 106–109
30	26	Stari Grad	1300–1400	XVla	K	–	Greek cross, rosette and heraldic shield	Aleksić 2007, cat. no. 242; Nedeljković 1990, 17, cat. no. 2; Mijosavljević 1993, 23, cat. no. 2; Petrović 1977, 130; 1996, 160, 161, fig. 13; 2006, 92
31	27	Štrkovec (Vlastivedné múzeum v Galante)	1300–1350	XIIla	K	–	Maltese cross, heart, S I ligature and other unidentifiable symbols	Not published
32	28	Tropy Elbląskie	1350–1400	XVla	J	2	'Passau wolf', inscription IDRS or CEOCRS and GDA	Chodyński 2003, 28; 2008, 105, 106, fig. 8; 9; 2011, 104; Chodyński/Zabiński 2011, 113–119, fig. 1–3; Kwiatkowski 2016, 338, fig. 31; c; Marek 2014, 55, fig. 20; d; Michalak 2011, 56, fig. 1–2; Zabiński 2017, 173; Zabiński/Stępiński/Biborski 2014, 121
33	29	Višnjica	1300–1400	XIIla	K	–	'Passau wolf' and unicorn, cross and heart	Aleksić 2007, cat. no. 240; Birtašević 1968, 84, 87, pl. I: 1
34	30	Vraca	1300–1400	XIIla	K	1	Three letters S in a circle and three Maltese crosses in a circle	Aleksić 2007, cat. no. 211; Apostolov 1988, 99, 100, fig. 1

Tab. 2. Continuation.

No.	No. on the map (Fig. 5)	Site (museum)	Dating	Blade type	Pommel type	Crossguard type	Makers' marks	Bibliography
35	31	Location not specified (Narodni muzej Belgrade)	1300–1400	XIIa	K	2	–	Aleksić 2007, cat. no. 245; Milosavljević 1993, 24, cat. no. 4
36	31	Location not specified (Narodni muzej Belgrade)	1300–1400	XIIa(?)	K	5	–	Aleksić 2007, cat. no. 246; Milosavljević 1993, 25, cat. no. 9; Petrović 1976, obr. 4: b
37	31	Location not specified (Narodni muzej Belgrade)	1350–1400	XIIa	K1	5	–	Aleksić 2007, cat. no. 248; Milosavljević 1993, 30, cat. no. 13
38	32	Location not specified (Deutsches Historisches Museum Berlin)	1300–1400	XIIa	K	2	Rich geometric decoration and inscription ENRICES DX NERICS	Glosek 1984, cat. no. 189; Müller/Kölling 1984, 364, cat. no. 25; Post 1918–1920, 246–250, fig. 1: c; 1929, 247, fig. 1: c; Wegeli 1902–1905, 261, 262, fig. 24–26; Žabiński 2017, 174
39	32	Location not specified (Deutsches Historisches Museum Berlin)	1300–1400	XIIa	I	2	–	Glosek 1984, cat. no. 192; Müller/Kölling 1984, 364, cat. no. 23
40	32	Location not specified (Deutsches Historisches Museum Berlin)	1300–1350	XIIa	K	1a	Unidentifiable	Glosek 1984, cat. no. 205; Žabiński 2017, 174
41	33	Location not specified (Muzeum města Brna)	1350–1400	XVIa	K	5	Unicorn	Hošek/Košťal/Žákovský 2019, cat. no. 281
42	34	Location not specified (Magyar Nemzeti Múzeum Budapest)	1300–1350	XIIa	K	1	'Passau wolf' and unicorn	Aleksić 2007, cat. no. 100; Glosek 1984, cat. no. 462; Kovács 2010, fig. 6; Žabiński 2017, 175
43	34	Location not specified (Magyar Nemzeti Múzeum Budapest)	1300–1350	XIIa	K	3	Unidentifiable	Aleksić 2007, cat. no. 101; Glosek 1984, cat. no. 463; Žabiński 2017, 175
44	34	Location not specified (Magyar Nemzeti Múzeum Budapest)	1300–1400	XIIa	K	1	'Passau wolf' heraldic shield, heart and cross	Nagy 1894, tab. II: 7; Glosek 1984, cat. no. 467; Aleksić 2007, cat. no. 105; Žabiński 2017, 175; Kovács 2010, fig. 60
45	34	Location not specified (Magyar Nemzeti Múzeum Budapest)	1300–1400	XVIa	K	2	Unicorn	Aleksić 2007, cat. no. 115; Glosek 1984, cat. no. 477; Žabiński 2017, 175
46	34	Location not specified (Magyar Nemzeti Múzeum Budapest)	1350–1400	XVIa	K	1	–	Aleksić 2007, cat. no. 138; Kalmár 1971, fig. 101: a
47	34	Location not specified (Magyar Nemzeti Múzeum Budapest)	1350–1400	XVIa	K1	2	–	Aleksić 2007, cat. no. 141; Kalmár 1971, fig. 101: e
48	35	Location not specified (Fitzwilliam Museum, Cambridge)	1300–1350	XIIa	J	2	Unidentifiable	Oakeshott 2002a, 223
49	36	Location not specified (Staatliche Kunstsammlungen Dresden)	1350–1400	XVIa	K	2	Rosettes	Glosek 1984, cat. no. 212; Žabiński 2017, 174
50	37	Location not specified (Vlastivedné muzeum v Galante)	1300–1400	XIIa(?)	K	2	Equilateral cross; 'Passau wolf' – the other side of the blade is damaged	Not published

Tab. 2. Continuation.

No.	No. on the map (Fig. 5)	Site (museum)	Dating	Blade type	Pommel type	Crossguard type	Makers' marks	Bibliography
51	38	Location not specified (Askeri Müzesi Istanbul)	1350–1400	?	K1	5	–	Alexander 1985, cat. no. 32
52	38	Location not specified (Askeri Müzesi Istanbul)	1350–1400	?	K	2	–	Alexander 1985, cat. no. 33
53	38	Location not specified (Askeri Müzesi Istanbul)	1350–1400	?	K1	5	–	Alexander 1985, cat. no. 35
54	39	Location not specified (Museum Karkonoskie w Jeleniej Górze)	1300–1350	XIIa	K	2	Maltese cross in a circle and letter S in a circle	Marek 2008, 72, pl. 88: a, c
55	40	Location not specified (Nationalmuseet i København)	1300–1350	XIIa	K	2	–	Hoffmeyer 1954, 16, pl. XIII: a; Schwietering 1918–1920, 250–255, fig. 5: b
56	41	Location not specified (Germanisches Nationalmuseum Nürnberg)	1300–1400	XVIa	K	2	–	Willers 2001, 29
57	42	Location not specified (Národní muzeum Praha)	1300–1350	XIIa	K	2	'Passau wolf' and unicorn; heart and Greek cross	Hošek/Košta/Žákovský 2019, cat. no. 380
58	43	Location not specified (Vojenský historický ústav Praha)	1300–1400	XIIa	J	1	A cross growing from the heart (?)	Hošek/Košta/Žákovský 2019, cat. no. 393
59	44	Location not specified (Zemaljski muzej Bosne i Hercegovine Sarajevo)	1300–1400	XIIa	K	2	Heraldic shield, SI ligature	Aleksić 2007, cat. no. 303; Sijarić 2004, 50–57, cat. no. 7, pl. VII: 7; 2014, 98–101
60	45	Location not specified (Stralsund Museum)	1250–1350	XIIa	K	2	–	Glosek 1984, cat. no. 189; Žabiński 2017, 174
61	45	Location not specified (Stralsund Museum)	1300–1350	XIIa	I	2	Rich geometric decoration and an inscription	Glosek 1984, cat. no. 192; Müller/Kölling 1984, 363, cat. no. 23; Žabiński 2017, 174–175
62	46	Location not specified (Muzeum Narodowe w Szczecinie)	1300–1400	XIIa	K	2	'Passau wolf' and unicorn, heart and cross, letters H and I	Glosek 1973, cat. no. 63; 1984, cat. no. 380; Nadolski 1978, 38, cat. no. 97; Žabiński 2017, 174
63	46	Location not specified (Muzeum Narodowe w Szczecinie)	1300–1350	XIIa	I	7	Unidentifiable	Glosek 1973, cat. no. 65; 1984, cat. no. 381; Žabiński 2017, 174
64	46	Location not specified (Muzeum Narodowe w Szczecinie)	1350–1400	XIIa	I	7	–	Chodyński/Žabiński 2011, 126, 127, fig. 14; 15; Žabiński 2017, 174
65	47	Location not specified (Národní muzej Šabac)	1300–1400	XVIa	K	2	–	Aleksić 2007, cat. no. 247; Milutinović 2005, 112, 113, pl. 1
66	48	Location not specified (Muzeji Hrvatskog zagorja Gornja Stubica)	1300–1400	XIIa	K	2	Unicorn	Aleksić 2007, cat. no. 358; Kovač 2003, 21, cat. no. 18

