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## SWORDS FROM GNĚZDOVO

Abstract:

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This article is concerned of swords discovered in different time and circumstances in the area of archeological complex in Gnëzdovo (Smolensk obl., Russia). To this moment we have information about no less than 27 intact swords, their details and fragments, founded in Gnëzdovo. We were able to establish the type of the hilt of the sword according to J. Petersen's classification for 22 (19+3?) specimens – special type 2 or Mannheim type (1), B type (1), D type (1), E type (4 = 3+1?), H/I type (6), T-2 type (1), V type (4), X type (2), Y type (2 = 1+1?). The chronology of early types of swords (special type 2 or Mannheim, B, D, E), discovered in Gnëzdovo, differs from dating analogous artefacts from the other European territories. This situation is typical not only for the swords from Gnëzdovo, but also for whole Old-Rus area. The dating of other types is much closer to chronology of their European parallels.

Key words: Old Russia, Gnëzdovo, Viking Age, sword

The archaeological complex of Gnëzdovo is the largest preserved site from the period of the development of the early medieval Russian state. The main part of the site is located near the Gnëzdovo village (Smolensk Oblast, Smolensk Region, Russia) 12-15 km to the west from the city of Smolensk. It straggles out 5 kilometres long hard abroad the right (to a lesser extent along the left) shore of the Dnieper. The complex comprises two fortified settlement sites (the Central Fort and the Olshanskoye Fort), with adjoined unfortified dwelling settlement sites (the settlement total area – more than 30 hectares), and eight groups of barrows, all together about 4000 mounds (Fig. 1).

Gnëzdovo came to the archaeologists' notice after two finds of hoards with coins and other items had been reported in 1867 and 1870 during the construction of the Orel-Vitebsk railway. The scientific study of the site was started by M. F. Kustinsky, who excavated 14 mounds there in 1874. The most significant scientific work in the 19<sup>th</sup> c. was made by V. I. Sizov, who explored several hundred barrows at Gnëzdovo. Besides him, in the 19<sup>th</sup> – 1<sup>st</sup> half of the 20<sup>th</sup> c., V. D. Sokolov, S. I. Sergeev, N. Birukov, G. K. Boguslavsky, I. S. Abramov, V. A. Gorodtsov,

E. N. Kletnova, N. V. Andreev, N. P. Milonov worked on the site. In the 1920s, an extensive reconnaissance was undertaken by A. N. Lyavdansky in the Gnëzdovo archaeological complex, which resulted in the first thorough description of the site (Авдусин 1999, 12-18). During the occupation of the Smolensk Region several barrows were excavated in 1942 by K. Raddatz, an archaeologist from the University of Göttingen (Raddatz 1991). Since 1949 up to the present time the work on the Gnëzdovo site has been carried out by the archaeological expedition of the Lomonosov Moscow State University, since 1999 conjoint with the expedition of the State Historical Museum. During this time more than 730 barrows, and more than 7000 sq. m. of the settlement have been explored. Materials of the Gnëzdovo archaeological complex excavations are partially published (Сизов 1902; Спицын 1905; 1906; Авдусин 1952; 1957; Ширинский 1999; Мурашева, Ениосова, Фетисов 2007). The basic interim results of the study are summarised in several generalizing works (Сизов 1902; Авдусин 1991; Пушкина 2001).

During the site exploration an extensive collection of armaments of more than 1.000 items has been gathered, including all categories of

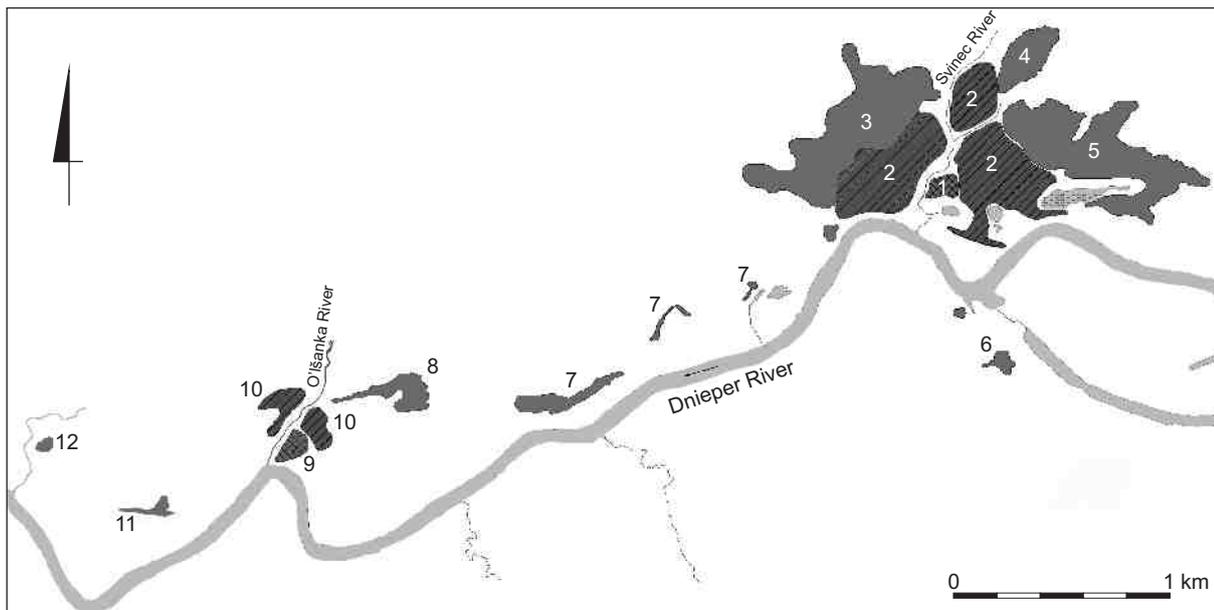


Fig. 1. Gnëzdovo archaeological site plan: 1 – The Central stronghold; 2 – The Central site of unfortified dwelling settlement; 3 – The Central barrow group; 4 – The Glushenki's barrow group; 5 – The Forest barrow group; 6 – The Left shore barrow group; 7 – The Dnieper barrow group; 8 – The Olshanskaya barrow group; 9 – The Olshanskoye stronghold; 10 – The Olshanskoye site of unfortified dwelling settlement; 11 – The Right shore Olshanskaya barrow group; 12 – The Nivlyanskaya barrow group.

