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Edited by Ioan Marian ȚIPLIC

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Faculty of History and Patrimony 550024 SIBIU, Bdul. Victoriei nr. 5-7, tel.: + (0)269 214468, int. 105; fax: + (0)269 214468 Silviu Istrate PURECE E-mail: redactie_studia@yahoo.com; silviu.purece@ulbsibiu.ro
http://istorie.ulbsibiu.ro/studia/index.html

SUMMARY

FOREWORD

The importance of interethnic relations topic in different periods of the Central European area history is not a recent interest in historiography, but maybe in the last 15 years, this topic has become extremely debated in the context of regional conflicts that took on ethnic form. Because of these conflicts the interest in terms of ethnic composition in the Balkan territories increased significantly, which is visible in publications that are out of print in recent years.

However meetings between specialists, which is specifically dedicated to analysis of particular issues arising from intense commercial and cultural exchanges in Central and Southeast Europe have been and are still very few.

Medieval weapons is an important topic of study, spectacular because of its diversity and symbolism, being one of the most important markers of the Middle Ages, things that fully justifies the organization of an international symposium.

Based on these considerations, the present volume aims to provide a possible way to integrate the results of archeology, history and art history in the wider medieval historiography of Central and South-East European dedicated to military issues.

This volume bring together almost all papers presented at International Symposium ***Militaria Mediaevalia in Central and South Eastern Europe,*** October 14-17, Sibiu, which is the 3rd symposium organized under the topic *Ethnic Relations* by the Department of Ancient and Medieval History with funding from the Department for Interethnic Relations of the General Secretariat of the Romanian Government.

Dr. Ioan Marian ȚIPLIC

Armament and Society in the Mirror of the Avar Archaelogy
The Transdanubia-Phenomenon Revisited

CSIKY Gergely*

Keywords: *Pannonia, Avar-Age, burial rite, weaponry, social hierarchy, ethnicity*

Abstract

One of the most significant problems of the Avar archaeology is the question of Germanic (mainly Gepidic) continuity in Transdanubia. In my paper I would like to make some comments on the so-called Transdanubia-phenomenon of the Early Avar Carpathian Basin based on the analysis of weapon-combinations found in six cemeteries of Eastern Transdanubia. I intend to answer the following questions: 1. How far the weapon-combinations of the East-Transdanubian cemeteries of the early Avar Period (568-650) are identical or similar to the general picture of Avar armament drawn by contemporary cemeteries? 2. Are the weapon-combinations or armament of these cemeteries similar to that of the earlier Gepidic and Langobardic sites from the early 6th centuries or to the contemporary Germanic (Alemannic, Frank or Bavarian) cemeteries of the present-day Germany?

As a result, the early Avar cemeteries of Transdanubia are characterized by the relatively high number of close-combat weapons compared to other sites of the Avar Khaganate. However, comparing to Merovingian sites the burials containing only close-combat weapons are very low and in most of the cases the weapon-combinations characteristic to this culture is missing.

1. *Introduction – the idea of Transdanubian Germanic continuity in the Avar Archaeology.*

One of the most significant problems of the Avar archaeology is the question of Germanic (mainly Gepidic) continuity in Transdanubia. According to some theories Transdanubia (the former Pannonia province) was populated by Germanic[1] and/or

*Archaeological Institute of HAS Budapest 1014 Úri utca 49
(csikyg@archeo.mta.hu).

[1] For the Gepidic continuity of Transsylvania: (Kovács 1913; Kovács 1915.); their interpretation: (Bóna 1978, pp. 123–170.; Bóna 1986, pp. 162–164.; Horedt 1985, pp. 164–168.; HARHOIU 2001, pp. 110–120.; Bârzu – Harhoiu 2008, pp. 513–578.), for Transdanubia: Kiss 1979b, pp. 185–191, Kiss 1987b, pp. 203–278.; Kiss 1992, pp. 35–134.; Kiss 1999/2000, pp. 359–365, Kiss 1996, and Kiss 2001, for its critique Bálint 1995, pp. 309–310.; for the Germanic elements of pottery: Vida 1999a.), reconstructions of garment, such as belt-pendant (Vida 1996, pp. 107–112.; Vida 1999/2000, pp. 367–377.), for amulet capsulae (Vida 1995, pp. 221–295.) and for the hairpins of Merovingian origin (Vida 1999b, pp. 563–574.)

Romanized[2] populations. This assumption was based on the archaeological finds from various burials, but mainly on the spatial distribution of some artifacts.[3]

The question first arose in connection with the interpretation of the Környe-cemetery, where the so-called garrison-theory was developed by István Erdélyi and Ágnes Salamon. According to this, the cemetery is dated to the first half of the 6th century, which means before the Avar immigration, and it was used by the garrison of the nearby Late Antique fortification composed of mixed (Byzantine, Germanic and Nomadic) population.[4] Now it is already clear that this site was misdated and it was established only in the late 6th and early 7th centuries (Early phase of the Avar Period).[5]

Attila Kiss started to study the Avar Period from the point-of-view of the Germanic archaeology, moreover he was first employed in the Janus Pannonius Museum in Pécs, where he had lots of opportunities to study objects of Merovingian origin from burials of the Avar Period.[6] The excavation of the Kölked cemetery between 1970 and 1993 turned his interest to the investigation of the Germanic population of the Avar Khaganate, since he interpreted the site even in his first excavation reports as a Germanic one.[7]

Later on Attila Kiss phrased a theory according to which these Transdanubian cemeteries from the Early Avar period are the traces of the Gepidic population who lived in the Great Hungarian Plain in the 5th and early 6th centuries and who were resettled in Transdanubia by the Avar policy after 568.[8] For his ethnic interpretation Kiss used among others the spatial distribution of some weapon-types known from Germanic cemeteries of the Merovingian period[9]: the spathae (double-edged Germanic sword),[10] shield boss (umbo),[11] bearded axes[12] and socketed leaf-shaped

[2] The investigation of the Romanized population of Transdanubia is firmly connected to the so-called Keszthely-culture: Kovrig 1958, Kovrig 1960, Kiss 1965, Kiss 1966, Kiss 1968, Bálint 1995, Bierbrauer 2005, pp. 67-82. to the traces of the Christian religion found in graves (Vida 2002, pp. 179–209.; Vida 2004, pp. 435–442.) and some elements of the costume (Vida 2009, pp. 233–259.)

[3] About the method of chorology see Eggert 2005, 270.

[4] Salamon – Erdélyi 1971, pp. 70–71.

[5] For the historiographical summary of the so-called Környe-debate see Tomka 1973, pp. 227–231. Its first critique (Bóna 1971b, p. 300.; Bott 1976, pp. 201–280.; Ambroz 1973, pp. 289–294.; Martin 1973, pp. 110–112.) emphasized the chronological arguments contradicting the early 6th century dating.

[6] See his monograph on the Avar finds of Baranya county: Kiss 1977.

[7] Kiss 1979b, pp. 185–191.

[8] The studies of Attila Kiss on the Gepidic continuity of Transdanubia: (Kiss 1987b, pp. 203–278.; Kiss 1992, pp. 35–134.; Kiss 1999/2000, pp. 359–365, he emphasized his opinion on the continuity in the publication of the cemeteries Kölked-Feketekapu A. (Kiss 1996), and B. (Kiss 2001).

[9] Attila Kiss started to investigate weapons with his MA thesis (Kiss 1962), for the weapons used as evidence of Germanic population see his find-lists Kiss 1992, pp. 51-52, 65-67.; Kiss 1996, pp. 228-239, 317-318, Liste 33-36, a similar method of mapping object types was used by Kiss in his studies on the Hungarian Conquest Period (Kiss 1985, pp. 218-379.)

[10] Kiss 1992, pp. 51, 65. Liste 1.; Kiss 1996, p. 317. Liste 33.

[11] Kiss 1992, pp. 51-52, 66. Liste 3.; Kiss 1996, p. 318, Liste 36.

[12] Kiss 1996, p. 318. Liste 35.

arrowheads.[13] However, he only used separated artifacts without considering their context and combinations.[14]

Complexes investigations advanced lately, which emphasized the way of wearing and depositing of the objects.[15] The best example for this method is the study of spatha-belts.[16] The results of such investigations are much firmer than the study of single object-types.

In my paper I would like to make some comments on the so-called Transdanubia-phenomenon of the Early Avar Carpathian Basin based on the analysis of weapon-combinations found in six cemeteries of Eastern Transdanubia (in Komárom-Esztergom, Fejér, Tolna and Baranya counties) such as Budakalász-Dunapart,[17] Csákberény-Orondpuszta,[18] Kölked-Feketekapu A and B,[19] Környe[20] and Szekszárd-Bogyiszlói út.[21] (fig. 1.) Only four of these cemeteries are entirely published, but I could study their material personally. Although the lack of the anthropological investigations, the weapon-combinations of all of these sites can be studied, since they contain lots of graves, almost entirely excavated, their burial rite is standardized and the chronology of all these sites are limited to the same shorter period.

2. The methods – weapon-combination and society in the research of early medieval burial archaeology

First and foremost I have to make some notes of the method itself, since the reliability of the results is based on that methodology. The preconception of all study concerning the weapon-combinations is that the number and/or combination of the elements of armament bear a special meaning and reflect the original armament and/or social status of the deceased. Such investigations are carried by burial archaeology, thus they cannot be made without the common burial rite, the study and comparison of closed entities and the knowledge of the whole site.

[13] Kiss 1992, pp. 52, 67. Liste 5.; Kiss 1996, p. 317, Liste 34.

[14] For the critique of his theories on the Gepidic population during the Early Avar Period see Bálint 1995, pp. 309–310.

[15] See: Vida 1999a, Vida 1996, pp. 107–112.; Vida 1999/2000, pp. 367–377.; Vida 1995, pp. 221–295.; Vida 1999b, pp. 563–574.

[16] Vida 2000, pp. 161–175.

[17] Unpublished cemetery excavated by István Erdélyi (1951-1973), then by Adrienn Pásztor and Tivadar Vida 1987-1992). Hereby I would like to express my gratitude to both of them for getting the possibility to study the weapons found in the site.

[18] Unpublished cemetery excavated by Arnold Marosi and Gyula László between 1936 and 1939. I am deeply indebted to József Szentpéteri for the opportunity of participating in the publishing of the site and the study of its material – especially weapons.

[19] Kölked-Feketekapu A and B cemeteries are excavated by Attila Kiss between 1970 and 1993 and published by him Kiss 1996 and Kiss 2001. I feel gratitude to Éva Garam and Zsuzsanna Hajnal who made it possible to study the material of it and both that of the Környe cemetery in the Hungarian National Museum.

[20] Excavated and published by Ágnes Salamon and István Erdélyi (1954-1955) (Salamon – Erdélyi 1971.)

[21] Excavated and published by Gyula Rosner (1974-1984) (Rosner 1999)

The investigation of weapon-combinations was always in the focal point of the German archaeological research from the beginning of the Merovingian mortuary archaeology founded by Ludwig Lindenschmidt.[22] From the early attempts up to now several studies aimed to provide a theoretical framework for the understanding of ancient societies by analyzing the place of weapon finds among funerary assemblages. According to the most wide-spread assumption the weapon-combinations were in connection with the legal status (free, half-free, slave) of their bearers.[23]

The idea that the combination of weapons buried in graves directly reflects social hierarchy, armament or affiliation to an ethnic group remained intact till the studies of Heiko Steuer who firstly pointed to the non-social agents of the deposition rules.[24] By the way, Steuer still believed that the weapons deposited in the grave reflect the original armament of the warrior, and from that pre-assumption he drew a general history of weaponry and warfare of the Early Middle Ages using mostly the data of burial archaeology.[25]

Significant changes happened with the scholarly activity of Heinrich Härke who combined the methods of the continental and Anglo-Saxon approach to gain a better understanding of the character of the early medieval Anglo-Saxon weapon-burials.[26] In his view the weapons buried in graves are of much more symbolic value[27] and the persons buried there cannot be deemed to be warriors only because of the weapons deposited. He stressed several factors playing a role in burying weapons such as age,[28] social role of the deceased, the symbolic value of the object and the warrior ideology of the society. It is essential to note that the grave-goods found in burials are result of a conscious choice rather than an accidental collection of objects,[29] but

[22] For the origins of the Merovingian burial archaeology and the methods of Lindenschmit methods see Effros 2003, pp. 56–60.

[23] The idea that weapons and weapon-combinations can be used for the identification of legal status came from the combined analysis of the burials and the Early Germanic laws. The general assumption was that the spatha is the sign of the free men, the seax or spear is the weapon of the half-free, while the men buried without weapons are slaves. (Veeck 1926 és Stoll 1939) Other studies stressed that there is no correlation between the ornamented belts and the weapon deposition (Werner 1953).

[24] He stressed that the finds excavated from burials can show the financial (material) position, indirectly his social position but hardly (almost never) his legal role in the society. (Steuer 1968, pp. 18–81) Several examples show that even the servants and esquire (Knecht) could bear weapons (Steuer 1968, p. 37.).

[25] Steuer 1970, pp. 348-383.

[26] Härke 1992.

[27] The author emphasized the symbolic value of the weapons deposited in graves using the propaganda of IRA as modern analogy (Härke 1997, pp. 119-127.)

[28] Härke (1992, pp. 192-195.) used 893 burials for his examination, and observed that the age capable for using the weapon didn't play any role in the deposition, while the number of weapons buried in a grave significantly rises with the age.

[29] The burial data can be seen therefore as intentional, since it reflects the intentions of the deceased, and the society or people who buried him. For the distinction between the functional and intentional data, see Härke 1993, pp. 141–146.

unfortunately many parts of the complex and multilayered meaning of these artifacts remain inaccessible.

A different approach aimed at the reconstruction of ancient armament and not the social hierarchy using the weapon-combinations known from male burials. Thus Frank Siegmund used weapon-combinations for distinguishing so-called 'functional combinations' that means assemblages of weapons for various types of fighting methods (close-combat, distant-combat, pedestrian or cavalry). His main point was to distinguish ethnic differences between the Franks and Alemanni using burial data of Merovingian cemeteries.[30]

A similar study was written by Robert Reiß who studied the proportion of close and distant-combat weapons among Germanic cemeteries of the Merovingian period using the combination of various elements of armament distinguished according to their functions.[31]

The above theories and methods were hardly applied in the Avar archaeology partly because of its relative isolation from the archaeological theory because of political reasons and partly because some Hungarian scholars developed different theories for the investigation of social hierarchy (the ethnography oriented school of Gyula László).[32] The few exceptions were the studies of József Szentpéteri who was the first to use the weapon-combinations together with the horse-burials and burials with belt-fittings based on his huge collection of data,[33] and Jozef Zábojník who used

[30] The main assumption of Siegmund was that the armament of the Franks and Alemanni can be distinguished with the help of the weapon-combinations observed in the burials. Furthermore he deal with the so-called functional combinations and directly deduced the combat-methods from them (Siegmund 2000, pp. 177-194).

[31] Robert Reiß examined the proportions of close- and distant-combat weapon with the help of the statistical analysis of a huge sample from Merovingian cemeteries. He not only assembled the weapon-combinations of the burials, and classified them as close- or distant-combat weapons, but analysed them in a chronological context, too, which enabled him to examine this phenomenon not only synchronous but diachronically, too (Reiß 2007, pp. 211-244).

[32] Gyula László became interested in social problems of the Avar Period at least from the late '30-ies of the 20th century, when he began to study the swords from Bócsa and Kecel decorated with gold foils (both of them were found in 1935) and with the help of them reconstructed the Kunágota sword (László 1938, pp. 55-86.). His reconstructions and social interpretations were only published after the 2nd World War (reconstruction of the sword from Kunágota (László 1950, 31-33.) and that of the sword of Bócsa (László 1955, p. 235.). The peak of his social theories was his French book written during the World War but only published in 1955, where he proposed the social significance of the number of arrowheads in burials (László 1955, pp. 231-232.) and identified the swords decorated with gold or silver with state-power of the Avar Khaganate (László 1955, p. 235).

[33] The methods for social interpretation of Gyula László were carried on by his student, József Szentpéteri, who studied social questions of the Avar Period from the beginning of his academic life. First he analyzed the Avar cemetery of Želovce socially using the methods of László (dissertation written in 1982 and published in 1985: Szentpéteri 1985, pp. 79–110; Szentpéteri 1986, pp. 147–184.), then he attempted to accomplish the social analysis of all the weapon-burials of the Avar Period Carpathian Basin with the help of a huge database he collected from various burial assemblages. Basically this analysis was a quantitative, statistical one using the theoretical premises of his professor, Gyula László (Szentpéteri 1993, pp. 165–246, Szentpéteri 1994, pp. 231-306.)

similar methods for the investigation of the weapon and horse burials of the Northern periphery of the Avar Khaganate.[34]

There are two parallel branches in the investigation of weapon combinations: 1. studies of social hierarchy; and 2. studies of functional combinations. However we have to be aware of that the burial data available are not able to provide firm answers either of them. This root in several problems: first and foremost all burial finds were deposited consciously and reflects the intentions of the society, the family and the deceased himself – but not the reality. Everything happening during the funerary ceremony was culturally determined. That is why we cannot expect that the weapons buried in the grave would reflect either the original social hierarchy or the original armament of a warrior going to the battle.

3. General remarks on the weapon-deposition rules among the Avars

In the following I would like to answer the following questions: 1. How far the weapon-combinations of the East-Transdanubian cemeteries of the early Avar Period (568-650) are identical or similar to the general picture of Avar armament drawn by contemporary cemeteries? 2. Are the weapon-combinations or armament of these cemeteries similar to that of the earlier Gepidic and Langobardic sites from the early 6th centuries or to the contemporary Germanic (Alemannic, Frank or Bavarian) cemeteries of the present-day Germany?

It is essential to draw a general picture of the Avar weapon deposition rules before comparing the aforementioned cemeteries with other sites. Thus we will be able to compare our results with the general picture and discover the similarities and differences.

The present paper is a result of the investigation connected to my PhD thesis on the cutting and thrusting weapons (i.e. swords, sabres, saxes and spears) of the Avar Period. These two categories of weapons are relatively rare among the findings of the period. From the more than 60,000 graves of the Avar Period[35] the proportion of the cutting and thrusting weapons is less than 2 % (or about 5 % of the male graves).[36]

[34] Similarly to Szentpéteri Jozef Zábojník studied questions of armament and social problems from the early years of his academic career, first he collected all weapons of western origin of the Avars (Zábojník 1978, pp. 193-214.), then with the help of his chronology based on his seriation of belt-garnitures (Zábojník 1991, pp. 219-321.) he attempted a social analysis of Avar Period burials from the Northern periphery of the Khaganate mainly dated to the Late Phase (8th century) using quantitative and statistical methods with the premise of social significance of weapons, horse burials and decorated belts (Zábojník 1995, pp. 205-336.).

[35] Up to 31st of december 1993 (the so-called ADAM (the collection of Avar Period sites registered the sites until that date) 2475 Avar period cemetery were known (see ADAM, p. 13.), this number raised significantly from that date on due to the rescue excavations connected to the big investments. There are several estimates on the number of Avar period burials, István Bóna estimated it to 35-40.000 (Bóna 1988, p. 437.), for the newest estimations see: (Vida 2003, p. 304, Langó 2007, p. 188, 84. footnote)

[36] Altogether 672 cutting weapons and 578 spears are known for me in the Avar Period Carpathian Basin.

The diminution of the number of the weapons deposited in graves is a general phenomenon during the whole Avar Period, this is also true for the close-combat weapons. While 274 cutting weapons are known from the Early Avar period, the Middle Avar Period (650-700) is represented by only 128 pieces and to the 8th and the first half of the 9th century (Late Avar Period) only 184 sword and sabres are dated. A similar, but more dramatic picture can be drawn from the distribution of spears: 308 spears is known from the Early Avar Period, 39 pieces from the Middle Avar period[37] and 176 from the Late Avar period of the 8th century. (fig. 2.)

These two weapon-types are rarely found combined with each-other, only 53 known graves contained a sword and a spear. This feature is not characteristic for the whole period, it is more frequent in the Early Avar Transdanubia (20) and in the Late Avar Northern periphery (present-day Slovakia), and the former part is similar to the contemporary Germanic (Merovingian) weapon combinations,[38] while the latter is characteristic for burials of men with horses.

The deposition of thrusting weapons (spears) shows a significant correlation with the burials of men with horses (160 cases, 28 %) and with independent horse-burials[39] (126 cases, 22 %), that means that more than the half (60 %) of the known Avar spears are associated with horses. These two types of burials show a chronological difference too, since most (84,9 %) of the independent horse-burials with spears are dated to the Early Avar period (with the majority in Transdanubia),[40] while such graves dated to the Late phase are only known from the middle course of the river Tisza (mainly Tiszafüred).[41] At the same time most of the burials of men with horses include a spear-find, and they date to the Late phase (96 cases, 60 %).

The cutting weapons (swords, sabres and seaxes) are much less connected with the deposition of horses. Only 16 % (98 cases) of the cutting weapons are found in burials of men with horses and only 3 swords came from independent horse-burials. This significant difference can be explained by the fact, that in cases of divided burials of man and horse the sword or sabre was always deposited with the man and

[37] Although in the case of the very low number of Middle Avar spears we can count on some distortional factors, since the dating of these finds are based on the chronology of the belt-fittings, and in the case of the deposition of a horse burial we cannot say for sure that it is coming from that particular period.

[38] The combination of spathae and spears are characteristic for the Merovingian cemeteries: Reiß 2007, p. 223.

[39] Of course these horse burials are not entirely independent since they belong to a human burial, the most important in this case is that they were buried in an independent burial pit. For the independent horse burials of the Early Avar Period see, Kiss 1962, 153-160; Rosner 1975-76, pp. 79-109, Némethi – Klíma 1992, pp. 176-177, 3. kép

[40] The question of the so-called sacrificial complexes is in connection with these horse burials since these complexes contain elements of horse-harnasses, mainly stirrups. The notion of the sacrificial finds first rised with the Csengele find (Csallány 1939, pp. 129-131.) and Bácsújfalu find (Csallány 1953, 133-141.). For the sacrificial complexes see: Kovrig 1955a, pp. 30–44; Tomka 1986, pp. 35–57; Némethi – Klíma 1992, Liska 1995, 91–98).

[41] For the horse burials of Tiszafüred: Garam 1987, pp. 65-125, Garam 1995, pp. ??, Makoldi 2008, pp. 127-132. Similar horse burials were found in Sajópetri–Hosszúrét dűlő see Makoldi 2008, pp. 115-116, 123-124.

the spear mostly with the horse. Chronologically a considerable change can be noticed in the deposition-rules, since most swords or sabres from burials of men with horses are known from the late phase (57 cases, 60 %) while only one fourth of it (24 cases, 26 %) is from the early phase.

It is evident from the above-mentioned that the early Avar Transdanubia is characterized by the relatively high number of close-combat weapons, the combination of spear and sword (which is characteristic to the Merovingian cemeteries) in the region is the highest rate among the other Avar sites. The number of spears is relatively high but in most of the cases it is associated with independent horse-burials.

4. Weapon-combinations and weapons in the Early Avar Transdanubia

In the following I will examine closer the distribution and above-all combination of these objects and try to trace if the combination of weapons or the 'armament' is similar to the Merovingian cemeteries or not. For this analysis I use five cemeteries of Eastern Transdanubia: all of these cemeteries are dated mainly to the early phase of the Avar period and were identified as sites of the Transdanubian Germanic population under Avar rule. Unfortunately, except for the Környe site no anthropological examinations have taken place, therefore it is quite difficult to distinguish the male and female grave in the cemeteries only by using grave-goods.

Some primary definitions to the notions used: close-combat (sword, spear, axe), the distant-combat weapons are not represented exclusively by the elements of archery (bow, arrows and quiver), bur some types of throwing weapons such as the javelin and ango[42], and even in some cases throwing axes, like the so-called franciska.[43] The javelins are extremely rare in the find material of the Avar period, they are represented by small, oval shaped spears the socket of which is extremely narrow (its diameter is less than 2 cm).[44] This type of javelin is deposited in pair or three pieces in burials.[45]

From the 683 burials of the Kölked–Feketekapu A temető cemetery in 65 (9,5 %) graves elements of armament were found, 4 of them were independent horse burials,[46] 2 female and one child's burial. Altogether 58 armed male burials were found in the

[42] von Schnurbein 1974, pp. 411-434.

[43] Hübener 1980, p. 99.; Dahmlos – Hübener 1995, 470–476.

[44] Csiky 2007, p. 313, 316. 7. kép.

[45] In pair: Cikó, burial B (or 555.) (Kiss–Somogyi 1984, 41. tábla 21–22); Pécs-Köztemető, grave 30 (Kiss 1977, p. 96, XXXVIII. tábla); Várpalota-Unió homokbánya grave 210. (Erdéliy – Németh 1969, p. 190); Pókaszepetk grave 76. (Sós – Salamon 1995, Pl. IX. 5–6) and 360. (Sós – Salamon 1995, Pl. XXII.1). three pieces in a grave: Budakalász-Dunapart 1271. sír; Csákberény-Orondpuszta 44. sír (Székesfehérvár, IKM 10.217); Oroszlány-Borbálatelep (Sós – Salamon 1995, 71 említi, publikálatlan); Pókaszepetk, 88. sír (Sós – Salamon 1995, Pl. X.1–3).

[46] 4 of the 10 horse burials (grave A-22, 202, 405, 417, 421, 474, 480, 630, 657, C: Kiss 1996, p. 182.) contained weapons: grave A-22 (spear and bow: Kiss 1996, p. 26, Taf. 23.), grave 405 (spear: Kiss 1996, p. 113, Abb. 20, Taf. 78.), grave 474 (spear: Kiss 1996, p. 127, Abb. 20, Taf. 86.), grave 480 (spear: Kiss 1996, p. 129, Abb. 20, Taf. 87.)

cemetery, which is one third of the male graves.[47] (Fig. 3) In 23 graves (only elements of archery (mainly arrowheads) were found.[48] The most common type of arrowheads were three-winged arrowheads with spike (56 pieces, from 22 graves),[49] the socketed arrowheads with oval blade (28 pieces, from 17 graves)[50] or with barbed blade (17 pieces from 9 graves).[51] It means that the arrowheads with spike outnumber the socketed arrowheads in the cemetery (56 to 45).

The most common close-combat weapon was the spear found in 27 graves[52] of the cemetery among them 4 graves are horse burials.[53] Various types of spears are known from the Kölked cemetery, in the followings it will be examined if these spears are general to the Avar period cemeteries of the Carpathian Basin or can be considered to be import pieces. The most common type of the cemetery is the large oval bladed spears their blade is longer than the socket: 13 examples are known from the site.[54] Such spears are commonly known from Merovingian cemeteries of Germany and Western Europe, but also from Germanic burials in Central Europe.[55] Only one example of the so-called Dorfmerking-type (spear with oval blade and with rib on its blade) is found in the cemetery,[56] which is both characteristic to the Merovingin Western Europe and Lombard Italy.[57] The rest of the spears are composed of types commonly known from Avar Period burials of the Carpathian Basin such as spears with narrow, reed-leaf-shaped blade[58] and conical spears.[59]

[47] The identification of the male burials in the cemetery is quite a difficult task due to the lack of anthropological investigations, and the author, Attila Kiss didn't attempted the identification of gender in the burials.

[48] Arrowheads were found in 30 graves of the cemetery (A-5, 39, 75, 107, 127, 133, 140, 161, 197, 223, 226, 259, 260, 289, 295, 296, 297, 312, 327, 328, 361, 377, 391, 396, 471, 505, 528, 546, A, F: Kiss 1996, p. 235.)

[49] Graves 5, 39, 75, 107, 127, 133, 161, 197, 226, 259, 260, 297, 312, 361, 377, 391, 471, 505, 528, 546, A, F, Kiss 1996, p. 235. Tabelle 10.

[50] Graves 133, 140, 223, 226, 289, 295, 296, 297, 312, 327, 328, 361, 377, 396, 471, 528, A (Kiss 1996, p. 235, Tabelle 10.

[51] Graves 133, 226, 295, 296, 361, 377, 396, 546, F (Kiss 1996, p. 235, Tabelle 10.)

[52] Graves A-22, 39, 65, 107, 142, 211, 250, 253, 257, 259, 260, 275, 289, 319, 324, 375, 386, 392, 394, 405, 406, 422, 471, 474, 480, 681, F. (Kiss 1996, p. 233.)

[53] See the note Nr. 44.

[54] The type is known as L.III.A./1.e in my system (Csiky 2009) Grave A-65 (Kiss 1996, p. 33, Taf. 29/4.), 142 (Kiss 1996, pp. 51–52, Taf. 41/12.), 250 (Kiss 1996, 73, 233, 234, 418, Taf. 4/3, 469, Taf. 55/17.), 257 (Kiss 1996, p. 75, Taf. 56/13.), 259 (Kiss 1996, pp. 75–76, Taf. 57/19.), 260 (Kiss 1996, p. 76, Taf. 57/20.), 275 (Kiss 1996, p. 80, Taf. 60/10.), 289 (Kiss 1996, p. 84, Taf. 63/6.), 386 (Kiss 1996, p. 106, Taf. 75/10.), 405 (Kiss 1996, p. 113, Taf. 78/6.), 406 (Kiss 1996, p. 114, Taf. 78/8.), 471 (Kiss 1996, 127, Taf. 83/48.), 474 (Kiss 1996, pp. 127-128, Taf. 86/3.)

[55] lándzsás cikkem, doktori

[56] Grave A-250 (Kiss 1996, pp. 73, 233, 234, 418, Taf. 4/3, 469, Taf. 55/17.)

[57] For the spears of Dorfmerking-type see: Hübener 1972, pp. 193–211. and Losert – Pleterski 2003, Liste A541.

[58] 6 examples are known from the cemetery. Grave A 39 (Kiss 1996, pp. 29, 228, Taf. 26/19.), 324 (Kiss 1996, pp. 91-92, Taf. 68/11.), 375 (Kiss 1996, pp. 103-104.; Taf. 73/9.), 394 (Kiss 1996, p. 110, Taf. 76/3.), 480 (Kiss 1996, p. 129, Taf. 87/3.), F (Kiss 1996, p. 174, Taf. 105/10.)

The swords are frequent finds as well, in 13 burials cutting weapons were deposited,[60] most of them are spathae,[61] i.e. broad, double-edged swords with fuller on the blade characteristic to the Merovingian cemeteries of the Germanic population of the Early Medieval Europe.[62] The short seaxes (Kurzsax) can be treated as secondary weapons besides the spathae, and often deposited in adolescent male burials,[63] but the so-called 'Breitsax', the sax with wide blade is already a primary cutting weapon.[64] These aforementioned cutting weapons are of western, Merovingian origin, but there is a double-edged sword of Byzantine origin[65] and two single-edged swords[66] too in the cemetery. In 23 graves of the cemetery only distant combat weapons, 16 graves contained only close-combat weapons, and in 19 burials both can be found. (fig. 4.)

The Kölked-Feketekapu B cemetery contained only 30 male burials from the early Avar phase,[67] 7 of them (23 %) were equipped with weapons. (fig. 5.) From the 18 horse burials only two were equipped with weapons: in grave No. 135 arrowheads and a spear[68] and in grave No. 209 a quiver and bow with fitting bone plates[69] were found. From the male burials with weapons 4 was buried with spathae (double-edged swords),[70] 3 with arrowheads[71] and 3 with spears.[72] A significant difference from the Kölked A cemetery is that all of the weapon-burials from the early phase contained close-combat weapons (spear, sword or shield).

[59] Only two pieces are known from the site. Grave A 253 (Kiss 1996, p. 74, Taf. 55/2.), 422 (Kiss 1996, 116, Taf. 79/7.)

[60] Grave Nr. A-29, 31, 39, 107, 142, 211, 227, 253, 257, 259, 260, 264, 268, 324. (Kiss 1996, pp. 228-233.)

[61] 8 examples are known from the site, Grave Nr. A 39 (Kiss 1996, pp. 29, 228, Taf. 26/19.), 142 (Kiss 1996, pp. 53, 228, Taf. 455/12.), 211 (Kiss 1996, pp. 64–65, Taf. 49/18.), 253 (Kiss 1996, 74, Taf. 55/1.), 257 (Kiss 1996, p. 75, Taf. 56/1.), 260 (Kiss 1996, p. 76, Taf. 57/1.), 264 (Kiss 1996, pp. 77–78; Taf. 59/12.), 268 (Kiss 1996, pp. 78-79, Taf. 59/10.).

[62] For the spathae see Menghin 1983, for its presence in Avar burials: Salamon – Erdélyi 1971, pp. 70–71, Kiss 1992, pp. 51, 65, Liste 1.; Kiss 1996, pp. 228-230.; Garam 1995, pp. 342-345.; Kiss 1999/2000, pp. 359–365, Vida 2000, pp. 161–175.

[63] Grave A29 (Kiss 1996, p. 27, Taf. 24/1.), 31 (Kiss 1996, 27, Taf. 24.), 39 (Kiss 1996, 29, 228, Taf. 26/19.).

[64] Grave A 324 (Kiss 1996, 91–92, Taf. 68/12.).

[65] Grave A 259. (Kiss 1987, p. 203. and Kiss 1996, pp. 75–76,. Taf. 57)

[66] Grave A 107 (Kiss 1996, 41, 232, Taf. 34/1.), 227 (Kiss 1996, 69, Taf. 52/8.)

[67] The Early Avar Period is represented in the Kölked B cemetery by the grave-group V, VII,, IX and XIIb (Kiss 2001, p. 393.

[68] Kiss 2001, pp. 67–68, Taf. 40–42,

[69] Kiss 2001, pp. 93-94, Taf. 61-63. This burial belongs to the Middle Avar Period.

[70] Grave B 82 (Kiss 2001, pp. 27–28, II. Taf. 28.), 132 (Kiss 2001, pp. 65–66, Taf. 41.), 336 (Kiss 2001, pp. 115–117, Taf. 75.), 470 (Kiss 2001, pp. 152–153, Taf. 86.)

[71] Grave B 80 (Kiss 2001, pp. 25–26, Taf. 26.), 336 (Kiss 2001, pp. 115–117, Taf. 75.), 470 (Kiss 2001, pp. 152–153, Taf. 86.).

[72] Grave B 80 (Kiss 2001, pp. 25–26, Taf. 24–27, spear: Taf. 26/2.), 82 (Kiss 2001, p. 28, II. 42, Taf. 28/9.) 443 (Kiss 2001, pp. 141–142, Taf. 82, spear: Taf. 82/4.)

In the Környe cemetery 35 of the 50 male burials were equipped with weapons, 5 horse-burials contained weapons (only spears)[73] and there was a female grave. That means that two third of the male burials were equipped with elements of armament. (fig. 6.) The mentioned female grave contained fragments of chain-mail and lamellar armor although their character is more amuletic.[74] The most frequent weapons were arrowheads in graves or other elements of archery. Altogether 21 burials (65,6 %) contained elements of archery,[75] 12 of them (37,5%) were not equipped with close combat weapons.[76] 13 swords have been excavated from burials in the cemetery, most of them are spatha[77] the rest of them are double-[78] or single-edged swords with suspension loops.[79] All of the 4 graves with shield boss (umbo) are associated with swords,[80] but 3 of them were together with archery equipment. This seems to be a so-called 'Überbewaffnung' (over-armament) because the usage of the shield hinders the archery.[81] The axes are relatively rare weapons in the cemetery. Only two pieces are known from the site.[82] (fig. 7.)

[73] Grave 43 (Salamon – Erdélyi 1971, pp.17–18, Taf. 5.); 90 (Salamon – Erdélyi 1971, p. 22, Taf. 15.), 104 (Salamon – Erdélyi 1971, p. 24, Taf. 18), 124 (Salamon – Erdélyi 1971, p. 26, Taf. 124.), 129 (Salamon – Erdélyi 1971, 27, 56, 100: Taf. 22/1, 135, Taf. XVIII/5.)

[74] In the cemetery the following graves had weapons with amuletic character: grave 41. (Salamon – Erdélyi 1971, p. 17. Taf. 5.), 91. (Salamon – Erdélyi 1971, p. 23, Taf. 14.), 106. (Salamon – Erdélyi 1971, p. 24, Taf. 19.), 114. (Salamon – Erdélyi 1971, p. 25, Taf. 19.).

[75] Arrowheads: grave Nr. 7, 17, 39, 71, 99, 103, 128; bone plate of the bow: grave Nr. 3, 54; combined: grave Nr. 10, 18, 23, 24, 60, 66, 75, 78, 82, 100, 109, 147, 149. (Salamon – Erdélyi 1971, p. 51.)

[76] The following burials contained only elements of archery: grave Nr. 7 (Salamon – Erdélyi 1971, p. 14, Taf. 1), 10 (Salamon – Erdélyi 1971, p. 15, Taf. 1.), 17 (Salamon – Erdélyi 1971, p. 15, Taf. 2.), 18 (Salamon – Erdélyi 1971, p. 15, Taf. 2.), 23 (Salamon – Erdélyi 1971, p. 16, Taf. 3.), 24 (Salamon – Erdélyi 1971, p. 16, Taf. 3.), 39 (Salamon – Erdélyi 1971, p. 17, Taf. 5.), 54 (Salamon – Erdélyi 1971, pp. 18-19, Taf. 7.), 60 (Salamon – Erdélyi 1971, p. 19, Taf. 7), 71 (Salamon – Erdélyi 1971, p. 20, Taf. 10.), 82 (Salamon – Erdélyi 1971, p. 21-22, Taf. 13.), 103 (Salamon – Erdélyi 1971, p. 24, Taf. 18.)

[77] Spathae from Környe: grave 8 (Salamon – Erdélyi 1971, 14–15, Taf. 1. sword: Taf. 32/6.), 16 (Salamon – Erdélyi 1971, 15, Taf. 2. sword: Taf. 32/5.), 44 (Salamon – Erdélyi 1971, 18, Taf. 7, kard: Taf. 32/7.), 50 (Salamon – Erdélyi 1971, p. 18, Taf. 6, sword: Taf. 33/1.), 66 (Salamon – Erdélyi 1971, p. 20, Taf. 9. Spatha: Taf. 33/4.), 97 (Salamon – Erdélyi 1971, 23, Taf. 15, spatha: Taf. 33/5, suspension of the spatha: Taf. 15/31-32.), 100 (Salamon – Erdélyi 1971, 23–24, Taf. 17; spatha: Taf. 33/2.) and six stray finds (Salamon – Erdélyi 1971, p. 30, Taf. 33/3, 34/1-2, 34/6-8.)

[78] Double-edged swords: grave 75 (Salamon – Erdélyi 1971, p. 20, Taf. 10, sword: Taf. 32/1, Abb. 4/1.), 109 (Salamon – Erdélyi 1971, p. 24, Taf. 19, sword: Taf. 32/4.), and two stray finds: (Salamon – Erdélyi 1971, p. 30, Taf. 34/4-5.)

[79] Single-edged swords, 8 examples: grave 35 (Salamon – Erdélyi 1971, p. 17, Taf. 5. sword: Taf. 33/6, Taf. XXX/6.), 78 (Salamon – Erdélyi 1971, p. 21, Taf. 12, sword: Taf. 33/9, 12/51.), 99 (Salamon – Erdélyi 1971, p. 23. Taf. 16, sword: Taf. 32/2, Abb. 4/3.), 130 (Salamon – Erdélyi 1971, p. 27, Taf. 23, sword: Taf. 33/8.), 135 (Salamon – Erdélyi 1971, p. 27, Taf 24, sword: Taf. 33/7.), 149 (Salamon – Erdélyi 1971, p. 29, Taf. 26, sword: Taf. 32/3, Abb. 4/2.) and two stray finds (Salamon – Erdélyi 1971, p. 30, Taf. 34/3, 34/9)

[80] Grave 44 (Salamon – Erdélyi 1971, p. 18, Taf. 7.), 66 (Salamon – Erdélyi 1971, p. 20, Taf. 9.), 78 (Salamon – Erdélyi 1971, p. 21, Taf. 12.)

[81] For this term 'Überbewaffnung see Steuer 1970, p. 352. where he suggests that a mounted warrior with a spear fighting in formation cannot use his sword.

[82] Grave Nr. 125, 147. (Salamon – Erdélyi 1971, p. 57.)

Only 43 graves were equipped with weapons[83] from the 786 burials of Szekszárd-Bogyiszlói út cemetery, 4 of them were horse burials[84] and 2 female graves.[85] The rest is 34 male burials with weapons, this is probably one third of the male burials of the period. (fig. 8.) The most frequent weapons are the arrowheads, altogether 27 burials contained them,[86] 20 of them were equipped only with elements of archery.[87] The rest are mixed: 5 of the 9 graves with close-combat weapons contained arrowheads as well. Only 12 graves (among them 4 horse burials) were equipped only with close-combat weapons.[88] The most popular close-combat weapons were the spears (from 10 male graves and 4 horse-burials).[89] The second one is the spatha (Merovingian double-edged sword) from 5 male burials.[90] Two seaxes are found in the cemetery, too.[91] One burial contained only one umbo without any other elements of armament.[92] (fig. 9.)

In the Csákberény-Orondpuszta cemetery 66 weapon graves were excavated, which is one third of the male burials. (fig. 10.) The most frequent weapons were the arrowheads, they were found in 35 graves,[93] however, bone fittings of composite bows were found only in 6 burials.[94] Only 3 swords are known from the cemetery,[95]

[83] Rosner 1999, pp. 123-132.

[84] Rosner 1999, p. 129. Spearheads were found in horse burials Nr. 126. (Rosner 1999, p. 25. Abb. 5, Taf. 10.), 598.(Rosner 1999, p. 76, Abb. 8. Taf. 39), 698. (Rosner 1999, pp. 87-88, Taf. 46.), 754. (Rosner 1999, pp. 95-96, Abb. 11. Taf. 50.)

[85] Both female burial contained pieces of lamellar armour: grave 306. (Rosner 1999, p. 43, Taf. 21.), 644. (Rosner 1999, p. 82, Taf. 43.) and the arrowhead of grave 67 (Rosner 1999, p. 18, Taf. 5.)

[86] Arrowheads were found in the following burials: 67, 82, 97, 111, 155, 191, 216, 225, 297, 335, 350, 354, 357, 360, 368, 471, 478, 605, 618, 620, 621, 622, 636/a, 730, 766, 777, 781 (Rosner 1999, p. 130.)

[87] The following burials contained only elements of archery 67. (Rosner 1999, p. 18, Taf. 5.), 82 (Rosner 1999, p. 19, Taf. 6.), 97 (Rosner 1999, p. 21, Taf. 7.), 155 (Rosner 1999, p. 28. Taf. 12.), 191 (Rosner 1999, p. 32, Taf. 53.), 225 (Rosner 1999, p. 35, Taf. 16.), 297 (Rosner 1999, p. 42, Taf. 20.), 357 (Rosner 1999, p. 51, Taf. 25.), 360 (Rosner 1999, p. 51, Taf. 26.), 368 (Rosner 1999, p. 52, Taf. 26.), 471 (Rosner 1999, p. 64, Taf. 33.), 605 (Rosner 1999, p. 77, Taf. 39.), 618 (Rosner 1999, p. 79, Taf. 40..), 620 (Rosner 1999, p. 79, Taf. 40.), 621 (Rosner 1999, p. 79, Taf. 40.), 622 (Rosner 1999, p. 79, Taf. 41.), 636/A (Rosner 1999, p. 81, Taf. 42.), 766 (Rosner 1999, p. 97, Taf. 50.), 777 (Rosner 1999, p. 98, Taf. 52.), 781 (Rosner 1999, p. 98, Taf. 52.).

[88] 16, 44, 58, 126 (ló), 356, 390, 551, 556, 598 (ló), 677, 698 (ló), 754 (ló),

[89] Grave Nr. 58. (Rosner 1999, p. 17, Taf. 4/1..), 111 (Rosner 1999, p. 23, Taf. 9/1.), 126 (Rosner 1999, p. 25, Taf. 10/2.), 246 (Rosner 1999, p. 37, Taf. 17/1.), 350 (Rosner 1999, p. 48, Taf. 24/15.), 354 (Rosner 1999, p. 49, Taf. 25/14.), 356 (Rosner 1999, p. 51, Taf. 26/9.), 478 (Rosner 1999, p. 65, Taf. 33/5.), 551 (Rosner 1999, p. 72, Taf. 37/1.), 556 (Rosner 1999, p. 73, Taf. 37/5.), 598 (Rosner 1999, p. 76, Taf. 39/2.), 677 (Rosner 1999, p. 85, Taf. 45/5.), 698 (Rosner 1999, p. 87–88, Taf. 46/3.), 754 (Rosner 1999, p. 96, Taf. 50/3.)

[90] Grave Nr. 16 (Rosner 1999, p. 13, Taf. 2/15.), 216 (Rosner 1999, p. 34, Taf. 16/11.), 356 (Rosner 1999, p. 51.), 390 (Rosner 1999, p. 54, Taf. 28/1.)

[91] Grave Nr. 44 (Rosner 1999, p. 16, Taf. 4/3.): a so-called 'Kurzsax', and grave Nr. 350 (Rosner 1999, p. 49, Taf. 24/14.) a 'Breitsax.

[92] Grave Nr. 760 (Rosner 1999, p. 96,, Taf. 50.)

[93] Grave Nr. 4, 10, 14, 71, 78, 89, 95, 100, 111, 150, 155, 174, 210, 211, 222, 226, 236, 245, 256, 262, 278, 280, 289, 337, 344, 365, 369, 370, 376, 377, 380, 395, 397, 398, 451

[94] Grave Nr. 111, 272, 289, 323, 344, 365.

[95] Grave Nr. 10, 86, 150, 210

the most important close-combat weapons were the spears with 19 examples from 15 graves.[96] The spears are mainly excavated in horse-burials (8 graves)[97] and were found only in 6 male graves.[98] The axes are relatively rare finds, only 6 pieces are known.[99] In the Csákberény cemetery the close-combat weapons don't combine with each other. Most of the weapon graves (32 graves, 48,5 %) contained only elements of archery.[100] In 6 burials (9 %) only elements of close combat weapons were found.[101] (fig. 11.)

The Budakalász-Dunapart cemetery is one of the greatest burial sites of the early avar period. Only 172 of its 1566 graves contained elements of armament,[102] 151 of them is male,[103] the rest are horse burials.[104] The proportion of male weapon graves is around 10 % of all burials and one third of the male graves. (fig. 12.) The most frequent weapon finds were the arrowheads in the cemetery, they were represented in 105 graves[105] (69,5 %) and in 11 burials were associated with bone-plates of bows.[106]

[96] Grave Nr. 78, 84, 89, 108, 119, 141, 147, 169, 245, 247, 255, 294, 327, 396.
[97] Grave Nr. 89B, 108B, 119, 245B, 247, 327 and 396
[98] Grave Nr. 44, 78, 84, 147, 169, 255.
[99] Grave Nr. 71, 87, 172, 262, 278, 313
[100] Grave Nr. 4, 14, 71, 95, 100, 111, 155, 174, 211, 222, 226, 236, 256, 262, 278, 280, 289, 337, 344, 365, 369, 370, 376, 377, 380, 395, 397, 398, 451
[101] Grave Nr. 84, 86, 108, 119, 141, 147, 169, 247, 255, 294, 327, 396
[102] Grave Nr. 1, 17, 17A, 18, 19, 20, 21, 22, 38, 45, 47, 55, 68, 73, 85, 93, 141, 153, 172, 179, 180, 200, 205, 218, 219, 223, 245, 254, 260, 271, 281, 291, 299, 300, 313, 314, 316, 326, 331, 334, 341, 342, 378, 384, 389, 424, 432, 437, 440, 447, 451, 452, 453, 464, 468, 479, 480, 490, 495, 496, 497, 510, 522, 529, 540, 545, 551, 560, 575, 577, 580, 588, 598, 600, 607, 615, 621, 622, 626, 628, 660, 662, 665, 666, 670, 673, 680, 688, 689, 696, 698, 705, 710, 715, 719, 728, 751, 756, 762, 773, 778, 794, 800, 808, 820, 831, 832, 851, 882, 887, 892, 893, 896, 917, 930, 939, 942, 953, 972, 993, 1000, 1003, 1024, 1030, 1047, 1056, 1060, 1066, 1077, 1080, 1096, 1124, 1129, 1149, 1156, 1158, 1160, 1162, 1177, 1189, 1212, 1192, 1225, 1235, 1248, 1253, 1271, 1279, 1284, 1295, 1296, 1300, 1302, 1305, 1317, 1330, 1338, 1343, 1359, 1363, 1380, 1384, 1385, 1399, 1400, 1437.
[103] Grave Nr. 1, 17, 17A, 18, 19, 20, 21, 22, 38, 45, 47, 55, 68, 73, 93, 141, 153, 172, 179, 180, 200, 205, 218, 219, 223, 245, 254, 260, 271, 281, 291, 299, 300, 313, 314, 316, 326, 331, 334, 342, 378, 384, 389, 424, 432, 437, 447, 451, 452, 453, 464, 479, 480, 490, 495, 496, 497, 510, 522, 529, 540, 545, 551, 560, 575, 580, 588, 598, 600, 607, 615, 621, 622, 626, 660, 662, 665, 666, 670, 673, 680, 688, 696, 698, 705, 715, 719, 728, 751, 756, 762, 773, 778, 794, 800, 808, 820, 831, 832, 851, 882, 887, 892, 893, 896, 917, 930, 939, 942, 953, 993, 1000, 1003, 1024, 1030, 1056, 1060, 1066, 1077, 1080, 1096, 1124, 1129, 1149, 1158, 1160, 1177, 1189, 1212, 1192, 1225, 1248, 1253, 1271, 1279, 1284, 1295, 1296, 1302, 1305, 1317, 1330, 1338, 1343, 1359, 1363, 1384, 1385, 1399, 1400, 1437.
[104] Grave Nr. 85, 341, 440, 468, 577, 628, 689, 710, 972, 1047, 1156, 1162, 1235, 1300, 1380.
[105] Grave Nr. 17, 17A, 20, 21, 38, 45, 47, 55, 73, 93, 141, 172, 179, 180, 218, 219, 223, 271, 281, 289, 291, 299, 300, 313, 314, 316, 326, 331, 334, 342, 384, 424, 440, 447, 451, 452, 453, 464, 479, 490, 495, 496, 497, 510, 545, 560, 575, 580, 588, 598, 600, 607, 615, 621, 622, 626, 660, 662, 665, 673, 698, 751, 756, 762, 794, 800, 808, 820, 831, 887, 892, 893, 896, 917, 939, 942, 953, 972, 1003, 1030, 1056, 1060, 1066, 1077, 1080, 1124, 1129, 1149, 1160, 1177, 1189, 1192, 1225, 1248, 1253, 1279, 1284, 1295, 1296, 1305, 1317, 1343, 1363, 1384, 1385, 1400, 1437.
[106] Grave Nr. 17, 55, 432, 497, 522, 688, 831, 1284, 1295, 1317, 1363.