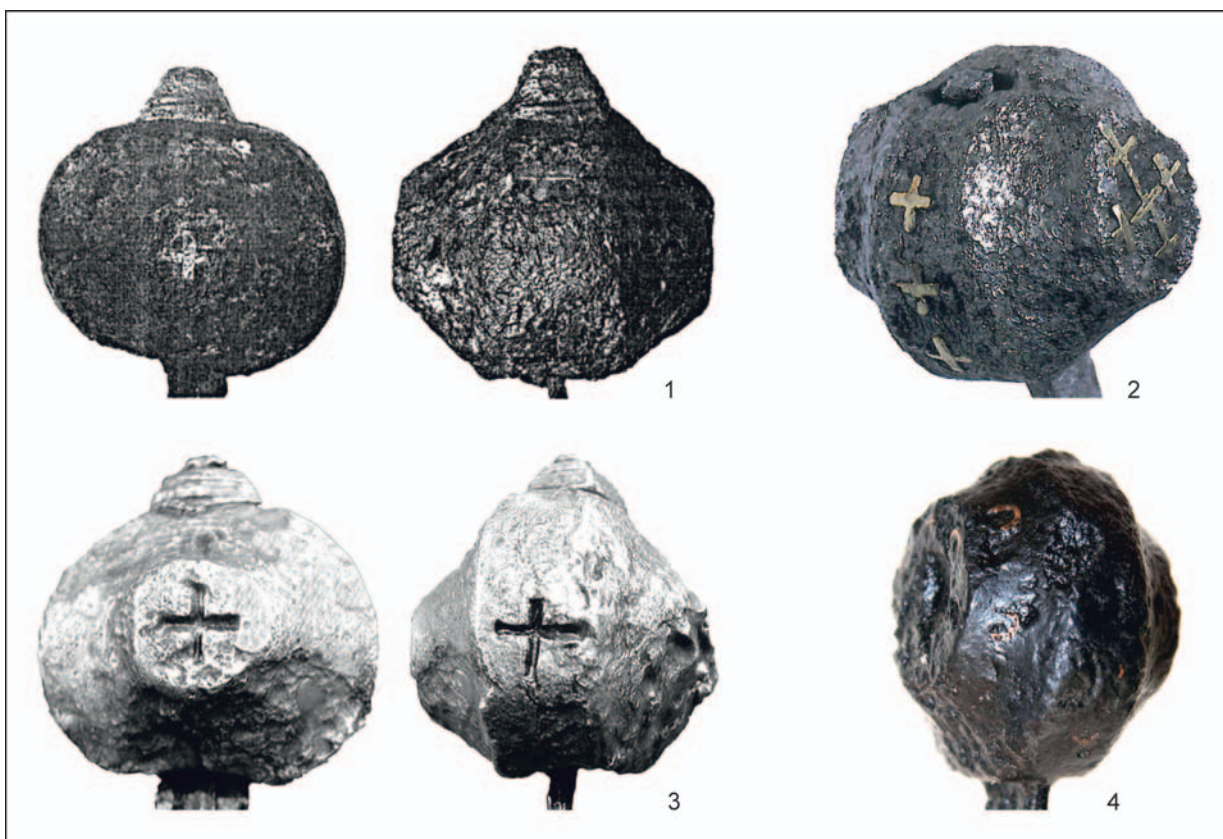


Fig. 6. Long-sword pommels decorated on their sidewalls. 1 – Narodni muzej Šabac (according to *Milutinović 2005*, pl. 1); 2 – Elbląg (according to *Chodyński 2003*, 28); 3 – Stari Grad (according to *Aleksić 2007*, fig. 18); 4 – Klamoš. Photo by P. Žákovský.

1984, cat. no. 299; *Głosek/Nadolski 1970*, 47, cat. no. 48, tab. XVI; *Chodyński 2008*, 106, fig. 10; *Chodyński/Žabiński 2011*, 129; *Kwiatkowski 2016*, 339, fig. 32: b; *Nowakowski 1994*, 86, 127, fig. 2; *Žabiński 2017*, 173; *Žabiński/Stepiński/Biborski 2014*, 120, 121) and a pommel found in the Tyna riverbed near Elbląg (Fig. 6: 2; *Chodyński 2003*, 28; 2008: 105, 106, fig. 8; 9; 2011, 104; *Chodyński/Žabiński 2011*, 113–119, fig. 1–3; *Kwiatkowski 2016*, 338, fig. 31: c; *Marek 2014*, 55, fig. 20: d; *Michalak 2011*, 56, fig. 1: 2; *Žabiński 2017*, 173; *Žabiński/Stepiński/Biborski 2014*, 121).

The sword from Klamoš can also be assigned to this small group of weapons, even though its overall decorative concept differs in a number of details. The punched and inlaid crescents appear on the entire surface of the pommel, including the concave walls, which is unique thus far. On the central discs, the crescents alternate in irregular intervals with small Greek crosses, surrounding the central decorative motif, which is no longer preserved. However, in the case of the sword from Klamoš, this central motif did not take the form of a cross, but a decorative element that is difficult to interpret today. Both surfaces of the central discs are provided with indistinctly delimited, asymmetrically placed depressions of a roughly circular outline (Fig. 7).

We frequently encounter similar depressions on sword pommels, especially during the 14th and 15th c. They appear mainly on octagonal, oval and, to a lesser extent, also circular pommels.⁵ Although these

⁵ In the set of swords from the territory of today's Czech Republic, this form of decoration appears on a total of 37 specimens, of which 13 represent octagonal pommels of Type I₁, for which this decoration is typical (*Hošek/Košta/Žákovský 2019*, cat. no. 2, 11, 90, 236, 273, 275, 278, 294, 306, 348, 388, 396, 403). In six cases, it appears on flat octagonal pommels of Type G₃, thus essentially on all specimens documented thus far (*Hošek/Košta/Žákovský 2019*, cat. no. 8, 118, 176, 264, 395, 424). With lower frequency we encountered the central depressions on flatter circular pommels of Types I (*Hošek/Košta/Žákovský 2019*, cat. no. 113), J₁ (*Hošek/Košta/Žákovský 2019*, cat. no. 84, 214, 332, 347, 376, 392) and J₂ (*Hošek/Košta/Žákovský 2019*, cat. no. 245, 271, 343, 385, 429). However, this may be generally related to the lower occurrence of these types of pommels in the studied group. Finally, central depressions appear very rarely on Type H pommels (*Hošek/Košta/Žákovský 2019*, cat. no. 13, 317) and their massive oval variants H₁ (*Hošek/Košta/Žákovský 2019*, cat. no. 45, 48, 105, 269).

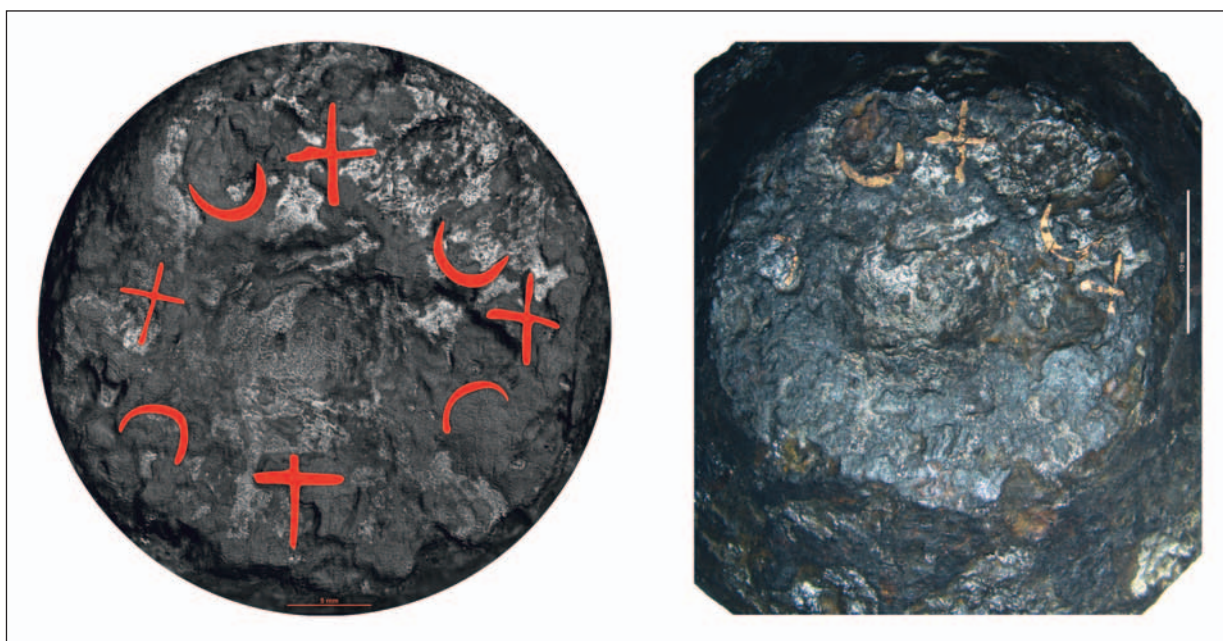


Fig. 7. Detail of the central disc of the pommel from Klamoš with the highlighted form and position of individual decorative elements. Photo by M. Kmošek.

depressions may have been an individual decorative element, in most cases they were supplemented with additional decoration. This is also indicated by the material from Czech territory, where at least 19 specimens have remains of relief decoration in the form of geometric shapes, simply punched circular points, etc. (Hošek/Košta/Žákovský 2019: cat. no. 11, 45, 48, 84, 90, 176, 236, 245, 264, 269, 273, 275, 306, 343, 347, 385, 388, 392, 403). However, the decorative motif could also take a specific form such as a rosette, star, sun or cross (e.g. Głosek 1984, 155, cat. no. 233; Hošek/Košta/Žákovský 2019, cat. no. 45, 388; Kotowicz/Glinianowicz 2011, 205–207; Małowiecki 1989, 130–134; Marek 2014, 54, 55, fig. 20; Oakeshott 2002a, 93). The relief decoration of such depressions could hypothetically also be highlighted by non-ferrous coating/lining. Similarly highlighted makers' marks are encountered as early as during the 14th and 15th c. on, e.g. axes or, somewhat later, on crossbow cranequins, though unfortunately, we do not yet know how such a coating/lining was achieved (Fig. 8). For the time being, however, we lack clear evidence for the use of the technique on sword hilts. With some reservations, its use could be assumed in the case of the pommel of a sword which reportedly might have been the one formerly hanging above the tomb of Edward of Woodstock (also known as the Black Prince). However, it cannot be ruled out that what we see on the pommel today is a later application associated with the renovation of the weapon (e.g. Oakeshott 2002a, 144, 145).