Ryc. 1. Plan stanowisk archeologicznych w Gniezdowie: 1 – grodzisko Centralne; 2 – osada Centralna; 3 – Centralna grupa kurhanów; 4 – Głuszczenkowska grupa kurhanów; 5 – Leśna grupa kurhanów; 6 – Lewobrzeżna grupa kurhanów; 7 – Dnieprzańska grupa kurhanów; 8 – Olszańska grupa kurhanów; 9 – grodzisko Olszańskie; 10 – osada Olszańska; 11 – Prawobrzeżna grupa kurhanów; 12 – Nivlańska grupa kurhanów.

protective and offensive arms, inherent for the end of the 1<sup>st</sup> millennium AD. This article focuses on one of the most spectacular and effective weapon category – swords<sup>1</sup>.

In the investigated period the sword, for the predominant part of the European territory, is a kind of offensive weapon with a straight double-edged blade more than 70 centimetres long. The main purpose of the sword is causing cutting wounds, and to a lesser extent swords could be used for inflicting thrusting wounds.

### Vocabulary

The sword consists of two main parts – *the blade* and *the hilt* (Fig. 2). The hilt consists of *the crossguard* and *the pommel*, also including details, shaping *the grip of the hilt*, such as wooden plates, leather or wire wrapping, fastening rings and so on. In certain cases a metal tube of the hilt appears as its grip. The pommel can be one or two-parted. The upper part of two-parted pommels is denoted as *the head of the pommel*, the lower one is *the base of the pommel*, or *the upper guard*. Details of the hilt are fixed on *the tang of the*

*blade*, which is a continuation of the blade. The central part of the blade is taken by the *fuller*, on both sides of which are *cutting edges*. The side opposite to the tang ends in the *tip*, the ending of which in the investigated period was usually rounded. In the upper part of the blade, closer to the hilt, *the mark or inlay*, made of iron or damascened wire was usually arranged.

The pommel is attached to the tang of the blade in several ways – for the one-parted pommels the tang passes through it and is riveted from the top. As for the two-parted pommels, in addition to the fastening method described above, another technique was also used, when the tang of the blade passes only through the base of the pommel. The head of the pommel was attached to the base of it by using one of the two methods – with two iron rivets brazed (hard-soldered brazing was usually used, but there may be other ways) from inside into the head of the pommel or with a hard-soldered U-shaped loop. Rivets or loops ends passed through the rivet holes in the base of the pommel and were riveted under it. Generally, under the riveting iron or brass washers were fixed.

<sup>1</sup> The author heartily thanks T. A. Pushkina and V. V. Murasheva for the opportunity to use unpublished materials, and F. A. Androshchuk for the opportunity to review and make references to the book unpublished yet (Androshchuk forthcoming).

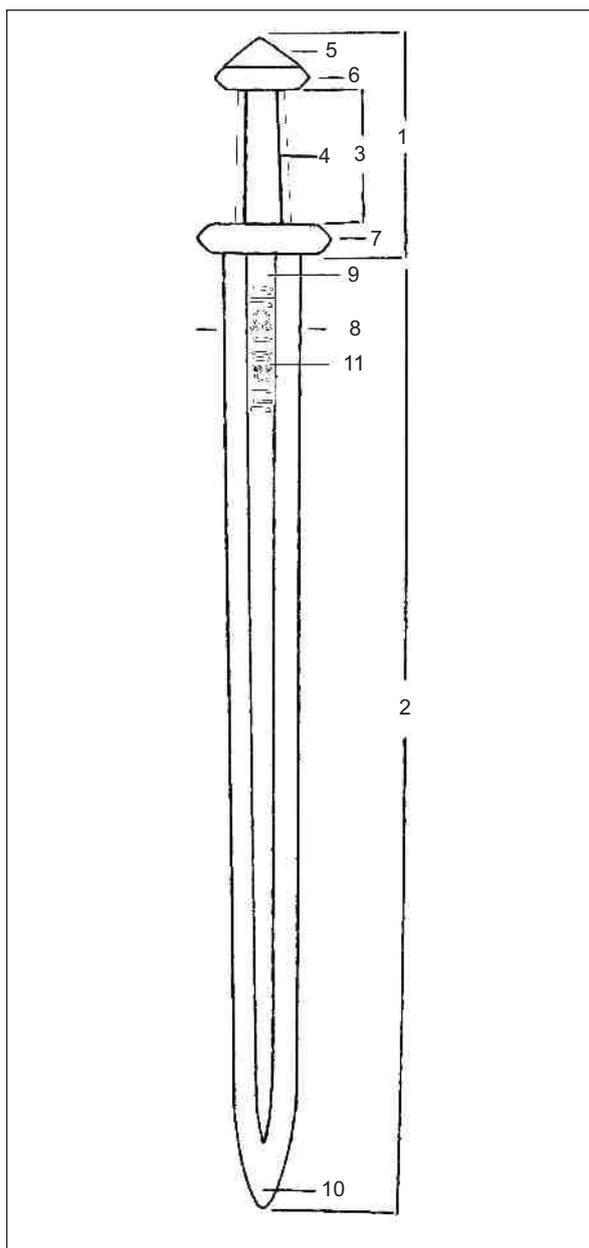


Fig. 2. The main component parts of the sword: 1 – hilt; 2 – blade; 3 – grip; 4 – tang; 5 – head of the pommel; 6 – base of the pommel (upper guard); 7 – crossguard; 8 – cutting edges; 9 – fuller; 10 – tip; 11 – inlay (mark).

Ryc. 2. Główne partie składowe miecza: 1 – rękojeść; 2 – ostrze; 3 – uchwyt rękojeści; 4 – trzpień; 5 – nakładka głowicy; 6 – baza głowicy; 7 – jelec; 8 – krawędzie tnące; 9 – zastawa; 10 – sztych; 11 – inkrustacja (znak płatnerski).

A. Geibig proposed three Construction Types of pommel fixing (Fig. 3) (Geibig 1991, 91, Abb. 24). In cases where we are able to identify how the head of the pommel is fixed on the upper guard, it is suggested to denote the type as IIa – when it is fixed with a loop, and IIb – when it is fixed with rivets.