In 93 burials (61,5 %) of the site the only weapon finds were the elements of archery.[107]

The most important close-combat weapon was the spear which was found in 54 graves,[108] 12 of them were horse-burial,[109] and 8 burials of men with horses,[110] 34 of them were male graves.[111] Only 7 graves contained an axe.[112] The swords can be regarded as rare weapons, being represented only in 4 graves.[113] In 48 burials (27,9 %) of the cemetery only close-combat weapons were found.[114] Defensive weapons lamellar armor, chain-mail and umbos were found at the site, 9 graves contained elements of armor,[115] but 5 of them are surely amuletic, since no other element of armament was found there. 5 burials contained umbos[116] and two of them even contained hilts of shields,[117] in three cases only arrowheads were found with the shield,[118] but none of them was in combination with any close-combat weapons. (fig. 13.)

5. Concluding remarks

Summarizing the above facts the proportion of the weapon burials among the male graves is unequal. The highest rate was shown by the Környe cemetery, while in other cases only one third of the male population was buried with weapons. Similar but somewhat higher rates can be observed in the case of the Gepidic cemeteries of the Hungarian Plain in the 6th century: the weapon graves normally represented there the 50-60 % of the adult male burials.[119] (Fig. 14)

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[107] Grave Nr. 17, 21, 38, 45, 47, 141, 172, 179, 180, 218, 219, 271, 289, 291, 313, 314, 316, 326, 331, 334, 342, 384, 389, 424, 440, 447, 451, 453, 463, 479, 490, 495, 496, 497, 510, 522, 545, 560, 575, 580, 598, 600, 615, 621, 626, 660, 662, 665, 673, 688, 698, 751, 762, 794, 800, 808, 820, 831, 887, 892, 893, 896, 917, 939, 942, 953, 972, 1000, 1056, 1060, 1066, 1080, 1124, 1129, 1149, 1160, 1189, 1192, 1248, 1253, 1279, 1284, 1295, 1296, 1305, 1317, 1343, 1363, 1384, 1385, 1400, 1437.

[108] Grave Nr. 1, 19, 22, 55, 68, 73, 85, 93, 200, 223, 245, 260, 281, 299, 341, 432, 437, 452, 468, 480, 529, 540, 551, 577, 666, 670, 680, 689, 696, 705, 710, 715, 719, 728, 778, 832, 851, 930, 993, 1003, 1024, 1047, 1077, 1096, 1156, 1158, 1162, 1177, 1225, 1235, 1271, 1300, 1330, 1338, 1380,

[109] 22,22% of the burials with spear. Grave Nr. 85, 341, 468, 577, 689, 710, 1047, 1156, 1162, 1235, 1300, 1380.

[110] 14,8 % of the burials with spear. Grave Nr. 93, 200, 223, 245, 260, 480, 529, 832.

[111] 62,96% of the burials with spear. Grave Nr. 1, 19, 22, 55, 68, 73, 281, 299, 432, 437, 452, 540, 551, 666, 670, 680, 696, 705, 715, 719, 728, 778, 851, 930, 993, 1003, 1024, 1077, 1096, 1158, 1177, 1225, 1271, 1330, 1338.

[112] Grave Nr. 205, 223, 254, 588, 710, 715, 756.

[113] Grave Nr. 1, 18, 20, 153.

[114] Grave Nr. 1, 18, 19, 22, 68, 85, 153, 200, 205, 245, 254, 260, 299, 341, 437, 468, 480, 529, 540, 551, 577, 666, 670, 680, 689, 696, 705, 710, 715, 719, 728, 778, 832, 851, 930, 993, 1024, 1047, 1096, 1156, 1158, 1162, 1235, 1271, 1300, 1330, 1338, 1380,

[115] Grave Nr. 55, 281, 378, 437, 628, 773, 882, 1302.

[116] Grave Nr. 300, 607, 622, 1212, 1359

[117] Grave Nr. 300, 1359

[118] Grave Nr. 300, 607, 622

[119] Szentes-Nagyhegy 61 %, Szentes-Berekhát 56 %, Kiszombor 31 %, Szentes-Kökényzug 24 %, Hódmezővásárhely-Kishomok 12 % (31 % of the male burials) (Nagy 1993, p. 65.), Szolnok-Szanda

It is interesting to observe that the rate of the burials furnished exclusively with elements of archery is relatively high, and in the case of Szekszárd-Bogyiszlói út and Budakalász-Dunapart the dominance of the distant-combat weapons is evident. The rate of burials with close-combat weapons is relatively high in Környe and Kölked, but still low comparatively to the Merovingian cemeteries of Germany where the burials with elements of close-combat weapons are dominating with 68,5 %.[120] (Fig. 15)

The most important close-combat weapon is the spear in these cemeteries, however most of these weapons were found in horse-burials and this kind of deposition is unknown from the Merovingian cemeteries, but known from Gepidic ones.[121] The combinations with shields is very interesting in the early Avar cemeteries of Transdanubia, since in some cemeteries such as Szekszárd and Budakalász they were only found in combination with arrowheads or without any other weapon. This is not typical for the Germanic cemeteries of the period while in the cemeteries of Kölked and Környe the combinations are characteristic for their western equivalents.

The characteristic weapon-combinations for the Merovingian cemeteries can be found only in Kölked and in Környe, although in the latter one the deposition of spears is equivalent to the Early avar rite. The composition of weapons in Szekszárd, Budakalász and Csákberény is much more connected to the find-material of other areas of the Avar Khaganate.

To conclude, the abovementioned early Avar cemeteries of Transdanubia are characterized by the relatively high number of close-combat weapons compared to other sites of the Avar Khaganate. However, comparing to Merovingian sites the burials containing only close-combat weapons are very low and in most of the cases the weapon-combinations characteristic to this culture is missing. Transdanubia can be seen as a bridge between the Nomadic Avaria and the Germanic Merovingian world, characteristics of both can be observed, and however it belongs to neither of them. This region composes an interesting cultural mixture both using Western and Eastern elements and combining it in a unique manner even in the field of warfare.

48 % (of the male burials), Szőreg-Téglagyár 49 %. The average rate of the weapon-burials among the male burials is 44 % in Gepidic cemeteries.

[120] Reiß 2007, p. 223.

[121] Törökszentmiklós–Batthyányi utca 54/A, Grave A (Cseh 2005, pp. 43–44.)

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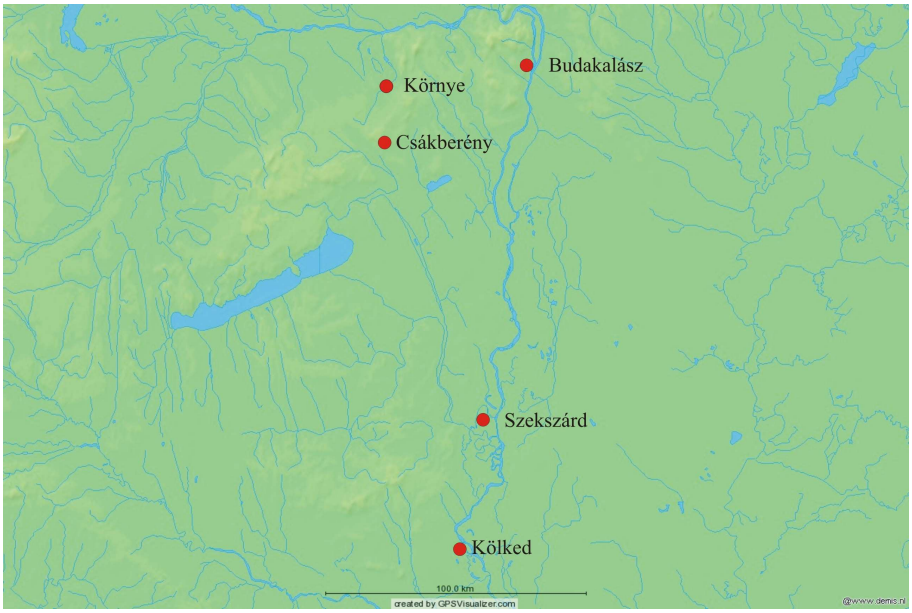

Fig. 1. The geographical distribution of the sites studied

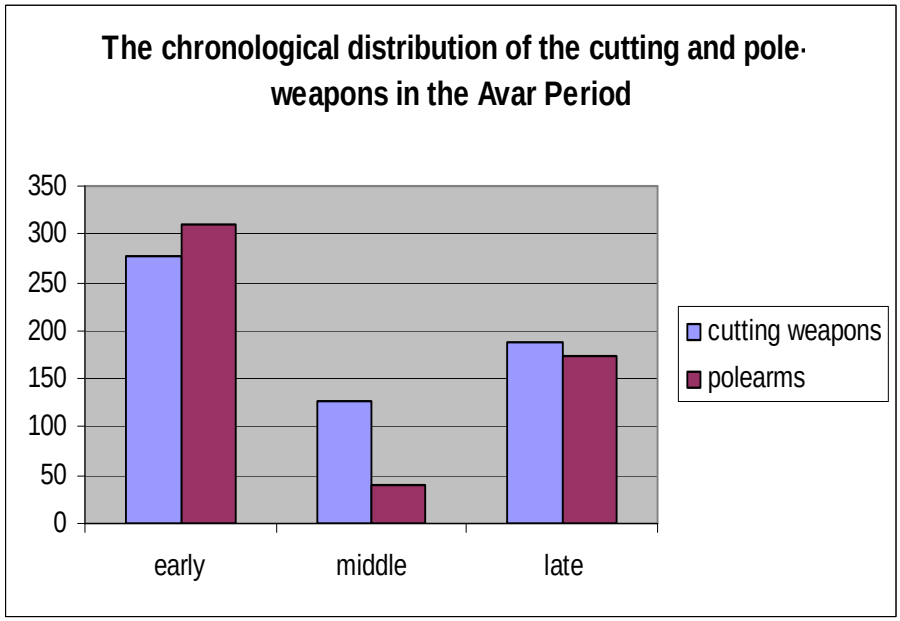

Fig. 2. The chronological distribution of cutting and pole weapons of the Avar Period

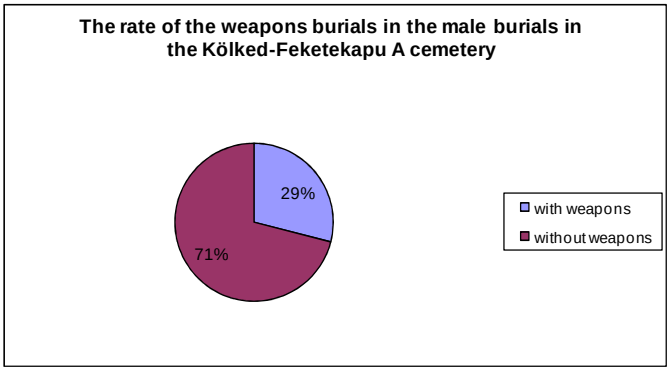

Fig. 3. The rate of weapon-burials among the male burials in the Kölked-Feketekapu A cemetery

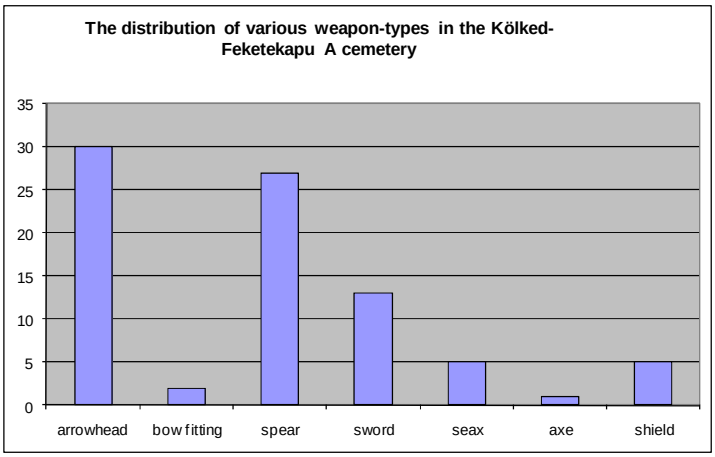

Fig. 4. The distribution of various weapon-types in the Kölked-Feketekapu A cemetery

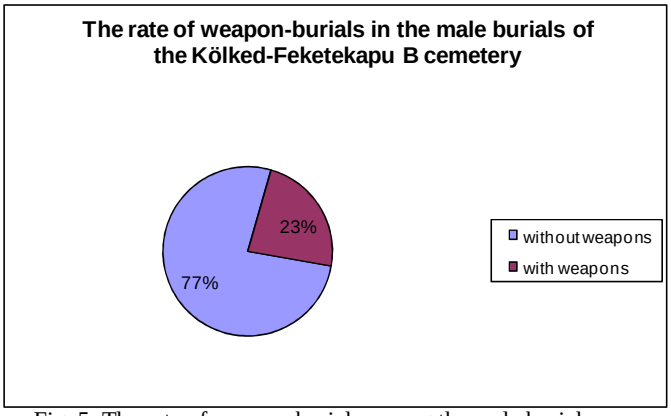

Fig. 5. The rate of weapon-burials among the male burials in the Kölked-Feketekapu B cemetery

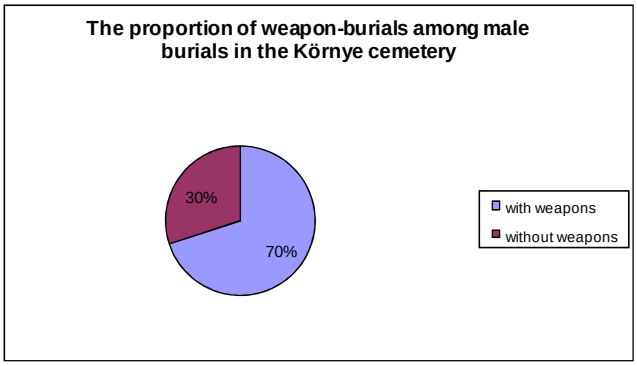

Fig. 6. The rate of weapon-burials among the male burials in the Környe cemetery

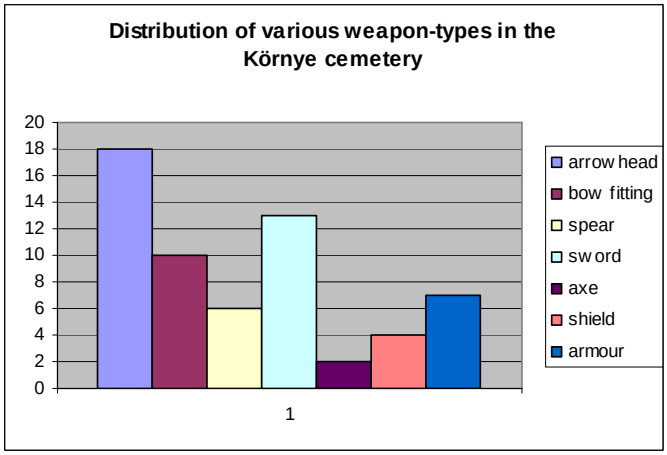

Fig. 7. The distribution of various weapon-types in the Környe cemetery

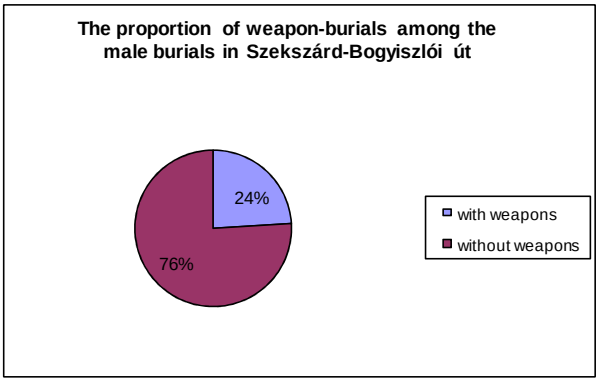

Fig. 8. The rate of weapon-burials among the male burials in the Szekszárd cemetery

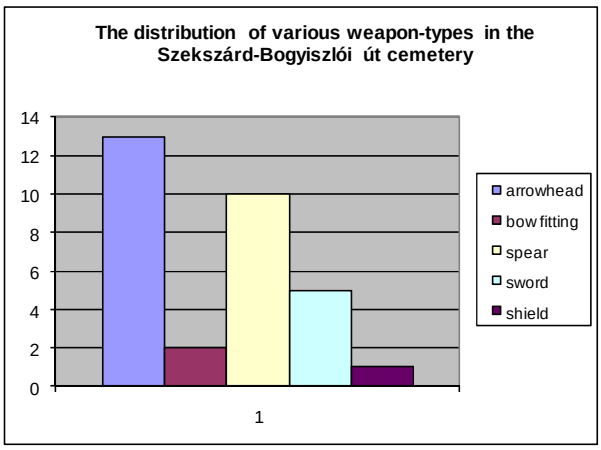

Fig. 9. The distribution of various weapon-types in the Szekszárd cemetery

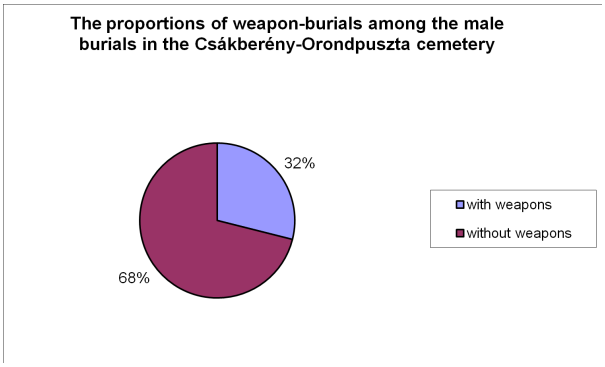

Fig. 10. The rate of weapon-burials among the male burials in the Csákberény cemetery

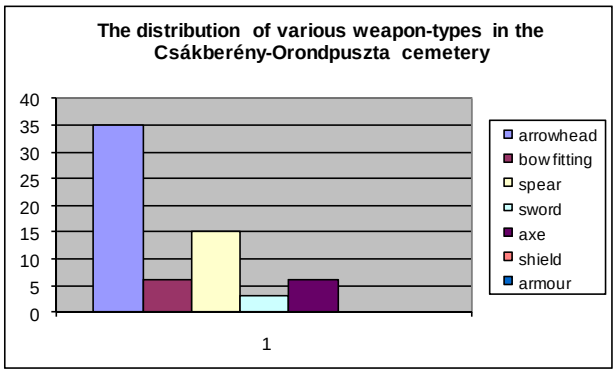

Fig. 11. The distribution of various weapon-types in the Csákberény cemetery

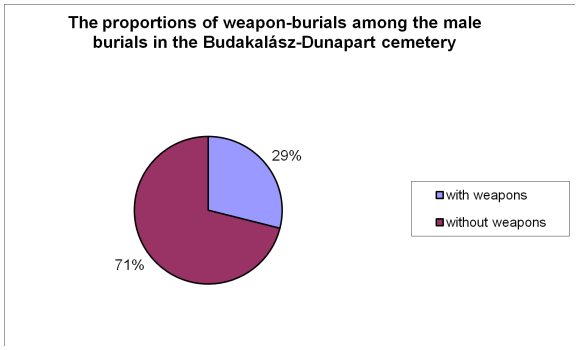

Fig. 12. The rate of weapon-burials among the male burials in the Budakalász cemetery

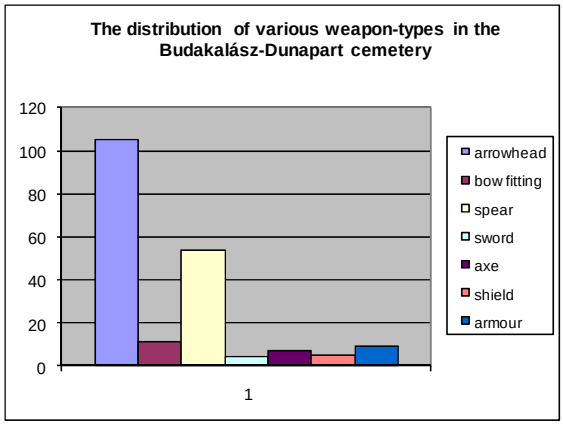

Fig. 13. The distribution of various weapon-types in the Budakalász cemetery

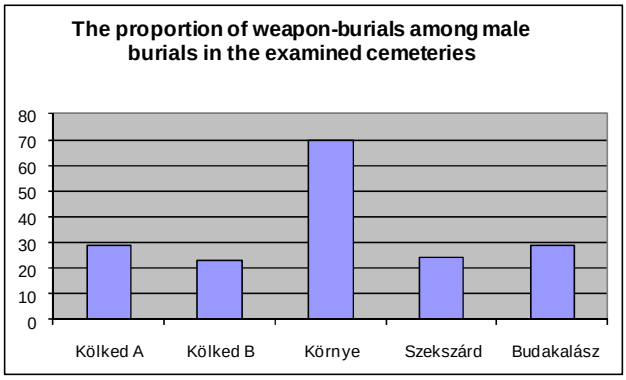

Fig. 14. The proportion of weapon-burials among the male burials in the examined cemeteries

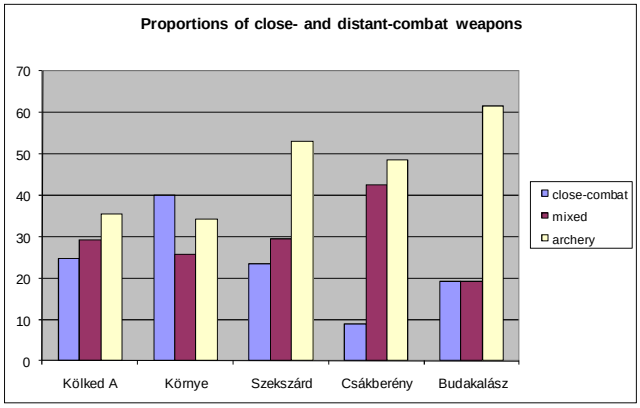

Fig. 15. The proportion of the close- and distant-combat weapons in the examined cemeteries

Byzantine Time Swords (10th–11th Centuries) in Romania

Valeri YOTOV*

Keywords: *Early Middle Ages, Byzantine Sword, Sword-guard, Pommel, Varangians*

Abstract

The author points his attention to several published and unpublished swords and parts of swords of Byzantine time, discovered in Romania. Defining the kind of weapons by origin (manufacturing), or linking them to a certain ethnic group or army is largely conditional – each soldier had used an effective weaponry, whether it was made in a local workshop, produced in a workshop during a military campaign, or received as a gift or trophy. Thus, it is difficult to determine if some of the weapons mentioned in some studies (particularly swords), are definitely Byzantine, Arabic, Indian, etc.

The author gives new interpretation some already published Byzantine swords (from Sfintu Gheorge (Sepsiszentgyörgy), Covasna County and for a sword-guard and pommel of a sword found in the Păcuiul lui Soare fortress. For the sword from Sfintu Gheorge (Sepsiszentgyörgy), Covasna County, he proposes the hypothesis that it is of Byzantine origin, found in Bulgarian cemeteries dated from the second half of 9th – first years of 10th centuries. For the pommel from Păcuiul lui Soare fortress the author gives numerous parallels – all dated to the second half of 9th – 10th centuries.

Based on the fact that there are two quite similar in shape sword-guards: one from Păcuiul lui Soare fortress and another one from Pliska the author derived the conclusion that they belong to a new type of sword (or more precisely sword-guard). This type should be described as Byzantine and the name "Pliska (1948) type" has been suggested for it.

Giving a comment on four unpublished swords kept in two museums in Romania the author suggested that the sword from Giurgiu museum is also Byzantine and dated it to the 10th century, while the three others from Constanța museum are of Scandinavian origin. He believes, that the last ones would have reached the area close to the mouth of the Danube during the Varangian-Russian military and commercial raids to Constantinople from 9th to mid-11th centuries or due to the recruitment of Varangians and Normans (Engli/sh and Dani/sh too) by the Byzantine Empire in middle 11th century and later.

About weaponry of Middle Ages, from the territory of Romania and neighboring countries, it was marked that a lot of it was of Byzantine origin or was from the time of Byzantine influence in the Middle and Lower Danube[1]. Objective analysis had been given in recent archaeological studies too that these finds could be also associated with the Avars, the Bulgarian Power up north of Danube River, and with

* Museum of History, Departament of Archaeology, Varna/Bulgary (valeri.yotov@gmail.com, yotov_arch@yahoo.com).

[1] Horedt 1986, S. 97, 149, Abb. 62; Nicolle 1999, p. 38 (No 42). Kovács 1994–1995, S. 174, Abb. 7.

the movement of the Magyars to the Middle Danube River[2] or, last but not least, with the Varangians (Scandinavian mercenaries) in Byzantium's army[3].

However, the main concern is to individuate the criteria able to determinate which kind of weaponry can be definite as Byzantine weaponry (the swords especially).

Here we should note that defining the kind of weapons by origin (manufacturing), or linking them to a certain ethnic group or army is largely conditional – each soldier had used an effective weaponry, whether it was made in a local workshop, produced in a workshop during a military campaign, or received as a gift or trophy[4].

For the production of weapons in the Byzantine Empire there are only a few written sources that are discussed repeatedly. In Ceremonial book there are references about the manufacturing of arms in Constantinople[5]. The eminent specialist of the Byzantine weaponry, T. G. Kolias, also notes that the Empire was quickly to fit its technology to the best technical innovations of its enemies (often its neighbors)[6]. Thus, is difficult to determine if some of the weapons mentioned in separate studies, particularly swords, are Byzantine, Arabic, Indian, etc.[7]

I. Publishing Byzantine swords from Romania territory – new interpretation

1. *The sword from Sfântu Gheorghe* (Sepsiszentgyörgy), Covasna County (fig. 1)

The sword was discovered in 1943 when a brickyard was built in the town. In a destroyed grave (at a depth of 50 cm) was found a skeleton located in the East – West, but it is unclear where the head was (presumably – to the West). In the pit of the grave was also found the skull of a horse. In addition there was found one spear-head (length – 14 cm) with sleeve (diameter 2 cm), one knife and other metal pieces. Z. Székely, who first published information from the find, dated the grave, and accordingly the sword, between the 5th–7th centuries[8].

To my knowledge, the opinion of a Byzantine origin of this sword was first expressed by A. Kiss, who included it in a group of swords found in the Carpathians. A. Kiss briefly analyzed the characteristics of the funeral ritual, and noted that in the Carpathian region this was typical for 10th–11th centuries and connected it with the Magyars[9].

The sword is 81,5 cm long (75,5 cm – blade; 6 cm – handle), maximum width of the handle – 2 cm. There is no trace of bone or wood on the handle. The sword-guard is bronze – a total of 11,5 cm.

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[2] See the last in: Madgearu 2002–2003 (2005), pp. 41–65 and literatures; also: Ţiplic 2006, pp. 44–47.
[3] Popa 1984, S. 425–431.
[4] Йотов 2004, с. 10.
[5] De cer., 674, 3.
[6] Kolias 1988, S. 27.
[7] Ada Bruhn Hoffmeyer notes that many martial techniques and weapons – for example the use of the sword (saber) - especially come to Europe from Islamic world (***Hoffmeyer*** 1961, 43). See also D. Nicolle commentary on the weapons from Shipwreck at Serçe Limani, Turkey (Nicolle 1999, p. 122, commentary from fig. 292: A-P).
[8] Székely 1945, pp. 1–15; Idem 1948, pp. 61–64.
[9] Kiss 1987, S. 199–202, 206–207, Abb. 7 (in note 80 A. Kiss offers gratitude to I. Bóna, who has declared similar opinion in "Die Geschichte Siebenbürgens" – manuscript of 1977).

In my opinion, A. Kiss' analysis can be corrected, mostly based on the studies of Z. Székely – which we are not in front of a single grave but of an entire necropolis. Indeed we do not possess data whether this necropolis was investigated and what the results were. The placing a skull of a horse is a characteristic from the 9th – 10th century of a funeral ritual common to Avars[10], Proto-Bulgarians[11] and Magyars[12].

On the basis of the archaeological investigations, a few Romanian scholars directed their attention to the Bulgarian influence north of the Danube River[13]. Especially for Southern Carpathians, the Proto-Bulgarian archaeological culture is present, generally in two areas located in Southern and South-eastern Transylvania (the cultural group – Blandiana-A, also called Alba Iulia). The first area is around Alba Iulia (Balgrad) where are located several settlements and cemeteries in the city (the 1200 graves site of Stația de salvare II – Țiplic 2006, 75), the fortified settlement and necropolis of Blandiana, the settlement of Salnik (Câlnic) and necropolis of Sanbenedik and Sebeš. The second area is around Poiana, Černat, Sfântu Gheorghe, Covasna County, where settlements are located and according to my analysis – the necropolis, too [14]. I am not aware of early Hungarian necropolis in this area.

I would like to remind that it is object of discussion if the ethnic group Szekler (Szekel), who inhabits nowadays the territory between the rivers Mureș and Olt, is descendant of the Magyarized Turki people[15].

The dimensions and characteristics of the sword (such as the width of the blade – around 6,5 cm) point to a dating from the second half of 9th to the beginning of 10th century.[16]

Thereby, I propose the hypothesis that the sword from Sfântu Gheorghe (Sepsiszentgyörgy) in Covasna County is of Byzantine origin, found in Bulgarian cemeteries dated from the second half of 9th to the first years to 10th centuries[17].

2-3. Sword-guard and pommel of the sword found in Păcuiul lui Soare fortress.

In the book for the fortress on the Danube island Păcuiul lui Soare have been published two pieces of swords for which I think that maybe a identification as Byzantine is highly probable. Both are broken, so the author S. Baraschi presented

[10] Балинт 1995, с. 43–44.
[11] Аксенов, Тортика 2001, с. 199–200. Рашев 2008, с. 198.
[12] Bálint 1971, pp. 85–108 (http://epa.oszk.hu/01600/01609/00015/pdf/MFME_EPA01609_1971_2_085-108.pdf); Балинт 1972, с. 177–178.
[13] Comșa 1960, pp. 395–422 and notes 14.
[14] Madgearu 2001, 277; ***Pinter*** and collab. 2006, pp. 44–48; Țiplic 2006, 75–86; Székely 1972, pp. 125–128.
[15] The question about the origin of the Szekler (Szekel) ethnic group is very difficult and it is out of our topic, Милетич, Агура 1893, с. 272–273; Miklosich 1856, S. 105–146; http://www.britannica.com/-EBchecked/topic/579333/Szekler.
[16] For one bad reconstruction (the blade is no correct; pommel is fiction) to the Sfântu Gheorghe sword see in: http://www.myarmoury.com/talk/viewtopic.php?t=8927&highlight=
[17] Yotov 2011-a, in print.

them reconstructed. I think that they are correctly defined as: pommel (tip of the handle of a sword) and sword-guard[18].

2. Pommel of the sword from Păcuiul lui Soare fortress (fig. 2-a)

The pommel from Păcuiul lui Soare fortress has many parallels. A good example of comparison is a very well preserved sword (fig. 2-b) found southwest of Lake of Balaton in Hungary: grave 55 in Garabonc-I necropolis, dated to the second half of 9th century. The author, B. M. Szőke defined this sword as Byzantine[19].

Similar pieces, defined as pommels of a sword were found in Bulgaria: one in a 10th century dug-out in Abritus (near Razgrad, North-eastern Bulgaria) in a the Middle ages layer (fig. 2-c)[20], another one (fig. 2-d) in a 10th century layer in Pliska[21], one (fig. 2-e) with numerous other weapons and equipments abandoned after the battle of Drastar in 1087[22].

There is another one of similar shape and made of silver, dated to the 10th century with inscribed dedication to "The Prince Abi`l Ghanā`im Manşūr Billah",now in the Rifaat Sheikh al-Ard Collection, Geneva (fig. 2-f)[23].

I known more pictorial parallels of this presented pommels, but I turn my attention especially to the Fresco of Joshua (10th century) from Hosios Loukas monastery in Boeotia, Greece (fig. 2-g)[24].

3. Sword-guard from Păcuiul lui Soare fortress

For the sword-guard is set a very close parallel found in the first capital of the First Bulgarian Kingdom – Pliska[25].

There are a few attempts to define the types of described swords as Byzantine[26]. In several articles I was able to define types of Byzantine swords. The main conclusion that I made regarding the methodology of determining the types is that especially for swords, and other stab-cutting weapons, the most often used attributed typological characteristics are related to the handle, the shape of the pommel and especially the sword-guard. In other words, the typology of swords is often "a typology of the sword-guards"[27].

[18] Diaconu, Baraschi 1977, p. 137, Pl. XX-9, 11.

[19] Szőke 1992, S. 92–96, taf. 18; 20 63; Szőke, 1994, S. 251–317 http://www.archeo.mta.hu/-hun/munkatars/szokebelamiklos/ZM_05_1994.pdf). The sword has been recently published in the impressive catalogue of RZGM (curator Falko Daim), Byzanz, Pracht und Alltag, 2010, p. 293.

[20] Дзанев 2007, с. 378, обр. 12. Found with small hoard of 11 solids, 10 belong to Constantin VII with Romanos (945–959) and one of Nicephorus II Phokas with Basil (963–969).

[21] No published. I express my gratitude to Dr Janko Dimitrov for his permission to publish this find.

[22] About the Drastar battle see: Yotov – 2008, p. 257–268.

[23] See: Nicolle 2002, pp. 162, fig. 27.

[24] Chatzidakis 1997, p. 16, fig. 5.

[25] Станчев 1955, с. 207, рис. 24.

[26] Dawson 2007, p. 28; Eger, 2011 (forthcoming). I would like to express my deeply thanks to Dr C. Eger for the information about his article.

[27] Yotov 2011-b, p. 115. Hungarian scholar B. Fehér also noted that the primary indication of their origin was the uniform style of their hilts. See: Fehér 2001, pp. 157–164, note 18.

Uniformity of the sword-guard from Păcuiul lui Soare fortress and sword-guard from Pliska rise to define a new type of sword (more precisely sword-guard), which can be described as Byzantine – the Pliska (1948) type[28].

II. No published swords

4. The sword from Giurgiu museum, found near Calarasi

The sword was found in Danube River near Calarasi in 1978. Dimensions: complete length 92 cm, length of the handle 10,5 cm.

In the inventory book and at the in the museum exhibition, the sword is defined as Byzantine and dated in the 9th–10th century (sabia Bizantina de sec. IX-X). It has been mentioned it was found in the waters of the Danube River. I would like to point out that the length and the width of the blade, has no fuller, which gave me a reason to agree with the opinion of the colleagues at Giurgiu museum, but I believe that it should be dated more precisely in 10th century.

5-7. Three Scandinavian swords in the Constanța museum

In the Middle ages section of the archaeological exhibition at the museum in Constanța there are presented three swords that are left outside attention of specialists[29].

One of them (fig. 5-a, b) was found nearby the village Albeşti (west of Mangalia), the others two (fig. 6–7) come from somewhere in the inland Dobrudja.

In European literature there are many archaeological studies of medieval swords classifications, but almost all are based on a study of J. Petersen from the early 20th century[30]. In the absence of more information about finding place, swords from the museum in Constanța can also be identified and dated using the Norvegian scholar' scheme.

5. Sword from Albesti, west of Mangalia (fig. 5-a, b)

The sword from Albeşti has upon one side a stamp (fig. 5-c), and on the reverse side there is probably, the inscription "Ulfberht" (fig. 5-d). After J. Petersen's classification, it belong to the type V. J. Petersen placed this type in the earlier part of the 10th century[31], but from the Balkans the dating is later, from the second half of 10th – to the early 11th centuries.

6. Sword of unidentified finding place (fig. 6)

Has preserved the tiny type pommel"D" shaped, the simple right sword-guard and the upper part of the blade with fullers.

[28] I am calling this type "Pliska (1948)" because in a special article I defined another type (Pliska 2005) based on three uniformity sword-guards, one found in Pliska in 2005. See: Yotov 2011, pp. 118–119.

[29] I would like to express many thanks to the colleagues from museum in Constanța – G. Costurea for permission, and V. Voinea for cooperation.

[30] Petersen 1919, pp. 158–166; Peirce 2002; Oakeshott 1960; Maure 1977, S. 95–116.

[31] Petersen 1919, pp. 154–156, plate III.

After J. Petersen's classification, it belongs to the type X, dating from the second half of 10th to the early 11th centuries[32]. A few scholars think that the type X swords started a new typology at 11th – 12th centuries.

7. Sword of unidentified finding place (fig. 7)

The sword is preserved without pommel. Over the blade have good shown fullers.

The condition of sword allow us to compare it with the sword of type E or W of Petersen, dated at the turn of 9th – 10th centuries[33].

The main ways through which these artifacts of Scandinavian origin would reach the lands in the mouth of the Danube were the Varangian-Russian military and commercial raids to Constantinople from 9th to middle 11th centuries and the recruitment of Varangians and Normans (Engli/sh and Dani/sh too) by the Byzantine Empire in middle 11th century and later[34]. Besides the Scandinavian mercenaries, i believe, some of the artifacts are connected with the Pechenegs who had direct commercial and military contacts with the Kiev State in 10th – early 11th centuries, and since 1050s were settled south of the Danube.

I hope that by remembering some published sword and parts of swords and publishing new swords, new attention can be drawn on other weapons kept in Romanian museums, maybe of Byzantine origin.

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[32] Petersen 1919, pp. 158–167, figs. 124, 127, 128.

[33] Petersen 1919, pp. 156–157.

[34] Васильевский 1908. (http://annals.xlegio.ru/byzant/vasiljevsk/1_03.htm); Blöndal, Benedikz 1978.

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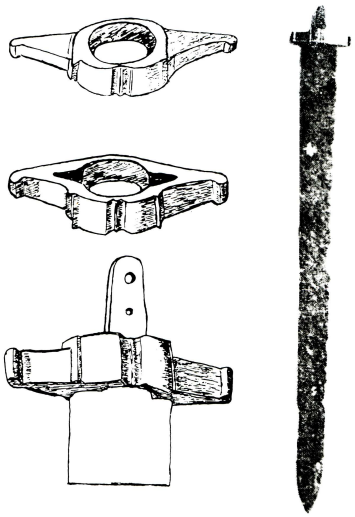

Fig. 1: Sword found in destroyed grave in Sfântu Gheorghe (Sepsiszentgyörgy), Covasna county

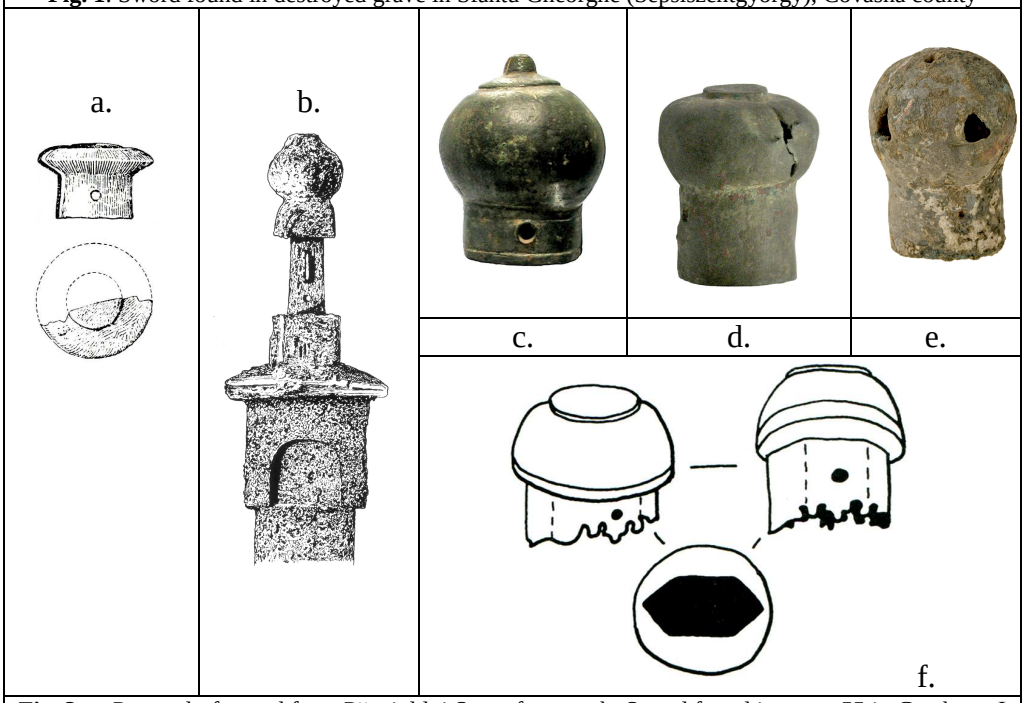

Fig. 2: a. Pommel of sword from Păcuiul lui Soare fortress; b. Sword found in grave 55 in Garabonc-I necropolis, Hungary; c. Pommel of sword found in a 10th century dug-out in Abritus, Bulgaria; d. Pommel of sword from Pliska– first capital of First Bulgarian Kingdom; e. Pommel of sword found south of Silistra, with numerous other weapons and equipments abandoned after the battle of Drastar in 1087; f. Pommel of silver one of 10th century with inscribed dedication to "The Prince Abi`l Ghanā`im Manşūr Billah"

g(1).

g(2).

Fig. 2: *Similar shape of pommel of swords presented in frescoes: g(1). Fresco of Joshua (10th century) from Hosios Loukas Monastery in Boeotia, Greece; g(2). Fresco of Joshua (10th century) – detail*

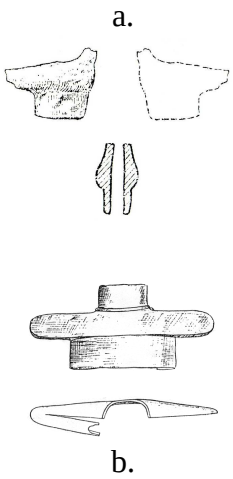

Fig. 3: a. Sword-guard from Păcuiul lui Soare fortress; b. Sword-guard from Pliska – first capital of First Bulgarian Kingdom

Fig. 4. Sword found in Danube River near Călăraşi (now in Giurgiu Museum)

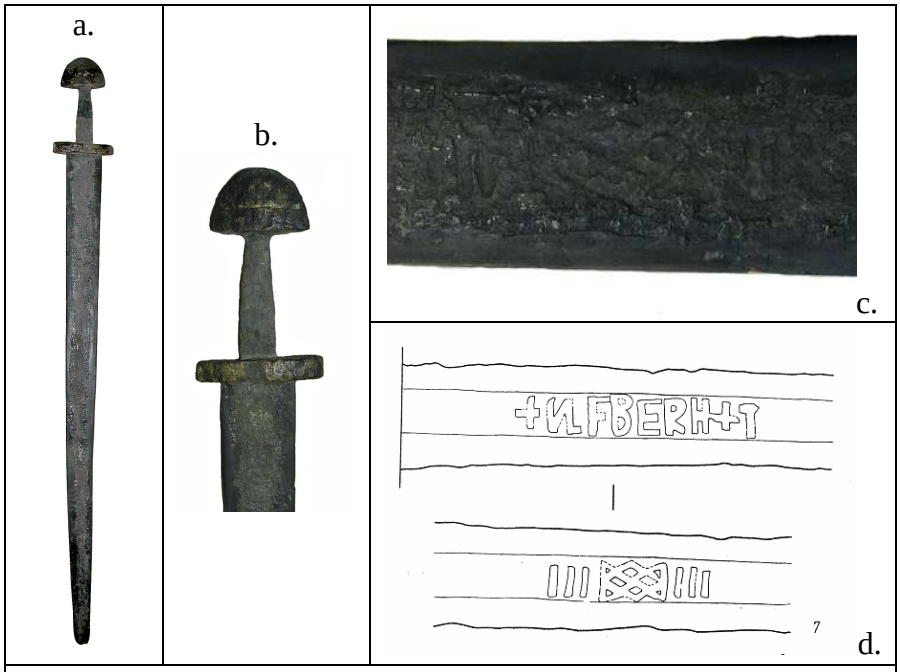

Fig. 5: a. Sword found in Albeşti (jud. Constanța); b. Upper part of sword from Albeşti; c. Sign stamped on one side of the sword from Albeşti; d. The possible sign of Ulfberht on the other side of Albeşti sword

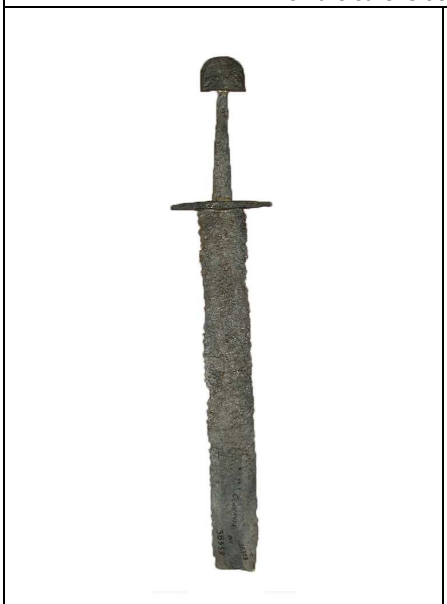

Fig. 6. Sword from the region of Northern Dobrudja

Fig. 7. Sword from the region of Northern Dobrudja

Why so Many Viking Age Swords in Norway?

Anne STALSBERG*
Oddmunn FARBREGD**

In memoriam Kasper Andresen (1925-2011)
Blacksmith of the sword research group in Trondheim

Keywords: *Norway, Viking Period, Vlfberht Type Swords*

Abstract

The overwhelming number of 9th-10th century swords found in Norway has tentatively been explained by the generous Norwegian burial rites. This explanation holds well when opposed to the Christian countries where grave goods were disapproved[1]. The explanation does not hold good when compared to the low number of swords found in other pagan countries, not even Sweden and Denmark, which were neighbors and culturally related to Norway.

Logically it does not seem reasonable that Norway should have had so many more weapons than Sweden and Denmark, not to mention the military superpower Frankia. All the same, it seems that a comparatively rather larger part of the adult and free men[2] were buried with weapons in Norway than in other countries.

Many swords reflect many swords, but few swords do not reflect few swords. Few swords reflect only how many swords were buried in graves and hoards, and also how many have been found and even taken care of, not how many there once were.

None of these thoughts explain why so many Norwegians were buried with weapons in the 9th -10th centuries. Therefore I sought advice from my retired colleague Oddmunn Farbregd, who for many years has studied the largest Iron Age cemetery in Norway, on Vang in the inland valley Oppdal, 120 km. south of Trondheim.

Introductory note (Anne Stalsberg)

During conferences in Torun, Poland, in December 2001 and in Sibiu, Romania, in October 2010, I presented papers on the question why so many 8th -9th century swords have been found in Norway, using swords with blades marked Vlfberht as example, since 44 out of 166 known Vlfberht swords in Europe have been found in Norway. The question about the Vlfberht blades can, however, not be answered isolated from the total number of swords; when it is explained why so many swords *in general* have

* Førsteamanuensis i arkeologi. NTNU Vitenskapsmuseet (anne.stalsberg@vm.ntnu.no).
** Museum of Natural History and Archaeology, Trondheim, Norway.

[1] Geibig visited some 600 museums and collections in West Germany when preparing his dissertation (Müller-Wille in the *Vorword des Ausgebers* in Geibig 1991).

[2] According to medieval Norwegian laws free and adult men were obliged to show their weapons at the weapon assemblies (Solberg).

been found in Norway, it is also explained why so many Vlfberht blades have been found there[3].

When working on the article I sought the advice of my retired collegue Oddmunn Farbregd, who for several years has been studying the Vang cemetery, the largest late Iron Age grave field in Norway, where Viking Period weapons also have been found. He kindly agreed to write, as part 2, about the sword finds from the cemetery *Vang* as a highly relevant and illustrative case study.

1. *The sword finds* (Anne Stalsberg)

More Viking Period swords have been found in Norway than in any other European country, - more than 3 000, three thousands. It is a a riddle why so many swords have been found in graves in this sparcely populated country, far north, with rather sparce nature resources, a tough nature and tough climate. Even to-day only 3.5 % of the country's area of 323 802 square kilometers are cultivated agricultural land.

„More than 3000 swords" is a formidable number, but *how* formidable it really is, can be estimated only when compared to the number of finds from other European countries. At this point researchers face problems, since it is difficult to find out exactly enough how many swords have been found in the different countries. With reservations, however, some numbers help throwing the large number of Norwegian swords into relief.[4]

The German archaeologist Alfred Geibig in his *Katalogbeilage* of *Kombinationstypen 1-19* refers the numbers of swords found in European countries, based mainly on relevant main literature[5], but his numbers are obviously too small. For example he quotes only 267 swords from Norway, obviously unaware that information about all swords found in Norway is accessible as the catalogs of the Norwegian archaeological museums have been published since at least 1866 (first in the yearbooks of the *Society for the Preservation of Ancient Norwegian Monuments (Foreningen til norske fortidsminnesmerkers bevaring*), and later in the yearbooks of the museums.

Geibig's list of swords makes the *real* Norwegian number far too large in relation to finds in other countries. According to more recent information from colleagues and other sources it has been possible to find these numbers:

-Sweden - ca. 700 swords[6]
-Denmark - close to 80 swords (information from colleagues)
-Ireland - 90 swords[7]
-Poland - 220 swords (personal communication 2010 from Piotr Pudlo)
-Russia - 47 swords

[3] cf. Stalsberg 2005; 2009
[4]
[5] Geibig 1991, Katalogbeilage.
[6] Martens 2003, p. 52.
[7] Walsh 1998, p. 225. The relatively large number of swords in Christian Ireland is explained by the number of Vikings there, especially from Norway.

- Ukraine - 26 swords[8] (for both countries: it is unknown how many more swords later have been found in these two countries).

In Geibig's undoubtedly exact catalogue from Bundesrepublik Deutschland, i.e. the previous West Germany[9] I have counted some 163 swords which have been found in the pagan northern areas of West Germany.

According to Geibig's catalogue 275 swords have been found in countries which were parts of Frankia: -Austria -11, -Belgium -5, -Switzerland -4, -France -37, -the Netherlands -41, plus 184 from the southern *Linksrheinisches* West Germany.

-- *Number of swords versus size of population*

The ratio between the number of swords and 9th -10th century population would have been very informative about how frequent swords really were. But, the estimated sizes of populations are „relying partly only on conjectures".[10] Used with great care and criticism the estimated size of populations may, roughly, give an impression of the correlations, or rather lacking correlations between population size and the number of swords found in their areas.