In many cases, inserts – whether made of organic material, enamel or non-ferrous metal – were applied to central disc depressions, but it must be noted that such inserts have survived on high medieval swords in only very exceptional cases, which is especially true for archaeological finds. Coins, contemporary or antique, could also have been used as inserts; as they were decorative on their own, it made the manufacture's work easier (Cognot 2002, 114–120; Oakeshott 2002a, 138; Withers 2006, 13). However, most of the inserts were presumably made specifically for pommels and their more or less rich decoration was based on motifs closely related to the original ceremonial function of these weapons (Baumann 2010, 399). Let us mention at least one of the ceremonial swords of the city of Bristol, whose pommel bears an insert with an engraved merchant ship entering a port, which undoubtedly refers to the original significance of the local trading port (Barrett 2017, 29–32, 134–136).

Based on the hitherto known material from the territory of the Czech Republic, it can be said that all depressions lacking decoration in relief had a more or less flat bottom and perpendicular sidewall(s). The only exception in this respect is the sword from Klamoš, on whose pommel the discussed depressions have a markedly concave bottom. The conservation survey that was performed revealed that, most likely, the entire inside surface of these depressions was originally lined with a non-ferrous metal. This fact led us to consider the original appearance of the applied decoration. The first option is that the lined

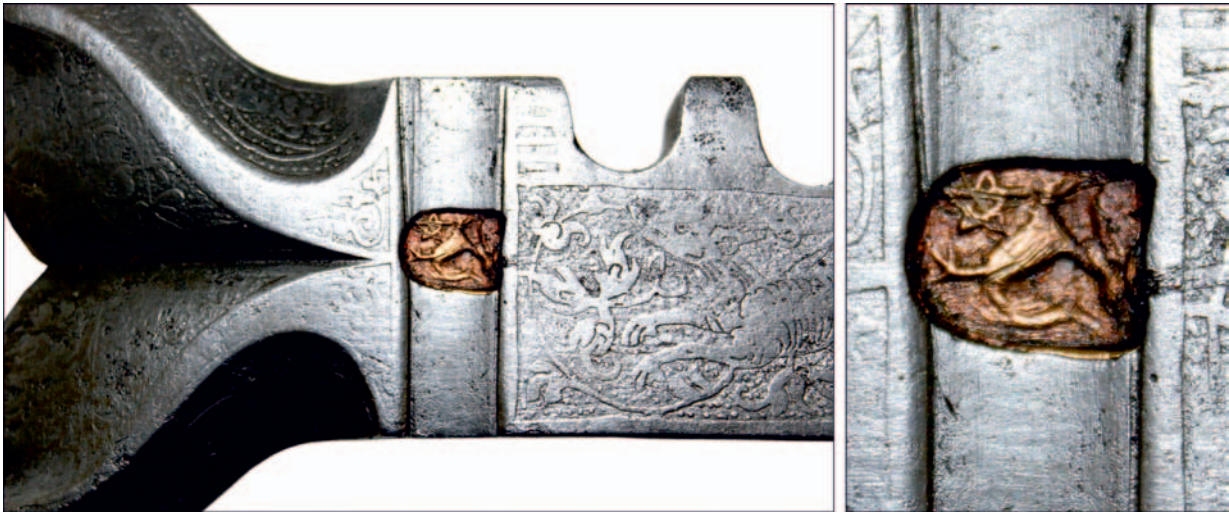


Fig. 8. A mid-16th century German or Swiss crossbow cranequien with a maker's mark (Hartmann Windenmacher, Zürich?) in relief coated/lined with a copper-based alloy (Muzeum města Brna/Brno City Museum/, inv. no. 107 254. Photo by P. Žákovský.

depression was perceived as a decoration on its own, as the shining depression formed the central point of the entire pommel decoration (Fig. 15: 4, 5). However, we also cannot rule out the possibility that both the manner of applying the non-ferrous metal and the final appearance of this decorative element were much more complex. With regard to the lining of the inner surface, one can consider whether inserts made of a transparent material, e.g. glass or – perhaps – rock crystal, were originally applied in these depressions, or to at least into one of them. However, it must be admitted that, given the relatively small dimensions of the depression, roughly 12–13 mm in diameter, it is difficult to assume that the manufacturer would expect a significant improvement in the optical effect. Even if this hypothetical transparent insert had a significantly convex front surface, it would probably not be possible to amplify the contrasting colour of the lined depression due to its small dimensions.



Fig. 9. The hilt of a sword, reportedly from the surroundings of Toulouse, whose pommel is provided with a rock-crystal insert under which a tiny relic is sealed (according to *Reverseau* 1982, fig. 28).

However, such an insert could be used as a transparent cover over any small object that could have been placed in the depression. The question is how such a non-metallic cover would be attached to the pommel. One of the possibilities is that originally the pommel was in the place of the depression provided with a thin iron rim into which a cover of glass or stone could be set. Such a rim could easily be brazed onto the pommel during the process of inlaying (Fig. 15: 5).

In the case of using a transparent insert as a cover, one can primarily consider the sealing of a small relic, whereby the pommel would essentially become a reliquary. After all, we also learn about the sealing of various relics into the pommels of swords, and thus about the significant sacralisation of such weapons, from medieval written sources (*Flori* 2008, 86; *Huynh* 2011, 86; *Scalini* 2007, 43). However, only a few surviving swords bearing a sealed relic are known from the world's collections. We can mention here, for example, a luxurious mid-14th c. Type XIV, K, 7,

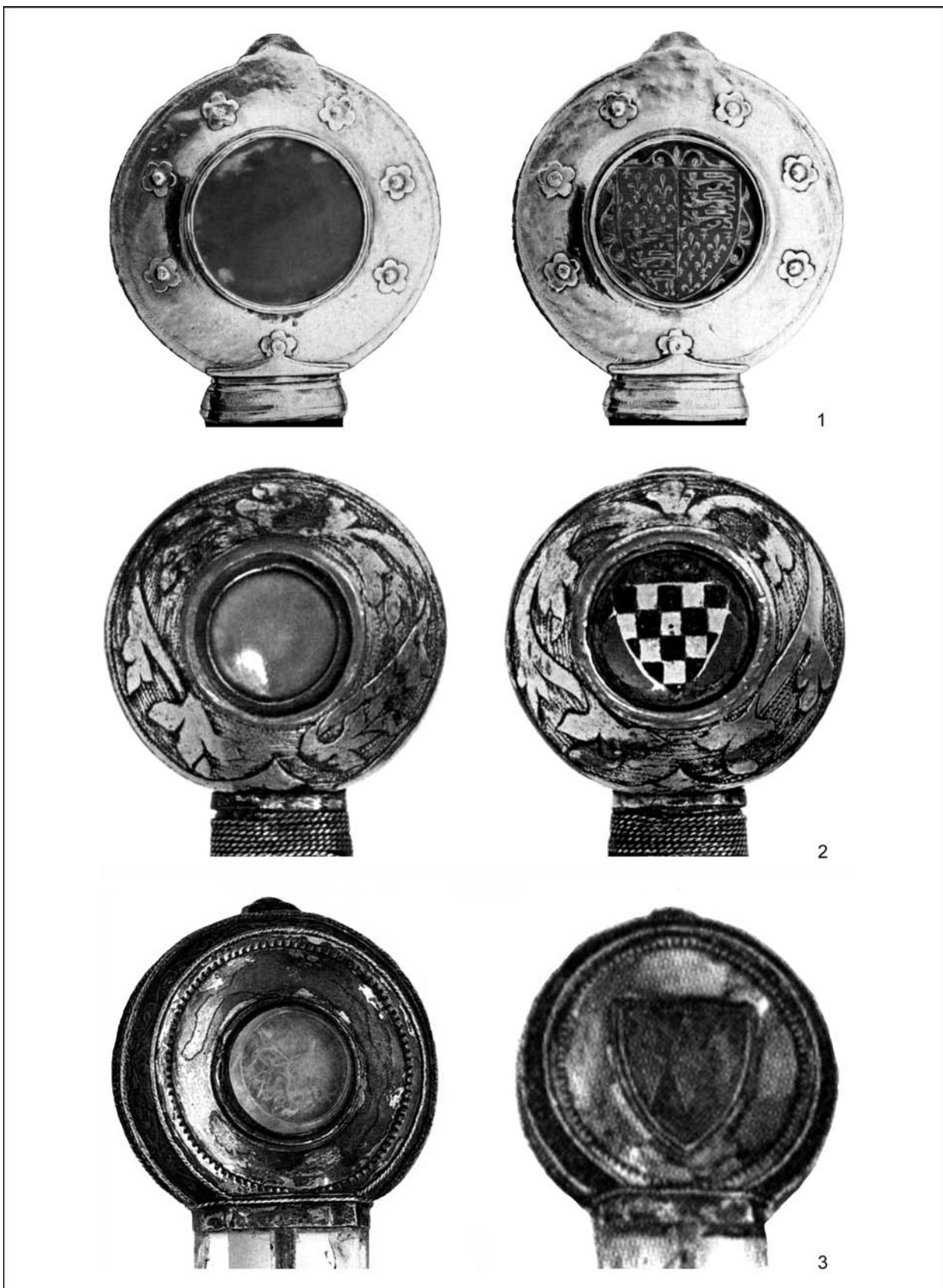


Fig. 10. Details of sword pommels bearing inserted relics and family coats of arms. 1 – sword attributed to King Edward III, private collection (according to *Oakeshott 2002a*, 298); 2 – sword of the de Dreux family, private collection (according to *Oakeshott 2002b*, pl. III: 4, 5); 3 – sword of an unknown family (according to *Baptiste 2016*, fig. 140).

sword reportedly from a tomb discovered in the vicinity of Toulouse. The hilt components of the sword are plated with a gilded silver foil, and the central recess of the pommel is provided with a rock-crystal cover by which a relic in the form of a fabric fragment is allegedly sealed into the pommel. The knightly character of the weapon is clearly emphasised by a motto engraved on one of the blade surfaces and extolling one of the most important knightly virtues, as amended by *NULLA DE VIRTUTIBUS TUIS MAJOR CLEMENTIA EST* (Fig. 9; Marek 2017, 91, fig. 167; Oakeshott 2000a, 124; Reverseau 1982, 22–24, fig. 28).