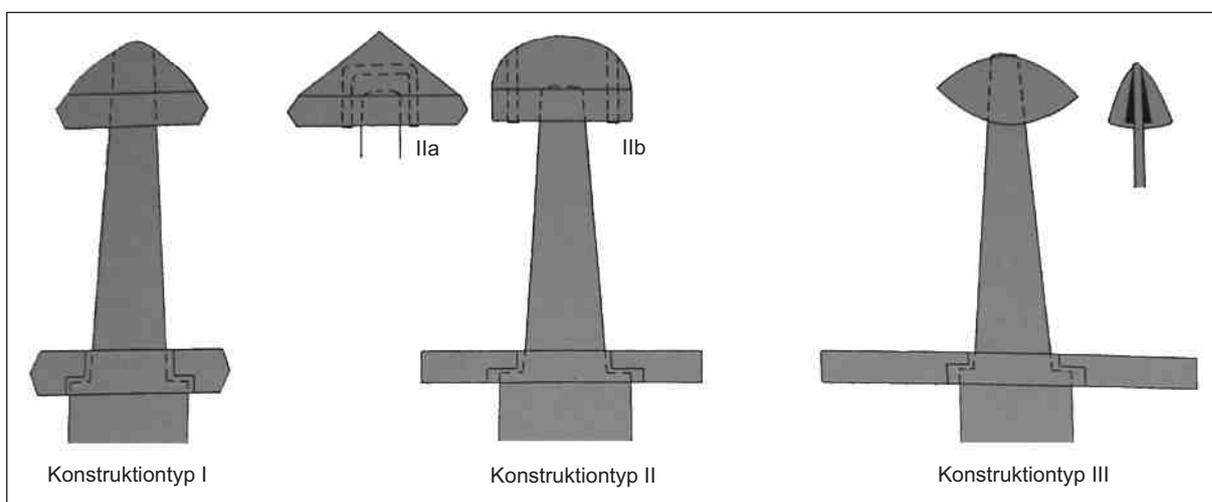
### Chronology

The “Viking age” sword chronology proposed by J. Petersen in 1919 and developed on the basis of the analysis of Norwegian material, is still the primary one for dating of the swords from the entire territory of Europe (Petersen 1919). At the same time, the sword chronology is frequently determinative for the chronological arrangement of archaeological sites, which then provide the basis for dating and reconstruction of various historical processes that took place in one or another territory. Herewith, the question of correctness of J. Petersen’s dating and its relevance for territories where swords were imported or re-imported, remained almost unnoticed.

The «age gap» problem between the Norse and the local dating was noticed by

Fig. 3. A. Geibig’s structural types of the sword’s head of the pommel (after Geibig 1991).

Ryc. 3. Typy konstrukcji głowic mieczowych w klasyfikacji A. Geibiga (wg Geibig 1991).



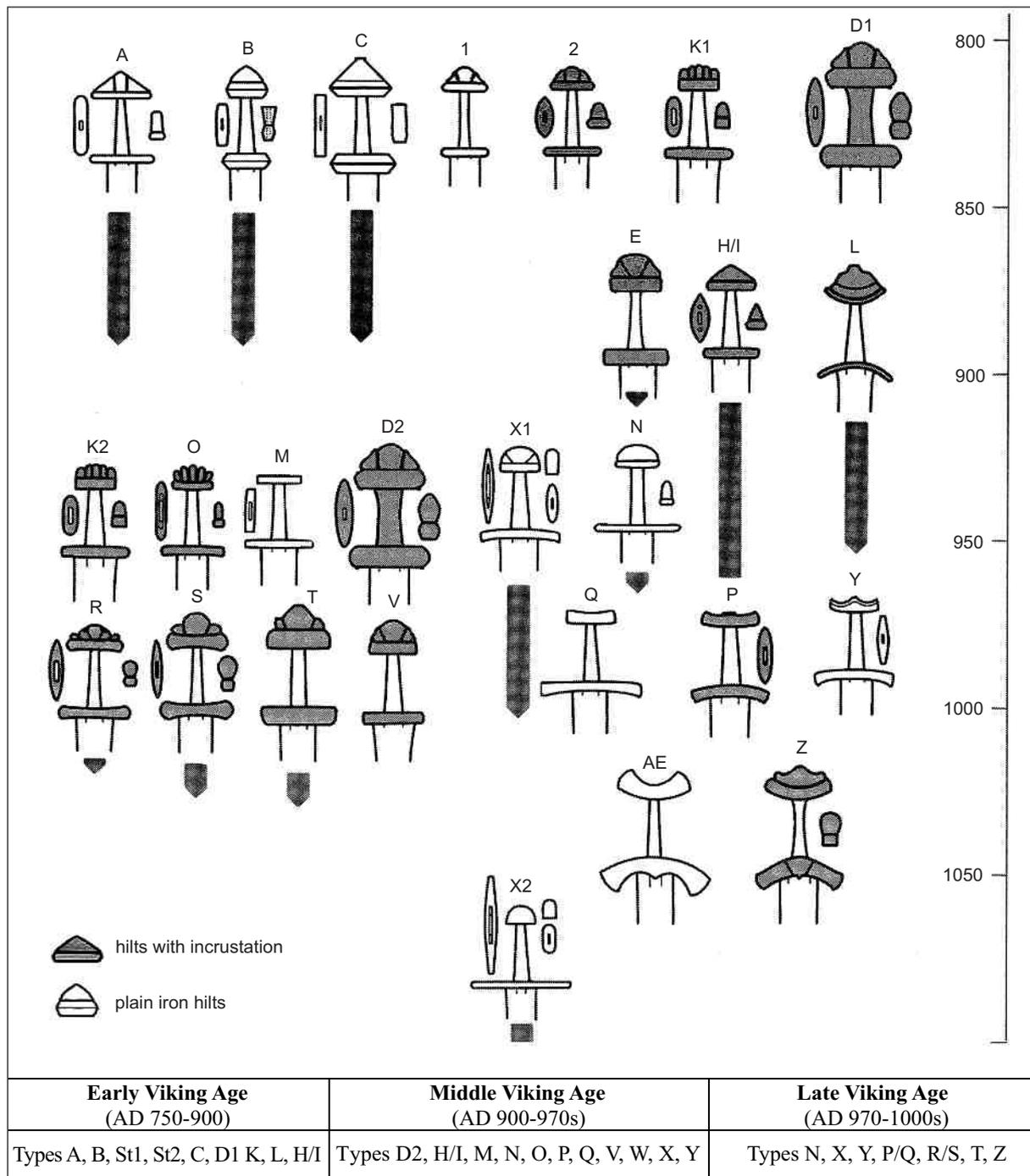


Fig. 4. F. Androschuk's Viking Age swords typology and chronology (after Андрощук 2010, 82, рис. 4).