A couple of examples are instructive:

Calculations by Norwegian historians of the population in Norway in the middle of the 14th century, have given results varying from 300 000 to 500 000 persons[11]. Those two populations would give ratter different frequencies of swords.

According to Geibig's catalogue 275 swords have been found in areas belonging to Frankia (*ut supra*). The American historian Bernard Bachrach discussed the sizes of the armies which were mobilized under the Carolingian and suggested „a total mobilization of armies of expeditionary operations on all fronts in the 100 000 range"[12]. Such a figure makes it even more striking how many swords have been found in Norway with a very small population compared to Frankia where a hundred thousand soldiers may have been mobilized.

-- *But why so many swords in Norway?*

When I first discussed this question, I referred to two factors: find circumstances and research activity[13].

In Christian countries grave goods were disapproved of, the swords are mainly waterfinds (lost or thrown into rivers), while in pagan Europe they come from graves with grave goods. Norway stands out among the pagan countries, since generous, sometimes lavish burial rites were practized, more than in other countries.

[8] Kirpichnikov 1966, catalog p. 74ff.
[9] Geibig visited some 600 museums and collections in West Germany when preparing his dissertation (Müller-Wille in the *Vorword des Ausgebers* in Geibig 1991).
[10] Russel 1981-1983, p.14.
[11] Krag 2000, p. 249f.
[12] Bachrach 2001, p. 58.
[13] Stalsberg 2009, p. 100.

The difference between Christian and pagan burial rites is relevant vis-a-vis the Christian countries in the west and south, but not when compared to other pagan countries in the east and southeast. Sweden is a striking example of the latter, since the Swedes were pagan as long as Norwegians, but only ca. 700 swords are known from Sweden. The duke of the Poles was baptized in 966 AD and 220 swords have been found in Poland.

The Danes were christened around 960 AD, 80 swords are known to have been found in Denmark. It may be that the Danes were influenced by their Christian super power neighbor, Frankia, and therefore practised more sparse burial rites.

Research activity is a significant factor. A striking example is that the number of Vlfberht blades in Norway, Sweden, Russia and Ukraine have been noticeably increased by the Russian archaeologist A. N. Kirpichnikov, who looked for inscriptions, especially Vlfberht in these countries.

A third factor is well known to museum archaeologists: because of the *size* of the swords they are more easily found during agricultural work and other works in the soil, - more earlier, when such work was done by hand tools, but even from a tractor or an excavator, swords are more easily seen than small objects.

It may also be a factor that medieval and prehistoric objects found in the soil by a law passed in 1905 are state property and must be handed over to one of the archaeological museums.

2. *An interpretative model* (Oddmunn Farbregd)

The Vang cemetery includes ca. 800 round and oval barrows and flat graves, too, from ca. AD 400 – 1000 at least. Cremation is the only rite found. Internal clustered distribution of barrows show that in the end ca. AD 1000 about 35 farms used their separate parts of this common ground[14].

This is a distinctive contrast to the usual pattern elsewhere in the country, with graves placed on the home ground of their respective settlement units[15].

Inspired by excavations and studies of a plentiful artifact material, it is tempting to formulate a few hypotheses about the resources spent on funeral display: Uneven regional distribution of swords and weapon graves more generally, is probably most of all related to different social formations and stratifications. Lavish funeral display - and subsequent “wasteful” burial of valuables - makes sense as demonstrations and craving of status/honor among equals at a certain level. In the present case the level is the basic Norse free holding farm/family unit before the transition to kingship, represented by male and female heads of those units[16], on the basic importance of honor in the early Icelandic society, as reflected in later sagas.

In more stratified and pyramidal power structures such low level power demonstrations and waste of „taxable” resources are simply inimical to the very

[14] Farbregd 1989; 1984; Farbregd et al. 1993; Frøttum 2001.
[15] cfr. Skre 1998; Solberg 2000.
[16] Cfr. Meulengracht Sørensen 1995.

interests of superior power (like kingship): The need for authority, resources for administration, military power, warfare, defense projects, trading settlements of different kinds etc. Thus, the lack of lavishly furnished graves among the population at ordinary settlement level - as in the South Scandinavian Late Iron Age - is a strong argument for, not against, social formations like Danish kingship and early state formation reaching back to the Migration Period[17].

It seems likely that these interwoven hypotheses may be tested in regional studies.

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[17] cfr. Sawyer 1988; Hedeager & Tvarnø 1991; Mortensen & Rasmussen (eds.) 1991; Jensen 2004.

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"From Every Side Armed with a Cross Sign". A Crusader's (?) Sword from the Collection of the Hungarian National Museum in Budapest

Arkadiusz MICHALAK*

Keywords: *Crusade period, Swords, Jerusalem Cross, Hungary, Luis the Great*

Abstract

Despite strictly military character of Crusades, surprisingly there are only few swords and its parts which can be connected with this campaigns and its ideology. It is worth mention of a swords found in the Palestine: sword pommel of Pierre de Dreux, Duke of Brittany and two swords found in the waters of Atlit Castle and another at Dor castle as well as connected with Prussian Crusades: Ottokar's II of Bohemia sword from Santok and swords found in River Tina and Pregoła. Another sword which can be connected with crusades or crusades ideology comes from the collection of Hungarian National Museum in Budapest. According to E. Oakeshott's classification it represents type XVIa, K, 1. The sword can be dated to the 14th cent. The special issue about it is that it's the only sword that bears a Jerusalem Cross sign on its blade. This symbol, which has clear crusading indications, was extremely popular among medieval knighthood. Trying to explain the Budapest' sword riddle we should pay attention to historical events which its production can be connected with: the European journey of king of Cyprus Peter I de Lusignan, Templars, Teutonic Knights and Hospitallers houses in medieval Hungary, crusades organised against the Turks in the Balkans by Louis of Hungary and his claims for the crown of Kingdom of Naples and Jerusalem.

None of the big military campaigns are more associated with the knighthood and its attributes than the Crusades. Started by Pope Urban II at the Council of Clermont in 1095, they were initially a series of religiously sanctioned war expeditions which had the goal to recapture Jerusalem and the Holy Land from the Muslim rule in the period between 1095 and 1291[1]. Afterwards the term was also used to describe campaigns conducted until the 16th cent. in territories outside Levant (also in Central Europe), usually against pagans, heretics and people under the ban of excommunication[2]. Crusades had far-reaching political, economic and social impacts and also influenced weaponry used at that time[3].

Crusading warfare was the result of a mutual Byzantine and Arab-Islamic impact on the Western European military tradition[4]. Considerable changes were especially notable in the use of swords. By the late 11th cent., the use of the sword belt as a way of carrying a sword was very common. However, the baldric or shoulder strap was

* Archaeological Museum of the Odra River Teritory in Zielona Góra, Poland (a.michalak@muzeum-swidnica.org).

[1] See: Riley-Smith 1999a; Murray 2006, for previous literature on this subject.

[2] See: Runciman 1951; Runciman 1952; Runciman 1954, for previous bibliography.

[3] Smail 1956; Nicolle 1987; Bouzy 1996; France 1999.

[4] Nicolle 1999, pp. 7-10.

apparently readopted in 13th cent. Outremer perhaps because they were suitable for fighting on foot in defensive siege warfare[5]. In contrast, the Frankish cavalry elite were among the first Christian warriors to copy the long-established Middle Eastern fashion of carrying two swords: one on a belt and the other attached to the saddle[6]. Some scholars thought that some forms of sword pommels originated in the time of crusades. Late A. Bruhn-Hoffmeyer supposed that discoid pommels appeared in that time[7]. However, some early examples of this kind of pommels have been already known in the 10th cent. – e. g., the sword from a grave, discovered near Cloughton England[8].

Crusades as war campaigns had a strictly military character; however, scholars could be seriously surprised how few examples of swords can be related to these expeditions and their ideology[9]. It is worth mentioning a bronze sword pommel of Pierre de Dreux, Duke of Brittany and Earl of Richmont who went on crusade twice (in 1238 and 1249) and fought with Louis IX in the 2nd battle of Mansūrach in 1250. The sword was found in a bazaar in Damascus in the 1920s and it is now in the collection of the Metropolitan Museum of Art in New York[10]. One side of the pommel is decorated with the arms of Dreux quartered with the ermine of Brittany, while the other side has a shield bearing a red cross on a green ground (a badge often adopted by French Crusaders) and is decorated with vines[11] (Fig. 1: 3). In the waters of Château Pélerin (also known as the Atlit Castle), one of the major fortresses of the Knights Templar built during the Fifth Crusade, two badly corroded swords were also found. One of these had a disc-shaped pommel and a guard bent towards the blade[12]. Another sword was found offshore at another Templar castle - Dor (Merle)[13].

The Church's consecration of the art of war was remarkable in the age of crusades[14]. Taking part in crusades not only provided one with military experience

[5] Nicolle 1991, pp. 306-307; Nicolle 1992, p. 333.
[6] Nickel 2002, p. 120.
[7] Bruhn-Hoffmeyer 1979-1980, p. 55.
[8] Oakeshott 2002, p. 1.
[9] There may be several reasons for this. Weapons captured by Arabs could be destroyed, reforged or reused (Nicolle 1992, p. 327). We found information in written sources that in the 12th cent. the citadel of Aleppo was decorated with swords and weaponry that were captured from the Crusaders. This *provided a spectacle which people admired for seven days* (Robinson 2010). Despite many references to loss of swords included in the Rule of the Temple, it often took place. According to this regulation damage or loss of swords could be punished by the loss of the habit or by expulsion (Upton-Ward 1994, No. 607, 562). Weapon of the crusaders could also been given as votive offerings to Christian churches, as shown in the testament of Barzella Merxadrus, a crusader from the city of Bologna (Morris 1952, p. 197). It can also be caused by the fact that large numbers of swords are anonymous and we do not know who their owners were or whether they went on crusades (Oakeshott 1991, pp. 14-16).
[10] Grancsay 1939, p. 212.
[11] Nicolle 1999, cat. 33A-B.
[12] Ronen, Olami 1978, pp. 37-38; Boas 2009, p. 174.
[13] Rozenberg 1999, p. 129, pl. 4; Boas 2006, p. 191.
[14] Erdmann 1974, p. 253.

but it also meant a considerable prestige and forgiveness of all sins[15]. Crusaders treated weapons that they used during the crusade as a testimony of taking the cross to Jerusalem. Later on, such weapons became important family heirlooms which proved truly knightly family praise. The case of Jean d'Alluye demonstrates the importance of this testimony for crusaders. He ordered that after his death a sword that he used or brought from crusade be depicted on his stone effigy. The hilt of his sword, as said by H. Nickel, *has a compact guard and a trilobate pommel totally different from the fairly standardized cruciform hilts in use in Western Europe*. The pommel has a central bulbous element emerging between two outward-turning scrolls and the quillon has sharply sloping shoulders ending in tiny upward-curling finials[16] (Fig. 1: 4). It is probably of Chinese origin, maybe the *chên* type[17].

We also knew examples of swords which are regarded as having been given as a remembrance of taking part in Baltic Crusades. It is worth mentioning the sword found in Santok, which was ornamented with the depiction of advancing mounted knights, which can symbolise a crusade. One of two triangular shields ornamenting the sword's blade had the image of a lion, and there is a cross potent on the other side of the blade (Fig. 1: 1). This sword probably belonged to Ottokar II of Bohemia (1233-1278) and may been given to him by the Teutonic Knights in remembrance of his participation in the Baltic crusades in 1255 and 1267[18]. P. Bohm[19] relates this sword to the royal participation in the campaign at the first date, while M. Głosek[20] says that the sword was manufactured after 1267. There is also a sword from the collection of the Deutsches Historisches Museum. Its heraldic program (a shield with a climbing lion and a shield with a cross potent)[21] inclined M. Głosek[22] to connect this sword with the crusades. This specimen has been related to John the Blind of Bohemia (1296-1346) who went on crusades undertaken by the Teutonic Knights against pagan Lithuania in 1328/1329, 1336 and again in 1345[23]. A. R. Chodyński[24] connects two other sword parts (from the River Pregoła[25] and Frombork[26]), decorated with a coat of arms with an eagle and a lion on the pommel with participation of

[15] Chronicler Guibert of Nogent wrote: *God was now offering knights a fitting means of salvation that did not require them to abandon their way of life or to don the monk's habit: the holy war* (Flori 1998).
[16] Nickel 1991.
[17] D. Nicolle suggests that it can be a Middle Eastern or Spanish-Muslim form of a light sword (Nicolle 1995, p. 290).
[18] Seger 1912; Brackmann, Unverzagt 1936, Fig. 39; Knap 2009.
[19] Bohm 1924.
[20] Głosek 1973, p. 56-57.
[21] Müller, Kölling 1981, cat. 21.
[22] Głosek 1984, p. 80.
[23] Iwańczak 2002.
[24] Chodyński 2008, pp. 104.
[25] Most scholars connect this sword with Conrad of Thuringia, Landgrave of Thuringia and the Grand Master of the Teutonic Knights (died 1240) (Müller, Kölling 1981, p. 362, cat. 9; Oakeshott 1991, p. 94; Chodyński 2008, p. 104). M. Głosek thought that it had belonged to Władysław of Opole, Jobst of Moravia or Sigismund, Holy Roman Emperor (Głosek 1973, p. 152, cat. 198).
[26] Chodyński 2003, p. 29; Chodyński 2008, p. 106, il. 6.

eminent guests in the Baltic crusades. They are, however without any cross sign. On the other crusader sword (from the River Tina) there is a depiction of a cross crosslet sign[27], which was often used by the Knights Templar[28] (Fig. 1: 2).

Crosses which crusaders wore on their clothes were not only supposed to defend them. They were also to remind their bearers of their double mission: the holy war and the pilgrimage[29]. The French historian Orderic Vitalis (d. 1142) described the meaning of the cross for crusaders in *Historia Ecclesiastica*, using the words of Elias de la Flèche, Count of Maine (who wanted to go on crusade): *Our Savior cross [...] I want to put on my shield and my helmet and all my weapon, and attach to my saddle and my reins holy cross, to everyone, who'll raise weapon against me, should know that man that he raised sword against, is a warrior of God*[30]. Raymond of Saint-Giles, one of the First Crusade's leaders was even described in written sources as *from every side armed with the cross sign*[31].

In the world's collections there is a large number of swords which bear various types of cross sign: a Greek cross[32], a cross potent[33], a Latin cross[34], a cross fleury[35], a cross patée[36], a cross pommée[37], a cross crosslet[38]. There is however only one sword, from the collection of the Hungarian National Museum in Budapest (inv. 53. 181)[39], which bears a Jerusalem Cross sign on its blade (Fig. 2-3). This emblem may connect the sword with crusades or crusade ideology. This sword has a long tapering blade, broad at the hilt, with a sharp and strongly reinforced point. The well-marked fuller is quite short but longer than a half of the blade length. The pommel is of a disc form. According to E. Oakeshott's classification, the sword represents Type XVIa, K, 1. The British scholar suggested that swords of this type were most popular at the end of the 14th- the beginning of the 15th cent. The earliest examples, however, are known from Italian paintings from the beginning of the 14th cent.[40]. Type K pommels are rare c. 1260 and they become common (mostly in art) between 1290 and 1350. They appear rather seldom after c. 1480[41]. The Style 1 cross guard gives no further

[27] Chodyński 2003, p. 28; Chodyński 2007, p. 485.
[28] Oakeshott 1998.
[29] Contamine 1999, p. 68.
[30] Seitz 1965, pp. 127-128.
[31] Histoire 1924, p. 36, 72, 84; Hill, Hill 1962.
[32] Aleksić 2007, cat. 64, 99, 100, 138, 358, 363.
[33] Müller, Kölling 1981, p. 167, cat. 23; Głosek 1984, p. 57; Aleksić 2007, cat. 69; Chodyński 2011.
[34] Głosek 1984, pp. 60-62; Aleksić 2007, cat. 36.
[35] Müller, Kölling 1981, p. 164, cat. 21.
[36] Oakeshott 1991, p. 93.
[37] Bordi 2008, p. 247, 250, 15 tabla. The cross sign from this sword consists of points in four cantons, which is very similar to the sign used on the coins of Guy of Lusignan (Metcalf 1996).
[38] Oakeshott 1991, p. 99, 212.
[39] I am greatly indebted to Prof. Marian Głosek from the Institute of Archaeology of the University of Łódź for giving me a permission for publishing documentation about this find. I would also like to thank Prof. Jerzy Maik and Dr Piotr Strzyż from the Institute of Archaeology and Ethnology of the Polish Academy of Sciences, Łódź Branch, for their kind help and access to this documentation.
[40] Oakeshott 1997, pp. 63-65.
[41] Oakeshott 1997, p. 96.

chronological information[42]. The typological traits of the sword from the Hungarian National Museum indicate that it can be dated to the 14th cent.[43].

The Jerusalem Cross consists of a large cross potent and four smaller Greek crosses in four cantons[44]. They signify the five Holy Wounds of Christ[45]. Four small crosslets are identified as a symbol of 4 kingdoms which participated in the First Crusade. The central cross reminds people of the crucified Christ, the Saviour of our world, and the four smaller ones represent the four Gospels (Matthew, Mark, Luke, and John). The origin of the Kingdom of Jerusalem's sign is vividly discussed among historians, genealogists and heraldists. Some of them point out its similarity to the cosmic cross sign (a cross potent with 4 small balls/crosses in each canton) – an axis mundi symbol related to the cross of Christ, which is known from the early Middle Ages[46]. Other scholars tried to connect it with the family of the Defender of the Holy Sepulchre: Godfrey of Bouillon (1060-1100) and his brother Baldwin I (1058-1118), the future king of Jerusalem[47]. On the Bayeux Tapestry, a source from the 11th cent., there is a depiction of Eustace of Boulogne, who carried an elaborated banner identified as a papal banner[48]. The sign from this flag is identical with the afore-mentioned cosmic cross. The coat of arms of Counts of Boulogne [i.e. Bouillon] was three red balls on a gold ground[49]. In the later iconography Godfrey is often depicted with the Jerusalem cross on his chest, e.g. at the Castello della Manta (c. 1420)[50] (Fig. 4). It could be that the former symbol was later reused as his emblem, which can be proved by the fact that there are not any depictions of the Jerusalem cross on the coins and seals of Godfrey of Bouillon and Baldwin I from the time of their rule[51]. This opinion was confirmed by R. von Collenberg[52], who claimed that the common emblem for the Kingdom in its own time was a red cross on a white ground. According to W. Smith[53], King Baldwin III of Jerusalem (1141-1162) used a plain white flag, to which a yellow cross was added by King Amalric I (1162-1173). H. Pinoteau[54] stated that the earliest representation of the Jerusalem cross (cross potent between crosslets) can be seen on the seal of a nephew and ward of John of Brienne

[42] Oakeshott 1991, p. 113.
[43] Głosek 1984, kat. 474; Aleksić 2007, cat. 112.
[44] Neubecker 1997, p. 233; see: Dinkler 1967.
[45] Rosiński 1995, pp. 72-73. The author is indebted to Mr Tomasz Kurasiński MA from the Institute of Archaeology and Ethnology of the Polish Academy of Science, Łódź Branch for his help with accessing literature on the symbolic meaning of the cross.
[46] Kobielus 2000, p. 210.
[47] Anderssohn 1947.
[48] Bayeux 2004, p. 194.
[49] The Benedictine monk Matthew Paris, who compiled England's first roll of arms in the mid-13th cent., depicted Godfrey of Bouillon bearing the arms of a gold cross on a white ground (Woodcock, Robinson 1988, p. 7).
[50] Zorzi 1992.
[51] Schlumberger 1943; Malloy, Preston, Seltman 1994.
[52] von Collenberg 1983.
[53] Smith 1975.
[54] Pinoteau 1983.

(1170-1237). The seal can be dated to c. 1227. According to the French scholar, the arms of Jerusalem also appear on a reliquary called *la cassette de Saint-Louis* which he dates to 1236. T. Woodcock and J. M. Robinson[55] thought that the Jerusalem cross sign was not associated with the Kingdom of Jerusalem until the mid-13th cent., when Hugh de Lusignan took the title. Since then the emblem also became a symbol of the city of Jerusalem[56].

From the end of 13th cent. the sign was also carried by several royal dynasties on their coats of arms. Trying to explain the Budapest' sword riddle, we should pay attention to the Lusignan dynasty[57], which was one of the families using the Jerusalem cross sign in the 14th cent. In the late 12th cent., through marriage and inheritance, a cadet branch of the family came to control over the Kingdoms of Jerusalem and of Cyprus[58]. Since the reign of Henry II (1270-1324), the last Frankish king to rule in the mainland of Palestine[59], the Lusignan dynasty as the nominal rulers of Jerusalem[60] used the Jerusalem cross sign as their family coat of arms[61] (Fig. 5). The reign of the Lusignans was dominated by plans of a new crusade to the Holy Land and maybe in this way they wanted to stress their connection with Jerusalem and the *Kingdom of Heaven*. King of Cyprus Peter I of Lusignan (1328-1369) who was preparing a new crusade was aware of paucity of his army. He decided to undertake a journey to Western Europe to persuade Christian sovereigns to organise a new campaign. He visited Venice, Avignon, London, Paris, Aquitaine, Rheims, Prague, and Vienna, and asked his hosts to aid him in preparing a crusade[62]. What is important for our considerations is that the King of Cyprus took part in the Congress of Cracow in 1364[63]. He met there Louis I the Great King of Hungary (1326-1382)[64], who affirmed his support for a crusade and even swore his own participation in it[65].

[55] Woodcock, Robinson 1988, p. 7.

[56] Pilgrim badges in a form of a Jerusalem cross were worn by pilgrims on their way to Jerusalem (Bruna 1996, p. 57-58, cat. 20-21).

[57] The family originated in Poitou near Lusignan in Western France in the early 10th cent. (Smail 1982; Riley-Smith 1999).

[58] Painter 1957; Arrignon 1994; Richard 1997; Gerish 2002.

[59] Edbury 1991; Molin 2006.

[60] In 1243, the High Court of St-Jean-d'Acre declared Conrad, the son of Frederick II Hohenstaufen deposed and assigned the regency to the kings of Cyprus. In 1268 the crown itself was also assigned to them.

[61] The sign very often appears on the Lusignans' coins from this time (Malloy, Preston, Seltman 1994; Metcalf 1996). There are however noticeable differences in the form of the cross between particular signs. A large cross potent had a centrally placed field in a form of a square. It sometimes had an additional oval in the centre of the field, or rays from each corner of the square. Four smaller crosses are in most cases of a cross pattée form. Greek crosses (crosslets) appeared on the coins of Louis, Duke of Savoy (1412/1413-1465), who married Anne of Cyprus, a princess and a heiress of Cyprus and Jerusalem. They can also be seen on the coins of James II (the Bastard) of Cyprus (1464-1473) and his wife Catherine Cornaro (1454-1510).

[62] Burkiewicz 2007.

[63] Dąbrowska 1994; Szczur 1998.

[64] Zajączkowski 1929, pp. 217-228; Wyrozumski 1986, pp. 134-138; Czamańska 2002, p. 136.

[65] de Machaut 1877, pp. 40-41; Housley 1984.

Louis was strongly interested in plans for new crusade because of the Turkish expansion which directly threatened the borders of the Kingdom of Hungary and its influences in the Balkan region[66]. Even though the Cyprian swords from this time are of quite different forms[67], we can suppose that the sword from Budapest could have been a gift from Peter which he gave to the Hungarian king during this meeting (Fig. 6). Eventually, Louis did not participate in the crusade[68]. However, we cannot exclude that some unnamed Hungarian knight took part in it and in remembrance of that event he ordered to make this sword.

This assumption can be proved by the analysis of distribution of analogous forms of swords in Europe. Type XVIa blades are the most widely distributed late medieval sword blades in Central Europe. M. Głosek in his monumental work enumerated over 131 swords of this type from this territory[69]. Over 70 specimens of this type come from south-eastern Europe[70]. The quantity of Type K pommels is relatively high among the finds from south-eastern Europe including over 40 specimens[71]. In European collections there are only 5 fully analogous swords. They were found in the River Piana near Anklam in Germany[72], the Lake Balaton in Hungary[73] (Fig. 7: 1) and the site of Vodica in the Jakovački Ključ forest in Serbia[74]. Two other swords are in the collection of the Hungarian National Museum in Budapest[75] (Fig. 7: 2-3).

Analyzing the distribution of Type XVIa, K, 1 swords in Europe, we can note that apart from the sword from Anklam, sword hilts of this kind were more popular in the

[66] Wyrozumski 1986, p. 136; Dąbrowska 1994, p. 264; Grodecki 1995, p. 69; Głodek 1997, pp. 22-23.

[67] It has been suggested that some of these swords from the arsenal of Alexandria were captured by the Mamluks during the crusade of Peter I (Alexander 1984; Oakeshott 1991, p. 113) (Fig. 6). All swords from Alexandria were engraved with dedicatory inscriptions often including the name of the depositor and the date on which it was placed in the arsenal (Combe, Cosson 1937; Combe 1938; Mann 1963; Alexander 1984; Kalus 1991; Oliver 1999; Thomas 2003; Robinson 2010). The swords connected with Peter's crusade (Alexander 1984, Nos 1-6,14,48,49) are all very similar and all are dated to 1367/1368 and 1368/1369. If they were captured in 1365, one must assume that the Mamluks caught a small unit with identical arms and then kept their weapons elsewhere for two years before donating them to the Alexandrian arsenal. Most of these swords are of Type XIIIb, K, 5 (Oakeshott 1991, p. 113). Yet another form of a sword was depicted on the 14th cent. St George's wall painting from the Church of Panagia Phorbiotissa Asinou in Cyprus. The depicted sword has a quillon which bends towards the blade (Nicolle 1992, Fig. 44; Hunt 2006).

[68] Lutrell 1965; Edbury 1977; Edbury 1991; Edbury 1993; Bliznyuk 2001; de Machaut 2001; van Steenbergen 2003.

[69] Głosek 1984, p. 29.

[70] Aleksić 2007, p. 89.

[71] Aleksić 2007, p. 54-58.

[72] Głosek 1984, cat. 113.

[73] Based on the coat of arms depicted on this sword (a shield with a field divided into 3 sections and a double cross on the other side), G. Nagy and J. Hampel considered its connections with the Hungarian noble family of Aba, and the town of Levoča. According to them it was manufactured in Košice (Nagy 1894, II.XV.3; Hampel 1899, p. 83, fig. 12). M. Głosek suggested that this sword probably belonged to Béla IV (1206-1270) King of Hungary (Głosek 1984, cat. 419).

[74] Šercer 1976, p. 43-44, cat. 8, T. I/2; Aleksić 2007, cat. 238.

[75] Kalmar 1971, p. 61, kép. 101/a; Głosek 1984, cat. 471; Aleksić 2007, cat. 112 and 138.

territory of the Kingdom of Hungary. This can lead to a conclusion that the sword from the Hungarian National Museum is of local origin[76].

The Neapolitan Angevins, who ruled Hungary since 1308, were strongly connected with the crusades movement. Charles Robert's actions in that field (including the foundation of St. George's Order)[77], were greatly seeming; however, Louis I was vividly interested in these matters[78]. Suffice is to say that at the age of 17 he participated with John the Blind in the crusade against pagan Balts in 1345[79]. We should remember that the ancestry of Louis I from the younger branch of the Anjou dynasty ruled Jerusalem in the period between 1131 and 1205[80]. In 1269 Marie d'Antioche, the daughter of Amalric I King of Jerusalem, ceded her rights to the Kingdom of Jerusalem to Charles I (1226-1285) King of Naples. The pope confirmed it in 1277[81]. Hence Louis of Hungary also used the title of the King of Jerusalem in his royal titulary[82]. This title and the symbol were also used by relatives of the Hungarian Angevins – the rulers of the Kingdom of Naples[83]. Both branches of the family went to a conflict after the murder of Louis' younger brother Andrew, Duke of Calabria, probably by his wife Joan I of Naples. Louis embarked on an expedition against Naples in revenge. It is possible that this sword was connected with claims of Louis I for the crown of the Kingdom of Naples, which he later captured for several times (1348–1352)[84].

Besides political reasons, the origin of the Budapest sword could be connected with ideological reasons. The idea of fighting against the infidels was very lively among the knighthood until the end of the 16th cent.[85]. The cross from the blade could have symbolically sacrificed the weapon targeted against infidels. During the reign of Louis of Hungary the crusades organised against the Turkish danger in the Balkans took place. We should consider swords connection with the campaigns of Louis I against the Turks at Nicopolis in 1366 and later in 1374 in Wallachia[86]. Worth

[76] Obviously, we need to take into consideration the fact that the sword was made in the style and with the hilt of the popular type in Hungary especially for Peter's journey. It seems, however, to be less probable. Examples of swords which were gifts were rather made in local traditions (Aleksić 2007, cat. 57, 127).
[77] Bulton 1990.
[78] Housley 1984.
[79] Conrad 1972; Paravicini 1989-1995.
[80] Runciman 1952; Berténi 1987.
[81] Housley 1984a; Grierson, Travaini 1998, p. 210.
[82] See: Housley 1984. Joan I (1328-1382), the Queen of the Kingdom of Naples was often depicted with a Jerusalem cross on her clothes, e.g. *Boccace. De mulieribus claris. Cognac*. 15th-16th cent. Bibliothèque Nationale de France, cote François 599. 93v. From the reign of Charles I, such crosses also appeared on the coins of rulers of Naples, but always on the field divided into two or four parts, with another coat of arms of hereditary lands (Grierson, Travaini 1998, pp. 207-254).
[83] Léonard 1954.
[84] Bellér 1986.
[85] A convenient example of a weapon decorated in such a manner is an armet type helmet from the collection of the Musee de l'Armee. It bears a Jerusalem cross sign and it can be dated to c. 1580 (Reverseau 1982, p. 163, Fig. 11).
[86] Housley 1984; Vardy, Grosschmid, Domokos 1986; Czamańska 1996.

mentioning is also the crusade of Nicopolis in 1396, widely regarded as the last large-scale crusade of the Middle Ages, which failed to stop the advance of the victorious Ottomans led by Bayezid I (1360-1403)[87]. The crusader army was composed of allied forces from the Kingdom of Hungary led by their king Sigismund I, France, the Knights Hospitaller, and the Republic of Venice, as well as smaller contingents and individuals from elsewhere in Europe[88]. The Nicopolis was the first battle where the Ottomans encountered a Western European army and it was a last unified engagement of western troops fought against the Turks for more than 100 years[89].

We should also remember about Templars[90], Teutonic Knights and Hospitallers[91] houses in medieval Hungary, which can be traced to the midd-12th cent. These orders very strongly cultivated crusades traditions, also giving donations for the support of the Holy Land as well as sending their brethren and recruits to Palestine. After the dissolution of the Templars at the beginning of the 14th cent. their possessions were secured by the Hospitallers[92]. Most of the St. John's order's brethren from houses in Hungary came from Italy and despite large number of local members of the Order, the Hungarian noblemen did not participate in the leadership of the Hospitallers[93]. Even though these orders used different kinds of signs[94], they also clearly referred to the crusades symbolism. The only order which used the Jerusalem cross as its emblem was the Order of the Holy Sepulchre (Ordo Equestris Sancti Sepulcri Hierosolymitani), which was founded by Godfrey of Bouillon. At the end of the 15th cent. this Order, which also had its houses in the Kingdom of Hungary, was incorporated to the Hospitallers by the decision of Pope Innocent VIII[95].

In the light of historical records, the origins of the sword from the Budapest museum collection can be explained by two aspects: a political - as the Angevin dynasty's royal claims for the crown of the Kingdom of Jerusalem (maybe also the Kingdom of Naples?), and an ideological one - connected with the crusades idea. This last assumption seems more probable in the recent state of research. As weapons may have been in use for a long time, it cannot be taken for granted that the sword actually belonged to a crusader. This is, however, strongly suggested by its ornament which refers to the crusade symbolism.

[87] Veszprémy 2001.
[88] Atiya 1978; de Vries 1999.
[89] de Vries 2003.
[90] Stossek 2001.
[91] Hunyadi 2001; Hunyadi 2007.
[92] Borchardt 2001, p. 239.
[93] Hunyadi 2001, pp. 261-263.
[94] Engel 1902; Goodall 1959; Nickel 1989.
[95] de Gennes 1995.

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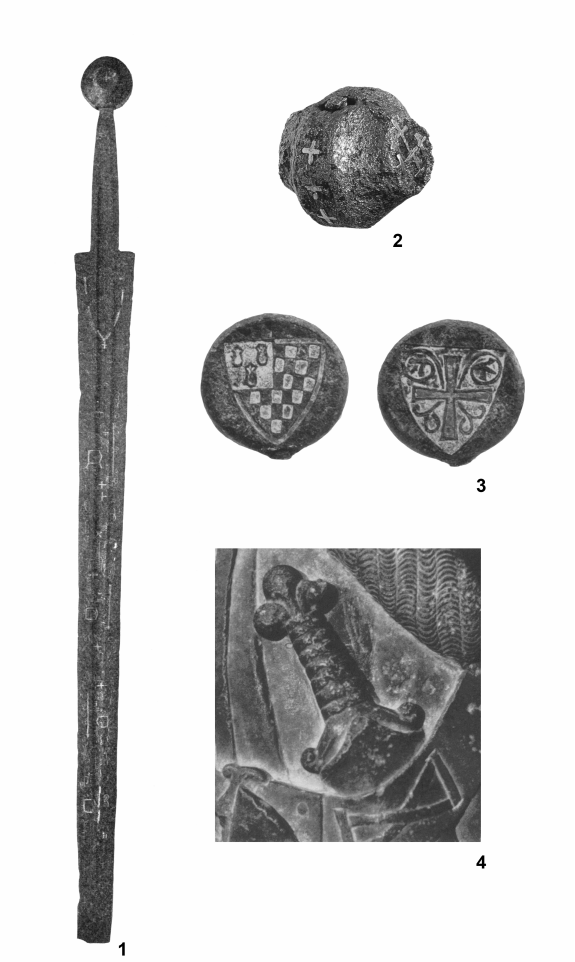

Fig. 1: Swords connected with the Crusades: 1 - Sword found in Santok, Poland, probably belonging to Ottokar II of Bohemia, 2nd half of the 13th cent.; 2 - Pommel of the sword found in the River Tina, Prussia, 14th cent.; 3 - Bronze sword pommel of Pierre de Dreux, Duke of Brittany and Earl of Richmont who went on Crusade in 1238 and 1249; 4 - Sword hilt from limestone effigy of Jean d'Alluye (died c. 1248), who went to the Holy Land in 1241, from the Abbey of La Clarte-Dieu (1 after Bohm 1924; 2 after Chodyński 2003; 3 after Grancsay 1939; 4 after Nickel 1991)

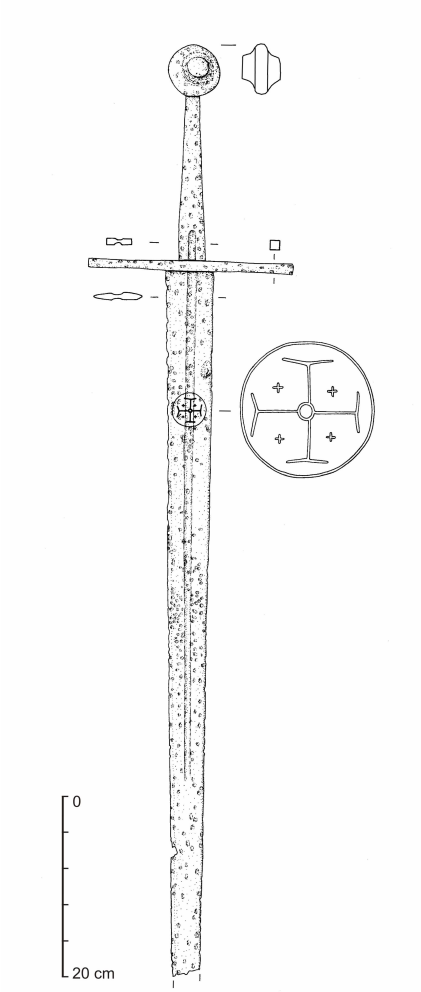

Fig. 2: Sword from the collection of Hungarian National Museum in Budapest (drawing by J. Kędelska after photos from Archive of the Institute of Archaeology and Ethnology of the Polish Academy of Science, Łódź Branch)

Fig. 3: Jerusalem Cross sign from the sword blade from the Hungarian National Museum in Budapest (photo from the Archive of Institute of Archaeology and Ethnology of the Polish Academy of Science, Łódź Branch)

Fig. 4: Depiction of Godfrey of Bouillon from the Castello della Manta, c. 1420 (after Zorzi 1992)

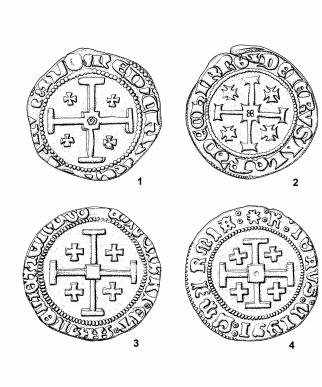

Fig. 5: Jerusalem Cross on the coins: Silver gros (1) and gros grand (2) of Peter (Pierre) I of Cyprus (1359-1369); 3 Gross of Louis, Duke of Savoy (1412/1413-1465); 4 Silver gros of James II (1464- 1473) (after Malloy, Preston, Seltman 1994, drawing by J. Kędelska)

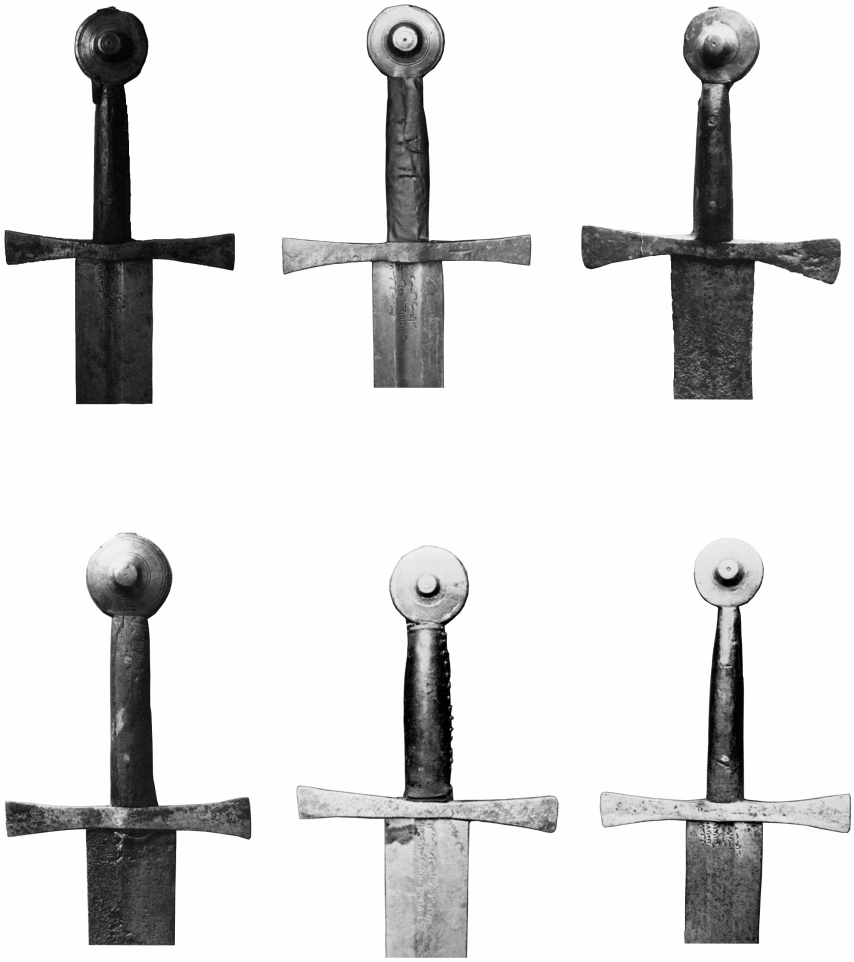

Fig. 6 Swords from the Alexandrian Armoury, which are connected with Peter I of Cyprus crusade in 1365 (after Alexander 1984).

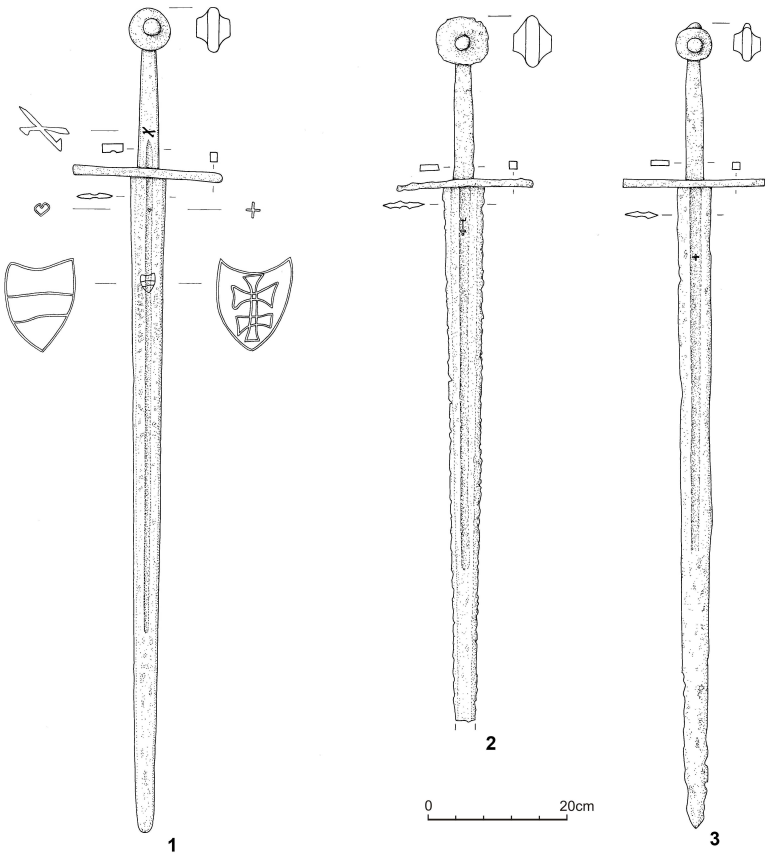

Fig. 7 Analogous swords found in the Lake Balaton (1) and from the collection of Hungarian National Museum in Budapest (2-3) (drawing by J. Kędelska after photos from Archive of the Institute of Archaeology and Ethnology of the Polish Academy of Science, Łódź Branch)

Weapons and Military Equipment Found in the German Settlement Area from Southern Transylvania (the 12th – 13th Centuries). Some Aspects and Perspectives*

Maria Emilia Crîngaci ȚIPLIC**

Keywords: *sword, tripod vessel, mace, German Hospites, Transylvania, blacksmith's workshop from Şelimbăr (Schellenberg), end of 12th Century, 13th Century.*

Abstract

Based on the current state of research and through the study of materials resulted from excavations or coincidental discoveries, we have attempted to reconstruct daily life aspects of the German Hospites' communities from the South of Transylvania in the 12th and the 13th centuries from the perspective of material culture[1]*. In order to properly achieve such a complex task, in addition to a multidisciplinary approach*[2]*, it is necessary to perform a thorough and detailed analysis of the artefacts and the context of their discovery. The approach to this topic has encountered difficulties, especially due to the small number of systematic archaeological researches regarding the German colonization in southern Transylvania in the 12th and the 13th centuries*[3]*. Most components included in the catalogue come more from fortuitous findings and are less the result of archaeological research.*

The idea of „cultural homogeneity" has been generally accepted starting with the 12th century, a fact that has lead to the archaeological material losing its ethnic

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** The Romanian Academy, Institutul de Cercetări Socio-Umane, Sibiu, Bdul. Victoriei nr. 40; The Romanian Academy, The Centre for Transylvanian Studies, Cluj-Napoca, Str. (cringaci27@yahoo.com).

1 This survey continues the one published in 2005 regarding the material culture of Transylvanian Saxons (the 12th – 13th centuries): liturgical objects (see M. E. Crîngaci Țiplic 2005, p. 245-264.)

2 We refer here to several interdisciplinary methods, such as metallographic, dendro-chronologic, botanical and pedagogical analyses, anthropological surveys etc.

3 We should in fact mention that, unfortunately, the archaeology of settlements dating from the German colonization period was less brought to attention as compared to other periods or areas from Transylvania, for example, the settlements from the 12th century at Moreşti (K. Horedt 1984), Sighişoara – Dealul Viilor (R. Harhoiu, Gh. Baltag 2006-2007) and Bratei (A. Ioniță 2009). The only archaeological research on medieval Transylvanian Saxon villages were those in Androhel (a village near Alțâna, later disappeared), but there we dealt with a 14th – 15th century settlement, which had long passed the first stages of colonization, and in *Alba Ecclesia (Weisskirch)*, a disappeared settlement north of Miercurea Sibiului; the results of these excavations performed more than three decades ago have never been published.

features[4]. However, one can still observe certain ethnic indicators in the German colonization area, but only for a short period, namely from the mid-12th century until the mid-13th century. This ethnic separation is visible from the perspective of material culture (the material culture contrasts being due especially to technological and cultural infusions brought by the Hospites from Western Europe, which they later spread, after having settled in Transylvania), as well as from the political perspective, from the point of view of the military potential and the administrative and ecclesiastical organization – these communities of Western Hospites (Flanders, Walloons, Saxons, and Flemish) finally succeeding to establish themselves as an identity group (Saxones – Transylvanian Saxons – Siebenbürger Sachsen)[5]. The most revealing elements of material culture from the 13th century, preserved until today, which present an ethnic character, an emblematic style[6], are the objects made by Western colonists. In this respect, the defining elements include liturgical objects[7], swords, the bronze tripod vessel, certain tools and, to a certain extent, ceramics. Nevertheless, these do not exclude the adoption of outside cultural elements by the Transylvanian Saxon environment. Still, in order to achieve this ethnical attribution, all artefacts must have a very clear context of discovery. Even then, there should be reticence[8] regarding both certain types of weapons or items of military equipment (see the swords from Hamba and Șeica Mică, the battle axe from Feldioara, the mace heads from Racoşu de Sus, Bod, Dupuş), as well as the jewellery and clothing accessories (see the temple S-ended rings from Feldioara, Mediaş etc. and the buckle from Orăştie or Viscri).

The most important tools implemented by the German hospites in their settling area include the plough with a mobile beam and the hatchet with rounded neck and grip tube (see the tool hoard at Șelimbăr). Studies have shown that the emergence and the large-scale manufacturing of iron hatchets with rounded neck and grip tube led to several improvements of their efficiency during the production process, a fact which

[4] Here we refer especially to ceramics and certain jewellery, which no longer reflect an ethnic character, but the true fashion for that period. A good introduction to ethnicity in the early Middle Ages appears in the studies of F. Curta 2002, p. 5-25, F. Curta 2006, p. 5-30, and Gh. A. Niculescu 1997-1998 (2001), p. 203-262; see also F. Curta's online review of S. Brather's book, *Ethnische Interpretationen in der frühgeschichtlichen Archäologie. Geschichte, Grundlagen und Alternativen*, Berlin/New-York, 2004
(http://egg.mnir.ro/studii/florin/Brather_txt.htm).

[5] On the historical interpretations and the integration of the artefacts described in a historical context, see Th. Nägler 1992 and bibliography, K. Gündisch 2001 and bibliography, and M. E. Crîngaci-Țiplic 2009, M. E. Crîngaci Țiplic 2010 and bibliography.

[6] On ethnicity and the emblematic style and their dependence on politics and power, see F. Curta 2002, p. 21-24, F. Curta 2006, p. 27-30, 301-302.

[7] On liturgical objects from the 12th – 13th century, see M. E. Crîngaci Țiplic 2005, p. 245-264.

[8] When the context of discovery is not clear, establishing the belonging of certain artefacts discovered in the settling area of the German Hospites is more difficult, hence the uncertainty whether the objects had been adopted by the settlers or had belonged to other populations from the same area.

created great opportunities for widely proceeding to the extensive work of landscape transformations[9], and last, but not least, to the expansion of wood buildings[10].

Regarding the work of artisan workshops, written documents do not record direct information[11] for the period in question, but this absence does not imply the lack of activity. In fact, the numerous archaeological discoveries, as well as a few vague document clues prove the existence of craftsmen[12]. Most available archaeological

[9] As commonly known, Western Europe experienced a period of intense technological activity between the 11th to the 13th centuries, characterized by the application and generalization of new methods and techniques in agriculture, crafts and mining. By introducing and then spreading more efficient harness mechanisms for traction animals, the plough on wheels with a mobile beam or by the improvement of grubbing and fallowing tools, land work had become easier, and deforestation was faster (J. Gimpel 1983, p. 51-81; W. Rösener 2003, p. 56-77). Written and archaeological evidences indicate that modern forms of agriculture gradually spread throughout the whole of Europe, through the ample medieval colonization process, which had started on a large scale in the 11th century and ended with the crisis of the 14th century. Arpadian Hungary also entered this process of modernization of agriculture and mining and, implicitly, all of the above mentioned innovations similarly spread through Transylvania during the 12th – 13th centuries along with the German colonization process. The German settlers were especially brought to the low populated areas with the purpose of deforesting and draining the land in order to prepare it for habitation and agriculture, viticulture and fruit growing. From the perspective of the spread of various agriculture and cutting tools, in Transylvania archaeology has encountered few eloquent evidences of the agriculture and craft work modernization process. We refer here to the iron tools hoard from Şelimbăr (see note 66 below) and the one from Bratei-*Nisipărie* with peasant household tools (see note 23 below). These are the only hoards from the 13th century discovered in the German settlement area from the south of Transylvania. Both hoards include, among other pieces, agriculture and cutting tools: fragments of a plough share and axes for cutting of the hatchet type with rounded neck and sleeve. In specialized literature we have already encountered mentions of axes, particularly used for cutting down trees and splitting logs, hatchets and other tools with various functions discovered both inside and outside the settlement area (see a part in Emandi 1981); however, they had an adequate description or a graphic representation. Furthermore, the chronological framing was also generalized (the 13th – 14th centuries or even the 13th – 17th centuries). Indeed, it is very difficult to reach an exact chronological framing when the piece was removed from the archaeological context or separated from other artefacts of the same discovery, especially in the case of tools (for ex. hatchets, axes, sickles) whose shapes are widely spread and are more persistent in time, lasting for several of centuries.

[10] A. Leroi-Gourhan 1971, p. 57-58.