In many cases, the function of relics could be assumed by gemstone inserts themselves; these could be made of rock crystal, jasper, serpentinite or chalcedony, and we encounter them on sword pommels until the early 16th c. (e.g. Gilliot 2008, 136; Oakeshott 2002a, 86, 285, 286; Withers 2006, 13). The use of inserts made of these materials, being attributed many symbolic and magical meanings, probably reflects the connection to a specific though rather small group of mostly 14th to 15th c. swords whose pommels were made of these minerals (Marek 2017, 91–95; 2019). The occurrence of swords provided either with inserts or whole pommels of gemstones was not limited to Western Europe; in rare cases, we also trace the use of such weapons in the Czech milieu. Of these, the only surviving specimen is the coronation sword of the kings of Bohemia fitted with a smoky-quartz pommel as part of the reconstruction of this weapon initiated by Emperor Charles IV (e.g. Bravermanová 2007; Hošek/Koštal/Žákovský 2019, cat. no. 195; 2020).

Although gemstone inserts have not yet been recorded from Czech territory, knowledge of them in the Czech environment is evidenced, albeit rarely, by written sources. A sword with a gemstone set into a pommel is mentioned, for example, in the Old Czech poem *O Jetřichovi Berúnském*, which falls within the scope of Czech knightly epics. The poem was undoubtedly written in the second half of the 14th c., but its only surviving record dates back to 1472, when it was included in the well-known collection of Old Bohemian literary pieces known as the *Sborník hraběte Baworowského* (cf. Pražák 1986, 408, 409). The author, partly depending on a German model, describes in detail the richly decorated weapons and equipment of Lavrin, the legendary hero and king of the elves, who guards the mountain rose garden, which was ravaged by the main antagonist of the poem. As part of the description of their violent clash, we also find a passage about Lavrin's sword: "Měl také meč jeden/jímž jest porazil boj nejeden/To zajisté vědě/že jest byl širok na piedě/Sekl jím ocel i kamenie/o němž nechám pravenie/Jilci i hlava se velmi stkviěše/v mečové hlavě bazant bieše/drahý pro skúpost nemál/Ten meč za tři země stál"⁶ (Petrů/Marečková 1984, 205). According to this quotation, the pommel of the Lavrin's sword was decorated with basalt, which is an Old Bohemian synonym for hyacinth, i.e. a gemstone variety of zircon.

Interesting and probably also of some importance is the fact that many of the surviving gemstone inserts appear in combination with the depiction of a coat of arms of the original weapon owner. The pommels are thus provided on one side with gemstone inserts and on the other with coats of arms created by various decorative techniques (e.g. Baptiste 2016, 140). This can be demonstrated, for example, on the sword attributed to King Edward III of England. The sword, reportedly dated to the mid-14th c., has a circular iron pommel that is heavily gilded; one side of its central disc is decorated with the monarch's coat of arms, while the other side is provided with a chalcedony insert covering a relic in the form of a piece of fabric. The blade of the sword bears the motto of the 'Order of the Garter' founded by Edward III (Fig. 10: 1; Biborski/Stepiński/Žabiński 2011, 130, fig. 45: E; Oakeshott 2000a, 268–302). Also, a luxurious sword dated to the first half of the 14th c. and held in the collections of the Museo Arqueológico Nacional in Madrid has a pommel whose central disc is on one side provided with an enamel insert depicting a coat of arms with a charge in the form of a 'fleur-de-lys'. Although the former gemstone insert is missing on the other side of the pommel, with regard to the relief decoration at the bottom of the depression, it is most likely possible to assume that the former insert was made of some transparent material (Biborski/Stepiński/Žabiński 2011, 134, fig. 50; Hoffmeyer 1982, 188, fig. 65). A rock crystal or chalcedony insert covering a relic in the form of a bone or wood fragment also adorns the central disc of the pommel of a richly decorated sword, which, due to the coat of arms depicted in enamel on the other side of the pommel, is attributed to the de Dreux family and dated to the second half of the 13th c. However, the relic set into the pommel of this sword does not necessarily have a purely Christian content, but may to some extent refer to the mythical origin of the name of the family and its family seat (Fig. 10: 2; Biborski/Stepiński/Žabiński 2011, 133, fig. 49; Laking 1920, 208, fig. 1014A; Oakeshott 2002a, 86; 2002b).

There are some doubts about the authenticity of some of these weapons, but if we recognise them as genuine, we could hypothetically also assign the find from Klamoš to this group of swords. If we accept the

⁶ In Loriš's edition these are verses Nos 296–305 (Loriš 1903, 361), while in the newer edition we find the quoted passage in verses Nos 305–314 (Petrů/Marečková 1984, 205).

theory that the pommel of this sword was originally provided with a gemstone or glass insert covering a small relic, this weapon could also bear a second decorative element in the form of a heraldic shield. One side of the pommel, unfortunately, the more damaged of the two, shows an indistinct, and eccentrically placed depression lined with distinctive edges (Fig. 4). Since these peripheral edges abut each other at relatively acute angles, it seems that this could be a recess intended for an insert in the shape of a heraldic shield, which is missing today. The coats of arms did not always have to be depicted in enamel, which can generally be considered as a product of specialised workshops.⁷ We also encounter a relatively simpler way of depicting the shields as inlaid metal sheets, which, in contrast to the enamelled decoration, could be accomplished by almost any craftsman. Nevertheless, even such swords are unique finds (e.g. Hoffmeyer 1954, 25, pl. 23: d). No single find has been documented from Czech territory, but a long-sword decorated in this way was found near the Moravian border in the Váh riverbed near Hlohovec (Fig. 11; Hošek/Košta/Žákovský 2020; Novosedlík 2002, 143, fig. 103).

However, whether such an insert could also be applied to the sword from Klamoš is a difficult-to-answer question, especially regarding the possibilities of attaching the insert to the pommel. A shield-shaped insert would entirely cover the recess of the central disc, so that anchoring the insert into the disc surface would be both very technically demanding and, probably, very unstable. Besides, the depression contained traces of non-ferrous metal, which either leaked there while inlaying the other parts of the pommel, or the inner surface of the depression was intentionally lined for aesthetic reasons. In the latter case, however, covering the lined recess with a shield-shaped insert would be meaningless. This situation could be explained only by the fact that the originally intended concept of the decoration was changed during the production of the pommel (more precisely, after the pommel's shape was completed).

If we accepted both of the hypotheses about the original decoration of the sword pommel from Klamoš, we would be dealing with a weapon whose decorative concept is known from other, mostly very richly decorated swords from the mid-13th to 14th c. The combination of placing a relic on one side of the pommel and a family coat of arms on the other would make it possible to interpret the weapon from Klamoš as a family (ancestral) sword. After some time, such significantly sacralised weapons themselves became relics or ancestral memorabilia. In this context, the sword was perceived as a legible and generally understandable attribute in social communication, as it publicly demonstrated the affiliation of an individual to a specific and exclusive group of a hierarchically organised society.

We needn't doubt that a sword was often perceived as an important memorial medium in the Bohemian and Moravian milieu, as this is evidenced in many written sources. For example, in the Czech poem *Rada otce synovi* from the turn of the 15th c., an old knight passes on his life experience to his son leaving home and bequeaths him his sword and spear as insignia of knighthood "*ve věrnej vieře, zda bych na tobě rytieře dočekal z mého plemene*" (Iwańczak 2001, 95; Macek 1994, 97; Patera 1892, 395). A sword is clearly mentioned here as both a statutory symbol and a memorial medium. This coexistence of two symbolic meanings was relatively common in the western Christian world, and at the time there were certainly many so-called ancestral swords held by aristocratic families who expressed their affiliation to the chivalric community. These weapons, undoubtedly richly decorated, were bearers of ancestral memory and as such have been held in ancestral armouries for centuries. Noteworthy is a 1512 record mentioning a sword as a memorial medium in the Czech aristocratic environment. We learn from the record that Natanael Černín of Chudenice sued his relative Bohunek Černín of Chudenice over such a sword at the Chamber Court. One of the witnesses, Jan Hnízdo from Lomnice, was to have testified,

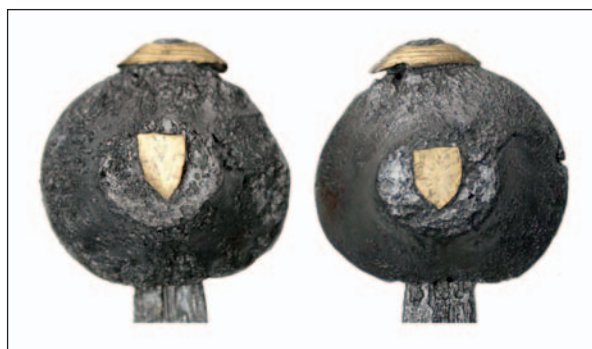


Fig. 11. Pommel of a long-sword found in the Váh riverbed near Hlohovec decorated with inlaid heraldic shields (according to Hošek/Košta/Žákovský 2020).