Ryc. 4. Typologia i chronologia mieczy z okresu wikingów F. Androszczuka (wg Андрощук 2010, 82, рис. 4).

A. N. Kirpichnikov, who stated in his work in 1966 that in the territory of early medieval Russia several swords types had more prolonged existence than in the Norwegian territory. For example, Type H, dated by J. Petersen from AD 800 to 950, belongs to the 10<sup>th</sup> – 2<sup>nd</sup> half of the 11<sup>th</sup> c. in the Old-Russian territory, according to A. Kirpichnikov (Кирпичников 1966, 27). The researcher assumes

that *development delay (about 50-100 years) of several swords from Russian excavations (such as, e.g., Types D, E, or H), as compared with Norse ones, seems to be explained not by the long existence of this or that sword, which found its way to Russia from the north or the west of Europe later, but by researching and source-studying vicissitudes of the Early Modern period (it concerns a better or worse*

*state of preservation, different frequency of finds of archaeological material, probable imperfection of some of old chronological observations, increased numbers of similarities, and so on). I suppose that this “age gap” between northern and eastern European finds of swords will be reduced during further explorations (ibidem, 42). In his work, a Swedish researcher H. Simonsson analysed the source and the material base of J. Petersen’s chronology (Simonsson 1969). It turned out that J. Petersen had used only twenty professionally excavated archaeological complexes in arranging his chronology of swords, and other swords were incidental or poorly documented finds (Андрощук 2010, 72-73).*

The problem of the “Viking Age” sword chronology was discussed in detail by F. Androschuk in his recent article. Following H. Simonsson, he pointed out the ill-founded source base of J. Petersen’s chronology and emphasised that it... *may be used only as a very rough scheme of the relative chronology of swords, denoting only main trends of types’ succession (ibidem, 82).* Based on the analysis of material, mainly from Birka and Valsgärde, as well as making use of iconographic sources, this researcher offered his own opinion on the relative and absolute chronology of “Viking Age” swords (Fig. 4).

Concurring with F. Androschuk’s view on the potential of J. Petersen’s chronology, I note, however, that the chronology offered by this researcher requires more detailed substantiation. The problem of existence of territorial features of various sword types is also relevant, i.e., a question emerges whether it is possible to create a pan-European chronology, or it is necessary to talk about regional sword chronologies.

In this work, we will date the swords based on their archaeological context<sup>2</sup> when it is possible. At the same time, chronologies offered by J. Petersen and other researchers will be presented for comparison.

### Typology

No less urgent than the problem of chronological arrangement of swords is the issue of typological definition of various items. Published in 1919, the typology proposed by the Norwegian researcher Jan Petersen is still, on A. Stalsberg’s words, the “lingua franca” for researchers of European swords from the 8<sup>th</sup>-11<sup>th</sup> c.

However, it obviously does not account and is unable to accommodate all the typological and informational variety of the material. J. Petersen’s typology was created based only on the Norse material, and in some cases the criteria for identification of various types were very fuzzy. In view of this, during the processing of “non-Norwegian” material, there arose a necessity to define new sword types, as well as variants of already existing ones (Вешнякова 2005, 307-317).

Besides a “widening” of J. Petersen’s typology, attempts to create typologies based on a strictly formal analysis of swords, in contrast to J. Petersen’s typology (which was based largely on the descriptive and intuitive approach), were also made (Wheeler 1927, 29-37; Maure 1977).

The most successful attempt at creating an “alternative” typology, is, in my opinion, the typology proposed by A. Geibig for swords found in Germany (Geibig 1991). A. Geibig regards the sword as a complex item, whose parts vary independently from each other. Using precise formal criteria, this researcher created separate typologies of hilt elements and blades. He also systematised blade inlays and identified several ways of fixing particular elements of sword hilts.

A. Geibig identified 19 types of 8<sup>th</sup>-11<sup>th</sup> c. sword hilts and 14 types of their blades. Table 1 demonstrates that A. Geibig’s typology allows to consider most types and variations of swords, identified by other researchers, both as separate types and in addition to J. Petersen’s typology (*ibidem*, 16, Abb.1).

However at the same time, some Geibig’s types include several types of J. Petersen. Some types according to J. Petersen were not identified in Geibig’s typology, because it is based on finds from a particular region, where some types were not ever found.

One of advantages of A. Geibig’s typology is its “open” nature, i.e. the possibility of using the proposed criteria to add some new types and variants to the typology. From our point of view, in order to increase the amount of information, taken into account by the typology, it is necessary to include in it such criteria as the ornamentation of hilt elements and the material these elements were made of.

We will discuss the swords found in Gnězdovo in accordance to the generally accepted

<sup>2</sup> Unfortunately, the partitive chronology of the Gnězdovo archaeological complex has not been developed yet. The most reasonable is the dating of wheel-made pottery’s appearance to the 920-930s. From the mid-10<sup>th</sup> c., finds related to the Middle Dnieper Valley appear at Gnězdovo – slate spindle-whorls, strap decoration of the “Chernigov school”, and Middle Dnieper pottery. Of importance is also the appearance of inhumation burials in wooden chambers at the site (Мурашева, Ениусова, Фетисов 2007, 68-72).

Geibig 1991		Petersen 1919	Jankuhn 1939	Von zur Mühlen 1939	Oakeshott 1960, 1964	Stein 1967	Menghin 1980	Menghin 1980 Müller-Wille 1982	
1	I	B				Immenstedt/ Altjurden	Type Dunum		
	II								
	III								
	IV								
	V						Type Dunum		
	VI								
2		Special Type 2							
3			Type Mannheim						
4							Type Mannheim- Speyer		
5	I	H/I							
	II	B					Type Dunum		
	III								
	IV								
	V						Type Dunum		
	VI					Immenstedt/ Altjurden			
6			K/OIII						
7		L							
8		N							
9		O							
10		R/S							
11		U/V/W							
12	I	X							
	II								
13	I	Y		Y/Y2	IX				
	II				IX/C/ (D)				
14					(B)				
15	I	X			VIII/ B/(A)				
	II								
	III								
	IV								
	V								
	VI								

and commonly understood typology of J. Petersen, taking supplements made by other researchers into account. In cases when it is possible to propose the appropriate type/variant of A. Geibig's typology, it will be given<sup>3</sup>.