[11] A few documents refer indirectly to some activities practiced within the Saxon community, the earliest document dating from 1206, records that the hospites from the villages Cricău, Ighiu and Romos did not have to pay wine, pigs and cattle taxes (Ub. I, no. 17; DIR. C, veacul XI, XII şi XIII, vol. I, no. 53; EO I, no. 32), or the document from 1291, which announced that four carpenters from Cricău, Câlnic, Gârbova were hired for the carpentry restoration of the roof of the cathedral St. Michael in Alba Iulia (Ub. I, no. 247; DIR. C, veacul XIII, vol. II, no. 407; EO I, no. 480). For a detailed description of the statute, privileges and obligations of the inhabitants of Cricău and Ighiu, see T. Sălăgean 2006, p. 51-61.

[12] In 1206, King Andrew II calls the inhabitants from the surroundings of Alba Iulia – from the villages Cricău, Ighiu and Romos as *Saxons* and *primi hospites regni* (Ub. I, no. 17, p. 9-10; DIR. C, veacul XI, XII şi XIII, vol. I, no. 53; EO I, no. 32). It is interesting to follow the initial role that Germans were supposed to have in this area. It seems that they were not exclusively supposed to control the most important places of loading and trading salt from Transylvania transported on Mureş towards the west. There are clues indicating that they were the ones to initiate gold ore mining in the Apuseni Mountains – K. Gündisch 1996, p. 124.

evidence refers to the existence of ceramics workshops, blacksmith's and bronze or silver foundries. Among the first indirect information confirming the existence of such activities in the first half of the 13th century, there is Rogerius's work ***Carmen miserabile***: *"King Cadan, after taking a three days trip through the woods of Ruscia and Comania, reached wealthy Rodna, a largely populated Teutonic fortress, located among high mountains, near the King's silver mine* (editor's underline). *But, because they were warriors and did not lack for weapons* (editor's underline), *when they heard about the arrival of the Mongols, they encountered them in the forests and in the mountains, outside the fortress. When Cadan saw the large number of armed men, he turned away, pretending to withdraw. Then the people returned victoriously, renounced their weapons and began to get drunk with wine, according to the Teutonic temperament. However, the Mongols quickly returned and, as there were no walls or ditches or other reinforcements, entered the fortress from several sides simultaneously. And, although there was some great slaughter, realizing that they could not resist, the people gave in to the Mongols. Then, Cadan, after receiving the fortress under his protection, joined comes Aristaldus, and together with six hundred armed Teutonic soldiers came out on the other side of the forest"* [13]. This settlement, located in northern Transylvania, neighbouring the ores of precious metals, had already been established in the 12th century and emerged as the most important silver mining centre during the Arpadian period. According to descriptions given by Rogerius, Rodna was already a prosperous settlement, whose inhabitants would have been able to resist the Mongols, had it not fallen into the trap of the fake withdrawal, otherwise often used by the Mongols. In addition to these hints regarding the demography, economical and military power of this important mining centre, Ariscaldus deserves special attention. It seems that this comes did not cooperate with the Mongols, as reported by Rogerius, but perished while fighting them; otherwise, King Béla IV would not have commemorated him in 1243 as a victim of the Mongols and would not have given a settlement significantly named Sărata (Salz - Salt) [14] to Ariscaldus' brothers. The name of one of them, comes Hench[15], was mentioned in a 1268 document, confirming the purchase of several goods, worth of 155 pure silver marks from Rodna, as well as some other silver mines[16]. The wealth and power of this entrepreneur family from Rodna[17] is also mentioned in the document from the late 13th century (1291-1292), which, besides certifying the existence of silver mines

[13] Rogerius, IIR, V, p. 72.
[14] K. Gündisch 1993, p. 121 sqq; K. Gündisch 1996, p. 128.
[15] K. Gündisch 1993, p. 121 sqq.
[16] Ub. I, no. 118, p. 99-100; EO I, no. 264; DIR. C, veacul XIII, vol. II, no. 104: ...*sold these goods to comes Henry, son of Brendin and his heirs for one hundred fifty five pure Rodna silver marks [...]. The names of these goods are: first of all a stone tower and a wooden house next to the tower and a surrounding fortified yard, with a land, as the late comes Henchmann used to have, as well as the mill over river Someş, together with all its utilities and a house and two yards and all the fields below the fortress, which we know that belonged to comes Henchmann; also, half of the silver mines wherever they are to be found, which we know that belong to comes Rotho.*
[17] For details, see K. Gündisch 1993, p. 121-133; K. Gündisch 1996, p. 128.

(*argentifodinis*) at Rodna, also attests the existence of gold mines (*aurifodinis*), equipped with hydraulic installations designed for crushing, washing and melting the ore[18].

The first documentary mention of the presence of blacksmith's workshops is dated in 1291[19] and attests the privileges that King Andrew III offered the hospites from Rimetea, who had come from High Austria (Eisenwurzel), craftsmen specialized in iron ore processing (*ferri fabri*, *urburarii*, *carbonarii*) and iron foundry (*ferri fusores*) [20]. The rights of miners from Central Europe represented a special category of privileges and had little resemblance to those of the German settlements in southern Transylvania. The mining industry and miners did not have any administrative relations with the Germans in Transylvania and the economical ties that we know of are of a later date, such as those of the patricians from Sibiu with the mining settlements from the Apuseni Mountains[21].

The activity of local workshops was also attested by the presence of metal parts in the German settlement area in Transylvania – liturgical, secular and military objects, manufactured in a Western style – which also act as a true indicator of the technological, economical and cultural standards of the period. From an archaeological perspective, another proof that validates the work of the foundry workshops in Transylvania during the 13th century was the discovery of a pit-deposit in 1964 at Bratei, containing six iron items, including a plough knife marked with a sign, possibly representing the trademark of the forging workshop[22]; as well as the discovery of numerous iron items at Şelimbăr in 1879, the toolkit of a blacksmith's workshop, dated in the first half of the 13th century[23], including an urceolus (aqua manila), a sword and sword fragments[24]. The most important are the sword and the urceolus, clearly attesting the fact that they were being manufactured when the workshop was closed down, most likely due to the Mongol invasion in 1241-1242.

[18] *„balneatorum examinatorum vel kuthelhofforum"* (Ub. I, no. 276; DIR. C, veacul XIII, no. 422; EO I, no. 500).

[19] Regarding the veracity of this document, see K. Gündisch 1993, p. 45 sqq; K. Gündisch 1996, p. 124. Concerning the workers specialized in different professions, this phenomenon was also characteristic to other regions in Europe (see M. Daumas et al. 1965, p. 10-11; R. Sprandel 1968, p. 5-31).

[20] Ub. I, no. 250; DIR. C, veacul XIII, no. 414; the publisher of the diplomatic documents collection EO considers this document a forgery (EO I, no. 483).

[21] As already known, in the 15th century, the mountain and monetary treasury of the Apuseni Mountains was established in Sibiu. This treasury, where a quarter of the European gold coins were made, facilitated the wealth of Patricians from Sibiu and their being assigned the gold wash-houses and some houses in mining towns from the Apuseni Mountains (R. Slotta, V. Wollmann, I. Dordea 1999, p. 41-48, 380- 392).

[22] A. Ioniță 2009, p. 17-18. The author dates this hoard with six pieces (a chain with two locks, a plough share, an axle pad, a pickaxe, a hatchet and a plough knife) in the 12th – 13th centuries, considering it contemporary to the settlement from Bratei-*Nisipărie* which apparently belonged to a Szekely community. However, it is not certain that the objects mentioned above, or at least one of them, were made by a local blacksmith, or came from workshops of the future Transylvanian German towns.

[23] Th. Nägler 1979, p. 24-29; K. Horedt 1957, p. 349 sqq; K. Horedt 1977, p. 450 sqq.

[24] See cat. no. 1.

Another discovery certifying the activity of foundries is the bronze manufactory from Sibiu, which seems to be among the first centres of medieval bronze craftsmen in Transylvania[25]. It is possible that this centre produced the brass vessel[26] or some of the bells mentioned in specialized literature[27]. There were probably other modern foundries at Sighişoara, Braşov and Bistrița. While, in the 12th and 13th centuries, in Hungary most of the founded parts were produced in monastery workshops[28], in Transylvania the situation was different – they were produced in workshops within the Saxon settlements. Naturally, this does not exclude the possible existence of workshops in shire (comitatus) centres, monastic or Episcopal centres[29]. Furthermore, the relatively numerous swords found in the area of Sibiu and in Țara Bârsei (Braşov-Cetatea Neagră, Codlea, Sânpetru, Vurpăr, Șeica Mică), presumed to belong to the German population[30], may attest the existence of other blacksmith's workshops than those of Șelimbăr or Rimetea. An additional proof for this are the tests made on swords of the same pattern from the collection of the Brukenthal Museum. Microscopic analysis has shown that the blade from Vurpăr has a hardness of 600 $HV_{0,1}$, while the sword blade from the workshop in Șelimbăr has a lower hardness of only 220 $HV_{0,1}$, and the other sword fragment from Şelimbăr records an even lower hardness of less than 200 $HV_{0,1}$[31]. This information indicates the fact that, within the same geographical area, there were also other blacksmith's workshops that produced more hardened sword blades, therefore, of higher quality. Regarding the blacksmith's from Șelimbăr, it may be possible that we are dealing with a craftsman who was not specialized in manufacturing swords[32], given the existence of crafts and agriculture tools within the same hoard (see plate 5 and 2:1), or with a so-called "provincial" blacksmith's. The quality differences between the above mentioned swords could be caused by a faster forging process due to the events that were imminent in the spring of 1241, when the craftsman might have received the order to forge several swords[33],

[25] In Sibiu, in the backyard of the old City Hall, a bell forging pit was discovered (P. Munteanu Beşliu 2000, p. 18 sqq). In the same context, we would like to announce the existence of another bell forging pit next to the Lutheran parish church in Sibiu, in the yard of the Brukenthal High-school. Unfortunately, we cannot offer other chronological data or of any other nature, as this discovery was made without any archaeological supervision, on the occasion of works required by the City Hall of Sibiu in May 2005.

[26] M. E. Crîngaci Țiplic 2005, p. 253, 263.

[27] For a repertoire of early bells, see Fr. Müller 1860, p. 200-254; E. Benkő 2002.

[28] Z. Lovag 1999, p. 9.

[29] There was also a workshop in the vicinity of the Bishopric in Oradea according to the 1977 discovery of a *Corpus Christi* (the 14th century) in the fortress of Oradea and the analogies for it. For the 13th – 14th centuries, in the Hungarian kingdom, the attested existence of at least two centres for the making of liturgical objects is recorded, one at Visegrád and one at Oradea, under the patronage of the bishoprics and the monastery centres in the area of their dioceses. (A. A. Rusu 2008, p. 53-65).

[30] According to typologies, the clearest parallels for these swords can be encountered in the south of Germany – see note 45.

[31] M. Rill 1983, p. 83.

[32] Z. K. Pinter 1999, p. 78.

[33] The king is known to have ordered: *"both the nobility and those who call themselves the king's servants, as well as the soldiers (*castrensi*) and those depending on fortress (*castrum*) [...] to prepare*

this being a time consuming process[34]. Considering the existence of such various items within the same hoard from Șelimbăr (see plate 5), such as the urceolus, axes, swords, ploughs, hinges etc. [35], we believe that, during the first half of the 13th century, the metal / iron processing workshops were still not specialized on different branches; as observed, starting with the 14th century, each of the craftsmen had their own specialty, such as swords, knives, locks or bronze / silver / gold foundering. A complex metallographic analysis of various parts could provide some answers, but, according to the analysis of the above-mentioned swords, there were craftsmen specialized in sword forging.

Since the material under our investigation is dispersed in various surveys and the lack of centralization would lead to biased and fragmented / syncopated interpretations, we have further attempted to accomplish a repertoire of all artefacts dating from the 12th and 13th centuries found in the German settlement areas and, where it was possible, to propose a historical reinterpretation. The repertoire allowed us to reach the conclusion that some of them were manufactured by local workshops (see the workshop from Șelimbăr) specialized in metal processing (bronze, silver, copper, iron). At the same time, these artefacts represent clear indications of goods circulation during the period in question, considering that the places of discovery of these parts cover a fairly large area of Transylvania, even outside the settlement area. In terms of population mobility (traders, merchants and artisans) and the implicit circulation of goods, we wish to mention here two pertinent documents, one from 1204[36] and another from 1224[37], which refer to the right to exercise long-distance trade.

The weapons and pieces of military equipment are among the most important elements of material culture from the Middle Ages, reflecting, on the one hand, a social state, and on the other hand the state of technological development during the period when they were manufactured. Out of the panoply of the weapons used by the German settlers in Transylvania in the 12th and 13th centuries, only a few were preserved until today, the sword being the most often encountered weapon in the catalogue below. The relatively high discrepancy in the number of swords compared to other types of weapons in our repertoire (axes, maces, spearheads and arrowheads) or pieces of military equipment (spurs, shields, helmets, chain mail) is – as we mentioned at the beginning – due to, on the one hand, the lack of archaeological

for war", but he had also required the high leaders of the clergy of the kingdom *"to gather well paid and well equipped soldiers"* (Rogerius, IIR, V, p. 29-30; 68-69).

[34] The making of a sword lasted 2-3 weeks, and for a simple axe or hatchet making time varied between 15-20 hours (see I. E. Emandi 1981, p. 23).

[35] See note 66 below.

[36] In 1206, Emeric the King of Hungary grants Johannes Latinus of *villa Ruetel* the right to travel freely with his goods through the entire kingdom – Ub. I, no. 16; DIR. C, veacul XI, XII şi XIII, vol. I, no. 54.

[37] The Andrew diploma confirms to the Transylvanian Saxons the right to hold tax free markets and travel custom free through the kingdom with their goods – Ub. I, no. 43; DIR. C, veacul XI, XII şi XIII, vol. I, no. 157.

research and / or surveys remained unpublished in museums, and, on the other hand, to the more intense concerns regarding the medieval sword in Transylvania[38].

In the Middle Ages, *the knightly sword*[39] was primarily a symbol of military elite, of rank, authority and power, it personified courage and justice: separating good from evil, striking the guilty[40]. Along with the sword, as the main piece of military equipment, the spear, the shield[41], the helmet, the chain mail and the spurs[42] were also used in actual combat and during the ceremony of knight consecration. In addition, we learn what a knight had to carry to battle from the 1238 and 1266 documents given to the Saxon hospites from Cricău and Ighiu: "*the mentioned hospites are due to bring under our flag four soldiers / knights [militibus] in chain mail, well trained and properly equipped, with four good saddled horses, and two tents* (editor's underline) *with the duty to (...) come and serve with our knights [militibus], and not in the company of our barons*".[43] The military equipment of a well-equipped fighter could be added a metal military campaign tripod vessel (see plate 4:5), which was not documentary attested, but was archaeologically certified in southern Transylvania (see cat. no. 17).

The weapons or pieces of military equipment that can certainly be assigned to the German environment from southern Transylvania are few, namely only one type of sword (type VI, according to Z. K. Pinter's typology, type XV, according to A. Ruttkay, and within the classification made by R.E. Oakeshott, the pommels of the sword in question are distributed under "type N")[44] and the military campaign tripod

[38] Z. K. Pinter 1999; Z. K. Pinter 2007.

[39] R. E. Oakeshott 1964, p. 25.

[40] J. Chevalier, A. Gheerbrant 1993, vol. 3, p. 246. On the interpretations regarding the sword as weapon and symbol, see also R. E. Oakeshott 1991, p. 16 or the paper of L. Mark with bibliography (L. Marek 2005, p. 58-62).

[41] J. Bumke 1986, p. 323-326; Z. K. Pinter 1999, p. 40.

[42] In the 11th century, the knight's arming was an exclusively lay ceremony. Within the knighting ceremony, the future knight was dressed in armour; he was equipped with spurs and a sword. Then, the knight's godfather (the senior) hit him hard on the neck with the edge of his palm, meant to try his physical strength or to make him remember the arming solemnity and urged him to be brave and loyal to his senior. Then the fresh knight would demonstrate the audience his force and skill; he had to mount a horse without using the stirrups and spear down a dummy while in horse run. The epic poem "Guillaume d'Orange" describes the knightly arming of Vivian, the nephew of Guillaume d'Orange: *Guillaume ties his golden spurs, dresses him with a coat of mail (...), places a helmet with rubies on his head, ties his steel sword, then raises his arm and hits him hard on the neck, saying: go, nephew, and may God give you temerity, strength and audacity, loyalty to your senior and victory over the unfaithful."* Then, in the 12th century the lay character of the ceremony was added a more and more pronounced religious note. The future knight would spend the night previous to his arming in a church, where he would pray and guard his weapons, previously blessed by the priest. The following day he would take a bath, considered to be a new baptism would go to confession, and then to communion, would listen to the homily, and then he was armed as a knight, according to the above mentioned ceremony (L. Pietri 1966, p. 310 apud R. Manolescu 1974, p. 258-259).

[43] Ub. I, no. 75, 113; DIR. C, veacul XI, XII şi XIII, no. 259; DIR. C, veacul XIII, no. 74.

[44] In Transylvania, during the second half of the 12th century and the 13th century, circulated several types of swords:

- The single hand sword mainly used for cutting and thrusting with a lenticular-shaped pommel, with a more pronounced top part and a median ridge towards the point (type V according to the typology of Z. K. Pinter – Z. K. Pinter 1999, p. 124; the classification of R. E. Oakeshott includes similar swords under type XI, namely blade XI, pommel B, cross-guard 1 – R. E. Oakeshott 1964, p. 24, 31, 93, 113, see also R. E. Oakeshott 1991, p. 10 , 56-57). This type of sword with a wide spread in Western and Central Europe (Z. K. Pinter 1999, p. 124) and dated between the second half of the 12th century and the first half of the 13th century, is rarely encountered in Transylvania, the only copy that we know of belonging to the collection of the National Museum of the History of Transylvania in Cluj-Napoca (K. Horedt 1957, p. 334-348.p. 335 K. Horedt 1986, p. 149 , fig. 62-2), and an analogy in Banat, in Poiana Prisăcii – near Oțelul Roșu (Z. K. Pinter 1999, p. 123-126).
- Due to the discovery of a certain type of sword only in the former province of Sibiu and Țara Bârsei (type VI according to Z. K. Pinter's classification, type XV according to A. Ruttkay – A. Ruttkay 1976, p. 258, and according to R. E. Oakeshott's classification, the pommels of the sword in question fall under **"type N"** – R. E. Oakeshott 1964, p. 98), with the clearest typological parallels in north-western Germany (sic!), this type is attributed to the German population settled here (Z. K. Pinter 1999 , p. 130); in fact, swords with type N pommel were found in southern Germany, one in the Passau area, a second in Seehausen and another in western Germany with an unknown place of discovery (for the range of model and proposals for its timing and sub-typology, see details in M. Aleksić 2006, p. 363-370, fig. 2). The single hand or a hand-and-a-half sword for cutting and thrusting is characterized by a blade about one meter long (97 cm), with a massive aspect, with parallel cutting edges on most of its length, only slightly converging towards the point; the hilt rod fits the single hand or the hand-and-a-half size but for the smaller version of these hilts, the cross-guard is very long and has a rectangular profile in its central part and the corners are rounded and narrower to the extremities; the hilt pommel is semi-lenticular with a more prominent bottom part towards the hilt, while the top is almost straight and fitted with a centre rib. We have recorded this type of sword dating between the end of the 12th century and the mid-13th century in several places in the south of Transylvania, namely **Cetatea Neagră Codlea**, near **Sânpetru** (Brașov County), on the border of the village **Vurpăr,** and another one in the Slătineanu collection published as belonging to the German Transylvanian milieu. Similar features are also encountered in the sword, found without pommel, at **Grid** (Hunedoara) (pl. 1:2) or in the case of a sword fragment from the collection of the **Sighișoara** Town Museum (Z. K. Pinter 1999, p. 127-131). Exceptionally, we have definite proof that this type of sword was forged in Transylvania in the first half of the 13th century, through the archaeological discovery of a blade in full processing and of such a semi-lenticular pommel in the blacksmith's workshop from **Șelimbăr** (see cat. no. 1).
- The swords found in Șeica Mică (M. Rill 1983, p. 80, fig. 1 / 1), Coroi (Târnava Mică), Dejan (Brașov County) and Bâtca Doamnei are classified by Z. K. Pinter under type VII (according to R. E. Oakeshott, the pommels appear under type E – R. E. Oakeshott 1964, p. 94, and according to Al. Ruttkay under type XIII – Al. Ruttkay 1976, p. 259-260), considering them a form of limited territorial extension inside the Transylvania. These heavy single hand or a-hand-and-a-half swords for cutting and thrusting are characterized by a long blade (850-900 mm) with slightly converging edges towards the point and median fullers on both sides of the blade on a distance of approx. 550 mm, then fading towards the point, a straight cross-guard in rectangular section with rounded corners, a massive but rather flat pommel, with a diamond frontal aspect, its lower corner being slightly rounded towards the hilt. Regarding the allocation to a specific cultural background of these swords specific to 13th century Transylvania, it is difficult to say whether these weapons were used by the Saxon hospites with a predilection, by the Teutonic Knights or other population groups organized from a military point of view (Z. K. Pinter 1999, p. 131-133).
- Another type of sword that was also found in the German environment in the south of Transylvania (Sighișoara and Hamba), very widely spread from a territorial and chronological perspective, with numerous analogies in Transylvania and Banat, is the one classified under type VIII by Z. K. Pinter. Due to the particularities of their component parts, the rich sword material was sub-typologised, type VIIIa and VIIIb. In what type VIIIa is concerned (see the sword from Sighișoara – cat. no.7), it is chronologically placed between the second half of the 13th century and the begin of the 14th century (Z.

vessel, both of them reflecting the fact that the settlers promoted the same military tradition as in their origin lands[45]. For the second half of the 12th century and the first

K. Pinter, 1999, p.134-136); this type of sword in the typology of Al. Ruttkay would fit type XVI (Al. Ruttkay 1976, p. 259), and according to R. E. Oakeshott, the pommel goes under type H, the cross-guard under type 3 and the blade under type XII (R. E. Oakeshott 1964, p. 24, 95, 114). Type VIIIb (see the sword from Hamba – cat. no. 8) extends from the last quarter of the 13th century until the mid-14th century – it is difficult to establish the duration for the use of such weapons, as it could have a longer use in rural areas (for details see Z. K. Pinter 1999, p. 133-142); the pieces under subtype VIIIb (according to Z. K. Pinter) would qualify as a type XVII considering the shape of the pommel (according to Al. Ruttkay 1976, p. 259 -260) and in R. E. Oakeshott's classification the pommel would fit type I and the cross-guard type 2 (R. E. Oakeshott 1964, p. 96, 114).

[45] In a relatively recent study, M. Aleksić has emitted the hypothesis that the swords with type N pommels (according to Oakeshott's typology) and the swords of type VI (according to Pinter's typology), reached Transylvania through the Teutonic Knights, concluding that they had been manufactured before 1225 (M. Aleksić, 2006, p. 373), providing as examples the five sword pommels found in the south and south-east of Transylvania (two discovered in the surroundings of Sibiu: the sword from Vurpăr and the sword pommel from Șelimbăr, two found in Țara Bârsei: the sword from Sânpetru and the one from Codlea; the fifth, belonging to the private Slătineanu collection, has an unknown place of discovery, some experts however citing the surroundings of Buzău as its place of discovery) (M. Aleksić 2006). Regarding the sword pommel from Șelimbăr dated before 1225, the author gives the following explanation: "*The assumption that the sword of Type N reached Transylvania through the Teutonic Knights implies that the five Romanian pommels of Type N were manufactured before 1225. The fact that least one of the swords remained in use after the Order's departure (cat. no. 4; pl. III:2 -* Șelimbăr*) may be explained by the military structure of the Order that included not only the heavy cavalry formed by the knights themselves, but also various auxiliary units mostly recruited from the local population, in this case, given the Order's obvious ethnic homogeneity, most likely the German colonists in Transylvania. In that way the pommel from the Şelimbăr hoard may have remained there until 1241, on the swords of a former member of the Order's auxiliary units. Members of the Order usually stayed in one place for several years before returning to Germany or going some place else. Thus, the weapons may have reached Transylvania any time between 1211 and 1225, and not necessarily together. It also seems logical that the Order did not leave the local population without any support. The support may have consisted in arms supplies, which may have continued even after 1225, although it seems unlikely that the pommel fell off the sword after no more than ten or fifteen years of use*" (M. Aleksić 2006, p. 373); From our point of view, the theory proposed by M. Aleksić is questionable for several reasons:

1. First of all, the author did not take into consideration the fact that the pommel from Șelimbăr was found together with a series of tools typical for a blacksmith's workshop and some sword fragments, including a blade which could represent the raw form of a sword that never came to be completed. The pieces under discussion belong to a hoard with 57 items (see cat. no. 1, note 66, and pl. 5 and 2:1); Based on strong arguments, K. Horedt interpreted them as the remnants of a blacksmith's workshop that had been hidden underground during the Mongol invasion of 1241 (K. Horedt 1957, K. Horedt 1977, p. 450-456, M. Rill 1983, p. 81), a theory otherwise accepted by Romanian historiography. In addition, the urceolus belonging to this hoard presents a square perforation on its bottom, due to faulty moulding that did not get round to be patched, but was buried underground along with the other pieces. This is one of the reasons why we believe that the urceolus was produced in the workshop from Șelimbăr, which followed the well-known forms of the German environment. The previously existing doubts regarding this object – whether it was brought by the hospites from their origin land, or it was a local product – have been cleared, in our opinion. What still remains unknown is whether this piece indicates the origin of a Transylvanian Saxon community and the development of their relations on traditional bases, or the presence of a craftsman trained in Magdeburg, probably requested by the Saxon community around Sibiu, the main consumer of such mainly liturgical and other goods (M. E. Crîngaci

half of the 13th century, we can speak of a certain variation in directing a specific type of sword (type VI) towards a certain environment. Starting with the second half of the 13th century and the beginning of the 14th century, the discovery of another type of sword (see the swords from Sighişoara and Hamba – cat. no. 24 and 25, belonging to type VIII, according to Z. K. Pinter) within a very large area indicates a standardization which thus cancels any possibility of ethnical attribution, as was the case of ceramics or spurs.

The discovery of battle axes (Feldioara)[46] or maces (Racoşu de Sus, Bod, Dupuş, Miercurea Sibiului) in the German settlement area raises the question of the Transylvanian Saxon environment having possibly adopted foreign elements of material culture. Furthermore, there is a similarly high possibility that these weapons

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Ţiplic 2005, p. 249-250, 258). Previous research considers the urceolus from Şelimbăr as the product of the workshop from Magdeburg or the influence of this famous workshop (see details E. Benkő 2003, p. 117).

2. Secondly, in the absence of documents, it is unlikely that, after its departure from Transylvania, the Teutonic Order would have supported (to what purpose?) the local population by providing it with weapons; moreover, historiography has circulated the theory that the Andrean diploma (document of privileges "Guarantee of Freedom" / „ Freibrief" for the Transylvanian Saxons) was granted by the Arpadian king to the Saxons of the Sibiu shire in 1224 with the very purpose of winning them over to his side in order to successfully exclude the Teutonic Knights from Ţara Bârsei (Th. Nägler 1992, p. 147-148). In 1224, the king's relations with the Teutonic Knights became extremely tense, and, in order to succeed in banning them from Ţara Bârsei, Andrew II offered the Saxons from the Sibiu shire a series of privileges (the above mentioned Andrean diploma) in exchange for their participation with "five hundred soldiers in the royal expeditions across the borders of the kingdom and one hundred abroad, if the King joins them himself " (Ub., no. 43 DIR. C. veacul XI, XII şi XIII, vol. I, no. 157, EO, no. 132). Moreover, shortly after that followed an armed conflict, won by the king – conquering the fortress beyond the snowy mountains –, which led to the 1225 Order being eject from Ţara Bârsei; within this context could also include the place of discovery of the sword in the surroundings of Buzău.

3. Thirdly, the relations between the Germans in Ţara Bârsei and the Teutonic Order remain unknown; the specialized literature assumes that they existed, although there is no written, archaeological or any other kind of proof to sustain this. As for the theory of relations between the Teutonic Knights and the Germans from the Sibiu shire, during the period when the knights were stationed in Ţara Bârsei as well as after their departure is a new interesting hypothesis, without any solid argument to support it.

As such, the proposals of M. Aleksić, both in terms of dating and attribution the type N sword pommel from Şelimbăr, are incompatible with the information stated above. We consider attribution issue of this type of sword still open; given the fact that the pommel from Şelimbăr, which appears to be incomplete, was discovered together with other sword fragments and numerous pieces, comprised in a blacksmith's workshop, may indicate the localization of one of the workshops where this type of sword was manufactured; and, as mentioned above, the craftsman seems to have been trained in the Magdeburg area, which may indicate in its turn the possible localization of another workshop where the swords might have been forged. The list of counter arguments could continue if only from the perspective of the Teutonic fortifications from Ţara Bârsei, which however remains an unresolved continuously interpretable issue, despite both documentary evidence and partial archaeological research and unresolved issue; at this point we refer to the sword found in the fortress of Codlea, presumed to have been built by the Teutonic Knights (see the latest editions and bibliography A. A. Rusu 2005, p. 434-443 and I. M. Ţiplic 2006, p. 121-131); for another possible historical classification of the sword from Codlea, see notes 62-65 and 68.

[46] The category of battle axes could also include those discovered in the hoard from Şelimbăr (see note 66, cat. no. 1).

belonged to the Turkic peoples who had transited the area, since most parts were discovered by chance outside an archaeological context. This interference could be attributed to the fact that the Transylvanian Saxons were brought by the Arpadian royalty to settle in an area of insecurity and armed conflicts in order to protect the eastern borders of the kingdom from the Cuman raids. Going back to the mace, its spread throughout eastern and central Europe started with the 11th century[47] through the Turkic peoples (Pechenegs, Cumans) [48]; the adoption of this type of weapon by the Transylvanian Saxon warriors should be no surprise, since, starting with the 13th century, the mace considerably spread from a geographical point of view. Its presence was attested in Western Europe in various forms (we find a casting mace represented upon the upholstery from Bayeux[49]). Starting with the 13th century the mace no longer represented an ethnic mark[50]. Unfortunately, a precise dating of the mace heads with 12 corners discovered in Racoşu de Sus (cat. no. 29), Bod (cat. no. 30), Dupuş (cat. no. 31) and Miercurea Sibiului (cat. no. 32) is not possible due to their accidental discovery. Chronologically speaking, they are placed within a large segment of time – the 12th–14th centuries. One item (with five median corners and a sleeve) was discovered during excavations in Sibiu (on Avram Iancu Street towards the Large Square (Piața Mare)) and dated in the 13th–14th centuries[51]. Similar findings of 12-corner mace heads, with or without a grip tube, were reported relatively frequently in Romania, both inside Transylvania, at Simoneşti (Harghita County)[52], Ghinda (Bistrița-Năsăud County)[53], and at South and East of the Transylvanian territory, at Turnu Severin[54], Cozăneşti, Vatra Moldoviței (Suceava County), Vasileu (Bukovina)[55], Salcia Veche (Vrancea County), Păcuiul lui Soare and Dinogetia[56]. There are also a series of maces preserved in museum collections in Alba Iulia[57], Sibiu[58], Aiud and Lugoj.[59]

Completing the weapons and military equipment catalogue based on published studies provides quite a discrepant image, taking into account that the archaeological

[47] In fact, the time and place of the emergence of maces in Europe were considered the 9th / 10th century in Old Russia, later spreading to Eastern Europe and Central Asia; in the Carpathian Basin it appears starting with the 11th century (Al. Ruttkay 1976, p. 314-317).

[48] Al. Ruttkay 1976, p. 314-317. It seems that the mace first emerged inTransylvania thanks to the Pechenegs and then it was spread by the Cumans (see K. Horedt 1986, p. 149, Abb. 62/4-7).

[49] W. Boeheim 1985, p. 357; Al. Ruttkay 1976, p. 317.

[50] Al. Ruttkay 1976, p. 317.

[51] A. Istrate 2007, p. 66-67, pl. 102-4.

[52] E. Benkő 1992, p. 143, pl. 9.

[53] K. Horedt 1986, p. 149, Abb. 62-7.

[54] A. Pálóczi Horváth 1989, p. 36 and 130, fig. 22.

[55] V. Spinei 1994, p. 130.

[56] K. Horedt 1986, p. 149, note 351.

[57] The discovery and belonging conditions of the 18 maces from the collection of the National Union Museum of Alba Iulia are not known (see details in M. N. Simina, Gh. Anghel 1998, p. 161-171).

[58] In a catalogue of the Brukenthal Museum we find 6 mace heads, of which only one has a known place of discovery, the one from Miercurea Sibiului (A. Nițoi 2007, p. 52-54).

[59] R. Pinca 2003, p. 333-338.

repertoire lacks in spears, helmets, shields and chain mail[60]. These items have otherwise been documentarily attested, the most frequent references mentioning their use during the famous battle between King Béla IV and his son Stephen, which took place in the autumn of 1264, under the walls of the royal fortress of Codlea, and where the Transylvanian Saxon counts (Gräfen /comites) Chyl from Câlnic and Teel, son of Ebl, from Braşov[61] had participated. The documents state: "*on the occasion of the fight in which was captured Lawrence, son of Kemen, faithful to the same King Béla, persecutor of Duke Stephen <this Alexander>* (son of Durugh, who joined Duke Stefan – editor's note) *throwing himself into battle before all the others, defeated a brave knight with his spear, and sent his shield to the King for his royal comfort"* [62] , for "*sending this shield was for us ... a source of joy since it was the first sign of our victory and triumph*"[63]; and, in the same battle from Codlea, Alexander, ban (leader) of Severin, "*without fear of death, throwing himself into danger before all the others, killed some with the spear, others with the sword* (editor's underline)"[64].

[60] In specialized literature only a few mentions of occasional discoveries appear, unfortunately without any description or dating details, which makes it impossible for us to mention them here, for ex. fragments of chain mails discovered during archaeological research in the fortress on Măgura Codlei or the lost helmet from Săsăuş (Covasna County) discovered in a grave next to a sword dated in the 13th century, but the sword has no description or illustration which could justify the suggested dating (B. Lorand 2003, p. 311) (v. nr. cat. 27).

[61] Ub. I, no. 127; DIR. C, veacul XIII, no. 108.

[62] DIR. C, veacul XIII, no. 82.

[63] DIR. C, veacul XIII, no. 96. This mention confirms once more that the arms and armours, the shield in our case, were the main gifts given to the winner after a battle. As commonly known, they also represented an important part of the plunder, the winners gathering them from the fallen opponents on the battle field, as can be seen on the Bayeux Tapestry (for more on losing the sword in battle and awarding it to the winner, see Z. K. Pinter 1999, p. 41-42).

[64] DIR. C, veacul XIII, no. 95.

CATALOGUE

1. Sword, sword fragments from Șelimbăr (plate 2:1 and 5): The five sword fragments are part of the 57 objects that comprise the forge[65]from Șelimbăr.

9. Cross-guard with round profile and thickened ends; one of the ends is bent. Dimensions: length 210 mm, section diameter at one end: 7 mm (inv. no. 10692).
10. Cross-guard with rectangular profile, one end is slightly damaged. Dimensions: length: 177 mm, profile diameter: 14/11 mm (inv. no. 10692).
26. Pommel, semi-lenticular in shape, as seen from the front, with a convex bottom, triangular in lateral section. Dimensions: frontal diameter 65 x 67 mm, thickness 27 mm (inv. no. 10704).
43. A single hand or a hand-and-a-half sword with hilt, the blade shows slightly indented median fuller, also extending over a small portion of the hilt. The item lacks the pommel and the cross-guard, and its point is broken. Dimensions: overall length 920 mm, hilt length 155 mm, blade length 765 mm, blade width 460 mm, blade thickness 5 mm (inv. no. 10539).
44. Blade in rectangular section, which presents processing traces and a thinning at one end. The blade may be a raw form of sword that never came to be finished. Dimensions: length 415 mm, width 46 mm, thickness 5 mm (inv. no. 10540).
50. Fragment of sword blade with median fuller, the lower half of the blade is preserved. Dimensions: length 415 mm, width 46 mm, thickness 5 mm (inv. no. 10541).

Dating: first half of the 13th century.

Place of discovery: discovered in 1879 near the border of Șelimbăr, towards Vurpăr (Sibiu County).

The area of origin for this type of piece: the German area.

[65] The blacksmith's workshop comprises 57 items, of which at least 16 are typical tools used by a blacksmith, including 3 hammers with multiple functionality (no. 5, 7, 8), 2 chisels (no. 21, 22), a mandrel (no. 38), a spoon for the melted iron (no. 46), 2 pliers for the fire (no. 47, 48), 1 pair of scissors for cutting tin, (inv. no. 49), a fire stake (no. 57), an iron hanger for the cauldron (no. 52), a chain with two big pegs (no. 56). Along with the blacksmith's tools there were also various completed or almost completed iron objects, clearly meant as tools and weapons: **four axes** (no. 2, 3, 4, 6), two plough knives (no. 42, 45), *two sword fragments* (no. 43, 50), *two sword cross-guards* (no. 9, 10), *one incomplete sword pommel* (no. 26), *a blade which could represent the raw form of a sword* (no. 44); the inventory also includes many reinforcements, hinges and handles which, according to their size should be used for fastenings of shutters, doors or gates (for a detailed description and interpretation of the pieces see K. Horedt 1957, p. 336 -337). The chronology of the hoard is given by the silver urceolus and the sword fragments (Horedt K. 1957, K. Horedt 1977, p. 450-456, M. Rill 1983, p. 81), which are generally specific to a certain population / social category and a relatively short period of time compared to other objects that have a longer persistence and a wider geographical spread. Regarding the four axes, it is difficult to determine their main function, weapon or tool, taking into account their dating in the first half of the 13th century [I. E. Emandi includes axes no. 2 and 6 (see plates 5:2, 5:6) in the category of tools (type X-2); this type of axe with a massive narrow body, in the shape of a triangle, with rounded neck and narrow blade, slightly widened towards the edge, is used especially in cutting down trees; in this respect, it brings many analogies dating in the 13th and 14th centuries in Romania as well as in Russia, Poland, Hungary, Bulgaria – I. E. Emandi 1981, p. 40-42]. Regarding the numbering of the pieces from the hoard of Șelimbăr, which at first seems chaotic, we preferred to maintain the numbering applied by K. Horedt in the description of pieces published in his work from 1977 (K. Horedt 1977), the numbers also corresponding to the numbers from plate 5.

References: K. Horedt 1957, p. 334-337 K. Horedt 1977, p. 450 sqq M. Rill 1983, p. 81-82, Abb. 2, Th. Nägler 1992, p. 90, Z. K. Pinter 1999, p. 130.
The Brukenthal National Museum Sibiu, inv. no. 10692, 10704, 10539, 10540, 1541.

2. Sword from Cetatea Neagră Codlea (plate 1:4). A single hand or a hand-and-a-half sword for cutting, belonging to type VI (according to the typology of Z. K. Pinter) completely preserved, but in a poor conservation state, measuring 1118 mm. The massive-looking blade, with parallel cutting-edges on most of its length and only slightly concave towards the point is 972 mm long and 51 mm wide on ¾ of its length, tapering evenly and fairly 40 mm from the probably rounded point. The median fullers are visible on the portion where the cutting edges are parallel. The hilt rod fits within the 142 mm for the hand-and-a-half size, but in the smaller version of these hilts. The very long cross-guard measures 228 mm and has a rectangular profile of 10/10 mm in its central part, the corners are rounded and tapering to a circular profile with a diameter of 7 mm towards the end. The hilt pommel is semi-lenticular with a prominent bottom towards the hilt, while the top is almost straight and fitted with a centre rib. The pommel is 32 mm high, 76 mm wide and 62 mm thick.
Dating: the item was revealed during the systematic archaeological research undertaken at the fortress on Măgura Codlei, in the archaeological context of the 13th century[66]; research of a later date include the fabrication of this type of swords in the first half of the 13th century[67].
Place of discovery: Măgura Codlei (Cetatea Neagră).
The area of origin for this type of piece: the German area.
References: Z. K. Pinter 1999, p. 127-128, pl. 36-b, M. Aleksić 2006, p. 364, 369-375, plate V: 1. Braşov County Museum – the Tailors' Bastion, inv. no. 1081

3. Sword from Sânpetru (plate 1:3). A single hand or a hand-and-a-half sword for cutting, included within type VI, according to the typology of Z. K. Pinter, being almost identical to the one found at Cetatea Neagră from Codlea.
Dating: the 13th century.
Place of discovery: occasional discovery near Sânpetru (Braşov County).
The area of origin for this type of piece: the German area.
References: Z. K. Pinter 1999, p. 130, pl. 36-a, M. Aleksić 2006, p. 364, 366-367, 369-375, pl. II: 1.
Braşov County Museum – Town Hall, inv. no. 1638.

4. Sword from Vurpăr (plate 2:2) A single hand or a hand-and-a-half sword for cutting, relatively well preserved, except the blade tip, which is broken. According to the classification of Z. K. Pinter, the artefact is included into type VI. The item, in its current state, has a total length of 880 mm, out of which the very long cross-guard has a length

[66] Z. K. Pinter 1999, p. 130, pl. 38-a.
[67] M. Aleksić 2006, p. 373-375. The author suggests a more exact dating between the first and the second quarter of the 13th century, associating it to the historical context of the Teutonic Order's presence in Ţara Bârsei (M. Aleksić 2006, p. 374). However, we should not exclude the possibility of this sword having been lost in the battle from Cetatea Codlei, during the second civil war (1264-1266) between King Béla IV and his son Stephen (see notes 62-65).

of 225 mm, the hilt rod measures 175 mm, and the pommel is semi-lenticular in shape, with a prominent bottom part towards the hilt.
Dating: the 13th century.
Place of discovery: discovered by chance in the 19th century near the border of the Vurpăr village (Sibiu County).
The area of origin for this type of piece: the German area.
References: M. Rill 1983, p. 80, fig. 1/2; Z. K. Pinter 1999, p. 130, pl. 37-b, M. Aleksić 2006, p. 364, 366-367, 369-375, pl. II: 2.
The Brukenthal National Museum Sibiu, inv. no. 10323 (new inv. no. M 3812)[68].

5. Sword from the Collection of the Museum of Sighișoara (plate 1:1). A single hand or a hand-and-a-half sword for cutting, belonging to type VI, according to the typology of Z. K. Pinter, fragmentarily preserved, lacking the pommel and the lower half of the blade.
Dating: the 13th century.
Place of discovery: unknown.
The area of origin for this type of piece: the German area.
References: Z. K. Pinter 1999, p. 130, pl. 36-c.
The Collection of the Sighișoara Town Museum.

6. S**word from the Slătineanu Collection**. The sword is included into type VI, according to the typology of Z. K. Pinter, parallel cutting-edged blade with median fuller on most of the length, and the semi-lenticular pommel with a prominent bottom part towards the hilt.
Dating: the 13th century.
Place of discovery: the area of Buzău (?).
The area of origin for this type of piece: the German area.
References: H. Bartlett-Wells 1958; Z. K. Pinter 1999, p. 129-130, pl. 37-c M. Aleksić 2006, p. 364, 366-367, 369-375.
The Slătineanu Collection.

7. S**word from Sighișoara** (plate 3:1). The item belongs to the category of a hand-and-a-half swords for cutting and thrusting, probably intended particularly for infantry combat. Z. K. Pinter's classification includes this artefact into type VIIIa. The item was not completely preserved, the tip part is missing, measuring thus a total length of 805 mm. The preserved blade is 615 mm long, and the width is constantly decreasing from 56 mm at the blade shoulders to 52 mm at the middle and 46 mm at the point. The median fullers on both sides are visible along the length of the blade and continue for 22 mm on the hilt as well. In the middle of the blade, where the maximum width of the fuller is 23 mm, for a length of about 330 mm, a very prominent central rib can be noticed, leaving the impression of double median fullers. The hilt rod has a length of 132 mm with a constant width of 20 mm. The cross-guard is short, 176 mm long, but relatively massive, with a rectangular profile in section. The hilt pommel has a bi-conical disc shape and the hilt appears quite massive for the blade that it was mounted on, the disc diameter is 54 mm

[68] In a catalogue of the Brukenthal Museum, published in 2007, we find a sword with the exact same dimensions and characteristics as the sword from Vurpăr, but the author does not mention the place of discovery, nor the bibliography concerning this artefact (A. Nițoi 2007, p. 24). We consider it is the same sword. Fortunately, we do have the inventory number, and therefore we can check the proposal of identification of this sword with the one from Vurpăr.

and its maximum thickness is 36 mm. The closest analogies for this kind of sword are the swords from Bucova[69] and Satu Mare[70].

Dating: the mid-13th century[71].

Place of discovery: On the occasion of the town stadium construction, in 1957, a medieval sword bent during a ritual, along with a vessel associated with human bones were discovered by chance, which led to the presumed existence of an isolated grave or cemetery. Unfortunately, the complex was destroyed during the stadium construction, and the bent sword was straightened by the unqualified discoverer; the former ritual bending could, however, still be distinguished, the weapon currently maintaining a very wide "S" profile. As for the vessel, it was made of a very fine reddish paste, with strong traces of a secondary burning, bearing a pentagram mark on the bottom, and "three runes" deeply ditched, visible on the sides[72]. The author associated this grave to a German settler arrived in Transylvania from Rhineland[73].

The origin area for this type of piece: Central Europe.

References: R. Heitel 1995, p. 62-63, fig. 1/a-b, 2/a; Z. K. Pinter 1994, p. 19; Z. K. Pinter 1999, p. 54-55, p. 134-137, pl. 16, 41-a.

The History Museum of Sighișoara, inv. no. 2845

8. Sword from Hamba (plate 2:3). The very well preserved piece has a total length of 1336 mm and the blade length of 1112 mm. The cutting edges slightly converge to a sharp point, making the width of the blade decrease from 53 mm under the cross-guard, to 32 mm at the point where the 780 mm long fullers end, with a 23 mm extension on the hilt as well. The radiographical analysis of the item could reveal an inscription on the median fullers on each side of the blade, which could not be preserved for technical reasons. It is supposed to be a Latin inscription in capital letters dating from the second half of the 13th century or the first half of the 14th century. The hilt length is 164 mm, with a 34 mm wide cross-guard, decreasing to 12mm at the entrance into the pommel. The right cross-guard measures 203 mm in length, and has a rectangular profile in the centre and a tapered circular one at the extremities. The disc-shaped pommel has a maximum diameter of 53 mm and is 32 mm thick. The sword, provided with a hand-and-a-half hilt was suitable for combat infantry, being heavier. It was included in type VIIIb according to Z. K. Pinter.

Dating: the end of the 13th century – the first half of the 14th century.

Place of discovery: in the neighbourhood of the Hamba village.

The origin area for this type of piece: it has a very large territorial spread.

References: M. Rill 1983, p. 82, fig. 3/1; Z. K. Pinter 1999, p. 140-142, pl. 42-a.

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[69] Z. K. Pinter, D. Țeicu 1995, p. 251-262.

[70] T. Bader 1985; Z. K. Pinter 1999, p. 54-55, 135-136.

[71] In his work, Z. K Pinter dates this sword for the first time in the 12th century (Z. K. Pinter 1999, p. 54-55) and the second time, around the mid-13th century (Z. K. Pinter 1999, p. 137).

[72] The author of the article on the sword and the vessel in question suggests with relative reserve the following versions of interpretation for the "three runes": "*Ingo*", "*Ingvo*" or „*Igo*"; the inscription was interpreted as a sort of patronymic of the owner of the vessel and probably of the sword from Sighișoara (Z. K. Pinter 1999, p. 54-55, p. 134-137). We find the suggested interpretation of the "inscriptions" on the vessel as runes a bit far-fetched, as one can only see some scratches that appear to be recent (see pl. 5:2). In addition, considering the place where the vessel and the sword were found, we are somewhat reticent regarding their belonging to the same archaeological complex.

[73] Regarding the funerary ritual practiced by the German settlers from the south of Transylvania in the 12th – 13th centuries, see the article by M. E. Crîngaci Țiplic 2007.

The Brukenthal National Museum Sibiu, inv. no. 10325 (new inv. no. M 3876)

9. **Sword of Șeica Mică** (plate 2:4). The piece, very well preserved, [74] is included the category of heavy hand-and-a-half swords for cutting and thrusting. The total length of the sword is 1000 mm, out of which the hilt has a length of 175 mm, being wider on the cross-guard side and narrower at the pommel's entrance; a peculiar fact is that the median fullers do not start right from under the cross-guard, but from about 70 mm below the cross-guard, the cross-guard measuring a length of 205 mm. According to the drawing, in frontal view, the lower half of the pommel is semi-circular in shape, while the top half has a triangular shape; the mount of the pommel on the hilt is asymmetrical. Almost all of the sword's characteristics, excepting the fullers, seem to fit into type VII according to Z. K. Pinter's classification.

Dating: the 13th century

Place of discovery: it was discovered in 1878 at the fortress near Șeica Mică.

The origin area for the type of piece: Transylvania[75].

References: M. Rill 1983, p. 80, fig. 1/1; Z. K. Pinter 1999, p. 131-133.

The Brukenthal National Museum Sibiu, inv. no. 10324, now at the National History Museum of Bucharest, inv. no. 3786.

10. Sword and helmet from Săsăuș (Covasna County). The sword with the cross-guard dated in the 13th century was discovered near a skeleton, with a metal helmet on the skull[76]. Unfortunately, the specialized literature does not provide further details, in order for a typological and chronological classification to be completed.

Dating: the 13th century.

Place of discovery: it was discovered in 1949, 300 m away from the former village of Săsăuș, part of the Lunga commune (Covasna County).

The origin area for this type of piece: unknown.

References: V. Cavruc 1998, p. 139, B. Lorand 2003, p. 311.

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[74] We do not know whether the sword was very well preserved or it was restored.

[75] Z. K. Pinter 1999, p. 132-133.

[76] In the same area, a series of two-edged swords with the guard in the shape of a cross (sic!) were recorded, dated by the authors generally between the 11th – 13th centuries. Due to very little information on the description of the pieces and the conditions of discovery, being reticent regarding their dating, we only wish to mention them in this footnote, without including them into the catalogue.