⁷ More frequently, coats of arms depicted in relief appear on pommels cast from non-ferrous metals (cf. Ashley 2011). In many cases, the heraldic relief decoration was applied to the plated pommel surface; one example is a magnificent ceremonial sword from the first half of the 15th c. from the former famous Meyrick collection, which is richly engraved on both sides of the gilded silver-plated pommel and the central depressions bear the coats of arms of Battle Abbey made in relief (Paton 1875, 463, 464, 473, 474, pl. XVI; Skelton 1854, pl. CI: 2).

among other things, that, “*To mi jest v paměti když sem sloužil u pana Věňka Černína, že sem nosil ten meč, o kterýž se oni pohánějí, za panem Věňkem. A pan Věňek pravil, že jest to meč byl otce mého, a cožkoli mám, že jest toho všeho muoj otec dobyl tiem mečem*” (AČ 19, 123, no. 2237). This documents that a sword could be perceived in an aristocratic environment as an important bearer of family memory and identity, and should therefore be kept as family property (cf. Šimůnek 2013, 298).

This practice is probably reflected in a certain phenomenon we encounter especially during the 13th to 15th c.; graves of elites furnished with swords. The swords were undoubtedly intended to visualise the high status of the deceased, including their power and judicial authority (e.g. Meier 2002, 147, 148). However, it is very interesting that swords were buried mainly in graves of individuals without male descendants, so the burial deposition of a sword, sometimes after the weapon was ritually broken, could to some extent symbolise the extinction of the lineage. In these cases, there was no male heir who could inherit such a sword together with the succession (cf. Schulze-Dörrlamm 2019, 149–151). This theory could also be supported by a long-sword found in 1996 during the archaeological investigation of the church presbytery at the former Dominican monastery in Racibórz, Silesia. This sword, found in the tomb attributed to Duke Walentyn of Racibórz, the last of his dynasty, was ritually broken after his death in 1521 (e.g. Biborski/Stepiński/Żabiński 2004). In this context, we can also mention the 1611 grave furnishings of the last of the Rosenbergs, Petr Vok. According to written sources, a sword and a bag with his personal seal were to have been deposited in his grave (Král 2004, 174).

Hence, if our interpretation of the find from Klamoš as a family sword is correct, it is a great pity we will never find out under what circumstances the sword entered the archaeological context in which it was found. It can only be said in general that, based on the find circumstances, the sword can be assigned to a large group of weapons, which can most likely be considered accidental losses related to traffic on roads, etc. (cf. Hošek/Košta/Žákovský 2020). Therefore, one cannot rule out the possibility that the sword has no closer connection to the region in which it was discovered because it could be lost accidentally by someone who only by chance passed through the place. In any case, the sword occupies an important position among high and late medieval swords from Czech territory.

The technique of decoration of the sword from Klamoš

From a technological point of view, the decoration of both the pommel and blade was based on the spread of a melt of contrasting metal (in our case copper alloys) over the motifs in relief with a subsequent (after cooling) removal (grinding, burnishing) of the overlaying surplus from the base-object surface so that the contrasting metal remains only in the recesses. The result is a sort of inlay that we call here a ‘molten-metal inlay’. Unlike in the case of inlaid wires or metal-sheet items, the inlaid metal is not held in the recesses mechanically but fused to the substrate, i.e., attached by a thin intermetallic layer (also known as the diffusion layer) formed by the reaction between the substrate and the molten metal during the ‘inlaying’ process. In the case of the sword from Klamoš, we can estimate the composition of the copper alloys employed only approximately; the pommel is inlaid with bronze, the blade with brass (the zinc content is roughly 20% (perhaps even more); see Tab. 3.⁸

Tab. 3. Chemical elemental composition of the Klamoš sword’s non-ferrous inlays and surrounding matrixes determined by pXRF analysis (wt%).

Place analysed	Cu	Fe	Pb	Sn	Zn	Ni	Co
Pommel – crescent 1	63.70	32.18	1.05	1.90	0.57	0.39	0.21
Pommel – crescent 2	21.37	77.59	0.09	0.26	0.45	0.00	0.25
Pommel – central depression	44.00	52.80	0.82	1.38	0.53	0.10	0.20
Blade – inlay of the maker’s mark	5.26	93.32	0.04	0.04	1.08	0.00	0.19

⁸ The chemical element analysis was performed using a portable spectrometer Niton XL3t 950 GOLDD (General metals mode used, measurement time 60 seconds). We would like to thank Mgr. M. Kmošek from the Institute of Archaeology of the AS CR, Brno, who performed the measurements.

Although the paragraphs above fully suffice in explaining how the sword from Klamoš was inlaid, both the statement itself and the ‘molten-metal inlaying’ technique undoubtedly require a more thorough analysis. First, let us start with the issue of inlaying metals in general.

Inlaying was generally one of the most popular decorative techniques in the Middle Ages, when materials of various colours were applied to incised or punched grooves or depressions of a base object, creating a colourful, optically contrasting surface decor. When a vitreous filler was used, we speak of enamelling, specifically of ‘Champlevé’ enamelling. Another variant of non-metallic inlay was ‘niello’, based on the application of a mixture of silver, copper and lead sulphides; however, niello was used mainly for silver objects. Both of these techniques, niello and enamelling ‘Champlevé’, were technologically similar, as the filling matter had to be fired to melt in the recesses (Filip 1941, 98, 103). In contrast, when wires or metal-sheet components are inlaid, these are set into recesses without the use of heat (cf. Filip 1941, 117; Untracht 1998, 304; Wolters 1997, 510), i.e., the filling metal is held in the recesses mechanically. However, in this case, the depressions or grooves must have a specific profile (Fig. 12: B). It is the creation of such specifically profiled grooves and hollows that makes this inlaying technique time-consuming and requiring high craftsmanship experience (e.g. Bárta 2011). In the scientific literature, especially sources devoted to weapons and written in languages strictly distinguishing between a mechanically attached metal inlay (e.g. ‘tauzie’ in Czech, ‘Tauschiere’ in German) and a ‘molten-metal inlay’, the metal inlays are mostly considered (or at least described) to be the ‘mechanically-attached’ variant (Wolters 1997, 511). Therefore, the first question we have to deal with is whether the pommel and the blade of the sword from Klamoš are inlaid with metal mechanically held in the recesses. Some details that would unlikely appear in such a case speak against it.

First, from a craftsmanship point of view, a significantly simpler method could be used to achieve the same decorative effect; to fuse the colour-contrasting metal into the created recesses. In that case, time otherwise needed for the laborious preparation of both wires or metal-sheet components of the desired shape and specifically profiled recesses requiring the use of specifically adapted tools would be saved. This ‘molten-metal’ technique is still used in Oriental bladesmithing and its Turkish designation was translated by A. Feuerbach (2014, 249) as the ‘stamp-melt method’. It can be assumed that grooves prepared for ‘molten-metal inlaying’ would have a simple V-shaped profile (Žákovský et al. 2020, 374, fig. 13), as in that case they could be prepared most easily and quickly (Fig. 12: A). Hence, this process of inlaying would consist of engraving or, more likely, punching or stamping the desired motif into the base object, sprinkling the spot with a mixture of the inlaying-metal filings and flux, and heating the mixture to the melting point. After cooling, the surface of the object would be burnished, leaving the fused metal only in the recesses and thus creating the intended decoration or motif. As follows from the above description, this technique is not suitable for applying precious metals, as this would inevitably lead to undesired losses of the valuable material during burnishing. In contrast, in the case of non-ferrous metals and their alloys, especially those whose hardness makes them difficult-to-inlay material for the wire-inlaying process (cf. Bárta 2011, 79), this simpler method is an advantageous option, and the inlaying process would be procedurally similar to champlevé enamelling.

But how could a ‘molten-metal inlay’ be distinguished from the standard wire inlay? It would be unambiguously and directly recognisable by inspecting the profile of the inlaid grooves; a V-shaped profile indicates the former variant while a rectangle-shaped profile indicates rather the latter one. Indirect evidence of wire inlaying is a uniform width of grooves independent of their depth, so the thickness of the inlaid lines visible on the surface is also uniform, regardless of the extent of removal or loss of the inlaid surface caused by burnishing or corrosion. In contrast, in the case of ‘molten-metal inlay’, the width of grooves gradually decreases towards their bottom (as the grooves are V-shaped), so the thickness of the inlaid lines varies depending on the original depth of the grooves and/or the extent to which the original inlaid surface was lowered.

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In the case of a ‘molten-metal inlay’, the grooves may also be insufficiently filled, which may result in concave hollows with walls raising towards the groove edges due to the wettability of the molten

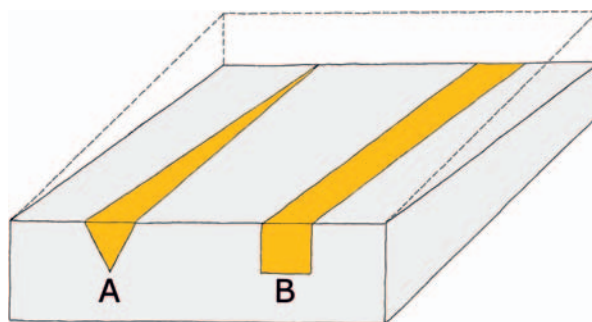


Fig. 12. Difference in the profile of a groove. A – for wire inlay; B – for ‘molten-metal inlay’ (according to Žákovský et al. 2020, fig. 13).