### Type B

According to J. Petersen, hilts of swords of this type have the following features: *Crossguards are short, tall, with a rib, rectangular in longitudinal section, with the largest widening in the middle. The head of the pommel is triangular, rectangular in longitudinal section. Components of the hilt are not ornamented* (Петерсен 2005, 98).

F. Stein identified two forms of swords, related to Type B – Type Immenstedt and Type Altjuhrden (Stein 1967, 78-79). The first one is characterised with narrow verges on the crossguard's sides and on the pommel base. These continue up to the head of the pommel. The other type had no such verges and the base of the pommel and crossguards were boat-shaped in their plans. F. Stein believed that these swords types were not ever found in Scandinavia, and therefore they did not find place in J. Petersen's typology.

W. Menghin identified one more sword type, related to Type B – Type Dunum. The main distinction of which is the attachment of the base to the head of the pommel with two rivets, which is absolutely not peculiar for Type B swords, whose two-parted pommels were fixed to the blade's tang, by means of riveting of the top of the pommel. (A. Geibig's Construction Type I). (Menghin 1980, 256).

F. A. Androschuk proposes to identify three main variants of Type B swords among the Scandinavian material (Androschuk 2007, 153, Fig.1):

– Variant B1 – swords with pommel bases being oval and slightly flattened on the ends and with crossguards of the same shape in the plan;

– Variant B2 – swords with pommel bases being oval in the plan, and with tapering ends; crossguards are of the same shape;

– Variant B3 – encompasses swords with pommel bases which are oval, slightly flattened on the ends and oval in their plans; crossguards taper towards their ends<sup>4</sup>.

According to A. Geibig, Type B correspond with his Combination Types I (Variants I – VI), and V (Variants II – VI)<sup>5</sup>.

Construction Type of Type B swords' pommels is determined as Type I (according to A. Geibig), where the tang of the blade passes through both parts of the pommel and is riveted from the top.

In Europe there were found no less than 125 (excluding the finds from early medieval Russia) Type B swords (Jakobsson 1992, 208; Marek 2004, 109; Żabiński 2007, 56; Androschuk, forthcoming).

According to J. Petersen's data, in Norway Type B swords are dated to the 2<sup>nd</sup> half of the 8<sup>th</sup> c. (Петерсен 2005, 100). In the works of other authors the dating proposed for Norway also refers to swords found in other regions. Recently, F. A. Androschuk stood out with the criticism of an early dating of Type B and substantiated the appearance of this type not earlier than the beginning of the 9<sup>th</sup> c. (Androschuk 2007, 157).

In A. N. Kirpichnikov's Early Medieval Russians Swords catalogue three Type B swords originating from the Russian territory were indicated (Кирпичников 1966, 26). One of them was found during the excavation of Barrow 5 in the group of barrows nearby the village of Novoselki (Smolensk Oblast, Russian Federation), located just a few kilometres from Gnězdovo. Barrow 5 is dated to the 2<sup>nd</sup> quarter of the 10<sup>th</sup> c. (Нефёдов 2001b, 156; ШМИДТ 2005, 160). It is worth noting that we can classify only the Novoselki sword's crossguard exactly as Type B. The Type B pommel was replaced by the base of the hilt with

◁ Table I. Comparison of early medieval swords classifications.

◁ Tab. I. Porównanie typologii mieczy wczesnośredniowiecznych A. Geibiga i innych badaczy.

<sup>3</sup> From my point of view, J. Petersen's typology, despite of all its territorial universality, went out of date and is no longer capable of receiving and properly take into account all the variety of swords of the end of the 8<sup>th</sup> – the beginning of the 11<sup>th</sup> c. Any further attempt at splitting Petersen's types into variations and sub-variations just makes the picture more complicated, not giving the universal approach to swords' typologisation. The lack of clear criteria in identifying typological units and the absence of markers' hierarchy in Petersen's typology in particular should encourage the search of new approaches in the "Viking age" swords studies. Probably, the new period in European sword systematisation should be based on the principles laid down in A. Geibig's typology. On the other hand, it also requires additions.

<sup>4</sup> Let us doubt the expediency of the identification of Variant B3, which is, in my opinion, just a particular case of the combination of the guard and the pommel, characterising Variants B1 and B2.

<sup>5</sup> The difference between the swords of Combination Types I and V is in the inclined lateral sides of the head of the pommel. If they are convex – the grip of the sword belongs to Type I, if the sides are straight – to V (Geibig 1991, 38). It also worth to mention that A. Geibig identifies as Type B not only swords of the "classical" type according to J. Petersen, but also related types, identified by other researchers as, for example, Type Immenstedt, Type Altjuhrden, or Type Dunum (ibidem, 16, Abb. 1).