- The sword from Belin was discovered in a grave dated between the 11th – 13th centuries and is preserved at the National Székely Museum (inv. no. 233), (V. Cavruc 1998, p. 43).
- The sword from Chichiș was discovered together with a coin, next to a skeleton, on the occasion of the bridge over the river Olt being built, 4-metre deep on the right bank of the river. The piece is dated in the 13th century (V. Cavruc 1998, p. 75).
- At Sf. Gheorghe a two-edged sword with its hilt with a cross-shaped guard. The piece is dated between the 11th – 13th centuries (V. Cavruc 1998, p. 128).
- Sita Buzăului (near Întorsura Buzăului) (the National Székely Museum, inv. no. 234) (V. Cavruc 1998, p. 137).
- In 1977, on the border of the village Zagon, when land collapsed, there emerged a skeleton buried with a sword and a spur. The grave is dated in the 11th – 13th centuries (V. Cavruc 1998, p. 75, p. 159).

11. Axe from Feldioara (plate 4:4). The item, primarily designed as a weapon and secondly as a tool, has a neck rectangular in section, slightly extending into a square section prominence; the grip orifice is rectangular with rounded corners and its edges are enlarged as sharp "wings" for a better grip on the handle, the blade is elongated and very slightly curved towards the point. A part of the blade and its point were broken long ago, and based on similarities with other axes it is likely that the edge was originally narrow, approximately 5 cm wide.

Dating: the second half of the 12th century, during the period when the necropolis attributed to the German hospites in Țara Bârsei was functional.

Place of discovery: the item emerged during systematic archaeological research in the medieval necropolis of Feldioara village near the grave of M 101, in an inferior layer where the graves had been dug.

The area of origin area for this type of piece: Eastern Europe[77].

References: A. Ioniță 1995, p. 277-280; A. Ioniță et al. 2004, p. 44, 219, fig. 53/2.

The National Military Museum in Bucharest.

12. Mace head from Racoşu de Sus (Covasna County – between Rupea and Baraolt) (plate 4:1). Mace head without a grip tube (?)[78] with 12 corners, four of them placed in the centre on four edges, and the other 8 on three smaller edges, four disposed on the top and the other four symmetrically disposed on the bottom. The mace seems to be very worn out.

Dating: the 12th – 14th centuries.

Place of discovery: the village of Racoşu de Sus.

The area of origin for this type of piece: Eastern Europe[79].

References: K. Horedt 1940, p. 19; K. Horedt 1986, p. 149, Abb. 62-5 with bibliography.

The Székely Museum in Sf. Gheorghe.

13. Mace head from Bod (Braşov County – between Feldioara and Hărman). Mace head with grip tube and 12 corners, of which the 4 median ones are placed on four edges and the other 8 on three edges, laterally.

Dating: 12th – 14th centuries.

The area of origin for this type of piece: Eastern Europe.

References: J. Teutsch 1903, p. 333, no. IX, fig. 182; M. Simina, Gheorghe Anghel 1998, p. 162, 164.

14. Mace head from Dupuş (Sibiu County – near Ațel) (plate 4:2). Mace head with elongated conical grip tube at the bottom with a small ridge, and 12 long well shaped corners, the median ones on four edges, and the peripheral on three edges.

Dating: 12th – 14th centuries.

Place of discovery: south of the village Dupuș.

The area of origin for this type of piece: Eastern Europe.

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[77] The spreading area of this type of axes, circulating between the 10th – 12th centuries, is very large, as they could be encountered in Hungary, Serbia, Poland, the Russian principalities, as well as Moldavia and Dobrogea (see A. Ioniță 1995, p. 277-280; I. E. Emandi 1981).

[78] According to the description, the mace is presented without a grip tube, but the drawing shows on one extremity an extension of the orifice or of the sleeve, seemingly broken.

[79] See notes 48-49 above.

References: C. Gooss 1876-1877, p. 471, Taf. 4; K. Horedt 1940, p. 19; K. Horedt 1986, p. 148-149, Abb. 62-6.
In the 1940's, it used to belong to the collection of the Secondary School of Sighişoara.

15. Mace head from Miercurea Sibiului (Sibiu County) (plate 4:3). The bronze head with a slightly conical grip tube and 12 longish well-shaped corners, the median ones on four edges and the other 8 on three edges disposed symmetrically at the top and bottom. Dimensions: height: 67 mm, length: 52 mm, grip tube diameter: 23 mm.
Dating: 13th-14th centuries.
Place of discovery: Miercurea Sibiului.
The area of origin for this type of piece: Eastern Europe.
References: A. Nițoi 2007, p. 53
The Brukenthal National Museum Sibiu, inv. no. 10473 (new no. M. 3882).

16. Spur from Sibiu (No. 7 Turnului Street) (plate 4:6) – iron spur with a pyramidal corner, based upon a rectangular plate, attached to the two arms by a short rod; one arm was bent a long time ago, and the attachment pegs are missing. Dimensions: 112 mm total length, arm length: 8 mm, corner length: 28 mm, 78 mm – maximum opening. This type of spur was found both in Transylvania (Piatra Craivii[80], Bratei – *Nisipărie*, Sighişoara – Dealul Viilor, Reci – Covasna County) and at East and South of the Carpathian Mountains (Bâtca Doamnei - Neamț County, Dridu *La Metereze* - Ialomița County) [81].
Dating: the second half of the 12th century and the first half of the 13th century.
Place of discovery: the item was discovered during archaeological research at No. 7 Turnului Street.
The area of origin for this type of piece: spurs with corners on a plate were widely spread, being found both in Western and Eastern Europe.
References: A. Nițoi 2008, p. 209, 215, pl. 3-1.
The Brukenthal National Museum Sibiu, inv. no. M 9114.

17. Bronze campaign tripod vessel from Racoșu de Sus / Vârghiș (?)[82] (Covasna County) (plate 4:5). In 1970, a bronze tripod vessel was discovered near the border of the village of Baraolt. Its lip – broken during the discovery – is bent down, as in ceramic pots, with two circular handles (slightly oval in section) attached to it; both the legs – triangular in section – and the two ears are founded together with the vessel; the body, spheroid in shape, is segmented by the founding burrs, indicating that the outside pattern was made of several pieces; the trace of the forging channel – circular with a diameter of 17 to 18 mm – is at the bottom, the same as for the fonts; it shows that the vessel was cast lip down, and the ventilation orifice was probably in one of the legs, but its trace cannot be noticed due to wear; the total height of the vessel is 252 mm and the mouth diameter – 176 mm. Initially, historiography assigned it to the Pecheneg population, but recent research has shown that this form is characteristic for the territories inhabited by the

[80] Gh. Anghel, I. Berciu 1968, p. 10, fig. 3.
[81] See also A. Ioniță 2005, p. 96, A. Ioniță 2009, p. 36. and bibliography. The spur from Sibiu is a type B 3 according to Ruttkay's typology (Al. Ruttkay 1976, p. 347, fig. 72, p. 349-350) and type IV or IVa, according to Kirpičnikov's typology (A. N. Kirpičnikov 1986, p. 113).
[82] In the vicinity of Baraolt, in an unknown point of the town Biborțeni (near Baraolt) were recorded ovens for ore reduction, but their period of origin is also unknown (V. Cavruc 1998, p. 39).

German people in the Middle Ages and the modern times, especially for the North German provinces. The tripod vessels (German Grape / Dreibeintöpfe aus Bronze) are so prevalent in these regions that in the 1960s around 550 such vessels were already documented on the territory between Flanders and Pomerania[83]

Dating: the 12th – 13th centuries.

Place of discovery: Z. Székely states that the object was found between the villages of Baraolt and Vârghiș, in the riverbed of Vârghiș stream, on the occasion of sand exploitation. According to the field research of Bordi Zs. Loránd (the Székely National Museum – Sf. Gheorghe), the object was actually discovered on the border between the villages of Racoșu de Sus and Baraolt, on the occasion of the Nadas stream regularization.

The area of origin for this type of piece: the manufacturing method indicates northern Germanic influences.

References: Z. Székely 1974-1975, p. 69, fig. 8; V. Cavruc 1998, p. 158, pl. XXIII/5; E. Benkő 2003, p. 111-112.

The Székely National Museum (?)

18. Leg of a bronze tripod vessel from Cristuru Secuiesc. 50 km north-east from Baraolt, at Cristuru Secuiesc, in a settlement dated in the 13th century, objects and houses were discovered, different from other discoveries made in that area; among them there was the leg of a vessel similar to that from Racoșu de Sus. The researcher associated these findings with a small German community, which had disappeared in violent circumstances; in one of these burnt houses parts of a human burnt skeleton were identified.

Dating: the 13th century.

Place of discovery: the item was discovered during the archaeological research near Cristuru Secuiesc.

The area of origin for this type of piece: North German influences.

References: E. Benkő 1992, p. 167-168, plate 40/9; E. Benkő 2003, p. 113

Translated by Cristina and Bogdan ARIZANCU

[83] E. Benkő 2003, p. 111-112. On the typology, dating and functionality of these bronze vessels see H. Drescher 1969, p. 286-315, H. Drescher 1982, p. 157-174.

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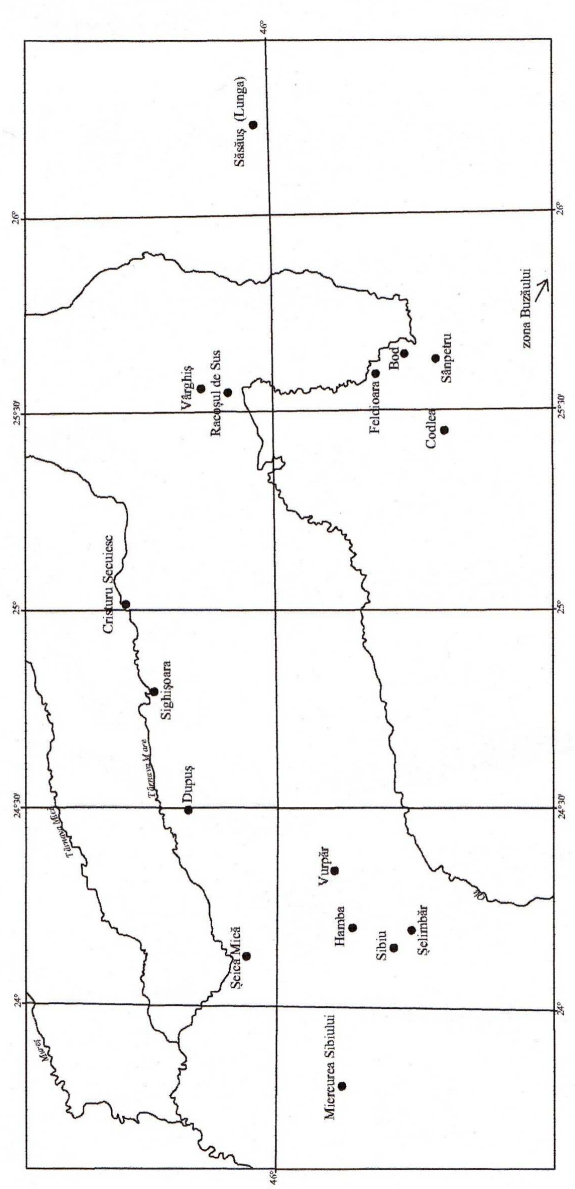
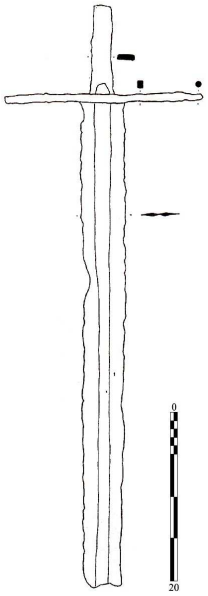
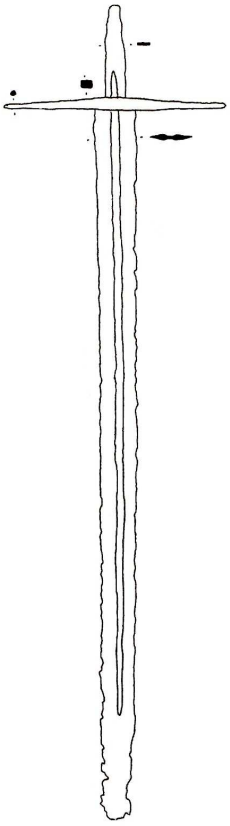


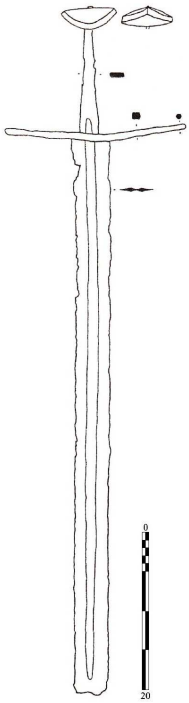
Map 1: The distribution of the weapons and military equipment found on the german settlement area from southern Transylvania (the 12th – 13th centuries).



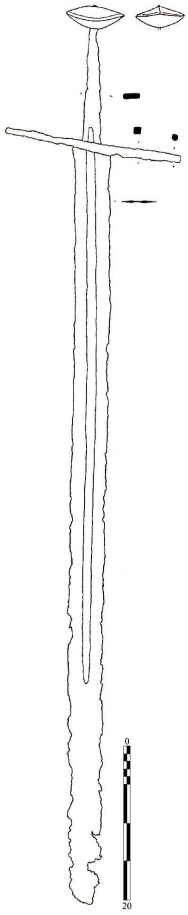
1. Sighișoara. Sword
(acc. to Z. K. Pinter 1999)



2. Grid. Sword
(acc. to Z. K. Pinter 1999)

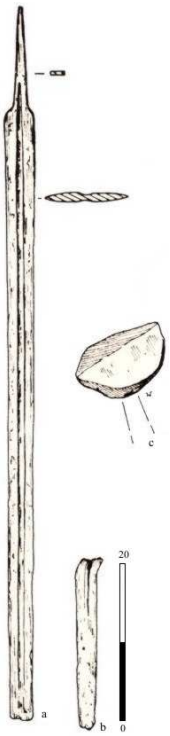


3. Sânpetru. Sword
(acc. to Z. K. Pinter 1999)

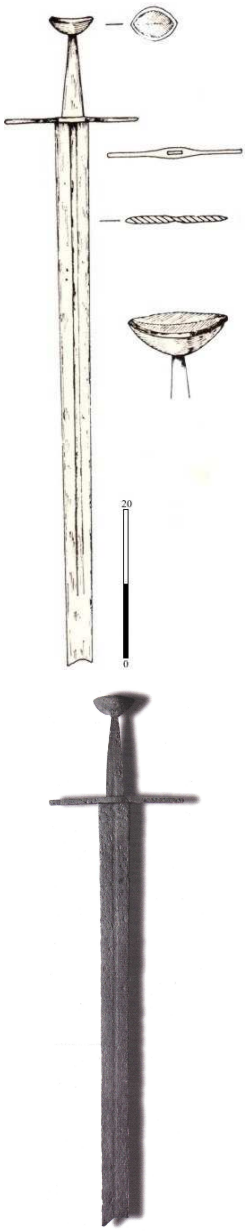


4. Codlea. Sword
(acc. to Z. K. Pinter 1999)

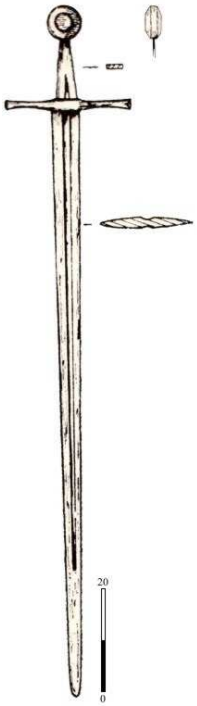
Pl. 1.



1. Sword fragment (a), sword point (b) and pommel (c) from the forge of Șelimbăr
(acc. to M. Rill 1983)



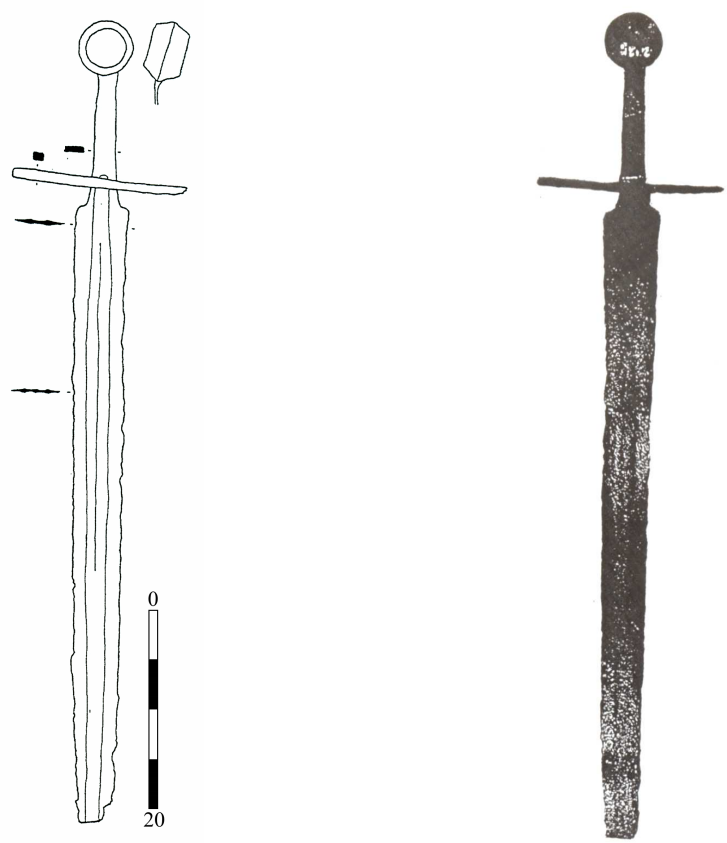
2. Vurpăr (SB). Sword
(drawing M. Rill 1983 and photo A. Nițoi 2007)



3. Hamba. Sword
(acc. to M. Rill 1983)

4. Șeica Mică. Sword
(acc. to M. Rill 1983)

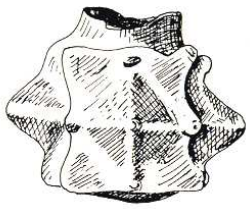
Pl.2.



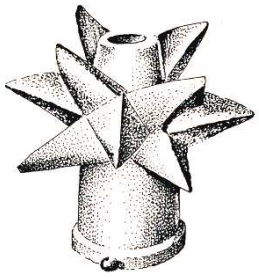
1. Sighişoara. Deformed sword straightened by discoverer (acc. to Z. K. Pinter 1999)

2. Sighişoara. Vessel discovered together with the deformed sword, preserved at the History Museum from Sighişoara (photo, the History Museum Sighişoara)

Pl.3.

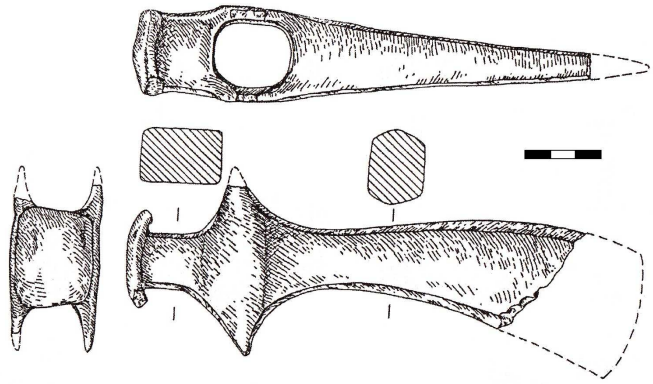


1. Racoşu de Sus. Mace (acc. to K. Horedt 1986, without scale)



2. Dupuş. Mace (acc. to K. Horedt 1986, without scale)

3. Miercurea Sibiului. Mace (acc. to A. Nițoi 2007, without scale)

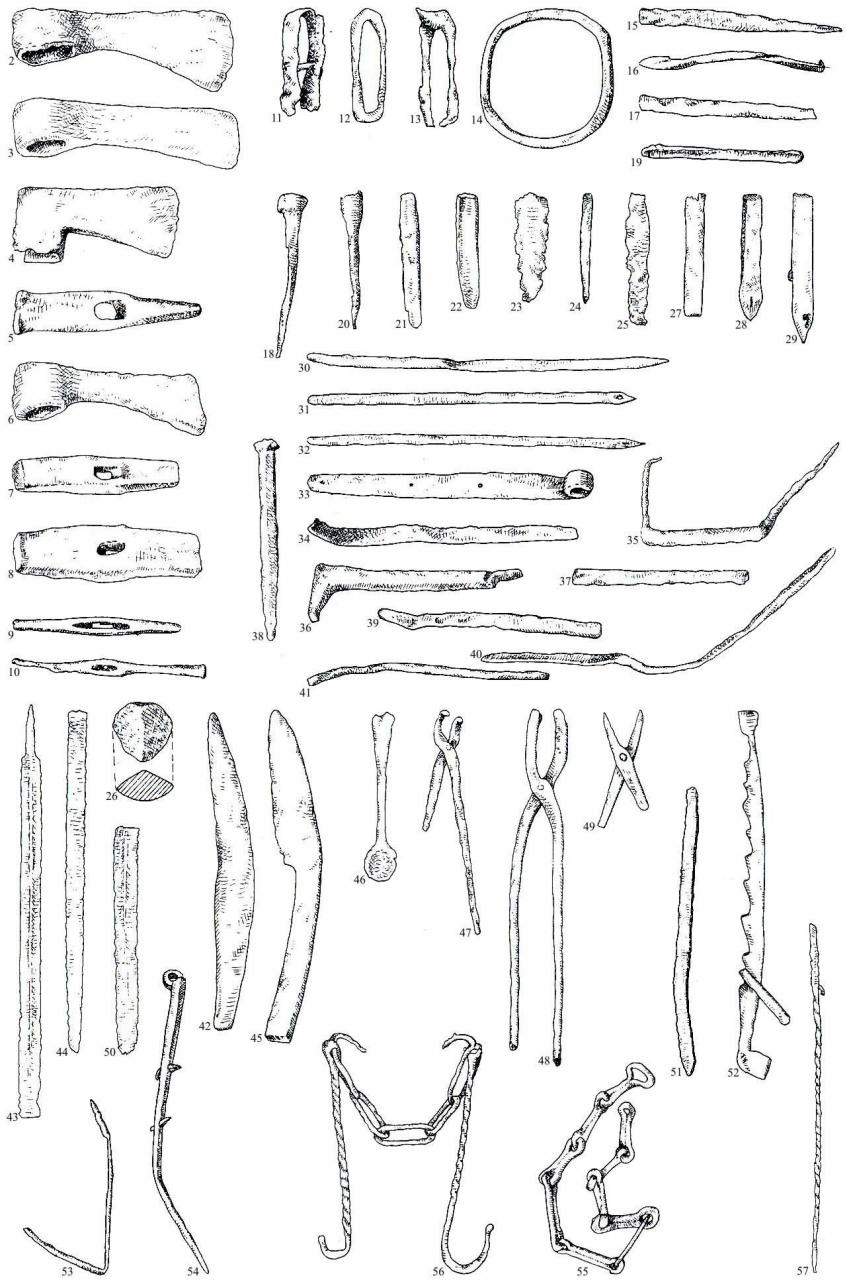


4. Feldioara. Axe (acc. to A. Ioniță 1995)

5. Racoşu de Sus. Campaign bronze tripod vessel (E. Benkő 2003, without scale)

6. Sibiu. Spur (acc. to A. Nițoi 2008)

Pl. 4



Pl. 5. Șelimbăr. The blacksmith's workshop (acc. to K. Horedt 1977, without scale)

Early Medieval Ornamented Axes from the Territory of Poland

Piotr N. KOTOWICZ*

Keywords: *Early Medieval, battle-axe and axe, decoration, social status, religion and cult*

Abstract

Among over 900 early medieval axes found in the territory of Poland only 27 have some kind of ornaments. Within them we can identify axes with different decoration techniques: engraving, punching or inlay. This small group of artefacts is connected with the most interesting problem which can be discussed in the area of technological, symbolic, religious and social issues. Therefore, we can suggest that ornamented axes had a special destination and was precious for its owners. It is confirmed by the most popular opinion that they were associated with the social elite of early medieval Europe. Axes were symbols of power, rank and wealth. But, what is interesting, some of researchers think that they could be connected with cult of Pagan gods – Perun and Perkun. The others consider that they were the attributes of Saint Olaf.

The most interesting problem which can be discussed in the area of technological, symbolic, religious and social issues, concerns the decoration of weapons. Among several categories of weapons whose attractiveness was emphasized by using various motifs and decorative techniques, there can be found battle-axes and axes as well.

The matter of the decoration of this kind of weapon has generated much interest for a long time[1]. Before the Second World War it was discussed in the prestigious monograph of P. Paulsen, however, it rested on questionable methodical assumptions accepted a priori. These influenced the interpretation and conclusions drawn during the analysis[2]. However the conclusions were less radical in the following post-war publication[3]. In the next years, by dint of the influx of new finds, the number of publications increased. Mainly Russian[4], Scandinavian[5], German[6], Lithuanian[7], and

* Historical Museum in Sanok, Zamkowa 2 Street, 38-500 Sanok; Institute of Archaeology, University of Rzeszów, Hoffmanowej 8 Street, 35-016 Rzeszów (p_kotowicz@o2.pl, actamm@gmail.com).

[1] Jentsch 1883; Спицын 1915; Городцов 1926; Новосадский 1930; Petersen 1936; La Baume 1941, p. 25-26.

[2] Paulsen 1939.

[3] Paulsen 1956.

[4] Даркевич 1961; Корзухина 1966; Макаров 1988; Кулаков 1991/1992; Артемьев 1994; Кулаков, Скворцов 2000.

[5] Strömberg 1953; Fuglesang 1991; Gottlieb 1991; Nielsen 1991; Vellev 1991; Stamsø Munch 1993.

[6] Biermann 2002; Raddatz 2002.

[7] Казакявичюс 1988, p. 76-78; Malonaitis 1998; Malonaitis 2002, p. 172-177, Fig. 5-7.

lately Polish[8] researchers have been involved in the discussion. However, in other countries we do not see much interest in that subject[9].

Ornamentation on axes appears at the beginning of the Middle Ages[10]. Engraving and silver inlay were known to the Avars[11], the first of the techniques is also visible in the case of battle-axes from the Khazar Khaganate[12]. The climax of the phenomenon falls within the 10th and the 11th cent., and ornaments appear rarely on specimens dated to later times. The territorial range of decorated axes encompasses the territory of Northern, Middle-Eastern and South-Eastern Europe, including: Scandinavia (Norway[13], Denmark[14], Sweden[15]), the United Kingdom[16], Germany (particularly, regions inhabited by the Slavs in the Early Middle Ages)[17], the Czech Republic[18], Hungary, Sambia[19], Lithuania[20], Latvia[21], Estonia[22], Finland[23], Russia[24] and Bulgaria[25]. Artefacts of this kind are also known from the territory of Poland. The main aim of this article is to discuss these specimens.

Among over 900 early medieval axes found in the territory of Poland only 27 have some kind of ornaments[26]. It is only 3% of entire number of finds, but in the neighbouring territories the situation is similar. Therefore, we can suggest that this group of artifacts had a special destination and was precious for its owners. According to P. Paulsen[27], within this group we can identify axes with different decoration techniques: engraving, punching or inlay. Ornamentation was placed both on battle-axes (11 specimens) and axes (16 specimens) with wide or narrow blades. Their concentration is visible in Greater and Central Poland and also in Pomerania.

[8] Drozd, Janowski 2007; Góra, Kotowicz 2008-2009; Kotowicz 2011; Janowski, forthcoming; Świętosławski, forthcoming.
[9] Leppäaho 1964, Fig. 61-63; Devenish, Elliott 1967; Ginters 1967.
[10] It is nothing new. Decorated axes are known from the early Roman Period – see Kieferling 1994, p. 353, fig. 14; Nowakowski 1995, p. 36-38, fig. VII:1-2, 5.
[11] E.g.: Kiss 1977, Pl. XXXII:133/6, LXXXVI:4; Zábojník 2004, p. 50, Fig. 18:3.
[12] Михеев 1985, Fig. 8:25, 14:2; Комар, Сухобоков 2000, Fig. 2:45, 5, 57; Аксенов, Михеев 2009, fig. 4:1.
[13] E.g.: Paulsen 1956, fig. 33:a-c.
[14] E.g.: Strömberg 1953; Paulsen 1956, figs. 44, 86; Eisenschmidt 2004, fig. 112:2.
[15] E.g.: Paulsen 1956, fig. 29:a-b, d-f, 45, 48, 55, 78; Jansson 1988, p. 616-617, Fig. 26:2 (but this specimen was imported from the South-East).
[16] Paulsen 1956, fig. 32; Devenish, Elliott 1967.
[17] Paulsen 1956, figs. 82-83; Heindel 1992, fig. 13:b, 21:f-g, 23:g.
[18] Šolle 1966, p. 269-270, fig. 11b/120/11; Kouřil 2006; Kouřil 2008, p. 117-118, fig. 3:7.
[19] E.g.: Paulsen 1956, fig. 30:i, 34:f, 87.
[20] Volkaite-Kulikauskiene 1964, Fig. 2, 5, 7:1; Malonaitis 1998.
[21] Paulsen 1956, figs. 31:b, d, 34:a, c, 79, 81; Ginters 1967; Atgāzis 1997, Fig. 3:2,4.
[22] E.g.: Paulsen 1956, fig. 31:a, c, e, 33:d-e, 34: d-e, g, 35:a-c, 36:a.
[23] E.g.: Paulsen 1956, fig. 29:h-i, 30:a-f, 35:d, 36:b-d, 50-51, 65.
[24] Корзухина 1966; Макаров 1988; Артемьев 1994.
[25] Yotov 2003, p. 24-25.
[26] In the previous literature it was said that traces of tinning were found on the surface of the axe from Wrocław, Silesia – Jaworski, Kaźmierczyk, Rzeźnik 1991, p. 171-172, pl. XVIII:1. Unfortunately, these marks are completely invisible now (the examination of artefact was done in 2008).
[27] Paulsen 1956.

Only single artifacts were discovered in Masovia, the Lublin and the Lubuskie Regions (Fig. 1). These specimens were discovered in several kinds of sites: two in strongholds, nine in cemeteries, two in settlements and six in remains of bridges. Five of them are accidental finds and the next three are of unknown provenance. Their connection with the territory of Poland is only hypothetical, but very probable. The chronology of these artefacts is very broad and encompasses the period between the 9th and the 13th cent. Some early ornamented specimens are represented by three battle-axes from the 9th and the 10th cent. Most of them – 17 specimens – appear in the 10th and the 11th cent. Seven axes are dated to the 12th and the 13th cent.

The largest groups of ornamented axes are specimens decorated with engraving. The artifacts decorated in this way are also the most widespread in the territory of whole Europe. The ornamentation takes various forms. The most popular way was to put a few vertical grooves (2 to 5) on the necks of the axes and sometimes on the necks of the battle-axes' hammers[28]. Ornaments which covered larger surfaces or assumed other forms (e.g., crosses) were less common in this technique. Some researchers think that in many cases (like in the case of the battle-axe from Bardy – see below) the grooves were primarily inlayed[29].

Some early ornamented specimens are represented by two battle-axe of the *bradatica* type (Type I according to J. Poulik). This kind of battle-axes is typical for the Great Moravian State, but circa 15 specimens are known from the territory of Poland[30]. The first of them was discovered in the stronghold at Bardy (Kołobrzeg distr., Pomerania) in 1964, in the construction of the rampart which was destroyed and burned at the turn of the 9th and the 10th cent.[31] It can be dated to the 9th cent., possibly to its 2nd half[32]. This battle-axe is ornamented with carving lines inlaid in bronze on the shaft hole and the neck[33] (Fig. 2:2). The second one was found in 1976, in the fortified settlement in Barkowice Mokre (Piotrków Trybunalski distr., Central Poland), dated to the 9th cent. This specimen, dated to the mid- 9th cent., was discovered in the eastern part of the defensive trench No II, in the arable topsoil layer. This battle-axe is extraordinary, because a composition of geometrical ornaments in the shape of fir-like and ladder-like patterns was carved on its blade and neck (Fig. 2:1). Unfortunately, we do not know whether this pattern was originally inlaid. No traces of inlay were detected by X-ray examination of the artefact. Additionally, the hammer of this battle-axe is decorated with four surrounding carving lines[34]. This is a special case, because among a few hundreds of *bradatica* type battle-axes discovered in the territory of Central Europe (first of all in the Moravia region) there are only

[28] See also Йотов 2004, pl. XLVI:554, XLVII:561, L:585.
[29] Paulsen 1956, p. 69; Żak 1967, p. 298 and 300, footnote 48.
[30] Kotowicz 2009.
[31] Łosiński 1966, p. 163, fig. 1; Łosiński 1972, p. 94-95, fig. 94.
[32] Dulinicz 2001, p. 98.
[33] Wachowski 1981, p. 154-156, ryc. 3:c.
[34] Góra, Kotowicz 2008-2009, p. 238-246, pl. IV-V.

several specimens decorated on the parts of their hammers, but never on the blades and necks[35].

One more specimen whose discovery can be defined as the result of contacts of "Polish" tribes with territories situated on the South of the Carpathian line, is the accidental find from Łaszczów[36] (Tomaszów Lubelski distr., Lublin Region). This type of battle-axe, rare in the territory of Poland[37], belongs to Type 2 according to J. Poulik[38] (probably dated to the 9th or the 10th cent.) and on the right side of its hammer there are three carving lines (Fig. 2:3). The author has not found any axe of this type with analogical ornamentation till now.

The next large group of decorated axes found in Great Poland, Pomerania and Masovia are considered as a result of contacts of the young Polish Piast State and the Pomeranian Slavs with their neighbours – mainly the Vikings and the Rus' State. Of course, some of them could be manufactured in local workshops. They are represented by specimens decorated with carving lines on their necks and, in the case of battle-axes, on the hammers too. Originally, the lines, as it was mentioned above, could be filled with coloured metal wire[39]. Most of them are dated to the 11th cent. and they generally belong to Type IA according to A. Nadolski[40] and Type M according to J. Petersen[41].

Battle-axes of Type IA decorated in this way are mainly known from inhumation cemeteries. The first of them (Fig. 3:1), with decoration of three lines on the neck and five on the back parts of the hammer, was found during the excavations by F. Tarczyński in 1885-1886 in the cemetery with stone casing in Karwowo (Płock distr., Masovia)[42]. The next (Fig. 3:2), with three carving lines on the neck, was found before the Second World War in Buszkowo[43] (Bydgoszcz distr., Pomerania). In the cemetery in Szarów (Poddębice distr., Central Poland), excavated by German archaeologists during the Second World War, the battle-axe with three lines on the neck and the hammer[44] was discovered (Fig. 3:3). Additionally, we do not know anything about their positions in graves, nor we have any information about other grave-goods, and even sex and age of the persons buried with those specimens. Much more information is available about the battle-axe from Lutomiersk (Pabianice distr., Central Poland). This specimen with two carving lines on the neck and the hammer

[35] Kouřil 2006, fig. 5; Góra, Kotowicz 2008-2009, p. 246; Kouřil 2008, fig. 3:7.
[36] Unpublished, private collection of Adam Kita from Lublin.
[37] Only three specimens of this type were mentioned in the literature. These are battle-axes from Czechowice (Silesia), Włodarka (Pomerania) and an unknown place in Pomerania – see Świątkiewicz 2002, p. 53-54, pl. XII:1,3; Strzyż 2006, p. 43-44, fig. 5:3.
[38] Poulík 1948, p. 33.
[39] Borowczak 2008, p. 97, cat. I.58.
[40] Nadolski 1954, p. 40-41, pl. XII:1-2.
[41] Petersen 1919, p. 46-47, fig. 44-45.
[42] Tarczyński 1901, p. 31; Nadolski 1954, p. 41, tab. B/99; Kordala 2006, p. 50, cat. 34, tab. 24/3.
[43] Langenheim 1936, p. 276, fig. 3; Hensel 1950, p. 99, fig. 68; Nadolski 1954, p. 41, tab. B/8, tabl. XII:2; Wilke, Potemski 1970, p. 9-10, fig. 2.
[44] Nadolski 1954, p. 41, tab. B/125, tabl. XII:1.

(Fig. 3:4) was discovered in 1949, in the male grave No. 69 and was situated near the right foot of the dead. Its blade was directed towards the body[45]. Two more analogical battle-axes (Fig. 3:5-6) were found during the long-term excavations in the Lednica Lake (Rybitwy, sites 3a and 3b, Gniezno distr, Greater Poland), in the remains of two early medieval bridges, which connected the mainland with Ostrów Lednicki (Lednica Island)[46]. Along these bridges over 250 weaponry finds were discovered, with ca. 150 axes and battle-axes. The bridges are dated to the 2nd half of the 10th – the 1st half of the 11th cent. (construction – ca. 963; the last repair – ca. 1032-1033)[47]. In the literature the specimens from the Lednica Lake are mainly connected with the invasion of the Duke of Bohemia – Bretislaus the First in 1038, and the hypothetical battle which was fought on the Lednica's bridges[48]. What is more, one of those specimens has motifs of "wolf's teeth" on the edges of the blade, the neck and the shaft-hole, and also diagonal check on the base of its hammer[49]. Apart from Poland, battle-axes of this type are known only from the territory of Russia and the Baltic countries[50]. Among them the ornamented artefacts are very rare. One of them is the specimen found in the 11th cent. grave in Kabanskoe in Russia[51], which has the convex decoration in the form of three circular ridges on the hammer's neck and the incised hammer.

Type M is represented by three specimens[52]. The first of them, from Poznań-Luboń[53] (Poznań distr., Greater Poland), is the accidental find in the inhumation cemetery in 1937[54]. It is decorated with two carving lines on the neck (Fig. 4:1). The specimen from the burial ground in Skotniki (Szczecinek distr., Pomerania) is dated to the end of the 10th or the 1st half of the 11th cent., and was found in the male (?) grave No. 1, near the right foot of the dead. This axe was probably ornamented with a single carving line on the neck[55] (Fig. 4:2). One more Type M axe from the Lednica Lake had two series of seven thin cuts on the top part of the neck[56] (Fig. 4:3). Close analogies to „our" artefacts are known in Scandinavia, especially in the territory of Middle Sweden (Uppland) and to a lesser extent in Norway. This fact was a

[45] Jażdżewski 1951, p. 101, 110-114, fig. 18; Nadolski, Abramowicz, Poklewski 1959, p. 47, 52-54, tab. 8, pl. XXXVI:d.
[46] Górecki 2001, p. 53, fig. 8:11 and 13; Borowczak 2008, cat. 58 and 139.
[47] Wilke 2006, p. 443.
[48] Wilke 2006, p. 449. However, this is only one interpretation. For example, L. P. Słupecki (2006, p. 67-68) claims that part of these finds may suggest that there was a pagan sacrifice place there.
[49] Borowczak 2008, cat. 58.
[50] Paulsen 1956, p. 44, fig. 14:e; Кирпичников 1966, p. 35, pl. XII:7-8.
[51] Спицын 1905, fig. 85; Кирпичников 1966, cat. 214, pl. XII:7.
[52] Apart from these specimens, few artefacts of this type are known from the territory of Poland – Kurasiński 2005.
[53] M. Kara suggests that this specimen is a "hybrid' of Types M and Laptau – Kara 1991, p. 109, footnote 59.
[54] Rajewski 1937, p. 84-85, pl. XI:3; Nadolski 1954, tab. B/73, pl. XIV:2; Kara 1991, p. 108-111 and footnote 59, No. 4, fig. 3:3.
[55] Kurasiński 2005, p. 200, 202, 208, footnotes 2 and 23, fig. 2:4.
[56] Borowczak 2008, cat. 142. Unfortunately, the ornamentation is not preserved at present.

background to the hypothesis that the axes of Type M decorated in this way and discovered in the territories of the Western Slavs (also Poland) may have originated in these regions[57]. However, it is worth mentioning that singles specimens were found also in England and Germany[58].

This type of ornamentation is visible on another axe from the Lednica Lake, belonging to Type Vc according to A. Nadolski. This type was very popular in Poland[59]. Similarly to the previous cases, the neck of this artefact was decorated with carving lines on both sides. Additionally, a wide arched carving line appears on the blade and the beard of the axe[60] (Fig. 5:1). This specimen is dated to the 11th cent. Decorated axes of this type are known from Russia[61] and Gotland[62].

The specimen decorated in the same way was discovered in the Gągnowo Lake, near Nętno (Drawsko Pomorskie distr., Pomerania) during underwater excavations in 2003. This small axe was found in the remains of the wooden bridge (built after 964), which went to the island, where there was a ceremonial and trading place. This axe is ornamented on the left part of the neck. The ornament consists of four vertical carving lines[63] (Fig. 5:2). The axe itself belongs to Type IVd according to A. Nadolski's typology[64]. This kind of ornamentation (Fig. 5:3) can be seen on the preserved fragment of the axe found in the stronghold in Tum, site 1 (Łęczyca distr., Central Poland). The artefact was discovered in the 12th-13th-century layer, during archaeological excavations in 1950[65]. More complex ornamentation can be found on the small (also partially preserved) axe from Sędzin, sites 86-88 (Aleksandrów Kujawski distr., Kuiavia). Its blade and neck are double-sided ornamented with three groups of double vertical lines and the motif of oblique incisions on the edges (Fig. 5:4). The artefact was discovered in the early medieval settlement, in the object No. 13, dated to the 12th-13th cent.[66]

Apart from this group of artefacts, in Polish museum collections there are two more battle-axes from this period (dated probably to the 11th cent.), which have the decoration of carving lines. Unfortunately, we do not know anything about their provenance. The battle-axes are close to Type III according to A. Nadolski's typology. One of them, preserved in the collection of the Archaeological Museum in Cracow[67] has a single wide line placed on the left part of the hammer (Fig. 5:6). The second, preserved in the collection of the National Archaeological Museum in

[57] Rygh 1885, No. 558; Żak 1967, p. 298-300; Kurasiński 2005, p. 208.
[58] Wheeler 1927, p. 26, fig. 11; Unverzagt, Schuldt 1963, pl. 30:c; Żak 1963, p. 32, cat. 33, fig. 7:1; Żak 1967, p. 298.
[59] Nadolski 1954, p. 46.
[60] Górecki 2001, p. 58, fig. 9:3; Borowczak 2008, cat. 91.
[61] Рябинин 2001, p. 43-44, fig. XXIII:9.
[62] Paulsen 1956, fig. 29:d-e.
[63] Kaźmierczak, Niegowski, Ważny 2006, p. 462, fig. 5:f.
[64] Nadolski 1954, p. 44-45, pl. XVI:4.
[65] Abramowicz, Nadolski, Poklewski-Koziełł, Wieczorek 2003, p. 62-63, cat. 070b.
[66] Maik, Świętosławski, Wtorkiewicz-Marosik, Żemigała 2009, p. 188, 190, fig. 22:12.
[67] Nadolski 1954, tab. B/170.

Warsaw[68], has three circular carving lines put on its hammer (Fig. 5:5). A good analogy to this specimen is the battle-axe from Gotland[69].

The decoration in form of vertical engraved lines is mainly connected with Scandinavian culture. The specimens from other territories, like Poland, decorated in this way are considered as the result of the presence of the Scandinavians among the Slavs or Scandinavian influences[70]. However, it seems that this opinion is too simplified. Worth mentioning is the fact that with the exception of specimens regarded as typical Scandinavian axes (e.g. axes of Type M according to J. Petersen), this kind of ornament can also be found on 11th century battle-axes of Type Ia according to A. Nadolski, or axes with narrow blades from Lithuania[71]. Such axes are completely unknown in Scandinavia, but they are characteristic for the territories of Middle-Eastern Europe. A possibility of local production of such artefacts should be taken into consideration; however, the Scandinavian inspiration is also highly probable.

Very special kinds of specimens are axes on which the signs of the Greek cross were engraved with a sharp tool[72]. The first one belongs to Type M according to J. Petersen's typology and was discovered at the end of the 19th cent. in the inhumation cemetery in Blichowo (Płock distr., Masovia). The axe was excavated in the male grave No. 6 with a wooden bucket, and can be dated to the mid-11th cent.[73] The cross was put on an isolated field in the shape of a rhombus on the back side of the hammer (Fig. 6:1). The other one (of unknown provenance) is preserved in the collection of the Museum of the Polish Army in Warsaw[74]. This specimen can be dated to the 13th cent.[75], and decoration of the Greek cross was put on both sides of the blade (Fig. 6:2). On its right side, a trace of one more sign is notable, which in all probability resulted from an unsuccessful attempt at ornamenting the specimen.

The accidental find from the surroundings of Piła (Piła distr., Great Poland) is very exceptional. It was decorated with three carving lines on the small ledge which crowns the end of its beard[76] (Fig. 6:5). The axe belongs to Type Vb according to A. Nadolski, and it can be widely dated to the 11th-13th cent. The analogically decorated specimen of this type is known from Vitebsk in Belarus and it is dated to the 13th

[68] Unpublished. Collection of the National Archaeological Museum in Warsaw, No. PMA/VI/8658. It could be published in this article by courtesy of Dr Wojciech Brzeziński, the Director of the Museum and Andrzej Piotrowski M.A., Head of the Department of Early Medieval and Modern Period Archaeology.

[69] Paulsen 1956, fig. 29:f.

[70] Артемьев 1994, p. 158; Żak 1967, p. 298-300; Kara 1991, p. 109, footnote 59; Kurasiński 2005, p. 208.

[71] Malonaitis 1998, fig. 4.

[72] For more on this issue see Kotowicz 2011.

[73] Rutkowski 1906, p. 41-42, pl. IV; Kordala 1999, p. 106-108, fig. 3:a; Kurasiński 2005, p. 200, 203, fig. 3:4; Kordala 2006, p. 39, cat. 3, tab. 24:1.

[74] Kotowicz 2011, fig. 5.

[75] Close analogies to our artefact are the axes found in the stronghold from the 2nd half of the 13th cent. in Raciąż, Tuchola distr., Poland - Świątkiewicz 2010, fig. 12:3, 13:1.

[76] Unpublished. Private collection of Robert Fedyk from Sanok.

cent.[77]

Sometimes the ornamentation in engraving technique is enriched by punching. It is visible on another miniature axe from the Gągnowo Lake. The find (close to Type IVe according to Nadolski) has a geometrical composition of spots and carving lines[78] (Fig. 6:4). This type of ornamentation also appears on the accidental find from Perespa (Tomaszów Lubelski distr., Lublin Region). In this case two thin carving lines with single and double lines of spots were engraved on the right side of the neck[79] (Fig. 6:3). This axe belongs to Type Vb according to A. Nadolski and is widely dated to the 11th-13th cent.

Undoubtedly, the most prestigious axes decorated with the inlay technique belong to a group defined by P. Paulsen as *Prunkaxten*. Here belong the artefacts decorated with inlaid technique which covers large parts of their surfaces. Three of them (Poznań-Luboń, Lednica Lake and Pień) are dated to the 11th cent., while the other (Gubin and Żagań) come from the 13th cent.

The following axe (in fact a battle-axe) ornamented with silver and copper inlay belongs to the 11th cent. Type Lunov according to P. Paulsen's typology and it comes from Luboń near Poznań (Poznań, distr., Greater Poland). The axe was accidentally discovered before the Second World War in the inhumation cemetery[80]. Decoration in the form of silver and copper stripes originally covered almost the entire surfaces. Additionally, the figure of a horse was visible on its blade (unfortunately, it cannot be seen now). The back side of the specimen's hammer was decorated with the sign of the cross potent (Fig. 7:3). The battle-axes of this type are quite rare, and their concentration is visible in the Baltic See basin. Analogical ornamentation can be seen on silver-decorated axes known from Lunov, and also from the Havel River near Brandenburg, Germany[81] and Lund in Denmark[82]. Less complex ornamentation (two engraved vertical lines on the neck) is visible on the axe from the cemetery in Viskiauten, Sambia[83].

Another axe from the Lednica Lake has rich ornamentation as well. This axe must be classified as a unique version of Type Laptau according to P. Paulsen[84]. Primarily[85], on its surfaces there was a visible inlay decoration (in silver?) in the form of combination of geometrical motifs and "fish scale" (Fig. 7:2). This last motif was

[77] Гурин 1987, fig. 21:5 and plate.
[78] Kaźmierczak, Niegowski, Ważny 2006, p. 462, fig. 5:g.
[79] Unpublished. Collection of the Janusz Peter Regional Museum in Tomaszów Lubelski (Muzeum im. Janusza Petera w Tomaszowie Lubelskim), No. MT/1122/1/A. It could be published in this article by courtesy of Jolanta Bagińska M.A.
[80] Rajewski 1937, p. 84-85, pl. XI:2; Nadolski 1954, p. 43, footnote 27; tab. B/72, pl. XV:4; Paulsen 1956, p. 158, fig. 84; Kara 1992, p. 169, fig. 1.
[81] Paulsen 1956, p. 156, fig. 83 ; Szameit 2001, p. 78, il. 40.
[82] Strömberg 1953; Paulsen 1956, p. 159-163, Abb. 85:a-b. This battle-axe bears the same kind of sign of the cross (cross potent), which can indicate that the specimens from Lund and Poznań-Luboń were made in the same workshop, certainly in the Slavic environment – Kotowicz 2011.
[83] Paulsen 1956, p. 83, fig. 30:i.
[84] Górecki 2001, p. 53, fig. 9:1; Borowczak 2008, p. 87, cat. 37.
[85] During the examination of this artefact in 2009, the ornamentation was completely invisible.

revealed on the axe from Laptau (now Muromskoe)[86], and also on a few axes of Type IV according to A. N. Kirpičnikov, known from Sambia[87], Russia[88], Sweden[89] and on the atypical artefact from Germany[90]. Due to the fact that most axes of this type were discovered in the territory of Northern Russia (the surroundings of Belozero) it can be suggested that this kind of ornamentation originated in this region[91].

The richly ornamented axe found in the inhumation cemetery in Pień during the excavation in 2004 (Bydgoszcz distr., Chełmno Land) is a spectacular find. The axe, belonging to Type IV according to A. N. Kirpičnikov, was discovered in the chamber grave (No. 15) of a *maturus* age man. This find was situated below the skeleton, on its right hand side near the shank. Moreover, strongly mineralized fragments of fabric (a robe or a shroud) and skin were preserved on its surface. The grave was richly equipped. Apart from the axe, there were also a wooden bucket, a bronze bowl, a wooden vessel, a whetstone, an iron knife and fragments of silk textile. It can be dated to the end of the 10th or the 1st half of the 11th cent. Ornamentation in the form of inlaid sheet stripes made probably of silver is notable on the surface of one of the axe's sides in the blade's upper part and on the set traces. The X-ray analysis demonstrated that both surfaces of the axe-head were ornamented. The central part of the composition is occupied by a pattern made of an unornamented space in the shape of some kind of the cross potent. Each arm is topped with a reversed E letter. In the blade's upper and lower parts there are two parallel streaks with motifs of hourglasses and rhombuses. In the front and back parts there are visible motifs composed of triangles[92] (Fig. 7:1). Analogies to some decorative elements of the composition and to the ornamentation itself have not been found so far. As it is rightly emphasized by some researchers, the axe belongs to the mentioned group of richly ornamented axes of Type IV (Kirpičnikov), known mainly from the Eastern region of the Baltic See basin, where they surely originated from[93].