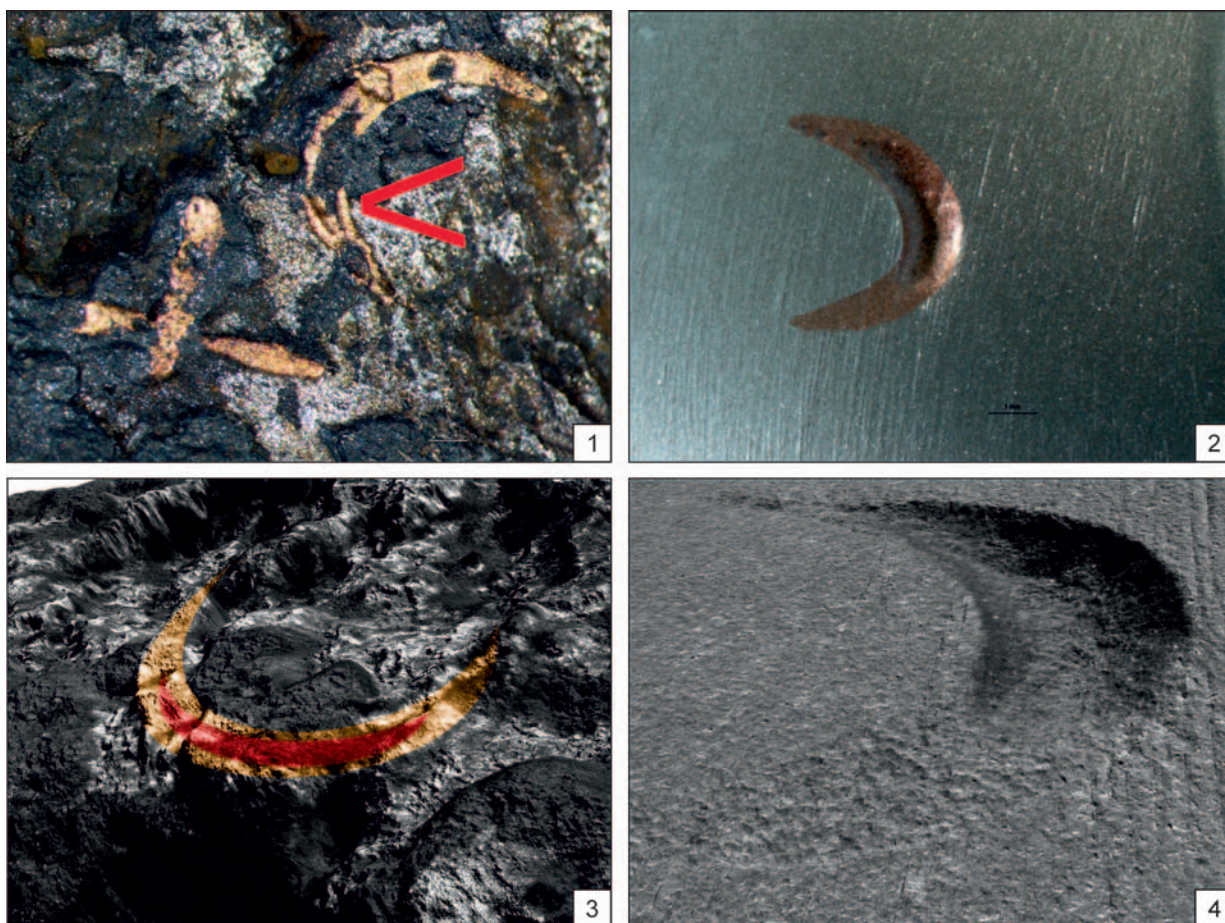


Fig. 13. Hollows created due to insufficient filling of a groove by the inlaying metal of the pommel from Klamoš documented by an optical microscope and forensic examination system. 1, 3 – on the original; 2, 4 – on a replica (ToolScan; photo by M. Kmošek).

inlaying metal. Can any of the phenomena be observed on the inlaid decoration of the pommel from Klamoš? Since the inspection of the groove profile is not possible in our case without a highly invasive intervention in the object, we must make do with indirect evidence. In particular, the variable thickness of the lines forming the crosses is clearly visible (Fig. 7). It is difficult to imagine that the crosses would be intentionally inlaid with wires of variable diameter, which would also require the use of chisels of corresponding width. Furthermore, one of the crescents shows a distinct depression of the above-described morphology, which is, in addition, partially filled with corrosion products of iron, indicating the insufficient filling of the recess with the inlaying metal (Fig. 13). Based on the facts above, it can be hypothesised that the decoration of the pommel is a 'molten-metal inlay'.

To verify the above hypothesis in practice, a replica of the pommel was forged, including the punched-through tang-hole, and its ground surface was, according to the original decoration, provided with stamped crosses and crescents (Fig. 14: 1). The pommel was then heated up in a hearth and sprinkled with copper filings and flux until their melt covered the entire surface of the first side. Then, the pommel was turned upside down and the same process was repeated, with an iron ring also being brazed with the inlaying metal because the hypothetical reliquary variant of the pommel was required. After burnishing the surface, the inlaid crosses and crescents are relatively well visible, and to enhance their visibility, their edges could be further highlighted with lines of fine punched dots (Fig. 15). If we were to evaluate the degree of similarity of the replica with the original, the appearance of the crosses is the most different. In the case of the replica, the crosses have tapering arms, which is caused by the removal of the surface layers during the burnishing; the appearance of these crosses is, therefore, closer to a four-point star. We do not observe this arm-thickness change on the original pommel. Thus, it seems that the crosses were hollowed out by a different tool than that used for the replica. They were probably not stamped

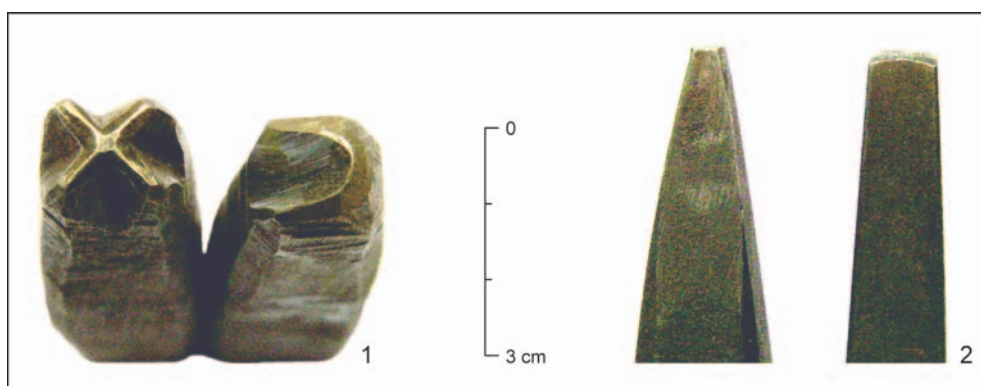


Fig. 14. Special tools used in the production of the replicas. 1 – punches used for decorating the replica of the pommel from Klamoš; 2 – punches used for decorating the replica of the blade of the magistrate's sword held at Buchlov State Castle. Photo by P. Bárta.

by a single blow of a cross-shaped punch, but each arm was punched separately using a conventional flat-blade punch. The effect of the incomplete filling of the punched recesses is clearly visible on the replica (Fig. 13: 2, 4). The experiment also confirmed that 'molten-metal inlaying' is much faster and simpler compared to wire inlaying, as creating the entire decoration took four hours of work, while the time needed for the wire inlaying can be estimated at about 40 hours, aside from the need for special tools and considerable experience. On the other hand, compared to the wire inlay, the 'molten-metal inlay' is much less precise in the details. Especially for three-dimensional objects, such as the pommel from Klamoš, it is not possible to reliably ensure the precise filling of all recesses of the décor or the exact preservation of the intended shape. The appearance of the decoration may therefore be altered due to surface oxidation, which takes place as the object is heated to the inlaying temperatures or due to removal of the surface layers during the burnishing the object surface.

However, this does not apply to relatively flat blades, in the case of which the 'molten-metal inlaying' method should not create any problems. The maker's marks revealed on the sword from Klamoš are poorly preserved (Fig. 16), but there are many other blades whose inlaid marks are preserved well or at least in much better condition. Proof that 'molten-metal inlaying' was also the technique applied on blades then lies in the profile of the grooves that are empty in places; in the case of weapons maintained in living culture, these are demonstrably V-shaped, which excludes the wire inlay.

CONCLUSION

The sword found in 2015/2016 in a forest in the cadastral territory of Klamoš (East Bohemia) can be classified as a long-sword of Oakeshott Type XIIIa, J, 2, and as such dated from the late 13th to mid-14th c. As an amateur metal-detector find, the weapon was handed over to the Museum of East Bohemia in Hradec Králové, but its conservation survey and treatment took place in the laboratories of the Institute of Archaeology of the Czech Academy of Sciences in Brno, where the unique decoration of the pommel was revealed. The central discs as well as the sidewalls of the pommel bear equilateral crosses and crescents inlaid with copper. Traces of copper are also visible elsewhere on the surface of the central discs, especially in the area of the central depressions. Remnants of inlays, this time of brass, were also found in both of the blade fullers, where they formed maker's marks that are difficult to identify today.