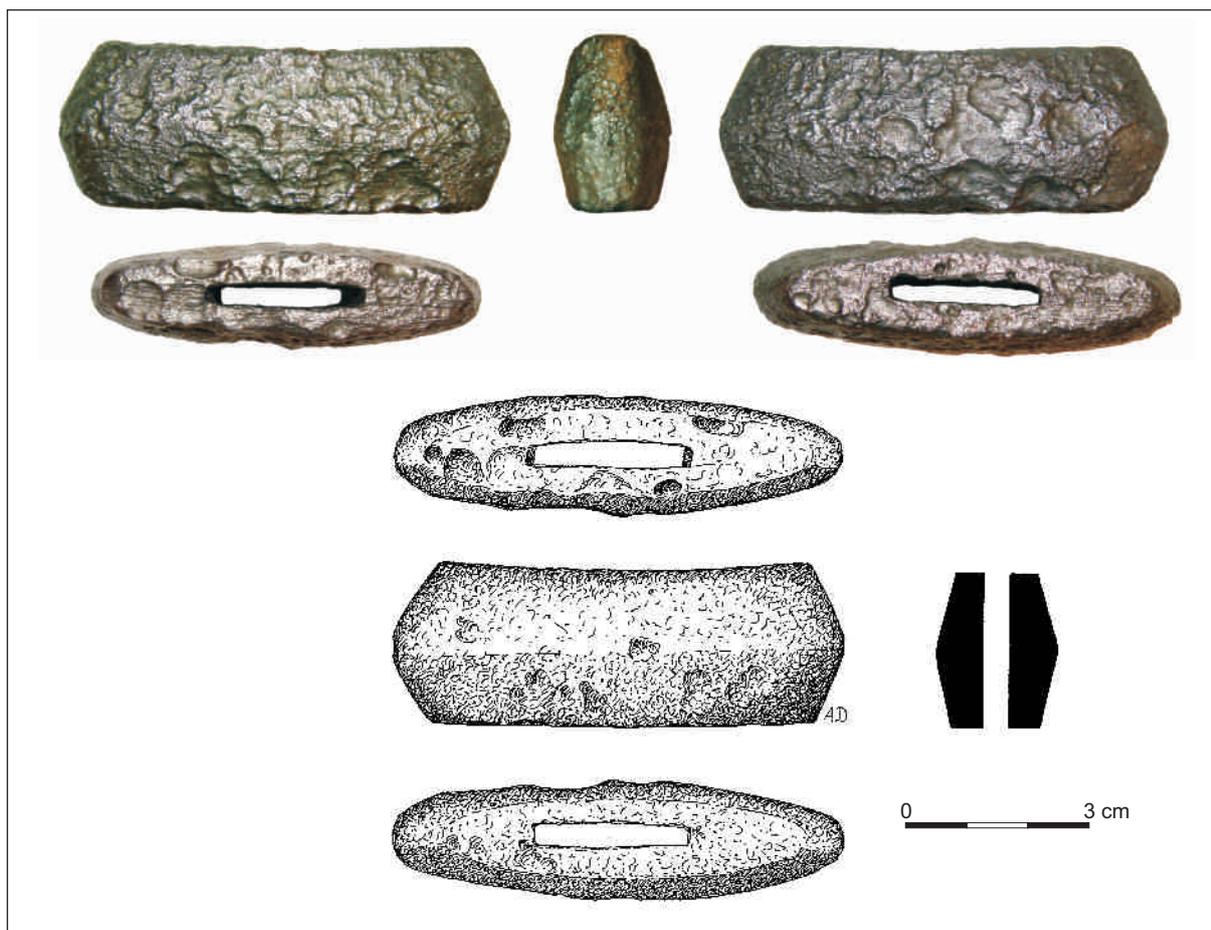


Fig. 5. The base of the pommel of the B-type sword from the Central site of unfortified dwelling settlement excavation in Gnězdovo. Photo by S. Yu. Kainov; drawing by A. S. Dement'eva.

Рис. 5. Подкладка головки меча типа B з осady Centralnej w Gniezdowie. Fot. S. Yu. Kainov; rys. A. S. Dement'eva.

another pommel, typical for another type (N?)<sup>6</sup> (ШМИДТ 2005, 207, илл. 22:1). By morphological attributes the sword's crossguard belongs to Variant B1 (according to F. A. Androschuk)<sup>7</sup>. but at the same time it has a feature which distinguishes it from the bulk of swords of this type – the ornament covering the ends of its lateral sides. Here three vertical non-ferrous metal (copper?)<sup>8</sup> wires are encrusted on each side. The thickness of the side

wires is about 1 mm, and of the central one is about 2 mm. A similar encrustation can be seen on a crossguard of the sword from Holland (Province Limburg), which, according to I. Peirce, is related to Type B or to a transitive version between Types B and H (Peirce 2002, 34-35)<sup>9</sup>. The latter is due to that fact that the head of this sword's pommel is fastened to the base not by riveting on the tang, which passes through the head and the base of the

<sup>6</sup> Analogous bases of the pommel occur in the case of two swords from Germany (Oedt-Mulhausen, Bederkesa) (Geibig 1991, Taf. 105:1-5, 115:1-4). In both cases the heads of the pommel were absent.

<sup>7</sup> The identification of the Combination Type according to A. Geibig's typology is impossible due to the fact that only the guard has been found.

<sup>8</sup> Visually three colours of the metal used in encrustation can be distinguished – white, yellow and assumed red. The metallographic of the metal used in encrustation were carried out in some cases. The guard of Type H sword, associated with the burial near the farm of Scar (the Orkney Islands), was encrusted with white and yellow strips. The examination, done with the use of X-Ray Fluorescence Spectroscopy (XRF), showed that the strips of white metal were fabricated from silver, and the yellow ones from brass (Owen, Dalland 1999, 105). Spectrographic analysis revealed that parts of the swords of Type S from Lutowo (Poland) were encrusted with copper, silver and brass metal (Rybka 2009, 180). No analysis like this has been carried out for Gnězdovo swords yet. In our work we will define the metal used for the grip elements as silver, brass or copper, in cases where the colour of the metal can be visually defined as white, yellow or "red" respectively.

<sup>9</sup> On the lateral side of the base of the pommel, which is preserved much worse than the guard, a separate rib for encrustation has been found (Peirce 2002, 154).

pommel (like in Type B), but with rivets (like in Type H). But unlike in Type H, the surfaces of particular elements of the Holland sword hilt are completely devoid of ornament. The same swords were identified by W. Menghin as Type Dunum, which is widespread only in mainland Europe and not in Scandinavia (Androshchuk 2007, 57).

Given the existence of the Holland and Novoselki swords' crossguards with similar encrustation, which, according to the author's knowledge, does not occur on swords of "classic" Type B, and also complete morphological similarity of both crossguards, it can be assumed that the Novoselki sword's crossguard originally, before its reworking, also belongs to a sword of Type Dunum.

The other two early medieval Russian swords are intact. One of them was accidentally found nearby the Bor village upon the River Oyat in the south-eastern side of Lake Ladoga (Russia) (Raudonikas 1930, 113,114). It was found stuck in the ground, and, apparently, originates from a destroyed grave.

A place, where the third sword, kept in the collection of A. A. Bobrinsky, was found was considered unknown for some time. Recently F. A. Androschuk discovered in T. Arne's archives some entries that revealed that the sword mentioned above had been found incidentally in the 1860s nearby the Bichevo village (Liubar District, Zhytomyr Oblast, Ukraine) (Андрощук 2008, 11-12, рис. 3).