The most enigmatic category of artefacts is two unusual axes of Type Vb according to A. Nadolski. They were discovered in the 19th cent. on the territory of Lower Lusatia (now Lubuskie Region). The first of them was found in 1884 in Gubin, on the Easter Hill, on the depth of 2 m together with late medieval pottery, a sickle and nails[94]; the second one is an accidental find from ca. 1850 in Żagań[95]. Both of them – which unfortunately were lost during the Second World War – belong to the

[86] Paulsen 1956, p. 168-170, fig. 87:a; Drozd, Janowski 2007, fig. 8:a.
[87] Drozd, Janowski 2007, fig. 6:f.
[88] Корзухина 1966, p. 91-92, fig. 2:3-4; Макаров 1988; Артемьев 1994, p. 160, fig. 3:2.
[89] Paulsen 1956, fig. 78.
[90] Heindel 1992, p. 44-45, fig. 23;g.
[91] Drozd, Janowski 2007, p. 118.
[92] Drozd, Janowski 2007; Janowski, forthcoming.
[93] See footnotes 88-91 and Курдашов, Вашенькин 1999, fig. 2:14; Кулаков 2004, fig. 85:1.
[94] Jentsch 1883; Werner 1929; Petersen 1936; Paulsen 1956, p. 171, fig. 90; Biermann 2002, p. 63-64, fig. 1:1, 4.
[95] Petersen 1936, p. 318-322, pl. XXXIII:1-2; Paulsen 1956, p. 175-176, fig. 91; Sarnowska 1962, p. 507-508, fig. 12.

group of artefacts with the figures of horned animals, richly plated with silver and copper[96] (Fig. 7:4-5). Similar figures of quadrupeds are visible on the following four axes found in various regions of Europe: in the surroundings of Wien and in the ruins of the Schauenberg Castle in Austria[97], in a river near the ruins of the Kirumpää Castle in Estonia[98], and in the Golden Horde nobleman's grave from the cemetery in Olen'-Kolodez' upon the Don River, Russia[99]. Analogical ornaments appeared on three more artefacts: stirrups from the collection of the Historical Museum in Moscow[100] and from the medieval cemetery in Masteikiai, Lithuania[101], and also on the cross-guard of the sword from the collection of the National Museum Bargello in Florence[102].

This group of axes was variously dated in the literature. In most cases their chronology was put within the period between the 10th and the 12th cent.[103] The discovery (in 1996) of the almost identical axe in barrow No. 7 in the cemetery in Olen'-Kolodez'[104] indicates that the dating of these specimens must be connected with the 13th cent. and not earlier[105]. This is confirmed by the chronology of other specimens ornamented in this way. Based on analogies (such as finds from Plemięta in Poland) and iconography (the seal of Prince Trojden of Masovia, 1341) both stirrups can be dated to the 13th-14th cent.,[106] however, the sword (analogies: Desiukišes in Lithuania; Toruń in Poland; Novgorod in Russia) is dated generally to the 2nd half of the 12th or the 13th cent.[107]

It seems to be not very probable that these artefacts were manufactured in the local environment. Apart from the attempt at connecting these animals with the family signs of the Western Slavs' elites or the coats of arms of Lusatian knights[108] it is worth emphasizing that this type of axe does not occur in the territory of Western Poland and Austria. However, it is mainly characteristic for Russia and the Baltic nations. Also other artefacts decorated in this way have analogies which can be mainly found in this part of Europe[109]. Having rejected the hypothesis of V. Kulakov,

[96] In the literature there were many attempts to identify this animal as a deer or elk – cf. Неуступный 1947, p. 140; Ефимов 2000, p. 174; *Orężż...* 2003, cat. I.57, fig. 12. The most probable hypothesis connects those images with other quadrupeds - taurus or aurochs – see Świętosławski, forthcoming.

[97] Werner 1929; Paulsen 1956, p. 170-171, fig. 89; Biermann 2002, p. 64-65, fig. 2:1, 3; Raddatz 2002, p. 295, fig. 4:1.

[98] Mandel 2003.

[99] Ефимов 2000, p. 174-175, Fig. 5:2, 6:3.

[100] Городцов 1926; Paulsen 1956, p. 182-183, fig. 94; Świętosławski 1992, p. 108-109, Fig. 6; Biermann 2002, p. 65, fig. 3:1; Raddatz 2002, p. 295, fig. 4:2.

[101] Kulakov 1998, p. 13, Fig. 9. About the chronology of the cemetery see, e.g., Varnas 1994.

[102] Paulsen 1956, p. 179, 182, fig. 93; Biermann 2002 p. 66-67, fig. 3:2; Raddatz 2002, p. 295, fig. 1:2a-b.

[103] Неуступный 1947, p. 140-141, 169, fig. 43; Nadolski 1954, p. 45-46, tab. B/43; Paulsen 1956, p. 183-189; Sarnowska 1962, p. 508-511.

[104] Ефимов 2000, p. 174-175.

[105] Wołoszyn 2004, p. 263, przyp. 29.

[106] Świętosławski 1990, p. 53; Świętosławski 1992, p. 108-109, Fig. 6.

[107] Kazakevičius 1994, p. 40-41.

[108] About this problem see Świętosławski, forthcoming.

[109] See also Biermann 2002.

who claims that these were ritual axes of the Balts and the Slavs which originated in the Prussian tribal territory as final resistance against Christianity[110], the author believes that another proposition of this researcher is more interesting but also less proved. He admits that these axes could be found in the territory of Western Poland and Austria as a consequence of the crusade in Sambia, which was led by King Ottokar II of Bohemia in 1254-1255[111]. It is clear that the connection of this group of artefacts with a single historical event is very risky and controversial. On the other hand, the participation of Polish, Silesian or Bohemian knights in numerous campaigns against the Pagan Balts inspired by the Teutonic Order is well known. It is not impossible that during one of the mentioned campaigns the axes might have been taken by Crusaders as the precious plunder. In this context, it is amazing that the similar artefact was discovered in the Golden Horde nobleman's grave from Olen'-Kolodez'. W. Świętosławski[112] rightly appeals to reject the hypothesis of the discoverer of the grave, who thought that this artefact had been made by local craftsmen[113]. Moreover, he also rejects the opinion of K. Raddatz, who on these grounds claims that the Polish and Austrian specimens were the Mongolian weaponry, which got to the territory of Middle Europe as a consequence of the Mongol invasion in 1241[114]. In this case the reverse is true – the axe discovered in Olen'-Kolodez' is a plunder brought to the Steppe from the first 13th cent. campaign towards the West, when the Mongols reached as far as the surroundings of Wien and the eastern periphery of Lusatia[115]. A conclusion may be drawn that such precious artefacts could "reach" distant regions. A question arises whether the axe from Olen-Kolodez' travelled twice from the Baltic region to Lusatia and to the Don River or not? Such a theory is risky but not impossible.

* * *

In two 13th cent. Icelandic sagas ornamented axes are mentioned. They were given to the main characters by their rulers. In *Laxdaela Saga* there appears an axe decorated with gold, which Olaf Hoskuldsson got during the feast from his jarl[116], and in the next one, i.e., *Egil's Saga*, Thorolf was given an enormous axe by King Eric for his father Skalla-Grim. The axe was in the shape of the crescent (Type M according to J. Petersen?), it was gold studded and its shaft had a silver ferrule[117]. Circumstances of these events indicate that gifts of precious axes were a symbolic form of connection of their new bearers with rulers. They simply contributed to obtaining a

[110] Кулаков 1991/1992, p. 124, fig. 4.
[111] Кулаков, Скворцов 2000, p. 180, 182, fig. 4:3
[112] Świętosławski, forthcoming.
[113] Ефимов 1999; Ефимов 2000.
[114] Raddatz 2002.
[115] Świętosławski, forthcoming
[116] Oakeshott 1960, p. 154.
[117] Paulsen 1939, p. 15; Kotowicz 2008, p. 454.

higher social status by their new owners. It also indicates a special value of decorated axes, which was beyond their material price. It is confirmed by the most popular opinion that ornamented axes were associated with the social elite of early medieval Europe. They were symbols of power, rank and wealth. That was surely the case of artefacts with inlay decoration[118]. On the other hand, the signs marked with punching or engraving techniques did not need to be associated with rich owners.

This conclusion refers to the afore-mentioned group of artefacts discovered in Poland. In general, it can be noticed that a matter of decoration of this category of specimens mainly appears in such areas where an axe plays a role both as a military and a "cultural" attribute[119]. It is not strange that decoration of this category appears on *bradatica* type battle-axes. Their presence in the Polish territories is regarded as a result of contacts of local tribes with the Great Moravian State, where they appear widely. Worth mentioning is the fact that these ornamented Polish specimens are unique not only in Poland but also on the South of the Carpathian line.

A theory that the specimen from Bardy arrived to Pomerania through the Scandinavian medium is the best explanation for this. Therefore, ornamentations which are typical for this region can be noticed on them[120]. Another theory says that the most spectacular specimens of weapons usually got to peripheries of culture influences of civilization centres and were given to the "Barbarian" elite as a result of willingness of making stronger political and economic relationships.

Another problem are axes which appear at the turn of the 10th and the 11th cent. It is connected with a completely new political situation in this region caused by the rise of the First Piast State, the consolidation of the tribal structure in Pomerania and the presence of Scandinavian settlers in the coasts of the Baltic See. In addition, there is also an increase in military and symbolic significance of this kind of weapon among the societies of the Baltic Sea. In the 10th cent., in the northern part of our continent, especially after Christianization, the number of axes in graves increased significantly. They often belonged to persons of lower social position. As a rule, they were the only military equipment of the dead. According to the opinion of U. Näsman, so *many graves with an axe as the only weapon show that this was the most common weapon, probably not in war, but adapted to the funeral ceremony as a symbol of dead warrior's social position and mainly character*[121].

The rise of significance of the axe as a symbol of the warrior's profession in Scandinavian communities is clearly visible based on the example of the so-called Varangian Guard of the Byzantine emperors in the end of the 10th and the 1st half of the 11th cent. As it was stressed by most researchers, the axe did not play an important

[118] Pedersen 1997, p. 130; Макаров 1988, p. 455; Drozd, Janowski 2007, p. 122.

[119] Ornamentation of axes and battle-axes appears both among the Avars and the Khazars, where this type of weapon belongs to the most common elements of their graves' equipment. However, it is intriguing that there are no ornamented specimens of the *francisca* type among West-European and Merovingian specimens.

[120] Wachowski 1981, p. 154-156; Wachowski 2001, p. 169, 173.

[121] Näsman 1991, p. 180; Wołoszyn 2006, p. 599; see also Trotzig 1985; Pedersen 2002, p. 29-30, 34; Mäntylä 2005.

role in the Byzantine army and it was mainly used by mercenaries[122]. After the quelling of the rebellion of Bardas Fokas by Emperor Basil II the Great, in which the participation of Rus' warriors was very important, the Emperor's guard began to assume a Varangian character. The memberships in this guard are defined in several sources (among others Alexias, Nicéphore) as „axe-bearers" – πελεκυφόροι. The axes fulfill a significant ceremonial role here. Guardsmen were holding them in the right hand, leaning the blade against the left wrist. When the Emperor came, they brought up the axes to lean them on their right shoulders. During the time of the name-day of the Emperor the Varangians saluted him and banged their axes, which emitted rhythmical sound[123]. In this case, the axe is a symbol of the guardsmen's profession and maybe of their ethnical identification. What kind of axes was used by the Varangian Guard? A recently published Byzantine ivory plaque from the 10th-11th cent. shows the warrior (interpreted as a Varangian guardsman) with a sword and an axe of a fan-shaped blade[124]. It indicates that this sort of axes was characteristic for the Scandinavian warriors' axes of Type M according to J. Petersen[125]. The most interesting ones were covered with various ornamentations.

Is it possible to refer these statements to the present territory of Poland? It is quite ambiguous. As a matter of fact, axes appear more often than swords but more rarely than spears in the 11th and (rare) 12th cent. grave inventories from the territory of early medieval Poland[126]. The axe often served as a common military equipment of a dead person. This can also indicate its important role in the early medieval equipment of the Piast warfare and its significant symbolic meaning. The importance of this kind of weapon is much greater because of „Polish" finds of 11th cent. metal (in principle bronze) miniature axes. Such finds are also known from the territory of Middle-Eastern and Northern Europe, and they also occur e.g., in Romania, Hungary or Bulgaria. Those artefacts are variously interpreted, but their number indicates a possibility of social or religious identification by means of axes in the 11th cent. Middle-Eastern Europe[127]. Taking the ornamented specimens into consideration, it is worth noticing that a majority of them appear in graves. They are found in richly equipped graves of the local or foreign elite (e.g. Pień), or in graves where an axe or a battle-axe was the only equipment (e.g. Lutomiersk). Unfortunately, all mentioned

[122] Schreiner 1981, p. 234-236; Kolias 1988, p. 163.
[123] Kolias 1988, p. 166-167; Wołoszyn 2006, p. 598-599.
[124] Beatson 2000; D'Amato 2005, p. 42; Wołoszyn 2006, p. 599. See also scene on Folio 26 in the *Scylitzes Manuscript* (2nd half of the 12th cent.) where axes of this kind are held by guardsmen of Emperor Michael the Amorian – Bruhn Hoffmeyer 1966, p. 11-12, Fig. 23; Grotowski 2011, p. 424-425, footnote 281.
[125] It is worth noticing that axes of this type are depicted as the weapon of guardsmen in ceremonial scenes in the *Bayeux Tapestry*, such as: bringing the news to Wilhelm the Conqueror by Guy, Count of Ponthieu and the arrival of Harold Godwinson to Edward the Confessor (*La Tapisserie*... 1957, Fig. 12, 31; Wilson 1985, p. 225 and Fig. 10-11, 28; Näsman 1991, p. 173). It can be a significant proof for the high rank of warriors equipped with "Danish axes".
[126] See e.g. Nadolski 1954, p. 91-93.
[127] Panasiewicz, Wołoszyn 2002; Kucypera, Pranke, Wadyl 2010.

data are not consilient with the written sources from the Polish territory, where axes are mentioned quite rarely[128]. Only the chronicle of the Polish history by Wincenty Kadłubek (the beginning of the 13th cent.) mentioned troops called *bipennati* (double-axe bearers) in the army of Miecław, the rebellious ruler of Masovia and the opponent of the Polish Prince Casimir I the Restorer in his struggle for the throne in the 1030-1040s. Most of researchers believe that this mention refers to a special formation of warriors using this kind of weapon. The formation probably had the same character as the Varangian Guard[129]. It is also highly probable that they used ornamented weapons.

Decoration of this category of artefacts continued during the Christianization of the Polish lands. However, in the period up to the 13th cent. the custom of furnishing burials with grave goods gradually disappeared. The single specimens ornamented with engraved lines which were discovered in settlements and graveyards indicate that the local elite used them quite often. Its symbolic and material value is manifested in the case of the axes from Gubin and Żagań. They perhaps travelled probably from the territories of the Balts terrains to Lusatia as loot.

In the end, we should also refer to the hypothesis which assumes a cult destination of this group of artefacts. There are many opinions (which are interesting, but often not based on firm grounds) which connect this group of axes with religion confessed by their users. According to a coherent theory of V. P. Darkevič, various kinds of decoration in the form of wheels, crosses, stars and zigzags which appeared on the Middle and East European axes since the 11th to the 14th cent. should be connected with relics of pagan (Slav or Baltic) beliefs, which were still strong among the newly Christianized societies. These signs may symbolize, e.g. sun or lightning, and may be connected with the cult of pagan gods of thunder – Perun or Perkun[130]. This hypothesis was expanded by V. I. Kulakov, who believes that richly ornamented axes were sacrificial instruments and manifested opposition against Christianity[131].

Undoubtedly, the most interesting questions concern axes ornamented with the sign of the cross. This issue is dealt with in a separate paper of the author[132]. Here the discussion focuses only on the specimens from the territory of Poland. Various forms of the cross appeared on three specimens from the 11th cent. (Blichowo, Pień, Poznań-Luboń) and one from the 13th cent. (the artefact from the collection of the Museum of the Polish Army in Warsaw). Apart from the mentioned hypothesis of V. P. Darkevič referring these signs to the pagan beliefs, there are opposite and more probable theories which relate them to the Christian religion. According to A. Musin, a coexistence of symbolic representations of cross and weapon (in this case: the sign of the cross on the axe) has a Christian significance and symbolises triumph over

[128] Szymczak 2006.
[129] Kurasiński 2005, p. 206-207; Wołoszyn 2006, p. 599-600.
[130] Даркевич 1961, p. 101.
[131] Кулаков 1991/1992.
[132] Kotowicz 2011.

death[133]. Furthermore, the appearance of these signs can be connected with the cult of Saint Olaf[134], which spread in the territory of whole Northern Europe, from England to Novgorod in Rus' and also to Byzantium. A principal attribute of Saint Olaf was the axe which – according to researchers – was originally the hammer, i.e., the weapon of his precursor – the pagan god Thor[135]. Undoubtedly, these parade axes were used by the believers of Saint Olaf. They could demonstrate their devotion by putting the crosses on the specimen associated with the attribute of the holy patron. Particularly, this ornamentation often appears on the axes of Type M, interchangeably connected with the Viking world, or on the specimens discovered in graves, which may be associated with Scandinavian influences, as in the case of Blichowo. It is worth mentioning that the cult of Saint Olaf could be known in early medieval Poland, as its manifestation is visible in Gdańsk (Pomerania), where there was a church dedicated to this saint[136]. This kind of weapon, apart from the religious manifestation, could be considered as a magical apotropaic symbol. The 11th and the 12th cent. in Poland is a period when the relics of pagan beliefs were still alive and both religions may have coexisted. We can not completely exclude a possibility that these signs might have played only a decorative role to make weapons more attractive visually.

All in all, the main subject of this paper appeared to be multithreaded and complicated. In addition, the early medieval ornamented axes meant much more than just weapons. They fulfilled the function of insignia of authority, social rank or demonstrated devotion of their users to the confessed religion. Further discoveries may help to precise this issue not only with regard to the territory of Poland but also to whole Europe.

[133] Мусин 1999, p. 147.
[134] Kotowicz 2011.
[135] Paulsen 1956, p. 234-255, fig. 126-127; Pranke 2009; Kucypera, Pranke, Wadyl 2010, p. 119-120.
[136] Pranke 2009, p. 67, 69-70.

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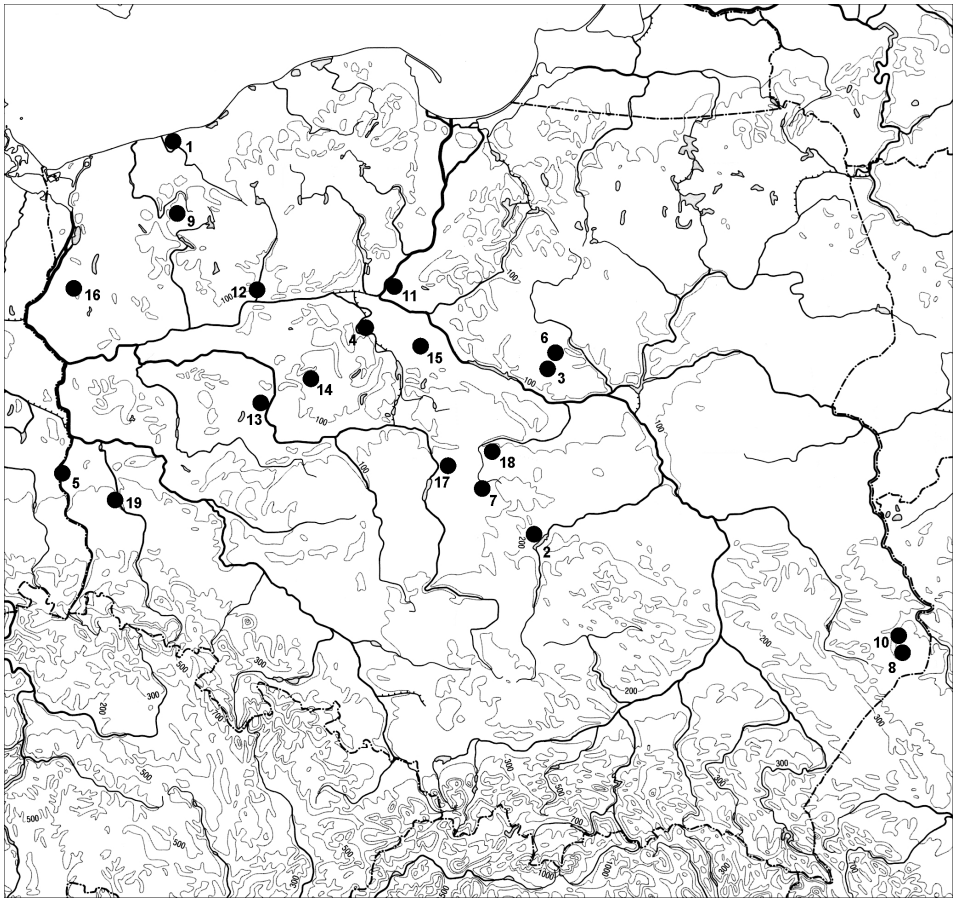

Fig. 1: 1 – Bardy, Kołobrzeg distr.; 2 – Barkowice Mokre, Piotrków Trybunalski distr.; 3 – Blichowo, Płock distr.; 4 – Buszkowo, Bydgoszcz distr.; 5 – Gubin, Krosno Odrzańskie distr.; 6 – Karwowo, Płock distr.; 7 – Lutomiersk, Pabianice distr.; 8 – Łaszczów (surroundings), Tomaszów Lubelski distr.; 9 – Nętno, Drawsko Pomorskie distr.; 10 – Perespa, Tomaszów Lubelski distr.; 11 – Pień, Bydgoszcz distr.; 12 – Piła (surroundings), Piła distr.; 13 – Poznań-Luboń, Poznań distr.; 14 – Rybitwy-Ostrów Lednicki, Gniezno distr.; 15 – Sędzin, Aleksandrów Kujawski distr.; 16 – Skotniki, Szczecinek distr.; 17 – Szarów, Poddębice distr.; 18 – Tum, Łęczyca distr.; 19 – Żagań, Żagań distr. *Drawing by P. N. Kotowicz.*

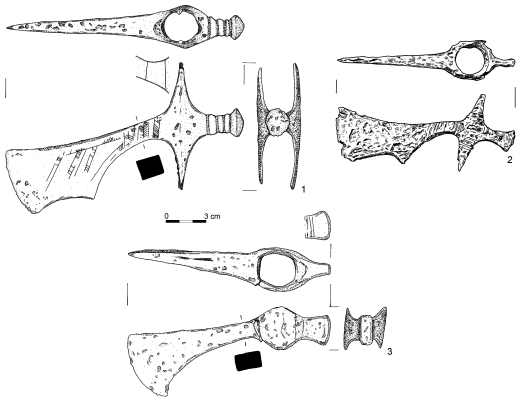

Fig. 2: 1 – Barkowice Mokre, Piotrków Trybunalski distr.; 2 – Bardy, Kołobrzeg distr.; 3 – Łaszczów (surroudings)), Tomaszów Lubelski distr. (1, 3 – *drawing by P. N. Kotowicz*; 2 – after Łosiński 1972, fig. 94; 1-3 – *redrawing by A. Sabat*).

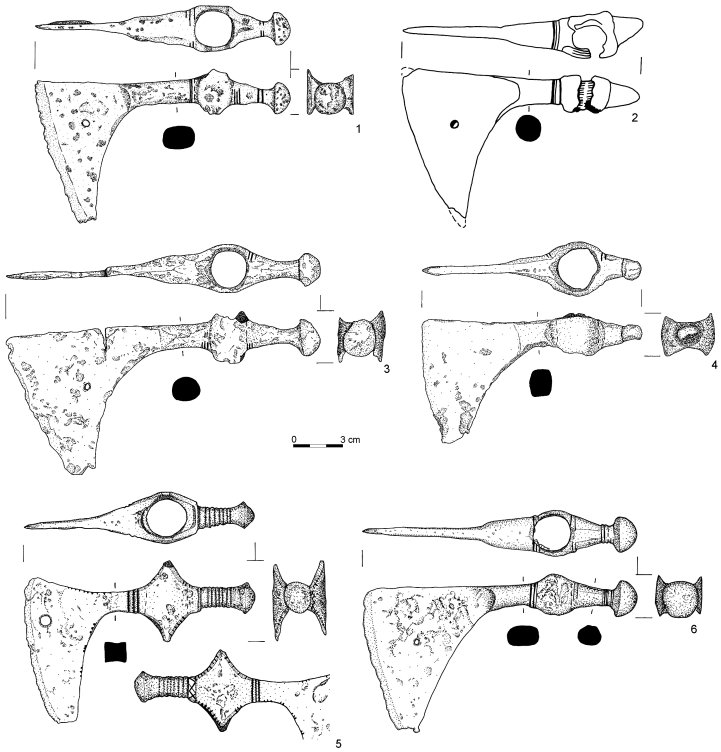

Fig. 3: 1 – Karwowo, Płock distr.; 2 – Buszkowo, Bydgoszcz distr.; 3 – Szarów; 4 – Lutomiersk, Pabianice distr.; 5-6 – Rybitwy-Ostrów Lednicki, Gniezno distr. (1, 3-6 – *drawing by P. N. Kotowicz*; 2 – after Hensel 1950, fig. 68; 1-6 – *redrawing by A. Sabat*).

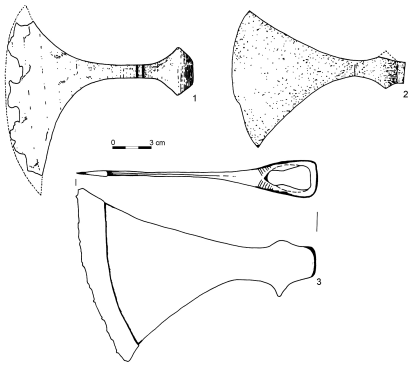

Fig. 4: 1 – Poznań-Luboń, Poznań distr.; 2 – Skotniki, Szczecinek distr.; 3 – Rybitwy-Ostrów Lednicki, Gniezno distr. (1 – after Rajewski 1937, pl. XI:3; 2 – after Kurasiński 2005, fig. 2:4; 3 – after Borowczak 2008, cat. 142).

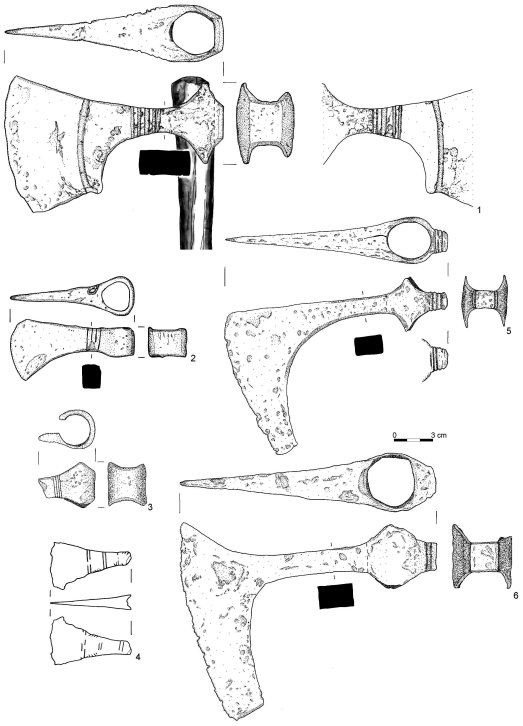

Fig. 5: 1 – Rybitwy-Ostrów Lednicki, Gniezno distr.; 2 – Nętno, Drawsko Pomorskie distr.; 3 – Tum, Łęczyca distr.; 4 – Sędzin, Aleksandrów Kujawski distr.; 5 – battle-axe from the collection of National Archaeological Museum in Warsaw; 6 – battle-axe from the collection of Archaeological Museum in Cracow (1-3, 5-6 – *drawing by P. N. Kotowicz*; 2 – after Maik, Świętosławski, Wtorkiewicz-Marosik, Żemigała 2009, fig. 22:12; 1-6 – *redrawing by A. Sabat*).

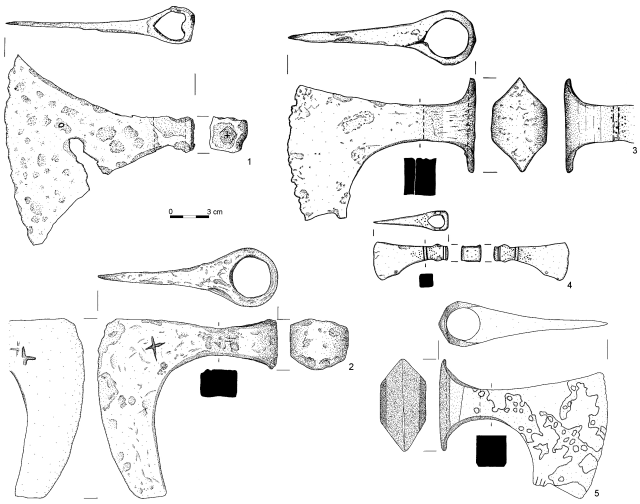

Fig. 6: 1 – Blichowo, Płock distr.; 2 – collection of the Museum of the Polish Army in Warsaw; 3 – Perespa, Tomaszów Lubelski distr.; 4 – Nętno, Drawsko Pomorskie distr.; 5 – Piła (surroundings), Piła distr. (1-5 – *drawing by P. N. Kotowicz*; 1-5 – *redrawing by A. Sabat*).

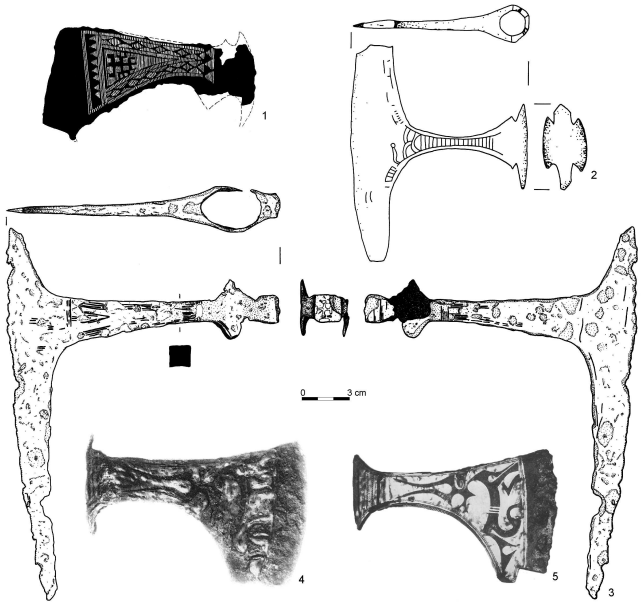

Fig. 7: 1 – Pień, Bydgoszcz distr.; 2 – Rybitwy-Ostrów Lednicki, Gniezno distr.; 3 – Poznań-Luboń, Poznań distr.; 4 – Gubin, Krosno Odrzańskie distr.; 5 – Żagań, Żagań distr. (1 – after Janowski forthcoming; 2 – after Borowczak 2008, cat. 37; 3 – *drawing by P. N. Kotowicz*; 4-5 – after Świetosławski, forthcoming; 2-3 – *redrawing by A. Sabat*).

A Fourteenth Century Sword from Moldoveneşti (Hung.: Várfalva)[1]

BENCZE Ünige [*]
GÁLL Erwin [**]

Keywords: *Transylvania, Moldoveneşti, Middle Ages, sword, cross-guard, pommel, graves*

Abstract

The two-edged swords are a small but significant group of the medieval material culture of Transylvania.[2] For various subjective and objective reasons the scholarly world, which dealt with swords of the migration and the early medieval period of Europe, neglected the research of this group of swords. Although the European sword was classified in numerous types and sub-types precise definitions of date and place cannot be done. Therefore in some cases it seems more practical to look for a period during which it might have been in use than to try to date the sword or its types, even if this does not supply a certain date.[3] Swords were widespread and very distributable objects throughout Europe and it is impossible to assign certain specific regions of origins. Since, out-of-context finds get published rarely it is our aim to publish this single find in order to make its type and details available for the researchers dealing with medieval weapons.

1. About the context of the find

According to the historian Tudor Sălăgean, three years ago Adrian Cohorzan gave the sword to the National Museum of Transylvanian History. The architect related that he had found the sword not far from Moldoveneşti on the territory of a sand extraction site. Based on a hand-drawn sketch preserved in the museum, the sword was found during extraction with the excavator on a 1,50 m terrace right next to the River Arieş (germ.: Ariesch, hung.: Aranyos). *(Pl. 1)*

2. The description of the sword

The corroded sword was preserved only in a fragmented state; in our opinion its real length was around 1, 15 – 1, 20 m. In the middle of the polygonal pommel, which is attached at the end of the hilt, a disc shaped projection can be observed. During the weighing of the sword we realized that the pommel had significant weight but we couldn't measure it separately. The hilt on the side of the pommel suddenly narrows down while on its other end, before the cross-guard, imprints of wood could be clearly recognized. Looking at it from profile its boat-shaped cross-guard is preserved

* Doctoral candidate, Central European University, Budapest, Hungary, bunige@yahoo.com.
** Romanian Academy, „Vasile Parvan" Institute of Archaeology in Bucharest, Romania, ardarichus9@gmail.com.

[1] The drawing was made by Emese Apai.

[2] For a typology based on pommel and cross-guard styles of the medieval two-edged sword see: Hoffmeyer 1954.

[3] Oakeshott 1997, 16.

only fragmentary. Because of its corroded state the fuller of the blade can hardly be recognized but it is still visible and goes in the middle towards the tip of the blade on all its preserved length.

3. Proportions of the sword: 1. Full length: 67,5 cm; 2. Width of the pommel: 5,6 cm; 3. Height of the pommel: 5,6 cm; 4. Thickness of the pommel: 2,6 cm; 5. Length of the hilt: 16,5 cm; 6. Width of the hilt: 2 – 2,6 cm; 7. Length of the fragmentary cross-guard: 12 cm; 8. Width of the cross-guard: 1,6 cm; 9. Width of the blade: 4 – 4,4 cm; 10. Width of the fuller: 0,9 – 1 cm. Weight: 642 gr. *(Pl. 2 – 3)*

4. Discussions on the occurrence of the weapons in early medieval graves

In the system of death- and life-symbols of the early middle Ages, jewelleries played an important role for *women*; in the case of free *men weapons* fulfilled this symbolic role. At a closer look the problem seems to be more complicated. The occurrence of weapons in cemeteries of the early middle Ages is not surprising, since prestige, status and rank was expressed in burying the dead in the same way as he or she lived in the everyday life. The question of *jewelleries* is more complex. Although jewelleries are known mainly from women's graves, the male or female character should be considered rather as a cultural construction. This explains the fact that they can also be found in men's graves.[4]

In connection with jewelleries another problem arises. The exact chronological limitation of the usage of an object is almost impossible. This definitely holds true for fashion-items, while in the case of weapons their spread or disappearance can be caused by more practical reasons, whereas the spread of fashion-items is rather a social-psychological phenomenon. Therefore, the chronological curve of jewellery usage can be built only with difficulties. The usage of *weapons*, in contradiction with jewelleries, was connected to practical-strategic problems.

Although in pagan cemeteries (of the tenth century and the first quarter of the eleventh century) the rank of a deceased person or the prestige of the family (through the deceased person) was symbolized by different types of weapons, horse burials and funeral garments adorned with jewellery; inside the churchyard prestige was symbolized by the *placement of the graves.* The main features of the *"churchyard cemeteries"* are the presence of the church or its remains and the density of the graves, usually with poor furnishings and grave goods. In many cases one can find multiple or super-positioned graves, which make the process of interpretation more difficult.

Christianity, which taught spiritual and, from the point of view of the economic-political hierarchy, an egalitarian picture of the other world superseded the symbols that represented the status of the individual or the family in the burials,[5] but it allowed

[4] Examples for this see: Gáll 2007, 397.

[5] It is very interesting that *sword* or *saber* burials became fashionable again from the sixteenth century on, especially inside church. Do we face a more complex manifestation of self-representation or self-fashioning? On this issue see the excavation of Pósta Béla, Roska Márton and Kovács István in Alba Iulia (Pósta 1917, 1–155). Such a phenomenon is known from Scandinavia (Kiefer-Ollsen 1997, 188, note 17).

another representation. This is very well indicated by Theodulf's decree, which, at the end of the ninth century, emphasized that *bishops, monks* and *priests* could be buried in the church and, what is most interesting to us, *laymen* who are worthy of it could also be interred there. In the case of medieval laymen this symbolic *"competition"* of power and wealth meant the same as the jewellery, weapons or parts of horses did in the burials of the bygone pagan times. In contrast with older days, the poverty of furnishings does not mean the poverty of the society, but the *Puritanism* of medieval way of thinking, which was often dissonant. *Simplicity* and *Puritanism* are the solution to this problem, but the aim to represent power and prestige remained the same and *the burials in the church or as close to the church as it was possible were its manifestations*. That is the reason why overlapping burials and superposition can be found around the churches, which are the characteristic features of churchyard cemeteries as opposed to the cemeteries with rows of graves.[6]

In this *mental context* we have to understand the missing of the weaponry from the graves. However, we can understand why the majority swords from Transylvania Basin from the twelfth until the fifteenth centuries were discovered without context namely these were stray finds.

5. Discussions on the sword from Moldoveneşti

A number of factors should be taken into consideration when one tries to date a sword but not all of them can offer a precise dating. Towards the end of the middle ages fashion shown through varying styles of hilt becomes a useful tool for dating. Blade inscriptions and heraldic bearings can give a more precise dating although these indicate only the date when they were applied to the weapon and not the production date of the sword. As can be seen in the literature the mounts of scabbards can give a reliable dating not for the sword itself but for the scabbard. These, as well as the grips, must have been changed quite often due to everyday usage and were greatly influenced by the change of fashion. The sword forms can be also classified but only vaguely dated. In the light of the above mentioned we tried to give a more or less precise dating of this sword mainly based on analogies coming from the neighboring regions and using the well-known typologies available for our research. According to the typology compiled by Oakeshott this sword can be assigned to the XIIIA or even the XVIA type, which seems to be a development of the former, both dated largely to the fourteenth and fifteenth centuries.[7] The pommel form is closest to the I1 of Oakeshott's typology, this being the most popular in the fourteenth century and onwards.[8] Following Pinter's typology, the sword can be dated to the second half of the fourteenth and the beginning of the fifteenth century, and belongs to the XI type. The closest analogy for the pommel and maybe even for the sword, can be

[6] On the evolution of the „pagan" and „intermediate" burial customs in the Transylvanian Basin, Partium and Banat from the tenth to the eleventh centuries, see: GÁLL 2004–2005, 334–454.
[7] Oakeshott 1997, 42–46, 63–64; Oakeshott 1998, 10, 95, 98-106, especially the one on page 104.
[8] Oakeshott 1997, 95–96.

found at Oradea (without context).[9] In Aleksić's typology of swords from southeastern Europe, the pommel of the sword from Moldoveneşti can be asserted to the I1 type of polygonal pommels having analogies in Finland, Germany, Poland, Bulgaria, Serbia and Croatia.[10] Since the point of the sword was not preserved it is hard to decide whether the blade would fit into the XIIIa or the XVIa type of blades described by Aleksić but the dating corresponds with the previous ones, the second half of the fourteenth and the beginning of the fifteenth century.[11]

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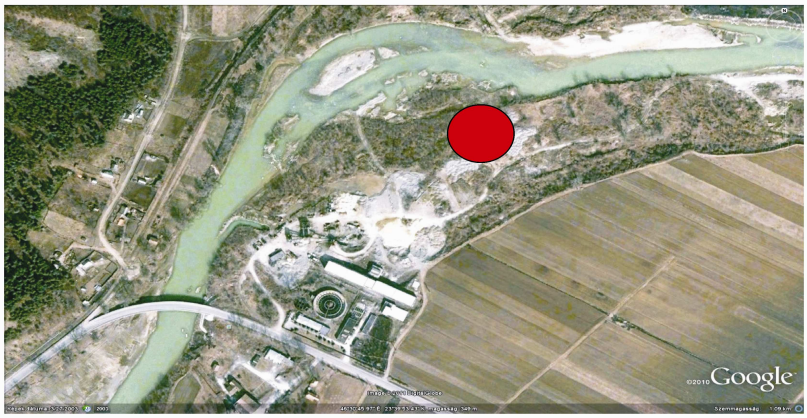
[9] PINTER 1998, 148–150, pl. 46/b.
[10] ALEKSIĆ 2007, 51–53.
[11] ALEKSIĆ 2007, 84, 89.



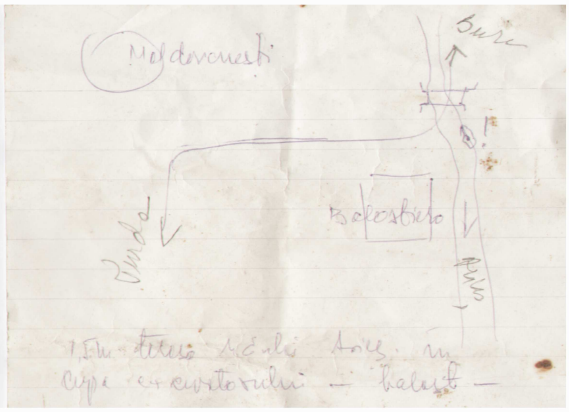


Plate 1. Moldoveneşti (Várfalva): topographical context of the sword

Plate 2. The sword from Moldovenești (Várfalva)

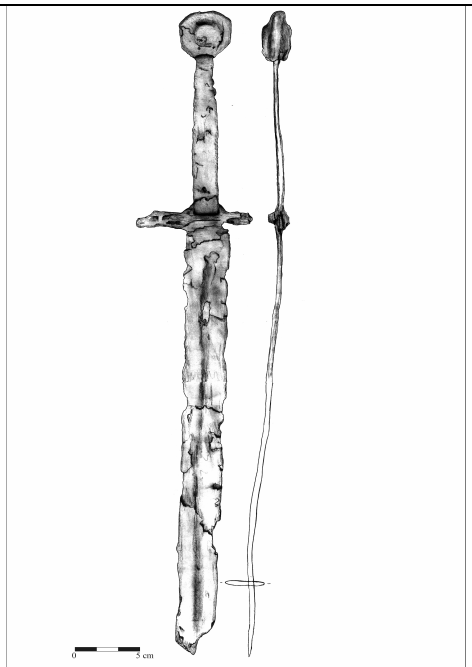


Plate 3. The sword from Moldovenești (Várfalva)

Einige Bemerkungen über Mittelalterliche Feuerwaffenverwendung in Polen

Piotr STRZYŻ[*]

Keywords: *Poland, Krakow, Middle Ages, cannons*

Abstract

The first mention of firearms use in Poland dates from 1383, and relates to the siege of the city Pyzdry in Great Poland. A stone floor that had been fired from a bronze cannon crashed through the gate and killed the priest standing next to the gate of St. Nicholas Biechowo. But the first entries on handguns come from the year 1410, which were named in hand jacks from the Krakow city arsenal[1].

Handwaffen, Bischoln

Das älteste und zugleich kleinste Überbleibsel von Handfeuerwaffen in Polen wurde während archäologischen Arbeiten in Kalisz gefunden (Abb. 1). Es ist eine Waffe aus Bronze. Sie hat eine Gesamtlänge von 5,7 cm, davon vereinnahmen die Pulverkammer 2,8 cm, der Lauf 2,9 cm und das Kaliber 1,3 cm. Im Pulverkammerboden befindet sich ein Zündloch von einem Durchmesser von 0,4 cm. Das Gewicht dieser Waffe (zusammen mit der Bleikugel, die im Innenraum steckt) beträgt 0,2 kg[2].

Ein ähnliches, aber zerstörtes Überbleibsel wurde bei Ausgrabungen in den Burgruinen in Rokstejn, bei Jihlava gefunden. Es ist nur der Bodenteil einer achtwandigen Ladungskammer mit einem 11,5 cm langen Kaliber. Trotz des hohen Zerstörungsgrades blieben noch 2,75 cm der Waffe erhalten. Auch ein Zündloch ist sichtbar, das vertikal in die Pulverkammer verläuft. Bemerkbar ist auch ein Absatz, eine Krause zwischen dem Pulverteil und dem Lauf. Die Funde von Schloss Rokstejn datiert man auf das Ende des vierzehnten Jahrhunderts bis zum Ende des nächsten Jahrhunderts[3]. Wir können auf Grund einer hohen Konvergenz der Größen der Funde aus Kalisz und Schloss Rokstejn schließen, dass es sich sowohl bei dem polnischen Fund, als auch bei dem tschechischen, um Bischoln handelt.

Eine Weiterentwicklung dieses Gewehres repräsentieren in unserer Sammlung zwei Funde, die einen runden oder vieleckigen Lauf und eine Buchse, die zur Befestigung eines hölzernen Griffes am Kolben diente, haben. Der erste Fund wurde im XIXten Jahrhundert während der Ausgrabungsarbeiten in Schwarzort unweit von Memme (heutiges Kłajpeda in Litauen) entnommen (Abb. 2:1-3). Sie wird auf Anfang des XVten Jahrhunderts datiert. Diese Waffe wurde aus Bronze gegossen, hat eine Gesamtlänge von 44,5 cm, davon sind die Buchse, die zur Grundstockbefestigung diente, 5,9 cm und der Lauf 36,5 cm lang.

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* Instytut Archeologii i Etnologii PAN, Oddział w Łodzi, ul. Tylna 1, 90-364 Lodz, Poland, piotr_strzyz@wp.pl.

[1] Szymczak 2004, 14-15.

[2] Głosek 1997, 37.

[3] Měřínský, Nekuda 1993, 277, 288, Abb. 1:1; Měřínský 2007, 112, Abb. 60:6

Ihr Durchmesser ist wandelbar und schwankt von 1,7-1,9cm. Der Lauf ist achteckig, bei der Öffnung ist er mit einem Fries verstärkt. Ähnliche Verbesserungen befinden sich im zentralen Teil und im Boden. Das Zündloch befindet sich oben vertikal und hat einen Durchmesser von 0,3cm. Um die Zündöffnung herum ist eine Vertiefung, die Pulverpfanne, die, falls notwendig (das heißt während schlechter Witterungsverhältnisse) man mit einer rechteckigen metallernen Platte mit Schraube verdecken konnte. Der Holzgriff hat eine Länge von 54 cm. Er wurde aus Eiche gemacht und hat im Inneren eine ausgebohrte Öffnung, in welcher sich ein Holzstempel befindet, der einen Durchmesser von 1,1cm und eine Länge von 39 cm hat. Die Gesamtlänge dieses Fundes mit dem rekonstruierten Griff beträgt 99 cm und wiegt 2,58 kg[4].

Das zweite Exemplar eines Bischoln wird zurzeit im Museum in Lębork aufbewahrt (Abb. 2: 4-6). Den hier besprochenen Fund charakterisieren ein 51 cm langer Lauf aus Bronze und ein Kaliber von 1,6 cm. Das Zündloch wurde im Bodenteil lokalisiert und hat einen Durchmesser von 0,4 cm und ist vertikal nach unten gerichtet. Dieses Exemplar hat auch einen rekonstruierten Griff aus Eiche (Durchmesser 3,8 cm und Länge 47,3cm, was eine Gesamtlänge von 98,4 cm ergibt). Dieser Fund (zusammen mit dem Griff) hat ein Gewicht von 4,3 kg. Die Öffnung des Laufs ist kegelförmig, was sie vor dem Durchborsten schützte. Der Lauf ist mit einer Reihe von Ringen verstärkt und gleichzeitig geschmückt.

Vergleichbar mit den Funden von Kłajpeda ist ein Überbleibsel, das in einer Zisterne im Schloss Tannenberg in Hesen gefunden wurde. Diese Zisterne wurde im Jahre 1399 zerstört. Der Lauf hat ein Kaliber von 1,7cm[5]. Sehr ähnlich dem Fund von Lębork ist ein eisernes Bischoln aus dem ersten Viertel des XVten Jahrhunderts, das in der Stadt Tabor in Südtschechien gefunden wurde. Das Kaliber hat eine Länge von 1,6 cm, die Waffe eine Gesamtlänge von 42 cm. Sie hat einen runden Querschnitt und endet mit einer Buchse zum Aufsetzen des hölzernen Griffs[6].

Zum momentanen Stand der Forschungen kann man annehmen, dass die Funde vom Kurischen Haff und Lębork zwischen 14.-15. und der ersten Hälfte vom 15. Jahrhundert hergestellt wurden, was Quellen gut belegen.

Die Funde aus dem Kurisches Haff sowie aus Lębork präsentieren zwei Varianten von Handbuchsen aus den 15. Jahrhundert. Die erste charakterisiert sich durch einen achteckigen Laufquerschnitt, die zweite hat einen runden Querschnitt. Weil es in Polen keine Originalfunde gibt, zeigt die Ikonographie, dass derart primitive Handfeuerwaffen noch in der zweiten Hälfte des 15. Jahrhunderts verwendet wurden, was wir sowohl auf einem Gemälde der Belagerung von Marienburg aus dem Jahre 1480 sehen können, als auch in einer Handschrift von Barney aus dem Jahre 1470, in der die Schützen mit Stäben die Waffen zünden, deren Griffe sie unter dem Arm festhalten[7].

[4] Konieczny 1964, 185, Abb. V; Szymczak 2004, 36, 38, Abb. 4.
[5] Müller-Hickler 1933, 175-180
[6] Dolínek 1998 21, Abb. 6
[7] Szymczak 2004, Abb. 5

Hakenbuchse

Hakenbuchsen sind Feuerwaffen, deren Lauf an der Öffnung mit einem Haken versehen ist, der zur Nivellierung der Rückstoßkraft dient. Während des Schusses befestigte man den Haken an einer Mauer, an einem Schild der Infanterie oder an Bord des Kampfwagens. Der wahrscheinlich älteste Fund dieses Typs stammt aus der ersten Hälfte des 15. Jahrhunderts und wurde zwischen dem 19. und dem 20. Jahrhundert in Lemberg gefunden (Abb. 3:2-3). Der Lauf wurde aus Bronze gegossen. Er hat einen achteckigen Querschnitt, eine Länge von 62 cm und ein Kaliber von 1,9 cm. An der Öffnung befindet sich ein Kopf und unten ein Haken. In ihrem Bodenteil, oben, befindet sich das Zündloch, das vertikal in die Pulverkammer gerichtet ist. Neben dieser Öffnung befindet sich eine Signatur mit dem Zeichen einer Stückgießerei- zwei auf ihren Pfoten stehende Löwen und zwölf kleine Zeichen. Hinter dem Zündloch befindet sich ein primitives Zielgerät. Im Bodenteil dieses Exemplars gibt es eine Buchse, die zum Ansetzen eines hölzernen Stiels dienen konnte, das heißt also, dass dieser Stiel die Funktion eines primitiven Kolbens hatte. Zum Zünden diente eine Sprengschnur oder ein glühender Stab[8].