A detailed survey of the sword has made it possible to describe a variant of inlaying which has not yet become widely known to scholars involved in the research of medieval European arms and armour. It is a variant of inlaying iron with non-ferrous metals, which can be called 'molten-metal inlaying'. It is a technique related to *champlevé* enamelling, but instead of glass, a non-ferrous metal is used as the inlaying material. From the craftsman's perspective, the 'molten-metal inlaying' is a blacksmith-locksmith technique which, though rather primitive, can to a certain extent substitute more demanding and sophisticated methods, especially wire/sheet-metal inlaying. The aim was probably to imitate lavish wire-inlaid objects by using a technology that accelerates the inlaying process without the need for well-experienced craftsmen, thus significantly lowering production costs. As a result, this technique made it

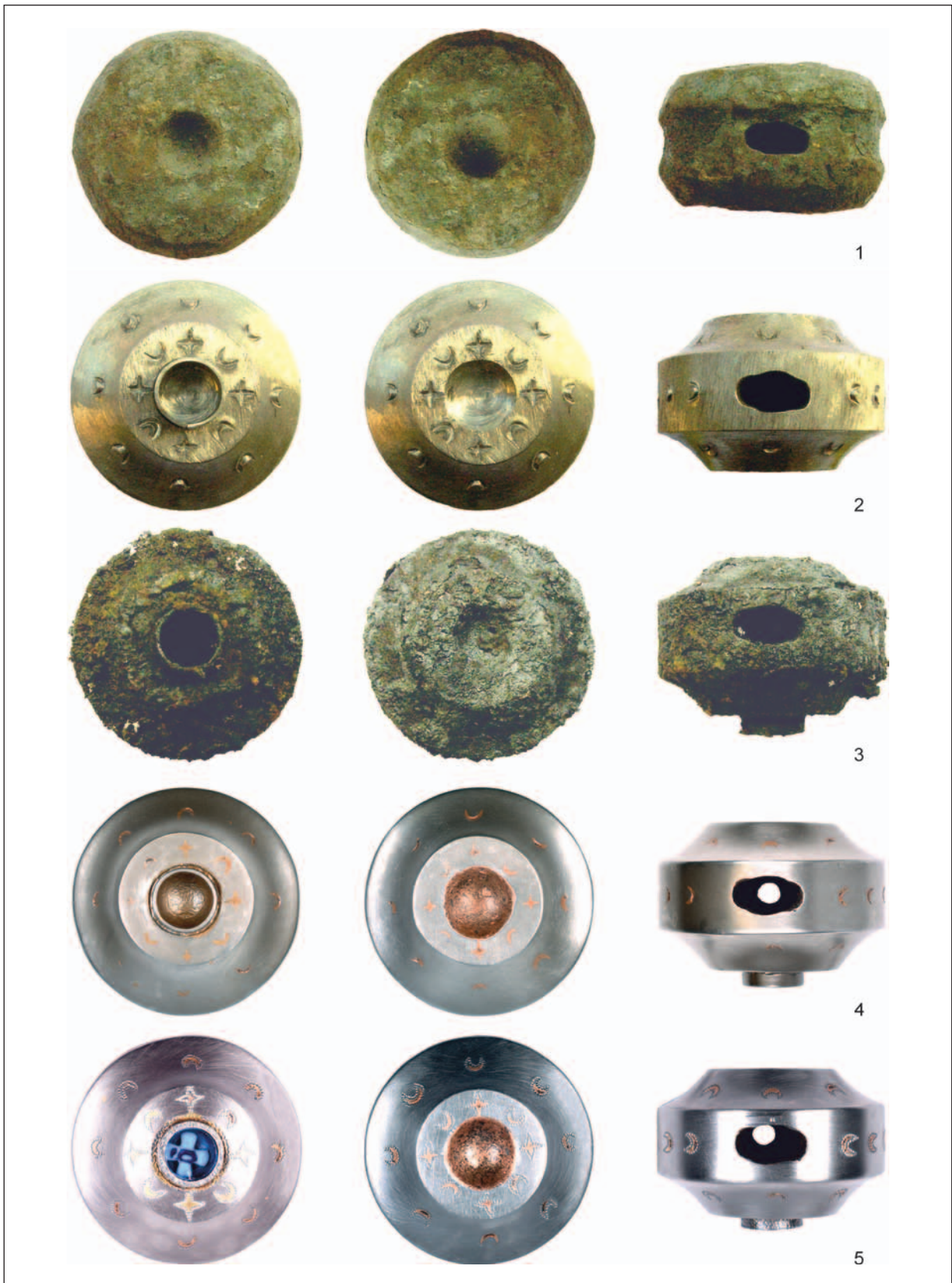


Fig. 15. The process of making a replica of the pommel from Klamoš. 1 – the pommel as forged; 2 – the pommel after filing with punched decoration; 3 – the pommel just after the ‘molten-metal inlay’ was applied; 4 – the inlaid pommel after smoothing the surface; 5 – the pommel after fitting the possible glass insert and highlighting the outline of inlays with tiny punched dots. Photo by P. Bárta.

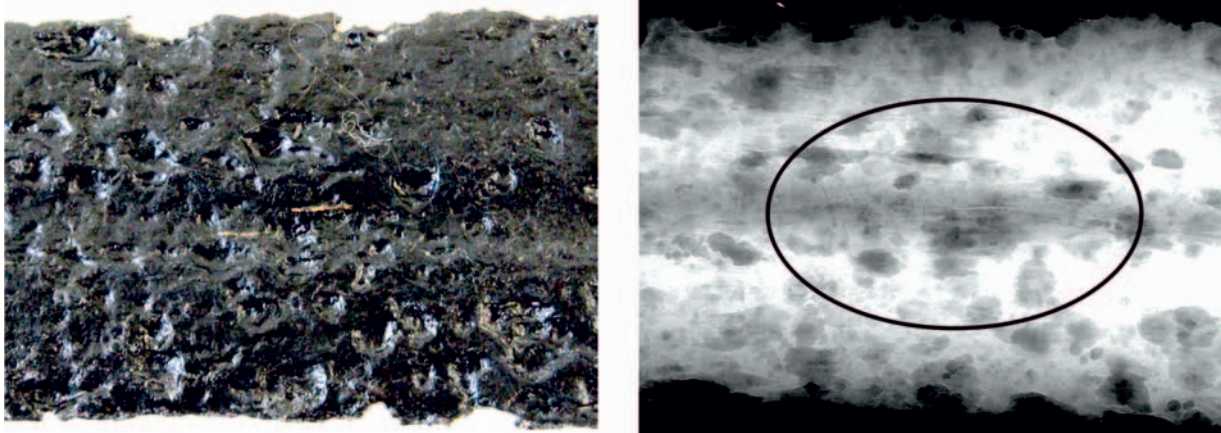


Fig. 16. Preserved remains of indecipherable maker's marks found on the sword blade from Klamoš. Photo by P. Žákovský.

possible to satisfy the demand for lavishly decorated weapons even among the less wealthy members of elites at the time. Thanks to the significant shortening of the production time, many more produced items could be provided with such decoration.

From a formal point of view, due to the pommel decoration, to date unique in its details, the find from Klamoš is related to a specific group of long-swords whose pommels are decorated with various forms of crosses or other Christian symbols. Despite these symbols, the possible connection of these weapons to a specific environment (knightly orders) or specific historical events (crusades) seems debatable. The decoration of the pommel from Klamoš, the exact symbolic meaning of which remains an enigma, differs from that seen on other swords by the presence of inlays over essentially the entire surface of the pommel and the existence of depressions situated roughly in the middle of the central discs. Both the outline and documented original brass lining of these depressions could indicate that at least one of them might have originally been intended for a relic or fragment of a memorial object sealed under a transparent mineral or glass cover. Pommels constructed in this manner and provided with a fragment of a family memorial object or a relic of a religious nature are documented on a number of preserved high medieval swords. Most of these weapons were provided with the family coats of arms on the opposite side of the pommel, which cannot be completely ruled out even in the case of the sword from Klamoš.

If our considerations on the form of decoration of the pommel from Klamoš are more or less correct, we can hypothetically classify the weapon among ancestral swords, which were, as we know, e.g. from contemporary written sources of Czech provenance, passed down from generation to generation in many aristocratic families as a symbol and bearer of family memory and identity. In this context, it is particularly unfortunate that we will never find out under what circumstances this luxury weapon left the living culture.

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Vrcholně středověký dlouhý meč z Klamoše v kontextu soudobých dekoračních technik

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Radek Bláha

Souhrn

Mezi lety 2015–2016 byl v zalesněném prostoru na katastru obce Klamoš ve východních Čechách nalezen amatérskou detektorovou prospekci dobře zachovaný středověký meč (obr. 1; 2). Zbraň lze klasifikovat jako dlouhý meč s čepelí typu XIIIa, hlavici typu J a záštitou typu 2 dle klasifikace E. Oakeshotta (obr. 3; tabula 1), což ho umožňuje datovat rámcově do doby od konce 13. do průběhu 2. pol. 14. stol. Zbraň byla posléze nálezem předána do sbírek Muzea východních Čech v Hradci Králové. Při provádění konzervace studovaného meče v laboratořích Archeologického ústavu AV ČR, Brno, byly na hlavici meče odhaleny dekorativní prvky, které byly podrobeny zevrubné formální, materiálové i technologické analýze. Na ploše centrálních disků, stejně jako na ploše bočních stěn je hlavice opatřena výzdobou v podobě rovnoramenných křížků a obloučků inkrustovaných mědí (obr. 4; 7). Stopy tohoto kovu jsou v reziduích patrné i jinde na ploše centrálních disků, především v prostoru centrálních zahloubenin. Kromě hlavice byly zbytky inkrustace, tentokrát mosazí, odhaleny i ve žlábků čepele, kde tvořily dnes již těžko identifikovatelné výrobní značky (obr. 2).