Unfortunately, the absence of the fixed archaeological context does not allow to date these two swords. If the assumption that the sword from Bor belonged to a destroyed grave in a burial mound is true, the sword could not get there earlier than in the 2<sup>nd</sup> half of the 9<sup>th</sup> c. – the period of spreading of burial rites in barrows in the south-eastern side of Lake Ladoga.

The fourth find of a Type B sword's part in the territory of early medieval Russia was discovered at Gnězdovo.

1. Base of the pommel (Fig. 5). A part of a sword, which can be interpreted as a base of the pommel of a Type B sword, was found in 1972 during the excavation of the eastern part of the unfortified settlement site (excavation area VS-4), not so far from the Central Fort. The length of the pommel's base is 71 mm, the height – 25 mm, the thickness – 19 mm, and the weight – 156 g. The discussed part is a short and tall iron block with a precise horizontal rib in the middle. The top face has a slightly concave shape. In the plan it has

the shape of elongated oval.

The sword part was found in a fill of a pit together with wheel-made pottery. This fact restricts the lower limit of it getting into the complex by the 920-930s – the period when the potter's wheel appeared in Gnězdovo. This dating differs from the chronology of Type B swords in other regions. This fact has several possible explanations. First, as valuable and rare items for the Eastern territory, swords, and in particular their individual elements, may have had a much longer existence than in Western and Northern Europe<sup>10</sup>. Second, the element may have got into the 10<sup>th</sup> c. pit filling from an earlier, totally ruined 9<sup>th</sup> c. layer. But this explanation does not find yet any assured confirmation in the materials from the site. Perhaps future studies will help to cover the question of the chronology of early Gnězdovo more precisely<sup>11</sup>.

### Type D

According to J. Petersen, *crossguards of such swords are massive, with a fin, and their ends taper in the longitudinal cross-section. The head of the pommel is three-parted with the tall middle part, fastened to the base with rivets. Besides some morphological features these swords are also characterised with rich and diversified ornaments of individual parts of the hilt* (Петерсен 2005, 106-107).

J. Petersen identified two groups of swords within Type D (in F. A. Androschuk's works these groups are marked as D1 and D2) – the early and the late one, which differ not only with chronology, but also with ornamental features (Androschuk forthcoming). Hilts of swords of Group D1 are ornamented with *lines of cruciform figures*, D2 group – with *lines of small convex silvered bronze badges* (Петерсен 2005, 106-107). It is appropriate to say that these two groups do not represent all the variety of Type D swords' ornament, and the Gnězdovo sword illustrates it in a perfect way. In A. Geibig's typology Type D has no match.

In Europe there were found no less than 38 (excluding the finds from early medieval Russia) Type D swords (Jakobsson 1992, 208-209; Marek 2004, 109; Żabiński 2007, 56; Зозуля, Каинов 2008, 161; Androshchuk forthcoming). All the swords have a composite design, which rarely repeats. Swords of this type seem not to have been a *mass production of that time*, as most of other sword types were, but patterns of unique custom-made weapons.

<sup>10</sup> The example of such a chronological «gap» – the Type N<sup>2</sup>/B sword from Novoselki.

<sup>11</sup> We are talking precisely about the existence of Gnězdovo in pre-state and early-state periods.