Ähnlich ist ein Fund, der im Staatsmuseum in Krakau aufbewahrt wird (Abb. 3:1). Es ist eine bronzene Hakenbuchse mit achteckigem Lauf. An der Öffnung ist sie mit einer Krause verstärkt, die ebenso in der Form achteckig ist. Dieser Lauf hat unten einen Haken in Form von umgedrehten, dreifachen Stufen. Das Laufkaliber beträgt 1,7 cm, die Länge ist 50,3 cm, allerdings zusammen mit dem hölzernen Griff 85 cm. Der Außendurchmesser des Laufs bei der Öffnung beträgt 3,5 cm und im Bodenteil 4,5 cm. Der besprochene Fund wiegt zusammen mit dem hölzernen Griff circa 5 kg. Diese Hakenbuchse stammt aus der Hälfte des XVten Jahrhunderts[9].

Die Exemplare, die im Museum in Lemberg und im Staatsmuseum in Krakau aufbewahrt werden, haben zahlreiche und gute chronologische Entsprechungen in den mitteleuropäischen Sammlungen. Eine zahlreiche Sammlung befindet sich auch im Westböhmischen Museum in Pilzen. Zwanzig Exemplare davon haben gleiche Eigenschaften wie die Funde von Krakau und Lemberg. Ihre Gesamtlänge, also mit den rekonstruierten Lagern, liegt zwischen 140 und 176 cm, davon sind allein die Läufe zwischen 64,3 und 107 cm lang. In dieser Sammlung haben einzelne Läufe ein Kaliber von 1,5 und 3,6 cm, aber fast 19 befinden sich in den Grenzen von 2,0-2,6 cm. Sie wurden wahrscheinlich zwischen der 1. Hälfte des 15. bis zu Anfang des nächsten Jahrhunderts hergestellt[10].

Zwei weitere Funde weisen Veränderungen in ihrer Konstruktion auf: Das Zündloch befindet sich an der seitlichen Wandung. Beide Exemplare befinden sich in den Sammlungen des Museums der Polnischen Armee in Warschau und leider sind ihre Fundorte unbekannt.

[8] Konieczny 1964, 187, Abb. VI; Kobielski 1975, Abb. 10; Szymczak 2004, 43-44, Abb. 8:a
[9] Kobielski 1975, Abb. 3; Szymczak 2004, 43, 44, Abb. 8:c.
[10] Frýda 1998, 7-12, Abb. 4-24.

Der erste Fund wurde aus eisernen Blech gefertigt (Abb. 4:1-3). Seine Länge ist 92 cm und sein Kaliber von 2,7 cm. In der Unterseite steckt ein Haken. Seine Gesamtlänge, inclusive Griff beträgt 158 cm und sein Gewicht 11 kg. Das Zündloch ist auf der rechten Seite lokalisiert. Diese Waffe wurde wahrscheinlich in der 2. Hälfte des 15. Jahrhunderts hergestellt[11].

Interessant präsentiert sich die zweite Buchse (Abb. 4:4-6). Ähnlich wie der vorige Fund wurde sie aus Eisen geschmiedet. Sie hat einen achteckigen Querschnitt, bei der Öffnung befindet sich eine achteckige Krause. Die Gesamtlänge beträgt 84,5 cm, aber mit dem rekonstruierten Griff ist sie 132,5 cm lang. Ihr Kaliber beträgt 2,4 cm. Das Zündloch ist seitlich platziert und besitzt keine ausgebildete Pfannen, aber weist nicht besonders große schüsselförmige Vertiefungen auf. Was die Kennzeichnungen am Gewehr angeht, kann man sagen, dass sein Reichtum mit dem Exemplar von Lemberg vergleichbar ist. Am Boden befindet sich ein Wappen, in welchem geometrische Formen zu sehen sind. Auch auf dem Haken wurden Kennzeichnungen geschlagen - in Form eines zweifachen Kreises mit Durchmesser von 0,9 cm, in dem sich ein unsymetrischer sechsarmiger Stern befindet. Wir können auch dieses Exemplar auf die zweite Hälfte des 15. Jahrhunderts datieren.

Fragmentarisch bewahrte Funde

Neben den Exemplaren von Feuerwaffen, die ganz erhalten sind, gibt es auch solche, die fragmentarisch erhalten sind. Hierbei handelt es sich um 4 Exemplare von Feuerwaffen, die einen nicht näher bestimmten Typ repräsentieren. Ein Fragment eines Laufs wurde während der archäologischen Ausgrabungen in den Schlossanlagen in Wenecja bei Żnin gefunden (Abb. 5:1-2). Er wurde im Schlosshof ausgegraben. Diese Waffe stammt wahrscheinlich aus der Zeit zwischen 1435 und 1475, also aus der Zeit des Umbaus und der Aufrüstung des Schlosses mit Feuerwaffen, durchgeführt von Bischof Wojciech Jastrzębiec. Dieser Lauf wurde aus Bronze gemacht, ist achteckig und hat ein Kaliber von 2,0-2,2 cm. Die Wandstärke beträgt 1,2 cm und wiegt 0,107 kg. Während der Forschungen am Schloss wurde auch eine Sammlung von Geschossen und Handfeuerwaffen gefunden. Zwei Geschosse von dieser Sammlung haben einen Durchmesser vom 2,0-2,2cm und sind aus Sandstein und Granit gemacht; passen also zum Kaliber der gefundenen Handfeuerwaffen.

Das zweite uns bekannte Fragment einer Handfeuerwaffe stammt von den Trümmern des mittelalterlichen Schlosses Karpień in dem Goldenen Gebirge in Schlesien in der Gegend von Kłodzko (Abb. 5:3-4). Dieses Schloss wurde im Jahre 1443 zerstört. Leider kennen wir den Fundkontext nicht. Dieser Waffenteil wurde aus Bronze gegossen und war ursprünglich der Lauf einer Handfeuerwaffe von achteckigem Querschnitt. Das erhalten gebliebene Fragment hat eine Länge von 5,8cm, eine Breite von 3,2 cm und eine Wandstärke von 1,1 cm. Die Breite der Führung des Laufs ist 1,4 cm[12].

[11] Konieczny 1964, 189, Abb.VII; Kobielski 1975, Abb. 3
[12] Marek, Konczewski 2010, 109, Abb. 11:1-3

Zwei ziemlich große Fragmente von Läufen stammen von archäologischen Ausgrabungen, die am Schloss Muszyna durchgeführt wurden. Das erste, eiserne Exemplar vom Graben I-07 (Abb. 6:3-4) hat eine Länge von 17,4 cm und die Führung des Laufs einen Durchmesser von ungefähr 3,0 cm. Der zweite bronzene Fund (Abb. 6:1-2) stammt vom Graben II-07 (Innenraum des Schlosses) und ist das einzige Fragment, das eine Länge von 5,4 cm hat. Das Kaliber dieses Gewehrs beträgt circa 2,1 cm. Die hier besprochenen Funde stammen höchstwahrscheinlich aus der Zeit der Belagerung des Schlosses durch die ungarischen Armeen im Jahre 1474[13].

Kammergeschütze

Die erwähnten Kammergeschütze, die dem Durchschnittsleser sicherlich weniger bekannt sind, haben ein interessantes Kapitel in der ältesten Feuerwaffengeschichte hinterlassen. Der Grund ihrer Erfindung war wahrscheinlich die Verwendung von Feuerwaffen vor allem in Burg- und Stadtmauertürmen im 15. Jahrhundert. An den genannten Stellen war es jedoch zu eng und unbequem, um nach jedem Schuss die Waffe wieder hineinzuziehen, sie danach vorne zu reinigen und wieder neu zu laden. Außerdem waren die Geschütze auf schweren Holzstafetten eingesetzt; auf die Idee, Räder anzubringen, waren die Waffenmeister noch nicht gekommen. Deshalb war man bestrebt, die Konstruktion der Feuerwaffen zu verändern. Zu diesem Zweck entfernte man die Pulver- und Ladekammer vom Geschützlauf. Das hintere Laufende blieb offen, von dort setzte man zunächst die Kugel ein. Danach presste man die mit Pulver gefüllte, gesonderte Ladekammer an das hintere Laufende und verkeilte sie. Zum Schießen wurde die Glut über das Zündloch an der Kammer geführt. Für den nächsten Schuss wurde die Ladekammer einfach gegen eine neue ausgewechselt. Gewöhnlich gab es mehrere Kammern, die man vor dem Schießen laden konnte. Auf diese Weise erhöhte sich auch zu einem gewissen Grade die Feuergeschwindigkeit. Außer in Burgen und Städten kamen die Kammerfeuerwaffen oft noch auf Schiffen zum Einsatz, wo der Bewegungsraum ebenso begrenzt war[14].

Zwei Funde sind eben solche Kammerbuchsen, die sich in den Sammlungen des Museums der Polnischen Armee in Warschau befinden. Die Kammer wurde aus Eisen in der Ausschlag- oder Schmiedetechnik gefertigt. Die erste (Abb. 7:4-6) ist die größere hat eine Länge von 19 cm, die Öffnung einen Durchmesser von 4,7 cm und der Bodenteil einen Durchmesser von 5,6 cm. In der Lauföffnung steckt ein eiserner Gegenstand, wahrscheinlich eine eiserne Kugel, die einen Durchmesser von 2,7 cm hat. Die Kammer mit dem Geschoss wiegen 1,88 kg.

Die zweite Kammer ist etwas kleiner (Abb. 7:1-3), hat eine Länge von 15,6 cm, wovon 14cm dem Pulverteil zufallen. Der Durchmesser der Öffnung beträgt 4,1 cm und der Durchmesser des Bodenteils 4.8 cm. Die Wandstärke beträgt 1cm. Das Zündloch ist auf der linken Seite des Griffes platziert, ist quer-horizontal in die Pulverkammer gerichtet und hat einen Durchmesser von 0,6 cm. Der Ausschussteil

[13] Chudzińska 2009, 28, Abb. 15
[14] Szymczak 2004, 55-56

der Kammer wurde durch Korrosion beschädigt. Der ganze Fund wiegt 0,87 kg. Die oben vorgestellten Größenparameter ergeben eindeutig, dass wir mit relativ kleinen Kammern zu tun haben und die Waffen, für die sie verwendet wurden einen genauso kleinen Kaliber (3,0-4,0 cm) und einen runden Lauf hatten. Im Bodenteil befand sich ein rechteckiger Einschnitt, in welchen beschriebene Kammern gelegt wurden. Dieser Feuerwaffentyp ist charakteristisch für das 15. Jahrhundert und die Anfänge des 16. Jahrhunderts.

Die Bombarde aus Kurzętnik

Das Museum in Kwidzyn besitzt in seinen Sammlungen ein kleines Geschütz vom Bombardentyp, das aus dem ersten Viertel des 15. Jahrhunderts stammt (Abb. 8:1-4). Seine Ausmaße betragen: die Gesamtlänge 51 cm, davon die Länge der Pulverkammer 23,5 cm, die Lauflänge 22,5 cm, das Kaliber der Mündung 13,5 cm und das Kaliber der Pulverkammer 4,5 cm. Das Gewicht beträgt 42,28 kg. Dieses Geschütz dekorieren eine sorgfältig aus Bronze gegossene Madonna mit Jesuskind und eine in zwei Vierblätter auslaufende Ranke, die eine Umrahmung des Zündlochs bildet, und ein in der Mitte des Kanonenlaufs angebrachter Henkel, der die Form eines dick gewundenen Strickes hat[15].

Diese Bombarde wurde in Kurzętnik, in den Ruinen der zum Schutz der Furtübergänge an der Drwęca erbauten Burg, ausgegraben. Während das Feldzuges Jagiellos gegen die Kreuzritter im Jahre 1410 (Schlacht bei Tannenberg/ Grunwald) wurde Kurzętnik von den Ordensrittern als strategisch wichtiger Punkt sehr sorgfältig befestigt und mit entsprechendem Kriegsgerät ausgerüstet. Im Jahre 1414, während des Feldzuges Jagiellos wurde Kurzętnik wiederholt von polnischen Heeren eingenommen und in Brand gesteckt. Es verblieb bis auf den heutigen Tag eine Ruine.

Angesichts dieser Tatsachen, für die auch technologisch-stilistische Gründe sprechen, kann man annehmen, dass die erwähnte Bombarde noch vor dem Jahre 1414 entstand und Bestandteil der Artillerie des Kreuzritterordens war. Diese Bombarde ist eine der ältesten Bronzekanonen, die bis in unsere Zeit erhalten blieb.

[15] Grodzicka 1963, 7-13, Abb. I; Kobielski 1975, Abb. 2; Szymczak 2004, 104-105, Abb. 23.

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Abb.1: Bischoln aus Kalisz, Foto: P. Strzyż

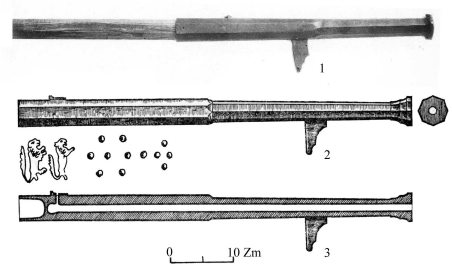

Abb.3.1: Nationales Museum in Krakau, nach Kobielski 1975, Abb. 2, 3, Lemberg, nach Kobielski 1975, Abb.10.

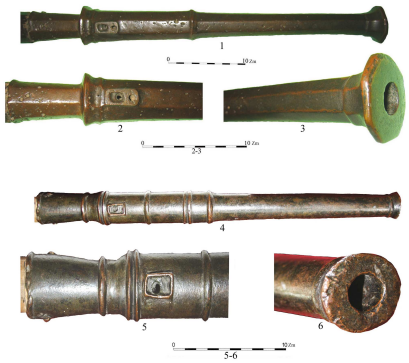

Abb.2. 1-3: Bischoln aus dem Kurischen Haff, Foto: P. Strzyż; 4-6: Bischoln aus Lębork, Foto: P. Strzyż

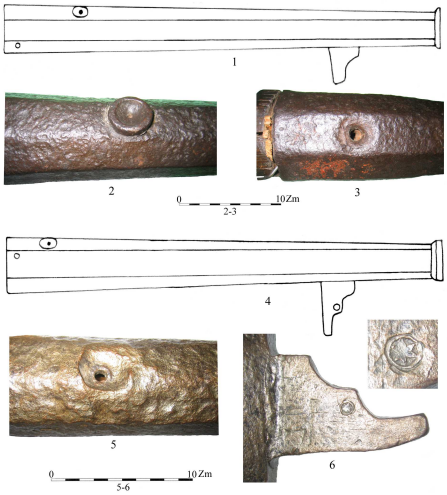

Abb.4: Hakenbuchse aus den Sammlungen des Museums der Polnischen Armee in Warschau, Foto und Zeichnung: P. Strzyż

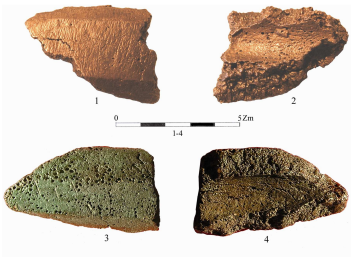

Abb.5: Fragmentarisch erhaltene Funde: 1-2: Wenecja, Foto: P. Strzyż; 3-4: Karpień, nach Marek, Konczewski 2010, Abb.11:1-2

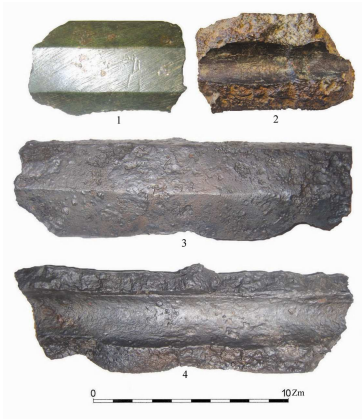

Abb. 6: Fragmentarisch erhaltene Funde: 1-4: Muszyna, Foto: P. Strzyż

Abb.7: Kammergeschütze aus den Sammlungen des Museums der Polnischen Armee in Warschau, 1-6, Foto: P. Strzyż

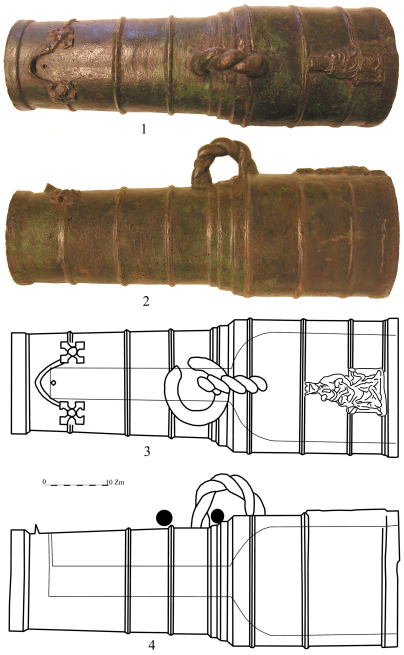

Abb.8: Bombarde aus Kurzętnik, 1-4, Foto und Zeichnung: G. Żabiński

The Fortification of Pohansko by Břeclav

Peter DRESLER*

Keywords: *Great Moravia Period, Pohansko, Břeclav, Hill fort, defense*

Abstract

The fortifications are among the best-known and most frequently discussed elements of the Greater Moravian phase of the Pohansko hill fort, near Břeclav. The importance of the fortifications lies in those of their properties that anchor the settlement in time and space. They define the inhabited area, as well as the beginning and the end of the viability of the location. They served for protection, defense and demarcation in relation to the surrounding world. The fortifications of the central area with the Magnate Court, a church and a craftsmen's area were externally reinforced and separated off. Information on the Pohansko fortifications has been gathered since the very beginning of research into the area, and is in constant progress.

Research into the fortifications of Pohansko, near Břeclav, started in September 1958. Although initially derived from only a small-scale surface probe, first results made it obvious that the remnants concealed evidence of more complex constructions and traces of their destruction (log of the first visit to the site). The first major research into the fortifications, employing the results of the probe, began in 1961 and continued until 1963. Information provided by F. Kalousek, soon published, established that the Greater Moravian fort was a simple combined construction made of wood, stone and clay[1]. Close collaboration with geologists (Prof. Štelcl from the Science Faculty of Brno University) revealed that construction of the fortifications had been highly demanding in terms of the transport of material, acquired from distant locations[2].

Further research was to follow; however, the archaeologists' attention shifted to the north-east section of the central fortified area, between the "Tree nursery" [Lesní školka] and the North Outer Bailey. A series of excavations at this location partially amended the accepted view on the construction of the fort and its dimensions. A partial analysis of outcomes at this stage, carried out by B. Dostál in 1979, went on to unify opinion concerning the construction of the Pohansko fort for a longer period of time, although it did not exhaust all the information gathered over the course of twenty years[3].

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* Centre for Archaeological Research of Social Structures from Primeval to Middle Ages, Arna Nováka 1/1, 602 00 Brno, Czech Republic, dresler@phil.muni.cz.

[1] Kalousek, F., *Velkomoravská pevnost Pohansko u Břeclavě*, in *Almanach Velká Morava*. 1965: Brno. p. 45–60.

[2] Štelcl, J., *Kamenné památky velkomoravského Pohanska. Petrografický průvodce po archeologických kamenných památkách Pohanska*. 1971, Mikulov.

[3] Dostál, B., *K opevnění hradiska Břeclavi-Pohanska.* Sborník prací filosofické fakulty brněnské university, 1979. **E 24**: p. 73-93.

Subsequent work on the interface of the east and southeast sections of the central area in the early 1980's concentrated on a gate and its surroundings[4]. Despite the quality and speedy processing of the information on the newly-discovered gate, its construction and remains, the construction of the fortifications was, once again, not the centre of attention.

Reasons for B. Dostál's delaying a complete analysis of all research into the fortification should probably be sought in extreme difficulties, not only in the supervision of the research as such and in distinguishing construction elements in the remnants of the fort but, in particular, in the complexity of documenting of a "three-dimensional" terrain relic. It's processing within the constraints of an "analogue" approach involving manual drawing (prompting consequent generalisation) did not allow the outcome of adjacent excavations to be integrated or for a search for identical elements in an archaeological situation starkly different from the research into the Magnate court, the Nursery and other "two-dimensional" areas.

Thus, after forty years of research into the Pohansko fort, a number of probes were left unprocessed and the view of the overall construction of the fort remained unclear. Apart from this problem, a necessity for more exact dating emerged. Although a figure had been established by B. Dostál after the discovery of a cache of iron objects in sunken house no. 10, section VAL XIV, it was not generally accepted.

Apart from excavations, geo-physical work has also been done in Pohansko. In 1979, a team led by V. Hašek employed magnetometry to explore the area of planned research into the East Gate[5]. The results were highly positive, revealing a distinct magnetic anomaly that had possibly arisen as a result of fire. Moreover, the area outside the gate was explored, as well as the area of a gate predicted for the north-eastern section of the site. Further measurements took place in 2005, prior to work on sections R18 and R19, with the use of a Kolejconsult ground-penetrating radar. Measurements were also taken in other places, although on a lesser scale. It was possible to identify the position of an outer stone wall and an inner backing wall. In 2007, systematic measurements with a UAM magnetometric instrument were undertaken in accessible parts of the location, especially in the south and northeast section. Since autumn 2009, intensive measurement work has been done with ground-penetrating radar in all accessible sections, part of a university course curriculum.

The Construction

A composite wall of stone, wood and earth was built on "buried humus", (also known as "more recent sub-fossil horizon", or "A horizon") through the lowering and levelling of the surface (probably R01), or through the accumulation of earth (R18). Beams of a

[4] Dostál, B., *Východní brána hradiska Pohanska*. Sborník prací filosofické fakulty brněnské university, 1984. **E 29**: p. 143-166. Štelcl, J. and B. Dostál, *K metodike archeologičeskogo i petroarcheologičeskogo issledovanija vorot na velikomoravskom gorodišče Pogansko pod g. Břeclav*. Scripta Facultatis Naturalium Universitatis Purkynianae Brunensis, 1984. **14/5**: p. 179-210.

[5] Hašek, V., et al., *Výsledky geofyziky v archeologickém výzkumu a průzkum na Moravě v letech 1979-1982 a jejich metodický přínos*, in *Geofyzika a archeologie, 4. celostátní symposium, Liblice 1982*. 1983: Praha. p. 141-153.

base grid were placed on this surface, under what was to become an outer stone wall, and tie beams ran across the entire depth of the wall, connected with vertical posts that supported a wooden backing wall. Paleobotanical analyses show that oak was used in the construction of the base grid and all other wooden elements[6].

The wooden backing wall was supported by pairs of vertical posts set in pits of a more or less regular shape, stopped up with stones in the areas of heavier clays (eastern, southeastern and possibly southern sections). The distance between post-pit centres is approximately 2.2 m. The distance between neighbouring posts is 1–2 m, depending on the situation of the pits. The depth of the pits from the surface varies between 0,55 m and 1,10 m. Horizontal beams or thinner poles were laid across the space between posts.

An outer wall of stone was placed on the base grid to form the front part of the fortification. The stone wall is only aligned from the outside. Facing inwards, the outer wall is thickest (*ca*. 2 m) at the level of the base grid, narrowing to *ca*. 1 m at a height of *ca* 0.6 m above the base grid. The remains of another base grid, an inter-grid, have been discovered at this height. The timbers of the inter-grid are not arranged with the same density as those of the base grid, yet the inter-grid fulfils the purpose of stabilising the outer stone wall. The inter-grid formed a base for a second belt of outer stone wall built in the same style as the outer wall on the base grid. This manner of construction was probably repeated in higher sections that, unfortunately, do not usually survive.

The space between the internal border of the outer stone wall and the wooden backing wall was filled with the core material of the fortification. The filling consists of earth of several kinds in the various sections. In most cases, the filling is sterile, with a low number of artefacts found even by specific research into it. Even when the fortifications are located where an older, early Slavonic and Old Settlement Age settlement stood, the number of finds in the filling does not increase. It is highly probable that the earth used for the filling comes from locations untouched by older settlement. The authors believe that in the case of the southwest section the earth comes from the area outside the gate and, as in other sections, it was acquired from the banks of local rivers.

One newly recognized construction, probably previously explored, is an entrance tunnel to the top of the fortification. It may have been first detected by R15 research, and later by R18. The various materials used in the fortification filling burned at different intensities, resulting in a range of states of preservation in the lattice space, a hollow. The entrance tunnel revealed by R18 started at the level of the wooden backing wall and ended a meter before the outer stone wall. The space was filled with heavily scorched, clayey earth from the core filling, with the burnt area reaching all the way to the surface. The bottom of the entrance tunnel was 0,5–0,6 m above the fortification base. The width of the entrance tunnel researched by R18 was 0,8 m. The bottom of the space contained the charred remains of a wooden entrance frame.

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[6] Opravil, E., *Archäobotanische Funde aus dem Burgwall Pohansko bei Břeclav*, in *Studien zum Burgwall von Mikulčice*, L. Poláček, Editor. 2000: Brno. p. 165-169. Opravil, E., *Nálezy užitkových rostlin na Pohansku u Břeclavi (okr. Břeclav).* Přehled výzkumů, 1985. **28**(1983): p. 46-47.

With reference to the surviving remnants of the fortifications, documented profiles, ground-plan situations and measured and estimated volumes of stone, one can presume that the wall was on average 6,5 m wide and ca. 3 m high. With a protective wooden barrier at the top, the fortification would have been almost 5 m high. The use of transverse tie beams indicates that the whole wall complies with the stability prerequisites for a functional construction. Experts maintain that with the use of base, top and occasional core ties linked with the vertical posts of the wooden backing wall, the pits for the vertical posts of the backing wooden wall would not have been necessary; the construction would be self-locking.

The fortification depth estimated by B. Dostál is now deemed unacceptable, since the estimate was based on incomplete data and the depth was defined with reference to parts distinctly altered by stone quarrying, possibly modern-age[7]. This interference is so marked that in some cases (R11, R12 and R15), no stone from the area of the outer stone wall is left. Only small stones, stones up to the width of the outer stone wall, stones above inter-grids and in some cases stones sinking into the filling of older constructions, have survived. The issue of the secondary use of stone has yet to be addressed. The dating of the stone quarrying on the basis of several unique, modern-age ceramic pieces has yet to be verified, as the pieces have not been identified among the finds so far.

In front of the fortification, *ca*. 10 m from the face of the outer wall, there was a palisade groove 0.2 m wide, running in parallel with the fortification. It was detected in the northeast and southeast sections, and may well have failed to reach all the way to the subsoil in places, making its differentiation more difficult. Although it was not detected in the south section, its presence cannot be ruled out. Its regular distance from the front of the combined fortification indicates its importance as a forward-reaching line deterring access in places where the use of natural obstacles, such as waterways, was not possible.

A palisade channel has been explored and identified under the construction in the eastern and south-eastern sections, an earlier phase of the Pohansko fortification. The channel was dug into the original humus-like layer on which the fortification was later constructed. It ran parallel to the face of the outer stone wall of the more recent fortification. The filling of the palisade channel was identical with the filling of the core of the wall. Additional sealing of the palisade posts with brown-black sandy clay was detected in a few places. The shape of the palisade posts was indistinctly imprinted in the channel filling, and imprints of the post points could be seen at regular intervals in the bottom. The distance between the points of the posts was 0.4 m. The core filling of the fortification sank into the upper section of the palisade channel, filling in the area of the more recent sub-fossil clay horizon. Apart from traces of the palisade, the channel filling did not yield any specific material apart from a few pieces of animal bone.

[7] Dostál, B., *K opevnění hradiska Břeclavi-Pohanska.* Sborník prací filosofické fakulty brněnské university, 1979. **E 24**: p. 73-93.

On the basis of the sections researched, the chronology of the palisade and the fortification appears to have been as follows. There was no channel under the fortification in the southern and north-eastern sections[8]. In sections that are yet to be explored (south-western, western, north-western) a channel is not presumed due to the strategic position of these sections; it is thus possible that the fortification is at its oldest in these areas. In the eastern and south-eastern sections the fortification did not come first; a palisade channel was dug into which palisade posts were inserted. The palisade fulfilled the defensive function in strategically less endangered places. The palisade posts were soon removed, the channel was filled in, and a fortification was constructed above it, possibly using the palisade posts in construction. The period of time between the construction of the palisade and the construction of a combined fortification was probably very short, perhaps in terms of only a few months.

Gates

The only gate enabling entry into the fortified central area was detected at the junction of the eastern and south-eastern sections. In the specialist literature it is referred to as the East Gate, so the term will be employed henceforth[9]. No similar construction is expected in this direction. It was a simple gate of the street type, 2.4 m wide, with four pairs of opposite posts at the sides that supported the timbering that held the filling. One of the post pits and the area above the opposite post pit of the gate have yielded a series of iron objects from a door and the system that secured it. A tower-like construction is anticipated over the gate. The gate was destroyed by fire, as was the fortification.

Further gates are only anticipated in places dictated by presumed strategy and where internal buildings required passage through the wall. Geophysical prospecting has identified the site of a presumed southern gate. In place where the constructions of a hunting lodge and a forest communication in the South Outer Bailey have interfered, ground-penetrating radar has identified the course of the combined wall and its remnants. The fortification did not run directly, as anticipated, but turned twice at an obtuse angle within the central area and then continued towards the west. Where the line takes a double turn, the existence of a gate is highly probable, something also implied by the orientation of a communication that was lined with sunken houses in the South Outer Bailey[10].

A northern gate is presumed, on the basis of research into sacred architecture, in the North Outer Bailey. A two-metre-wide gap running diagonally through the south half of the area researched points directly to a shallow depression in the north-eastern section of the fortification, and this connecting line continues towards the gate of the Magnate

[8] Dostál, B., *K opevnění hradiska Břeclavi-Pohanska.* Sborník prací filosofické fakulty brněnské university, 1979. **E 24**: p. 73-93. Kalousek, F., *Velkomoravské hradiště Pohansko u Břeclavě.* Archeologické rozhledy, 1960. **12**(4): p. 496, 505-530, 545.

[9] Dostál, B., *Východní brána hradiska Pohanska.* Sborník prací filosofické fakulty brněnské university, 1984. **E 29**: p. 143-166.

[10] Dresler, P., J. Macháček, and R. Přichystalová, *Die Vorburgen des frühmittelalterlichen Zentralortes in Pohansko bei Břeclav*, in *Burg - Vorburg - Suburbium : zur Problematik der Nebenareale frühmittelalterlicher Zentren. Internationale Tagungen in Mikulčice*, L. Poláček, Editor. 2008: Brno. p. 229-270.

court[11]. Whether matters were indeed thus can only be verified by research into the approaches to the estimated gate and the area behind it and by minor probing, at the very least. A western gate can be placed at the turn of the north-western and western sections; however, this hypothesis needs to be confirmed by geophysical prospecting and at least minor probing.

There have been over 20 digs in and around the fortification of the central area of Pohansko, near Břeclav, and conclusions drawn from them are constantly being expanded and updated. In recent years, research has also included intensive geophysical prospecting. The significance of the fortification should be sought not only in defence, but also in terms of the marked manifestation of a society's ability to organize workforces and transport of material, as well as of technological progress.

Reconstructions of the appearance of the fortification have not changed greatly after revision of the results of the oldest excavations and their comparison with the two more recent ones. Its typological classification within the R. Procházka system (in a group defined by "shell-type" fortifications with an outer stone facing and a wooden backing wall) is still valid[12]. The discovery of transverse tie beams running from the area of the stone facing wall to the vertical posts of the backing wall places the fortification, in terms of typology, among *pfostenschlitzmauer* / Kelheim-style constructions with a stone facing wall, internal wooden boarding (internal wooden backing wall) and tie-beam reinforcement.

Chronology

The chronology of the fortification has not been satisfyingly resolved by even the most modern research and the assistance of dendrochronology. Only a single sample from the charred remains of the wooden backing wall at R15 could be compared with other Pohansko tree-rings and approximately dated. Its final growth ring dates to the year 875, but it is not a subcortical ring and thus the estimated date of felling, 881, is uncertain. Further research will be necessary, perhaps even a revision of the previous research, in order to acquire suitable charred pieces from the fort and the inhabited area and render the growth-ring curve more precise[13].

Analysis of the older hypotheses suggested by Dostál has revealed that his conclusions about the development of the location as a whole are not acceptable[14]. The cache of iron objects from sunken building O10/R14 (dugout no. 10), covered with collapsed fortification matter, appears to be, after revision of the finds, anachronistic, perhaps a craftsman's store, and what Dostál referred to as "cross ironwork" is a fitting of

[11] Dostál, B., *Opevnění velmožského dvorce na Pohansku u Břeclavi.* Sborník prací filosofické fakulty brněnské university, 1969. **E 14**: p. 181-218.

[12] Procházka, R., *Vývoj opevňovací techniky na Moravě a v českém Slezsku v raném středověku*. Spisy archeologického ústavu, ed. P. Kouřil. Vol. 38. 2009, Brno: Archeologický ústav Akademie věd České republiky Brno, v.v.i.

[13] Dresler, P., et al., *Dendrochronologické datování raně středověké aglomerace na Pohansku u Břeclav. Zdeňkovi Měřínskému k 60. narozeninám.*, in *Zaměřeno na středověk*. 2010, Lidové noviny: Praha. p. 112-138.

[14] Dostál, B., *Zemnice s depotem pod valem hradiska Břeclavi-Pohanska.* Sborník prací filosofické fakulty brněnské university, 1977-1978. **E 22-23**: p. 103-134.

unknown function, devoid of indications for typological or chronological classification[15]. In all probability, the fitting comes from a box or coffer. On no account did the fortification cease to exist before the mid-9th century, as proposed by Dostál[16].

In terms of stratigraphy, the fort's situation is appropriate to that of most of the Greater Moravian houses and graves, both sunken and above ground. Building O1/R18, with Greater Moravian ceramics, is an exception. Early Slavonic and Old Settlement Age buildings are found under the fortification and outside it, and at the time of its construction were below ground level. The only Greater Moravian building to be disclosed under the fortification and investigated is sunken building O1/R18, one half of the researched part of which was under the fortification and the other outside it. The building, investigated lengthwise, runs parallel to the fortification and the older palisade channel. The more recent part of the filling of the building was without finds; only the bottom of the very thin layer of black, sandy clay of a relatively older filling has yielded a few ceramic fragments identical with material from the area within the fort[17]. The small number of fragments does not enable a more precise classification and it cannot be ruled out that the building only existed for a short period of time, possibly a few months.

The graves are dating from the Greater Moravian period (second half of the 9th century), accord with the fort layout. Some of them adjoin the wooden backing wall so closely that it is clear that they were dug at the time when the fort was in use. Grave H4/R01, within the core filling of the rampart, is particularly interesting. The level of the base on which the corpse was laid is identical with that of the first inter-grid. Like the majority of graves explored in the course of research into the fortification and its remains, grave H4/R01 contained no offerings[18]. Settlement buildings adjoining the fort need to be assessed with respect to the larger internal built-up areas, to the complicated and possibly planned layout of internal buildings with which they are connected, in terms of both space and significance.

The original humus-like layer (more recent sub-fossil horizon, A horizon), where the older fortification lies, contains some archaeological material. This layer is without finds in areas R01, R16, R17, R18 and R19. A layer (possibly offset) with a high proportion of animal bone material and ceramic fragments has been detected beneath the fort in area R18. Its character, yellow and clayey, differs from the more recent sub-fossil horizon and that of the fort. The composition of the osteological material is completely different from the series yielded by systematic investigations inside the fortified area (Lesní hrúd) and outer baileys (North Outer Bailey). There is a high proportion of sheep and goat bone fragments and a very high occurrence of ox bones.

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[15] Dresler, P., *Opevnění Pohanska u Břeclavi*. Dissertationes Archeologicae Brunenses/Pragensesque, ed. Z.M.a.J. Klápště. 2011, Brno.

[16] Dostál, B., *Zemnice s depotem pod valem hradiska Břeclavi-Pohanska*. Sborník prací filosofické fakulty brněnské university, 1977-1978. **E 22-23**: p. 103-134.

[17] Dresler, P., *Výzkum destrukce opevnění Pohanska u Břeclavi v roce 2005*, in *Archeologie doby hradištní v České a Slovenské republice*, P. Dresler and Z. Měřínský, Editors. 2009: Brno. p. 30-37.

[18] Dostál, B., *Drobná pohřebiště a rozptýlené hroby z Břeclavi-Pohanska*. Sborník prací filosofické fakulty brněnské university, 1982. **E 27**: p. 135-201.

This layer probably came into existence over a very short period of time, in contrast to the series of finds from areas that saw more extended use. In addition, a major part of the layer was preserved when construction of the fort and its attachments protected the materials, while the series from areas in long-term use were exposed to post-deposition processes and are considerably poorer in fragments. The series from the layer under the fort may well better illustrate the management of animal sources of food. The high degree of fragmentation typical of it results from the pressure of the fort construction. The origins of this layer may be associated with the period of fortification construction or with the functioning of sunken buildings O1/R18 and O1/R19. In no case was there mutual contact, and the stratigraphic relationship between this layer and the buildings cannot thus be defined. The ceramics from the layer are Greater Moravian and analogies are to be found in every area researched.

The origin of the fortification has thus to be defined indirectly by the use of dendrochronological data from the area protected by the fortification (the well from the Tree Nursery, a charred piece from Lesní hrúd) and several incomplete charred pieces of the wooden backing wall from area R15. These pieces lead the authors to the conclusion that the fortification was not constructed before the year 881. This date, however, cannot be considered final until further research into the remains yields a series of charred wood sufficient for dendrochronological analysis to throw up a cluster of data around a certain date[19] [13].

When the fort fell out of use cannot currently be chronologically specified. It is known that fire damaged or destroyed all sections investigated so far. No militaria or finds pointing towards a military campaign against the fortification have been detected. Owing to the absence of major modifications to the fortification, the durability of which in this environment is estimated at 30–40 years, the authors consider that it ceased to exist before the end of its potential useful life, i.e. at the turn of the 9th century, more precisely in the first decade of the 10th century. This supposition is purely hypothetical and is not supported by archaeological evidence and finds. The fortification might have been set on fire deliberately when, despite times of peace, the Pohansko hill fort ceased to be viable relative to the collapse of the socio-economic system behind its construction[20].

System of Construction

The fortification and the palisade channel outside it constitute a defence system that was apparently supplemented by a moat in the shape of active and passive branches of the River Dyje. Unfortunately, these elements of fortification are yet to be sufficiently uncovered and explored. They were partially detected during research R16 and R17 (East Gate), but a high level of ground water prevented further investigation. The riverbed was later partially localized by means of geological probing and geophysical research carried out by D. Voňka and V. Hašek.

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20 Macháček, J., *The rise of medieval towns and states in East Central Europe: early medieval centres as social and economic systems*. East Central and Eastern Europe in the Middle Ages, 450-1450, ed. F. Curta. 2010, Leiden - Boston: Brill.

Work on the fortification systems of the South and North outer baileys is still at a very early stage. It appears highly probable that the area of South Outer Bailey will reveal a rampart demarcating the limits of the settlement to the east, south-east and south. In contrast, the situation in the North Outer Bailey is confusing and requires special investigation. General probing into the bulwark defining the South Outer Bailey, carried out under severely unfavourable climatic conditions in 2007, revealed a ditch, a small but interesting fortification element as yet unseen in the Pohansko hillfort. Further work is needed to describe the construction of the bulwark and the ditch. A comparison of the course of the bulwark with the researched area of the South Outer Bailey, performed in the late 1970's, shows that the bulwark was appropriate to the settlement layout. At the eastern edge, the settlement even ended *ca*. 30 m before the bulwark. The North Outer Bailey was probably protected by a palisade in front of which was a low stone wall, the remains of which form a distinct belt of stones around the edge of the outer bailey elevation. The area of the North Outer Bailey has been scheduled for exploration in the years to follow, including an assessment of previous research, one of the issues being the fortification of the outer baileys. In any case, it is certain that both outer baileys were protected by simple fortifications, the function of which was protective rather than defensive.

The localization of the central area fortification in the broader context of the settlement is based on geographical-geological predispositions largely centring upon an elevation created by Eolithic and fluvial sediments, in close proximity to a watercourse that flowed around it, protected it and divided it. The authors believe that the central area was located on the left bank of the Dyje and the South Outer Bailey on the right bank, and that they were linked by a bridge or bridges, the construction of which could possibly be disclosed if the south entrance to the central area, the South Gate, were to be found. A fortification of wood, stone and earth protected the "home" bank of the Dyje, the side of the river on which it was easily possible to reach the settlement, creating a base for further fortified locations. The most important sections of the fort were those in direct contact with the main course of the Dyje, i.e. the southern, south-western and north-western. With one exception, the direct line of individual fortification sections indicates planning in the erection for the fortification. It cannot be ruled out that the fortification was related to an older phase of the Magnate court, as maintained by J. Macháček and A. Pleterski, a hypothesis that can be neither excluded nor confirmed. In any case, planning the architectural construction was the work of one person or a narrowly specialised group of people, in the sense of later mediaeval building workshops. This is evidenced by standard approaches to construction and the building phase of the fortification in all sections explored so far.

The material used was acquired from the physical surroundings of the site (earth) and what grew there (timber). The farthest place from whence building material (stone) was transported was 17–25 km distant. This was the area of Holíč, now in Slovakia where, according to geological-petrographic analyses, Sarmatian layers of the sandy limestone employed in the construction of the fortification and sacred buildings in both Mikulčice

and Pohansko occur[21]. According to information from direct participants in the 2005 geological investigations, there are bench-shaped formations on Hrebeň Hill, near Holíč, in which layers of stone only a few centimetres thick alternate with layers of sand[22]. The layers of stone have a surface that looks as if the stones had been exposed to the weather. The nature of the stone allows any sharp edges to be smoothed by exposure. It follows that the stone could have been picked up from the slopes around Holíč or mined in the quarries that have been identified in the location; however, this remains unfounded without further research[23].

The acquisition of stone by either method must have been carried out by well-organised groups. They probably first worked for the construction of Valy, near Mikulčice, the fortification system of which is, according to the latest analyses, older, and only later mined and transported material for Pohansko. Storage of stone has possibly been detected in Mikulčice, between Kostelisko and Rubisko[24]. The stone was subsequently transported to other locations, including Pohansko, where it was probably stored outside the fort at an appropriate distance. Traces in the form of small stones have been recorded *ca*. 10–15 m from the face of the outer stone wall.

The estimated time of transport of stone from the place of mining or storage to Pohansko depends on the mode of transport. The authors believe that carts and single-piece timber boats co-operated in the task. With the use of 20 carts and the same number of boats, the amount of stone needed for the construction of the fort in the central area of Pohansko could be delivered within two years. The localisation of communications related to transport is a different issue, the solution of which is possible but costly. Overland routes could be identified if we knew the exact settlement structure of the background of Mikulčice and Pohansko. Water transport depending on rivers of sufficient depth and flow appears easier to localise, yet the process would be too demanding in the environment of the constantly and dynamically changing alluvial plain of the Dyje and, in particular, the larger and swifter Morava. Certain indicators are provided by changes in watercourses marked in maps from the late 16th century onwards. The dynamics of the river network do not exclude a shift in the confluence of the Dyje and Morava to the area south of Lanžhot, by which the length of the Mikulčice–Pohansko river route would be equal to an ideal overland one.

The building of the fort could have progressed quickly with a steady supply of material, especially if it was organised by one group or a head architect. If experienced builders were at work and the fortification line was divided into several sections,

[21] Štelcl, J., *Kamenné památky velkomoravského Pohanska. Petrografický průvodce po archeologických kamenných památkách Pohanska.* 1971, Mikulov. Štelcl, J. and J. Tejkal, *Petrografický příspěvek k archeologickému výzkumu velkomoravského hradiště Mikulčice.* Archeologické rozhledy, 1967. **19**(1): p. 51, 54-63. Štelcl, J. and J. Tejkal, *Petrografický příspěvek k výzkumu velkomoravského hradiska Pohansko u Břeclavi.* Spisy přírodovědecké fakulty UJEP v Brně, 1961. **F9**: p. 415-450.

[22] Přichystal, A., *Petrograficko geologická zpráva o kamenných surovinách použitých k výstavbě hradby a jejích zdrojích*. 2006, UAM FF MU.

[23] Macháček, J., et al., *Raně středověké centrum na Pohansku u Břeclavi a jeho přírodní prostředí.* Archeologické rozhledy, 2007. **59**: p. 278–314.

[24] R. Skopal and M. Mazuch, to whom thanks; Pers. Com.

roughly corresponding with the remains excavated, the construction could have been performed in all sections in parallel. Longer sections could have been divided into shorter ones, the borders of which might have been the entrance tunnels leading to the top of the fortification. These wooden constructions must be traced and the fortification structure in their surroundings observed. As revealed in work on areas R18 and R19, the fortification structure (the proportion of stone to earth in the rampart) was different on either side of an entrance tunnel. One certain way to identify these entrances, provided they were destroyed by fire, might be geomagnetic prospecting; their existence has probably been detected in this manner in the southern and north-eastern sections of the fortification remnants.

The discovery of a palisade channel to the east and southeast and its absence in the other sections may indicate that there were several phases of building. The fortification may have first been erected in "critical" sections, i.e. without a palisade channel. Perhaps due to lack of time, materials, or both, the fortification was not constructed in the eastern and south-eastern sections; instead, a palisade channel was dug into which a simple palisade of posts was set. Once the amount of material needed for construction of fortifications had been assembled, the palisade was pulled out, the channel was filled in, and the posts re-used in the fortification. The interval between the construction of the palisade, its removal and the subsequent construction of the fortification was not necessarily long, and it cannot be ruled out that it spanned only a few months. The fort might thus have been built within two years.

Having compared the construction of the Pohansko hill fort with locations of similar function in the lower catchment of the Rivers Dyje and Morava, the authors believe that the construction and material of the fortification are closest to that of the Mikulčice "acropolis". Judging from existing information on the construction and dating of the Mikulčice fort[25] [12], Pohansko could have been erected shortly after the mid-9th century, and it might even have been a fortified site mentioned in written records of the military campaigns of Frankish armies on Moravian territory. Changes in the use of the Mikulčice complexes from residential to sacred and the expansion of the settlement into less suitable locations on flood soil could have triggered a decision to resettle some of the inhabitants to a new centre, 15 km south-west in Pohansko, where a palace and a church already stood and around which essential outbuildings had been steadily expanding. The affinities between Mikulčice and Pohansko, in their location at the centres of alluvial plains, strategic sites where rivers could be crossed on bridges controlling trade and the movement of people on the territory, are striking.

Geomorphologically identical terrains and the inclusion of low-lying sections in the fortified areas (Dolní valy – Mikulčice, Pod hrúdem – Pohansko) indicate a certain connection between the two locations, as well as a consistency in the selection of site. The same methods, only slightly modified, were employed in the construction of their fortifications. The same kind of stone was used for the facing; the earth for the cores was acquired from river banks or from uninhabited places, which is why such cores

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have not yielded finds. Last but not least, identical ceramic production in both locations makes up a distinct and easily recognisable regional group typical of the second half of the 9th century.

Conclusions

The construction of the fortification of the Pohansko hill fort was perhaps not generated by a single need but was the result of the intersection of several circles of relationships within the society of the time and place (these may be termed subsystems, as J. Macháček refers to them). A military aspect and the cult of the military force certainly played an important part, as did the efforts to manifest the determination to defend the area and its inhabitants. In addition, such mighty fortifications demonstrated the organisational potential of the ruling classes. They also provided protection for the inhabitants against people outside and matters "beyond". They defended access to the area from the south, from the River Danube.

The defence of Pohansko was not restricted to a passive fortification but included an active concentration of military force in its proximity. Evidence of the presence of a large group of people who were not craftsmen and possibly not farmers comes from the South Outer Bailey. They are thought to have been members of a large "state" group. The South Outer Bailey has yielded relatively numerous objects that can be categorised as weaponry and horse-riding equipment (stirrups, bits and spurs). Moreover, there is a striking difference between the types of dwellings in the South Outer Bailey and those of the craftsmen settled within the fortified central area[26].

It is obvious that much research into the fort and its close relationship with the internal settlement remains to be done, and must continue. Research into the area outside the fortification, in the sections delineated by presumed watercourses, must also be undertaken. In addition, it is essential that enough suitable samples for dendrochronology be acquired, something that can be made possible through relatively cheap revision research. In any case, exploration of the construction of the Pohansko hill fort, its chronology and importance in relation to the whole location is far from over.

[26] Vignatiová, J., *Břeclav-Pohansko II. Slovanské osídlení jižního předhradí*. 1992, Brno.

Characteristic Features of the Defensive System of Caraşova-Grad Fortress (Comm. of Caraşova, Caraş-Severin County)

Silviu OȚA[*]
Liana OȚA[**]

Keywords: *Caraşova, Hungarian Kingdom, Middle Ages, fortress, defensive system, wall of enclosure, tower*

Abstract

The fortress of Caraşova is situated on the territory of Caraşova commune, in Caraş-Severin County, at approximately ten kilometers south of the modern town of Reşiţa. The fortress was built of stone, on the top of a hill known as Grad. Until now, we have a small amount of information about the fortress of Caraşova. Due to some reasons (more or less objective), there are, in the archaeological and historical literature, some mistakes, because, in particular, the wrong interpretation of the written documents.

It was Györffy György, *who, in 1987, clarified the historical situation of Caraşova fortress in the 13th-14th centuries. According to* Györffy, *two fortifications, with a similar name, are situated on the Caraş River* – Krassóvár *(known as Haram, too) and* Krassófővár. *The first one (*Krassóvár*) is the earliest, and it is situated in the place where Caraş River flows into Danube, and the second one (*Krassófővár*) is situated on the upper course of Caraş River. From the archaeological point of view, Györffy's opinion was confirmed by Liana and Silviu Oţa, who made excavations in Caraşova between 1998 and 2001.*

During the archaeological excavations, we noticed that the fortress had three important stages of construction. These are characterized mainly by the enlargement of its space towards south-west and south. Thus, in the first phase, the building occupied the top of the hill. The fortress had an elongated shape, with towers at each end. In the second phase, a wall of enclosure was built in the south-western part, closing the access from this direction and increasing, at the same time, the inner space. The last phase consists of large arrangements of the enclosure wall and of the inner constructions, together with a new enlargement of its space towards south-west.