Z technologického hlediska se při průzkumu meče podařilo identifikovat (a experimentálně ověřit) variantu inkrustace železné spodiny, která dosud nebyla u evropských středověkých předmětů popsána. Technika byla nazvána jako „inkrustace jiným kovem za horka“. Jde o techniku příbuznou s emaillem champlevé, na rozdíl od emailové skloviny je ovšem jako inkrustační výplň použit neželezný kov (obr. 12–17). Z řemeslného hlediska je inkrustace za horka technikou kovářsko – zámečnickou, která napodobuje primitivními metodami sofistikovanější postupy, především tauzii. Jejím cílem bylo pravděpodobně napodobit honosné tauzované předměty a okrášlit výrobek s menší časovou náročností a podstatně menšími pořizovacími náklady. Tato technika tak umožňovala uspokojit poptávku po honosně zdobených zbraních i u těch méně majetnějších příslušníků tehdejších elit, stejně jako dovozovala díky významné časové úspoře případnou výzdobou aplikovat na mnohem více produkovaných předmětů.

Z formálního hlediska se svou výzdobou hlavice meče z Klamoše, ač přesnou analogii bychom k ní v dosud registrovaném materiálu hledali jen marně, blíží specifické skupině dlouhých mečů, jejichž hlavice jsou zdobeny různými formami křížů (obr. 5; 6; tabula 2), případně dalšími křesťanskými symboly. Případná spojitost těchto zbraní se specifickým prostředím (rytířské řády), či konkrétními historickými událostmi (křížové výpravy) se ale jeví jako diskutabilní. Výzdoba hlavice studované zbraně, jejíž přesný případný symbolický význam nám však zůstává skryt, se od těchto podobných mečů odlišuje přítomností výzdobných prvků v podstatě na všech svých plochách a existencí prohloubenin situovaných zhruba ve středu centrálních disků hlavice. Tvar i doložená původní inkrustace těchto prohloubenin by mohla naznačovat, že přinejmenším v jedné z nich mohla být původně pod průhlednou minerální či skleněnou vložkou uložena nějaká relikvie či úlomek památného předmětu (příklady ukazují obr. 8 a 9). Takovou konstrukci hlavice s přítomností rodové památky či relikvie náboženského charakteru máme doloženu na řadě dochovaných vrcholně středověkých mečů. Tyto zbraně byly vesměs na druhé straně hlavice opatřeny rodovými erby (příklady ukazují obr. 9), což nelze zcela vyloučit ani u meče z Klamoše.

Pokud se naše úvahy o formě výzdoby hlavice studované zbraně vydaly správným směrem, mohli bychom ji hypoteticky interpretovat a přiřadit k dědičným rodovým mečům, které byly, jak to ostatně známe i ze soudobých písemných pramenů české provenience, předávány v řadě šlechtických rodů z generace na generaci jako symbol a nositel rodové paměti a identity. V této souvislosti je obzvláště politováníhodné, že se již nikdy nedozvíme, za jakých okolností byla tato ve své době luxusní zbraň vyřazena z kategorie živé kultury a z jakých důvodů byla archeologizována právě na místě svého pozdějšího nálezů.

Obr. 1. Geografická situace nálezů meče. Zpracoval P. Drnovský.

Obr. 2. Kresba dlouhého meče z Klamoše. Kresba P. Žákovský.

Obr. 3. Detail garnitury rukojeti dlouhého meče z Klamoše. Foto P. Žákovský.

Obr. 4. Detail hlavice dlouhého meče z Klamoše. Foto P. Žákovský.

Obr. 5. Nálezy dlouhých mečů s hlavicemi zdobenými různými formami inkrustovaných křížů. 1 – Berlín-Köpenick; 2 – Bosanska Otoka; 3 – Budapešť; 4 – Buzău; 5 – Chichis; 6 – Gniew; 7 – Hamburg; 8 – Helfenburg; 9 – Koprivnica (2 exempláře); 10 – Kurkijoki; 11 – Latinsko Groblje (Lopyan); 12 – London; 13 – Lübeck (3 exempláře); 14 – Makljenovac; 15 – Murtensee; 16 – Opovo; 17 – Przydatki; 18 – Putzipusta; 19 – Rabyň; 20 – Raczk Elbląskie; 21 – Rungholt; 22 – Santok; 23 – Sisak (2 exempláře); 24 – Sremska Kamenica; 25 – Stara Gradiška; 26 – Stari Grad; 27 – Štrkovec; 28 – Tropy Elbląskie; 29 – Višnjica; 30 – Vraca; 31 – nelokalizováno, Národní muzeum Bělehrad (3 exempláře); 32 – nelokalizováno, Německé historické muzeum Berlín (3 exempláře); 33 – nelokalizováno, Muzeum města Brna;

34 – nelokalizováno, Maďarské národní muzeum Budapešť (6 exemplářů); 35 – nelokalizováno, The Fitzwilliam Museum Cambridge; 36 – nelokalizováno, Státní umělecké sbírky Drážďany; 37 – nelokalizováno, Vlastivedné muzeum v Galante; 38 – nelokalizováno, Askeri Müzesi Istanbul (3 exempláře); 39 – nelokalizováno, Museum Kar-konoskie w Jeleniej Górze; 40 – nelokalizováno, Národní muzeum Kodaň; 41 – nelokalizováno, Německé národní muzeum Norimberk; 42 – nelokalizováno, Národní muzeum Praha; 43 – nelokalizováno, Vojenský historický ústav Praha; 44 – nelokalizováno, Zemské muzeum Bosny a Hercegoviny Sarajevo; 45 – nelokalizováno, Stralsund Museum (2 exempláře); 46 – nelokalizováno, Národní muzeum ve Štětíně (3 exempláře); 47 – nelokalizováno, Národní muzeum Šabac; 48 – nelokalizováno, Muzeum chorvatského záhoří Gornja Stubica. Zpracovali J. Hošek a P. Žákovský. Legenda: a – archeologické lokality; b – muzea.

- Obr. 6. Hlavice dlouhých mečů s výzdobou na bočních plochách. 1 – Národní muzeum Šabac (podle *Milutinović 2005*, tabula 1); 2 – Elbląg (podle *Chodyński 2003*, 28); 3 – Stari Grad (podle *Aleksić 2007*, obr. 18); 4 – Klamoš. Foto P. Žákovský.
- Obr. 7. Detail centrálního disku hlavice meče z Klamoše s vyznačením jednotlivých výzdobných prvků. Foto M. Kmošek.
- Obr. 8. Detail heveru ke kuši z poloviny 16. století s reliéfní výrobní značkou (Hartmann Windenmacher, Zürich?) inkrustovanou či plátovanou slitinou na bázi mědi (Muzeum města Brna, inv. no. 107 254). Foto P. Žákovský.
- Obr. 9. Detail garnitury rukojeti meče, údajně pocházejícího z okolí Toulouse, s hlavicí zdobenou křišťálovou vložkou překrývající drobnou relikvii (podle *Reverseau 1982*, obr. 28).
- Obr. 10. Detaily hlavic mečů s vloženými relikviemi a rodinnými erby. 1 – meč Eduarda III., soukromá sbírka (podle *Oakeshott 2002a*, 298); 2 – meč rodiny de Dreux, soukromá sbírka (podle *Oakeshott 2002b*, tab. III: 4, 5); 3 – meč neznámé rodiny (podle *Baptiste 2016*, obr. 140).
- Obr. 11. Detail hlavice s tuzovanými erbovními štítky z dlouhého meče, nalezeného v korytě řeky Váh u Hlohovce (podle *Hošek/Košta/Žákovský 2020*).
- Obr. 12. Rozdíl v profilu rýh při inkrustaci. A – za horka; B – za studena (podle *Hošek/Košta/Žákovský 2020*, obr. 13).
- Obr. 13. Proláklina vzniklá nedostatečným zalitím rýhy inkrustačním kovem na hlavicí meče z Klamoše dokumentovaná optickým a traseologickým mikroskopem. 1, 3 – na originálu; 2, 4 – na replice. Foto M. Kmošek.
- Obr. 14. Specializované pracovní nástroje, použité při výrobě replik. 1 – raznice použité pro výzdobu repliky hlavice meče z Klamoše; 2 – raznice použité pro výzdobu repliky čepele rychtářského meče ze sbírek Státního hradu Buchlova. Foto P. Bárta.
- Obr. 15. Postup výroby repliky hlavice meče z Klamoše. 1 – hrubý výkovek hlavice; 2 – hlavice po opílování a vyrazení výzdoby; 3 – hlavice po horké inkrustaci; 4 – inkrustovaná hlavice po vyhlazení povrchu; 5 – hlavice po osazení předpokládané skleněné vložky a zvýraznění výzdoby puncováním. Foto P. Bárta.
- Obr. 16. Dochovaná blíže neinterpretovatelná torza značek na čepeli meče z Klamoše. Foto P. Žákovský.

Tabela 1. Hlavice typu J v nálezech z území České republiky.

Tabela 2. Dlouhé meče ze 14. století s hlavicemi kruhového tvaru zdobenými různými variantami křížů.

Tabela 3. Prvkové složení inkrustačních výplní a okolní matrice stanovené XRF analýzou.

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