The first defense ditch was dug in the rock, in front of the future fortress, and it was doubled by another ditch. On the south-western side of this first phase of the fortress, there was a small passage way, between the enclosure wall and a part of an inner wall. Another defense structure consisted of a semicircular hole at the base of the northern side of the enclosure wall. Another characteristic feature of Caraşova fortress is the absence of the stone blocks made especially for the corners of the fortress.

The weaponry found here is modest as number. Most of the weapons are arrowheads or crossbow bolts, but their presence could be explained by the fact they were used either by those who attacked the fortress, or by those who defended it. A fragment of a blade of a big knife, a fixing tube, probably from a spear, a fragment of smelt lead and a stone ball from fire weapons, were also found.

The fortress of Caraşova is situated on the territory of Caraşova commune, in Caraş-Severin County, at approximately ten kilometers south of the modern town of Reşiţa.

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The fortress was built of stone, on the top of a hill known as *Grad* (Pl. 1.1). It is bordered on three sides by an abyss (two hundred meters deep). The only way of access is from the foot of the hill, and two parallel defense ditches were dug on it. In the part from the modern village was left a small way of access on the brink of the abyss, the wall between the two ditches being interrupted. A small plateau of limestone (Pl. 1.2), difficult of access, is situated on the top of the hill, in front of the ditches.

The stage of research

Until now, we have a small amount of information about the fortress of Caraşova. Due to some reasons (more or less objective), there are, in the archaeological and historical literature, some mistakes, because, in particular, the wrong interpretation of the written documents.

Historians' interest focused on the fortress of Caraşova by the end of the 19th century. A special work dedicated to the fortress was not written, but some excerpts from monographs of different counties or other kind of studies were published. The main paper about mediaeval Caraş County belongs to Frígyes Pesty, who started to publish it since 1882[1], during the Austro-Hungarian Monarchy. The same historian offered us a correct list of the chatelaines[2] of the fortress from 1323 up until 1364. As for the others enumerated by Pesty, they are only supposed to have really existed. Pesty considers the first mention of the fortress dating back to 1230.

Starting from Pesty's opinion, almost all the historians and archaeologists who studied the fortifications from Banat (J. Szentkláray, Traian Simu, V. Tufescu, Coriolan Suciu, Theodor N. Trâpcea, Ştefan Matei, Theodor O. Gheorghiu[3] and Ştefan Pascu) continued the make the same mistake. The absence of archaeological excavations or of a correct topographical survey (Pl. 2) influenced the opinions about Caraşova. We shall not insist further on this subject, because some papers are already published[4].

Adrian A. Rusu[5] is the first historian who published a list of the chatelaines from the 13th-14th centuries, and between them he mentions those from Caraşova, too. Unlike the other historians, Rusu took into consideration only the direct documentary mentions (more precisely the chatelaines attested in the 14th century), and thus avoided the speculations (the so-called mentions of the fortress from the 13th century).

It was Györffy György, who, in 1987, clarified the historical situation of Caraşova fortress in the 13th-14th centuries. His opinion was adopted by D. Ţeicu, too. According to Györffy, two fortifications, with a similar name, are situated on the

* National Museum of History, Bucharest, Romania, silviuota@yahoo.com.
**Institute of Archaeology „Vasile Pârvan", Bucharest, loredanaota@yahoo.com.
[1] Pesty 1882-Vol.III, 1883-Vol.IV, 1884-Vol.II/1, 1885-Vol.II/2.
[2] Pesty 1884, p. 165.
[3] Gheorghiu 1985, p. 42, 69, 225.
[4] Oța, Oța 2006, p. 3-13; Oța, Oța 2008, p. 183-221; Oța, Oța 2009, p. 193-201.
[5] Rusu 1979, p. 71-98.

Caraş River – Krassóvár (known as Haram, too) and Krassófővár. The first one (Krassóvár) is the earliest, and it is situated in the place where Caraş River flows into Danube, and the second one (Krassófővár) is situated on the upper course of Caraş River.

From the archaeological point of view, Györffy's opinion was confirmed by Liana and Silviu Oța, who made excavations in Caraşova between 1998 and 2001 (Pl. 3).

Historical data regarding the fortress of Caraşova[6].

The first trustworthy data about the fortress date back to 1323, when Caraşova was ruled by master Nicolae[7] who was, at the same time, chatelaine of Vršac (former Érd Somlyó). At that time, Caraşova belonged to the king of Hungaria, Carol Robert of Anjou (1308-1342). A few years later, in 1335, Caraşova had another chatelaine, master Thouka[8], representative of the archbishop of Kalocsa. In 1358, the fortress was royal property, again. At the beginning of the 15th century, the documents were signed by Filippo Scolari, as chatelaine (1405 and 1406)[9]. For a long time, the data were extremely few. The last mention in the documents comes from 3rd of May 1520, when Ştefan Báthory convicted Orbonás Sofiat to pay a fine (one mark), because he refused to take over the fortress, situated, at that time, on the territory of Timiş County. In the 16th century, Caraşova was in private property[10].

The military actions regarding Caraşova are not so sure between 1520 and 1551. According to the information published up until now, a first major destruction is supposed either around 1526[11], or in 1551. Wolffgang of Bethlen, who wrote *Historia de Rebus Transsylvanicis*, mentioned that Mehmet Beglerbeg conquered a number of fortresses in Banat, including Ilidia (Illadiam) and Vršac (Somlium) in 1551[12]. Since 1551, the fortress of Caraşova, though in a relatively high degradation, has been ruled by the Ottoman Empire. It was supposed that the last major destruction took place in 1595, when Caraşova was conquered by the Transylvanian armies, probably demolished and never rebuilt[13]. In the third volume of the already mentioned *Historia*

[6] Due to the fact that this subject was already discussed in other papers, we shall mention only some historical data regarding the fortress.
[7] Györffy 1987, p. 469, 476.
[8] DIR, C, XIV, III, p. 361.
[9] Pesty 1882, p. 250-251.
[10] Pesty 1884, p. 264-265.
[11] When Pesty wrote that the Ottomans, when they conquered Banat, destroyed the fortress of Caraşova, he mentioned the local legends (Pesty 1884, p. 265). The same author draws attention on the absence of the information about the fortress after the battle of Mohács. Pascu 1979, p. 249 thinks that the fortress of Caraşova was destroyed by the Ottomans on the occasion of the battle from Mohács, but he does not specify the sources of information. Traian Simu takes over the information from Pesty, and repeats that the last written mention of the fortress dates back to 1520 (Simu 1939, p. 94).
[12] Bethlen 1783, p. 497-498.
[13] The information is published without notes mentioning the documents. Trâpcea 1969, p. 63 mentions a conquest of the Caraşova fortress by the Ottomans in 1551, and a re-conquest by the Transylvanian armies in 1595. Munteanu 1986, at the commune of Caraşova, mentions the same dates, probably taking over the information from Trâpcea.

de Rebus Transsylvanicis, between the events which took place in 1595 is mentioned that in July, G. Borbély conquered two castles from the Ottomans, namely Varsocs (Vršac) and Bokcsa (Bocşa)[14]. It is very possible that Caraşova fortress, situated near the two mentioned fortifications, was destroyed again on this occasion, and after this time was never rebuilt, since we do not know any other information concerning Caraşova, from now on.

Other Ottoman chroniclers frequently enumerate the fortresses of Timişoara, Lipova, Şoimoş, Igriş, Margina, Felnak, Cenad, Becikerek, Mako, Gyula, Ciala, Arad etc. Besides, they tell us about „numberless castles belonging to them. The damned who lived there, pressed to run, all of them were found empty and all those necessary for guard were occupied"[15]. The lack of any information about Caraşova in the Turkish Deftera, corroborated with the mention of abandoning the small fortifications (amongst them probably Caraşova), is an indirect argument of the fact that the fortress analyzed here lost its importance during the 16th century.

Narrating his travel in Banat, Evlia Celebi does not say anything about the ruins from Caraşova, although he mentioned other abandoned fortresses.

The characteristic features of the defensive system

During the archaeological excavations, we noticed that the fortress had three important stages of construction (Pl. 3). These are characterized mainly by the enlargement of its space towards south-west and south. Thus, in the first phase (Pl. 4.1-3, Pl. 5.1-3, Pl. 6.1-2), the building occupied the top of the hill. The fortress had an elongated shape, with towers at each end. In the second phase, a wall of enclosure was built in the south-western part (Pl. 8.2), closing the access from this direction and increasing, at the same time, the inner space. The last phase consists of large arrangements of the enclosure wall and of the inner constructions, together with a new enlargement of its space towards south-west.

The first defense ditch (until 3.5 meters deep and approximately 10 meters wide) was dug in the rock, in front of the future fortress (Pl. 1.3). It was doubled by another ditch, at a distance between six and nine meters, and two to four-five meters deep. The fact that the north-western part of the enclosure wall descends in the first defense ditch, confirmed the supposition that the defense ditches have been dug first.

During the first phase, two towers were situated towards the two ends of the fortress. The first of them was situated in the western part (Pl. 12. 1-2). Due to later reconstructions and to the destruction of the paraments, we cannot know exactly what plan this tower had. We can only say that it was not built at the end of the enclosure wall, which covers the rock, but in the central part of the north-western side of the fortress. The tower was almost totally destroyed during the construction of the third enclosure. It is very possible that one of its sides was built out of the enclosure wall.

[14] Bethlen 1783, at the year 1595, p. 576.
[15] Mustafa Ğelalzade, in *Cronici turceşti*, vol. I, p. 287.

In the opposite part of the fortress, but not just at the end of the enclosure, was built a second tower, probably rectangular (Pl. 11.1-3, Pl. 14.3-4). One of its sides consists of the enclosure wall, similar to the first tower. At the entrance of the tower a trap was observed (Pl. 6.3), consisting of an opening in the lower part of the enclosure wall, through which the enemies could fall in the abyss.

On the south-western side of this first phase of the fortress, there was a small passage way, between the enclosure wall and a part of an inner wall (Pl. 7.1-2). This passage suddenly became narrow, and one could get to the back side of the first tower.

Another defense structure consisted of a semicircular hole at the base of the northern side of the enclosure wall (Pl. 7.3). Behind this hole, towards west, were found stone sling balls (Pl. 8.1). As an auxiliary precaution to block the penetration of the enemies at the base of the enclosure wall, on this side, the wall was superposed to a rock, deliberately left there (Pl. 10.3).

As for the second phase, we can only speak about the blocking of a passage way with an enclosure wall (kept on 4.78 meters high and 2.80 m wide), built towards south-west (Pl. 8.2-3, Pl. 9.1-2), between an edge of the ancient fortress and the abyss. The construction of this part of the enclosure solved the problem of any attempt of attacking the fortress from south-west, south and east. This was probably an intermediate phase.

The last building phase covers all the ancient fortification, and, at the same time, an extension. One could assume a number of reasons for such a massive intervention: a violent destruction, an earthquake, or just a need for extension and modernization. Regardless the exact cause, the re-building was ample, involving all the levels, horizontal and vertical as well. The precise moment of this intervention cannot be supposed, relying either on archaeological finds, or on written sources. We could take into account three moments: the first half of the 15th century (Filipo Scolari), during the Teutonic presence in Banat or, the last, during Iancu of Hunedoara's reign (1441-1456). Anyone of these three moments is plausible, because important activities of restoring the fortifications affected by the Ottoman attacks took place in the region. The coins discovered in Caraşova fortress, though few, cover Sigismund of Luxemburg's reign (1387-1437). Two other arguments can be added. The first argument is that, in 1520, the fortress was in advanced degradation, and a number of expensive repairs had to be done. The second argument is the assumption that, at the end of the 15th century and the beginning of the 16th century, such a fortress was already obsolete, and it was maintained mostly as a point or supervision.

The first element is the demolition of the older enclosure wall on its northern side and towards the first defense ditch. The enclosure wall was dismantled until the level they stepped on inside the fortress. The new enclosure wall was built along the whole former enclosure, in front and closed to it, on the northern side (Pl. 10.1-2). The outside parament towards the defense ditch was dismantled, and a new enclosure was built, at a lower distance.

Moreover, the fortress extended towards west and south-west, close to the edge of the abyss (Pl. 12.3, Pl. 13.1-2, Pl. 14.1-2), and only a narrow way of access, more like a path, was left. Towards south, the new enclosure wall was built perpendicular on the end of the enclosure no. 2. Consequently, between the two walls, a zwinger was made. The entrance inside the fortress was made through a door on the south-western side of the enclosure no. 3. Behind the door, the ground was sloped up until the enclosure no. 2. A slope made by the native rock was observed towards north-west, but we cannot say whether the stairs of access were made of stone or wood.

Inside the fortress, were kept functional the opening for lancing the sling balls and the trap at the base of the second tower. The parament of the inner wall was demolished up until the base of the wall, towards east. Afterwards, it was re-built with another angle, consequently, the entrance situated at the base of the tower became so narrow, that the access inside cannot be made without the permission of those who were inside the tower. The trap became very visible (Pl. 6.3). On the other side, if fire weapons were used from the outside, both from south or east, the cannon balls met a wall for their ricochet. The cannon could not be used for an attack from south-east, because there was a wall made by the sloped native rock.

The first tower was probably dismantled, and then re-built, because its side towards the defense ditch was no longer on based on the former, but the new enclosure wall. The ancient enclosure wall was destroyed up until the level they stepped on inside the fortress, and the new enclosure doubled the older one. On the inside, the new enclosure wall is thickened and rounded.

Another characteristic feature of Caraşova fortress is the absence of the stone blocks made especially for the corners of the fortress. The stone frames for windows or doors are missing, too, but the use of bricks cannot be excluded, since a few fragments were found inside the fortress and in the first defense ditch.

The weaponry found here is modest as number. A part of the weapons comes from private collections, but it was found in the fortress. Most of the weapons are arrowheads (Pl. 15.5-6) or crossbow bolts (Pl. 15.2-4), but their presence could be explained by the fact they were used either by those who attacked the fortress, or by those who defended it. A fragment of a blade of a big knife (Pl. 16.2) and a fixing tube, probably from a spear (Pl. 15.8), were also found.

The fire weapons were used, too, and the proofs are a fragment of smelt lead (Pl. 15.1) and a stone ball (Pl. 15.7). They were found near the enclosure walls or towers, even inside the towers. Fragments of whetstones indicate a frequent use of side arms. The only item well preserved is a spearhead made of steel, dated in the 16th century (Pl. 16.1). It has central rib, and two perforated rods for fixing the handle.

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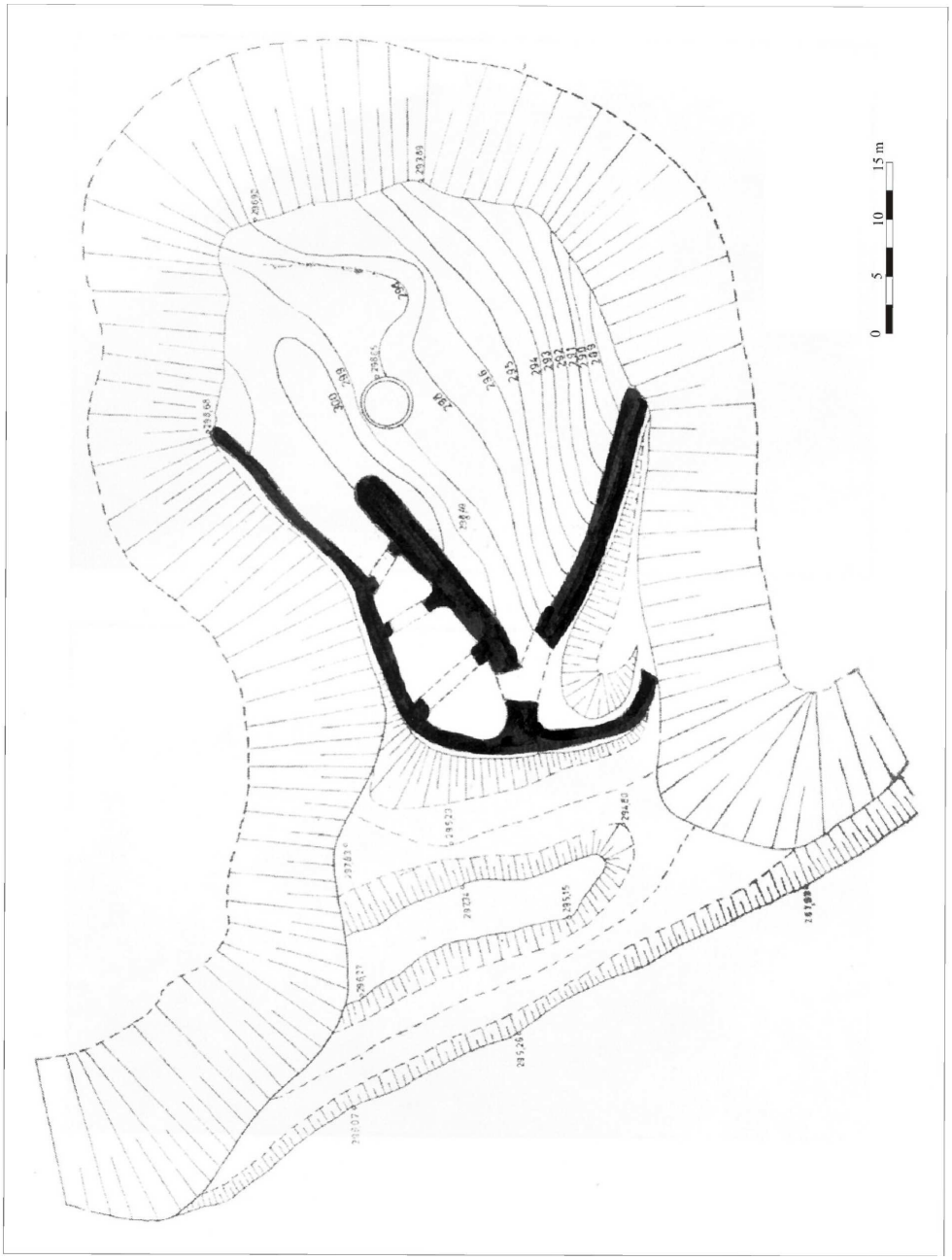
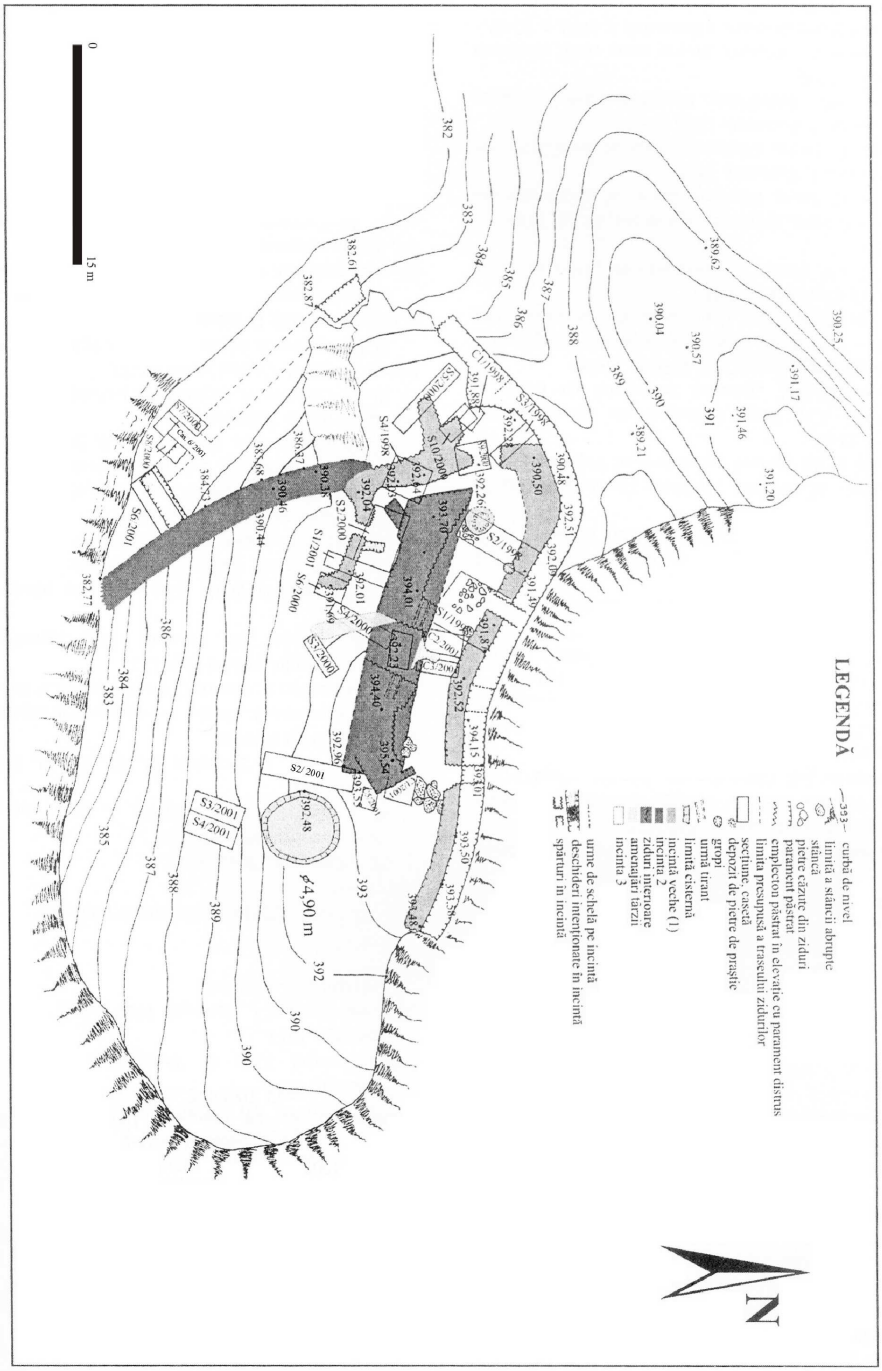
Pl. 1: 1. *Grad*-hill; 2. Plateau of limestone; 3. Defence ditch.



Pl. 2: Old plane of the fortress (after Țeicu 1998).



Pl. 3: Excavations made by S. and L. Oța.

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Pl. 4: 1-3. *Details of the enclosure wall of the first phase of the fortress, near the enclosure wall of the third phase.*

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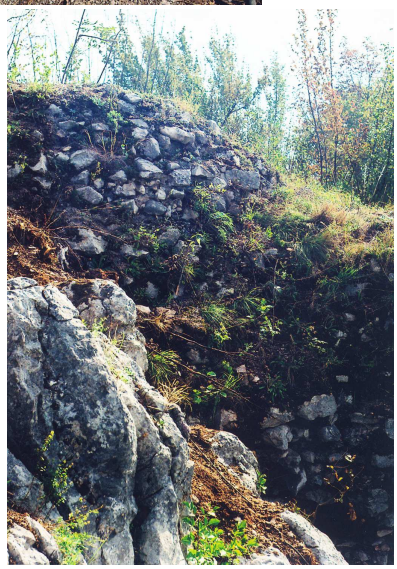

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Pl. 5: 1. Detail of the enclosure wall of the first phase of the fortress, near the enclosure wall of the third phase; 2. Detail of the first constructive phase; 3. Detail of the enclosure wall of the first phase of the fortress, near the enclosure wall of the second phase.

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Pl. 6: 1-2. Details of the enclosure wall of the first phase of the fortress, near the enclosure wall of the third phase; 3. The trap at the base of the second tower.

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Pl. 7: 1. Passage way between the enclosure and an inner wall (view from south-east); 2. Passage way between the enclosure and an inner wall (view from south); 3. Semicircular hole.

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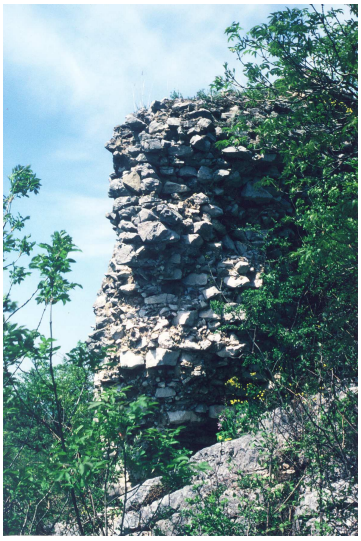

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Pl. 8.

Pl. 8: 1. Stone sling balls near the semicircular hole; 2. Enclosure no. 2 (front view); 3. Enclosure no. 2 (behind).

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Pl. 9: 1. Detail of the enclosure no. 2 (base); 2. The south-eastern end of the enclosure no. 2.

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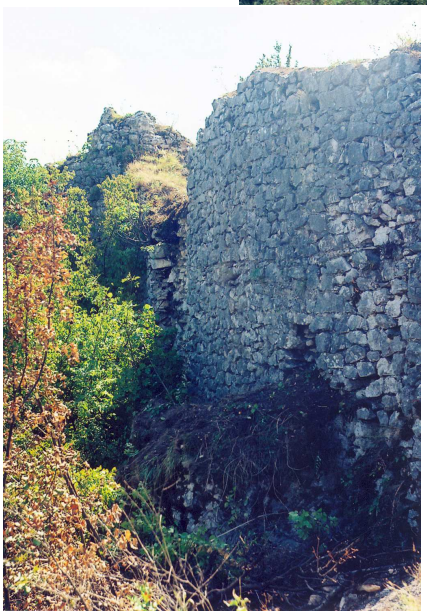

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Pl. 10: 1. Enclosure no. 3 (view from north-east); 2. Enclosure no. 3 (north-western side, detail); 3. Enclosure wall, superposed to a rock.

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Pl. 11: 1-2. The second tower (details); 3. The northern edge of the third phase. Behind, one can see fragments of the second tower.

1

2

3

Pl. 12: 1. The first tower (inside the fortress); 2. Enclosure no. 3 and a part of the first tower; 3. Detail of the enclosure no. 3, in the western part of the fortress.

1

2

Pl. 13: 1. Destruction of the enclosure no. 3; 2. Enclosure no. 3 (detail).

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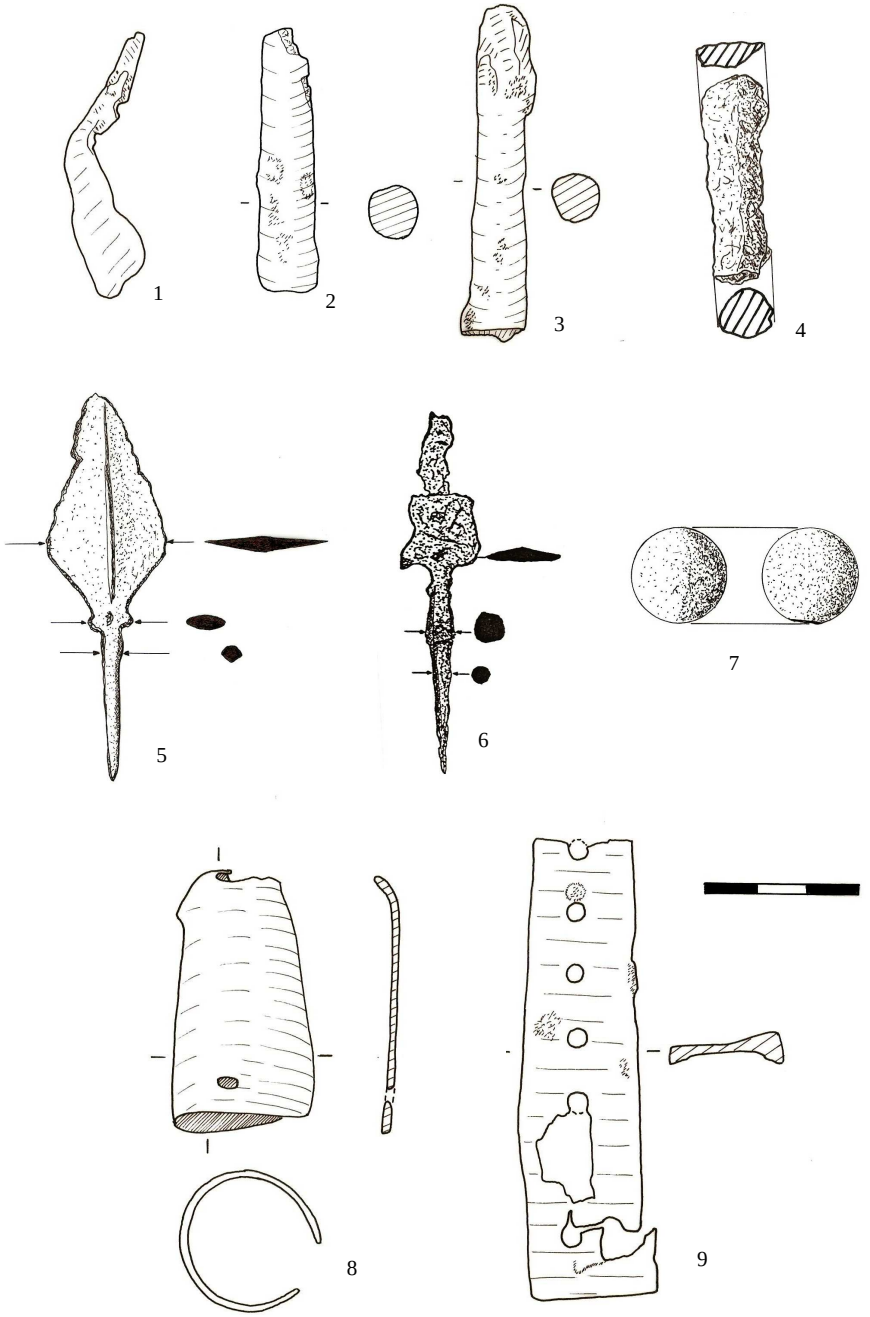
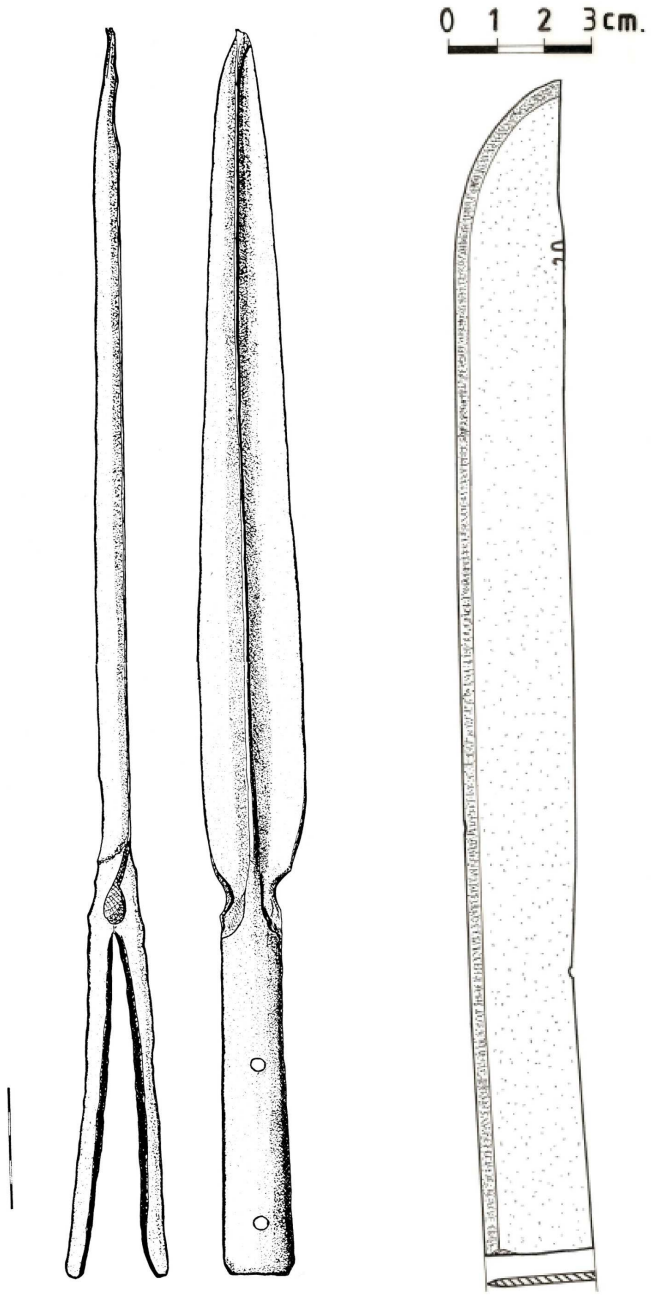
Pl. 14: 1-2. Enclosure no. 2, and, near it, enclosure no. 3, dismantled; 3-4. The second tower.



Pl. 15: Weapons.



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Pl. 16: Weapons.

Military Justice, Regulations and Discipline in Early Modern Transylvanian Armies (XVI-XVII Century)

Florin Nicolae ARDELEAN*

Keywords: Transylvania, Middle Ages, military organization, army, military camp

Abstract

In the early modern period the military organization of European states suffered significant changes, some of them regarding the internal regulations of armies. The state tried to impose a more efficient control on armies by issuing regulations on matters of: discipline, maintaining security in military camps, organizing the marches, provisioning and last but not least reducing the negative impact on civil population. This tendency was also manifesting in the principality of Transylvania, a state with a rather short period of existence coinciding with this period of transition towards modernity (1541-1691). Regulations such as those issued by Steven Báthory or those from the second half of the XVII century, together with occasional articles issued by the estate assemblies tried to impose measures of internal organization meant to increase the control of the prince on the military structures of the country.

In the early modern period armies became an efficient instrument of central authorities, contributing to the development of absolute monarchies. Decreasing the power of privileged estates and their representative political institutions (estate assemblies) was a process that also involved aspects regarding military organization. The shift of power from estates to monarch, in the matter of military authority, affected the inner organization of armies during the XVI-XVII centuries. During this period, a general tendency of increasing the control of the state over armies can be perceived throughout Europe, with specific developments for each region of the continent.

Early modern monarchs were preoccupied, more than their medieval predecessors, with imposing military regulations in order to improve their control over the armies mobilized to pursue their political objectives and ambitions. These internal regulations were also determined by innovations in tactics, weapon technology and other aspects that changed the nature of warfare during the early modern age. An increase in the number of soldiers, the longer duration of military campaigns, and a new tactical approach due to the spreading of fire arms (volley fire and countermarch)[1] required rigorous rules and regulations in order to maintain discipline, both on the battlefield and in military camps.

* Babeş-Bolyai University Cluj-Napoca and Romanian Academy, Cluj branch (florinardelean1@yahoo.com).

[1] Geoffrey Parker, *The Limits to Revolutions in Military Afairs: Maurice of Nassau, The Battle of Nieuwpoort (1600), and the Legacy*, în „The Journal of Military History", nr. 71, 2007, p. 337-338.

War experience in the early modern period was radically changed in comparison with the previous centuries. Heavy cavalry charges, individual value and heroism of the medieval warriors were replaced by ranged confrontations due to the use of a large variety of fire arms (both artillery and smaller individual weapons) and also by the capacity of commanders to maneuver large masses of soldiers[2]. The outcome of battles was greatly influenced by the capacity of officers to follow the battle plan and by the capacity of common soldiers to follow the orders of their superiors and perform the required maneuvers. Keeping the battle formations was also essential. The temptation to run in front of a superior enemy or to pursue in disorder an inferior one, attracted by plunder possibilities, could result in heavy losses for any army[3]. General Montecuccoli advised any commander to destroy roads and bridges behind his own army in order to discourage deserters and not to hesitate in killing all soldiers that turned their backs on the enemy[4].

The morale of the troops was most often maintained by regular payment and the right to war plunders, as war was being perceived by common soldiers as a way of making a living and, for some lucky few, a way of getting rich. The cohesion of military units also depended on the bounds of comradeship that developed over a long time of common experience and service or, by bounds of common origin, in the case of units recruited from the same region[5].

The soldiers of the early modern period had to face many difficulties and adversities, but the most frequent and devastating were hunger and epidemics. Many historians agreed on the fact that more soldiers were victims of diseases and lack of

[2] Frank Tallett, *War and Society in Early Modern Europe 1495-1715*, London and New York, 1992, p. 42.

[3] An eloquent illustration of such a situation is given by the battle of Mezőkeresztes from 1596, where a Transylvanian army lead by Prince Sigismund Báthory fought alongside the Habsburg army that was facing a significant Turkish force lead by the sultan himself. Most contemporary descriptions of this important battle of the Long War (1593-1606) consider the greed of Christian soldiers, which entered the Turkish camp in disorder, attracted by the perspective of rich loot, the main cause of their defeat. *Memorialul lui Nagy Szabó Ferencz din Târgu Mureş (1580-1658),*Bucureşti, 1993, p. 81-83; András Komáromy, *A Mezőkeresztesi csata 1596-ban*, in „Hadtörténelmi Közlemények", vol. V, Budapest, 1892, p. 281-284; Aurel Decei, *Istoria Imperiului otoman*, Bucureşti, 1978, p. 282.

[4] Frank Tallett, *op.cit.*, p. 48.

[5] The recruitment of soldiers, both local and foreign mercenaries, based on their common origin was a respected rule by most European states. The efficiency of the Swiss soldiers was due to their national and regional solidarity. The Swiss mercenaries were organized in companies (*Haufen*) of 200 men, lead by a captain designated by the authorities of the region from where the soldiers originated from. The members of each company had the right to elect some of their officers. Christer Jörgensen, Michael F. Pavkovici, Rob S. Rice, *Fighting Techniques of the Early Modern World. AD 1500 ~ AD 1763. Equipment, Combat Skils, and Tactics*, New York, 2005, p. 8; the custom of territorial recruiting was also maintained in the Transylvanian armies, where the different military structures that formed the army of the principality were organized according to the origin of the soldiers. The infantry detachments (usually bearing fire arms) sent by Saxon towns, the cavalry of the Székely and the units of the county nobility fought under their own banners. Furthermore the noble cavalry and the militias recruited from the estates of the nobility were organized in units representing their county of origin. Florin Ardelean, *Obligaiile militare ale nobilimii în Transilvania princiară (1540-1657)*, in "Crisia", XL, 2010, p. 193-209.

provisions than of their own enemies. Military camps were exposed to epidemics mainly because of the lack of hygiene. Many regulations issued in the XVI and XVII centuries were concerned with improving the living conditions in military camps and fortifications. Such regulations demanded the removal of garbage from camp sites, the slaughtering of animals was also forbidden inside fortifications and camp sites and the water sources had to be maintained in a clean state. Many soldiers died because their wounds were not being treated properly, due to insufficient medical staff and erroneous medical methods applied by the few surgeons that accompanied early modern armies. Hunger was also a constant threat for campaigning armies. The lack of provisions augmented by an efficient tactic of removing the lands resources, deployed by the enemy, could result in a disaster for an invading army. The lack of content among troops usually turned into desertions, affecting individuals or small groups, or in the worst cases into rebellions that could affect whole armies[6].

When reading military regulation from this period one can notice the frequency of death penalty (death by hanging for common soldiers or by shoot or decapitation for officers and nobles) for a great number of faults and acts of insubordination[7]. Usually such regulations were also concerned with the auxiliaries of the army, the crowd of servants, merchants and other professionals that accompanied armies during campaign. Generals went through a great deal of effort to impose such regulations, knowing that a disciplined army was far more efficient on the battlefield. Many rules regarded life in camp but also the behavior of soldiers during battles. Sever punishments were issued against those who failed to maintain their position in the battle formation or neglected the orders of their superior officers. Another purpose of these regulations was to reduce the negative impact of armies on the civil population. Random plunder and unjustified crimes against civilians were sometimes punished, but this matter was never entirely solved. Contemporary narrative and official sources describe early modern soldiers as being undisciplined, hard to control and inclined towards destruction and other vices[8].

In Transylvania, during the period of the voievodat and later in the period of the autonomous principality, military regulations were usually issued during the assemblies of the estates or by royal decrees. Certain articles voted during the meeting of the estates expressed, in a concise manner, the punishments to be applied in case of insubordination for the soldiers mobilized in the army. For example the decree issued by Ladislaus Postumus in the year 1454, contained an article regarding the death penalty for non-noble soldiers deserting the royal army. While nobles in the same situation had their domains confiscated and in consequence lost their social

[6] Frank Tallett, *op.cit.*, p. 107-116.

[7] Death penalty was also applied in cases of inadequate behavior on the battlefield not only in situations of cowardice or desertion. After the defeat of Lützen (16 November 1632) general Wallenstein summoned a military court in Prague where the appointed judges reached the conclusion that the defeat of the imperial army was caused by the erroneous implementation of the battle plan, enough reason to condemn to death some of the officers. Erich Zöllner, *Istoria Austriei. De la începuturi până în prezent*, Bucure□ti, 1997, p. 264-265.

[8] Frank Tallett, *op.cit.*, p. 123-125.

status[9]. Another crime sanctioned by the medieval military legislation of the Hungarian kingdom was the forced occupation of noble and priest houses. The punishment for such a transgression was not pre-established. These minor matters were left for the captains of the army to judge[10].

Although the autonomous principality inherited a significant amount of legislation and the institutional structure from the period of the voievodat, changes started to happen in the second part of the XVI century, even regarding military regulations. Some of the authoritarian rulers of Transylvania managed to impose their will in the political confrontation with the estates. One of them was Stephen Báthory (1571-1576 ruler of Transylvania and from 1576 to 1586 king of the Polish-Lithuanian Commonwealth and Transylvanian prince), who effectively controlled the internal and external politics of the principality during his reign. Dating from his period we have two military regulations elaborated after he was elected to the Polish-Lithuanian throne, regulations that were also applied to his Transylvanian troops. The first set of rules dates from 1577, when the army of Báthory was besieging the town of Danzig. This elaborated regulation follows three major aspects: the discipline of the soldiers, the organization and security of military camps and the non-fighting auxiliary groups that followed the army. This regulation tired to impose some severe measures of discipline:

> *Soldiers receiving regular payment were not allowed to leave the camp for plunder forays. They were not allowed to take servants of other members of the army into their service. Each had to obey the orders of the king with no opposition.*
>
> *If someone stole food, clothes or other objects belonging to other soldiers was punished with death by hanging.*
>
> *Fights between soldiers inside or outside the camp were forbidden. Those who neglected this rule and caused injuries were punishable by death, if the fight took place without the use of weapons the aggressors had their arms cut.*
>
> *All infantry and cavalry officers received a written password and, if asked, they were obliged to communicate it to the commanders of the guards (campiductore).*
>
> *Soldiers in camp had to obey the signals given by drums and trumpets of their own unit.*
>
> *Starting a fire inside the camp, intentionally or by mistake, was punishable by death.*
>
> *Moving chariots or other transportation means inside the camp was forbidden.*
>
> *The innkeepers and other merchants were forbidden to enter the camp receiving special places on the outskirts.*
>
> *Slaughtering cattle and sheep inside the camp was forbidden.*

[9] *Corpus Juris Hungarici*, Tom I, Budae, 1882, *Decretum Secundum, Budae Anno Domini* 1454, art. 13, p. 202.
[10] *Ibidem, Ludovicus II, Decretum Anno 1525*, art. 22, p. 332.

During night time, after the officers received the password, all loud noises were forbidden.

When hearing the sound of drums every soldier had to join the rest of his company under their banner or flag.

Shepherds and herdsmen were not allowed to leave camp without the permission of captains, if they failed to obey this rule they were punished by hanging.

Ordinary soldiers had to obey their superior officers and always be prepared to join their comrades under the flag of their company.

No soldier was allowed to offer protection or to ask money for protection from other members of the royal army[11].

Another regulation was issued by Stephen Báthory in Vilnius during the year 1579, in the context of the Livonian campaign. This second regulation is mostly concerned with cavalry units, both in the matter of camp organization and marches. In order to avoid the numerous problems that a moving army could face, the regulation was mainly preoccupied with maintaining the position of soldiers in the marching formation and also the marching order of the different troops. During the marching period, horsemen were forbidden to leave their company. This regulation was enforced by two sergeants in each company. Each sergeant, but also every single soldier, was submitted to the jurisdiction of the *provost*. Fights between soldiers ended in bloodshed, even in the case of light injuries, were punished by hanging. The activity of merchants accompanying the army was limited by a particular set of rules. In order to join the marching column every merchant needed the approval of the general. Once they received the approval they were allowed to sell their wearers only until dawn, outside the camp. They were forbidden to receive weapons as payment, or any other belongings of the soldiers that might prove useful during the campaign[12]. With the two regulations issued during his reign, Báthory attempted to maintain discipline in an army with a very heterogenic structure (consisting of Poles, Lithuanians, Cossacks, Germans, Hungarians and Transylvanians). An army engaged in campaigns that lasted several consecutive years. Nevertheless we have to underline the fact that these regulations were applied only to the troops receiving payment from the royal treasury. The military organization of the Transylvanian principality benefited greatly from the experience of the Polish wars of Stephen Báthory. The following rulers of the principality continued the efforts of strengthening the central authority by increasing their control over the military structures of the country.

Military regulations were usually enforced by officers and army leaders, which were also representing the main justice courts for the soldiers during war time. If lesser quarrels between ordinary soldiers were judged by captains and lieutenants (*hotnogi*), officers were usually judged by the leader of the army, the prince or his

[11] Andrei Veress, *Báthory István erdélyi fejedelem és lengyel király levelezése*, II, (1576-1586), Cluj, 1944, doc. 650, p. 185.

[12] Samu Barabás, *Báthory István lengyel király hadi rendtartása a lengyel seregben szolgáló magyar huszárok számára*, în „Hadtörténelmi Közlemények", Budapest, 1890, 667-674.

deputy, a high ranking noble bearing the title of captain general *(capitaneus generalis*). The chronicler Szamosközy recounts a military trial that took place in the Transylvanian army of prince Bocskay, army that was besieging the town of Sighi□oara during June 1605. The captain of the haiduks András Szekél, was hanged because he left the camp without the permission of the general, in the attempt to capture a herd of cattle. Following this events he and some of his soldiers entered a village during market day and murdered five men[13]. In this particular situation the Transylvanian army was lead by the captain general Ladislau Gyulaffi, because Bocskay was spending most of his time in Upper Hungary fighting against the Habsburgs. It was not an unusual fact for a group of soldiers to leave the main body or the army with the purpose of plunder. Sometimes they were even lead by their superior officers. Plunder was considered a legitimate source of income for soldiers and such behavior was usually accepted by military leaders of the early modern age. One of the reasons behind the execution of Captain András Szekél was his disobedience towards his superior officer (in this case the leader of the army, the captain general Ladislau Gyulaffi). The plunder foray was probably initiated without the knowledge or consent of the captain general, endangering the achievement of the main objective of the campaign. Also the crimes committed against the civil population could not be overlooked if we take into account the fact that Bocskay was making efforts to obtain the full recognition of the Transylvanian estates for his position as ruler of the principality.

In many cases military justice was applied only when it served a precise political purpose. In his attempt to gain the trust and loyalty of the nobility and towns in Upper Hungary, Prince George Rákóczi I, tried to control the plunder and random destructions of his army that was fighting against the Habsburgs in 1644. At Prešov the Transylvanian army was stationed for a short while in the vicinity of the town, before continuing its march against the Habsburg controlled territories. Two captains fighting for the Transylvanian prince remained behind with their men and robbed a local noble. The two captains, probably of noble origin, were decapitated as a result of Rákóczi's judgment[14].

A more efficient military justice was also desired by the estates, that some times during their assemblies request the prince to take sever measures especially against foreign mercenaries that were threatening the lives and proprieties of civilians both in times of war and peace. Such an assembly held in Alba Iulia, in the first half of May 1639, issued an article against German mercenaries, employed in the personal guard of the prince, that were committing all sorts of crimes against inhabitants all over the country. The estates were however ready to admit that these soldiers could only be judged and punished by their own captains and lieutenants[15].

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[13] Ioachim Crăciun, *Cronicarul Szamosközy şi însemnările lui privitoare la români 1566-1608*, Cluj, 1928, p. 188.

[14] Georg Kraus, *Cronica Transilvaniei 1608-1665*, Bucureşti, 1965, p. 115.

[15] Szilágyi Sándor (ed.) *Monumenta Comitialia Regni Transylvaniae*, vol. X, Budapest, 1884, doc. XXI, art. XXI, p. 221.

Some military regulations were issued during the preparations for new campaigns, especially the ones organized against external enemies. Such occasions were frequent in the second half of the XVII century, during the reign of Mihail Apafi, when the Transylvanian army took part in several military actions directed against the Habsburg rule in Hungary. In 1671 the soldiers of the principality were being summoned for a campaign in the region of *Partium.* While the troops were mustering in the camp at Some□eni (Szamosfalva) near the town of Cluj, the prince and his advisors conceived a regulation consisting of 13 articles for this specific campaign. A notable difference from the regulations analyzed earlier, is the attempt to impose a moral code for soldiers. The first rules were stating that soldiers guilty of adultery and those cursing in the name of God had to be punished by death. Same punishment was applied in cases of insubordination. Another problem that this regulation was trying to prevent was the spreading of false rumors. The morale of the army was easily influenced by unfavorable news, both true and false. Each soldier was bound to communicate external information exclusively to his superior officer. Those found guilty of spreading rumors or bad news inside the camp were punished by beating, and if the rumors were grave enough they could also be executed. Fights between soldiers and theft were punishable by death[16].

Although a permanent legislation regarding the internal order of armies in this period was never achieved, the regulations analyzed here show multiple similarities, fact which demonstrates a constant effort of political authorities (both the prince and the representatives of estates) to impose a more efficient control on their military power. Discipline was without a doubt the most important objective of these regulations, but other matters such as: supply, logistics, camp security and reducing the negative impact on civil population, were also taken in. to consideration. The degree in which these rules were applied and respected remains a fact hard to asses. In spite of these obvious efforts to contain the destructive behavior of early modern soldiers, official and narrative contemporary sources continued to present a negative image of armies in this period[17].

[16] *Ibidem*, vol. XV, Budapest, 1892, p. 204-205; some similar regulations were issued in the years 1681 and 1683. Sándor Szilágyi , *Az erdély 1681-ik hadjárat előkeszületéinek történetéhez*, in „Hadtörténelmi Közlemények", IV, Budapest, 1891, p. 415-420; MCRT, vol. XVIII, doc. XIV, p. 136-141.

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