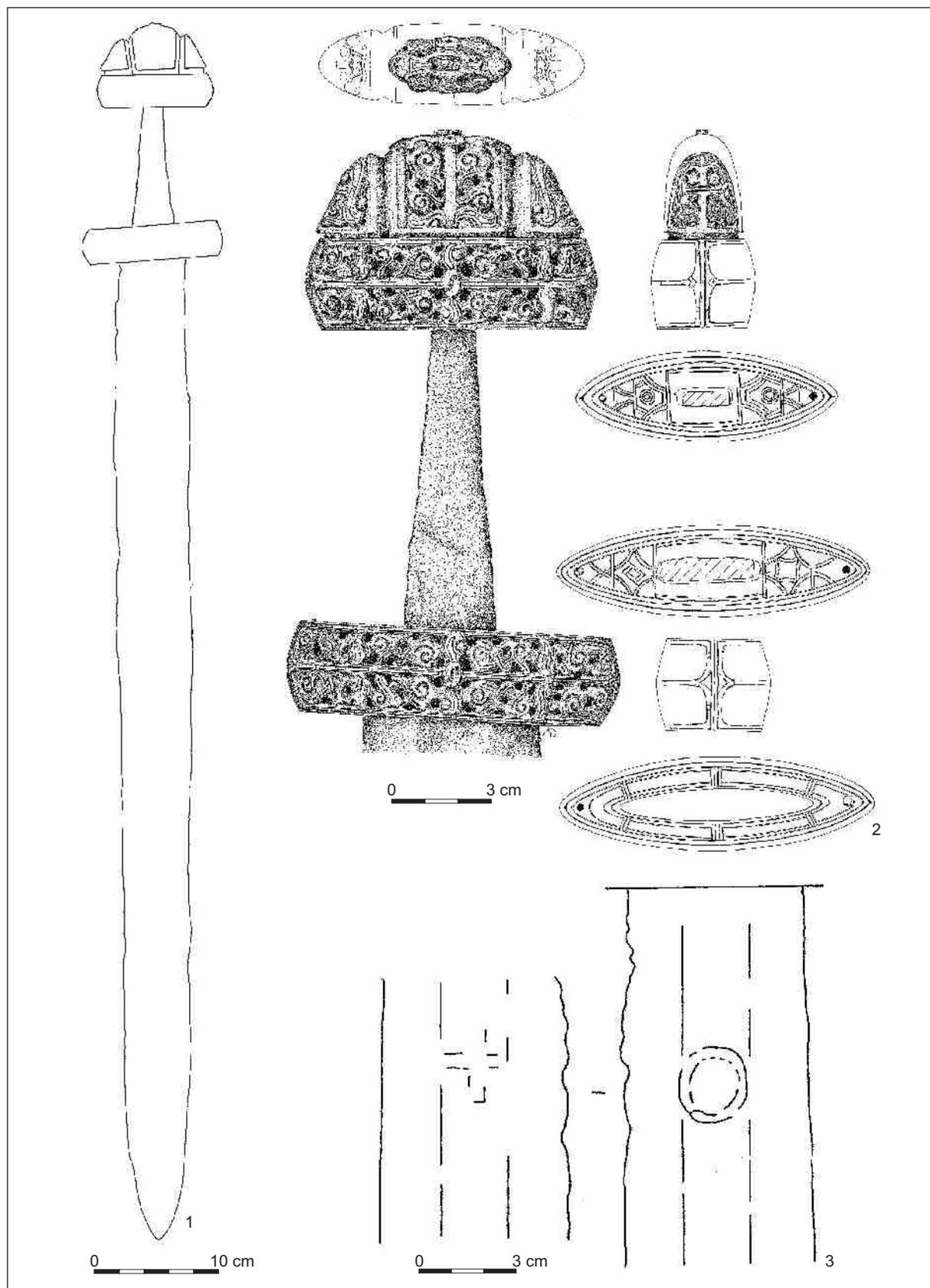


Fig. 6. Gnëzdovo: 1-2 – The D-type sword from the C-2 barrow; 3 – the stamps on the blade of the sword (1-2 – drawing by A. S. Dement'eva; 3 – after Киричников, Кайнов 2001, 71, рис. 4).

Рис. 6. Гнездово: 1-2 – меч типа D з курхану С-2; 3 – знаки на голвни меча (1-2 – рис. А. S. Dement'eva; 3 – wg Киричников, Кайнов 2001, 71, рис. 4).

J. Petersen generally dates these swords to the 9<sup>th</sup> c., emphasizing that some Type D specimens relate to the beginning of the 10<sup>th</sup> c. (Петерсен 2005, 108-110). F. A. Androschuk broadens the upper date of this type to the 1<sup>st</sup> half of the 10<sup>th</sup> c. (Андрoшук 2010, 82, рис. 4).

In the territory of early medieval Russia two Type D swords were found. The first of them was found in 1902 during V. A. Gorodtsov's excavation of Barrow 1 of the Mikhailowsky barrow field (Yaroslavl Oblast, Russia), which can be dated to the 1<sup>st</sup> half of the 10<sup>th</sup> c. (Мурашева 1999, 30-32; Зозуля, Каинов 2008, 164-165). The second sword is known from Gnëzdovo.

2. The intact sword (Fig. 6-8). It was found in 1950 by D. A. Avdusin during the excavation of C-2 Barrow (Central Barrow Group, Barrow No. 2), associated with a double cremation burial. The sword, bent and broken, was in a pit under the funeral pyre (Авдусин 1957, 163). The full length of the sword is 92 cm, the length of the blade is 74 cm, the width of the blade near the crossguard is about 5.5 cm, the length of the crossguard – 10.1 cm, the height of the crossguard – 2.8 cm, the crossguard thickness is 3.4 cm, the length of the hilt tang is 9.1 cm, the height of the pommel – 6.0 cm, the length of the pommel base is 8.8 cm, the height of the pommel base is 2.8 cm, and the thickness of the pommel base is 3.1 cm.

The pommel is two-parted, the tang of the hilt passes through both parts of it and is riveted from the top (A. Geibig's Construction Type I). The crossguard and the base of the pommel are constructed the following way: the backing with its hollow details is cast of brass, and openwork plates, brazed (?) on the lateral sides, are attached to its frontal surfaces. The lower surface of the pommel and the upper and lower surfaces of the crossguard are covered with brass plates, which are fastened to the base by iron rivets (about 1.5 mm in diameter). Rivet ends are projecting a few millimetres outside, what makes us to suppose that they were covered by destroyed decorative caps. The same structural scheme is reproduced on the head of the pommel, besides the fact that the lateral ornamented sides were soldered with the non-ornamented central part, which was covered with openwork plates. In wide slots between three parts of the head of the pommel and between the head and the base of the pommel twisted wires (which did not survive)<sup>12</sup> were fastened. Openwork plates and lateral parts of the head of the pommel were gilded; brass plates on the lower surface of the pommel and

on the upper and lower surfaces of the crossguard were tinned.

Openwork plates on the sword details were decorated with a two panel zoomorphic ornament, *the chief motif of which is a twisted monster, shown in full face, with a small three-toed paw, catching a long, narrow loop-like tail, with spiral-shaped joints and a head with a lush flowing mane* (Тунмарк-Нюлен 2001, 73-74). On the lateral sides of the head of the pommel there are front-viewed anthropomorphic masks with typical "long strands", having a certain similarity with suchlike masks on Types 37 and 51 oval fibulae (according to J. Petersen's typology). These are also equally-shouldered and 3-lobed. However, in the opinion of I. Jansson, the Gnëzdovo sword's ornament has no direct parallels with oval fibulae, as well as with other mainland Scandinavian jewellery decorative motifs (*ibidem*, 74). L. Thunmark-Nylén has clearly shown that the ornament of the Gnëzdovo sword's openwork plates is most similar to the ornamentation of numerous specimens of Gotland jewellery, primarily box-shaped fibulae. It is emphasised that just the backs sides of Gotland fibulae were sometimes decorated with an engraved geometrical ornament, similar to the ornamentation of the plates, attached to the lower surface of the pommel base and the upper surface of the crossguard on the Gnëzdovo sword. All of the above lets us agree with L. Thunmark-Nylén's opinion that the hilt of the sword found in C-2 Gnëzdovo Barrow is a product of a Gotland craftsman, made in the traditions of Gotland jeweller's art (*ibidem*, 76).

The blade of the sword was in the poor state of preservation, and its present form and shape are the result of restoration. Fragmented inlays, made of simple iron non-damascened wire were identified on the blade (Fig. 6:3). On one side of the blade there is an O-shaped symbol, on the other side there are remains of a cross (Кирпичников, Каинов 2001, 71). It remains unclear whether these signs were autonomous, or a part of composite marks of the manufacturer.

The site where the sword was found, based on the find of a Type 52 oval fibula (J. Petersen's typology), and the find of an equally-shouldered one (Type 73 of J. P.), can be related to the middle or the 2<sup>nd</sup> half of the 10<sup>th</sup> c. (*ibidem*, 68-70). From my point of view, the discrepancy with the dating of swords of this type, proposed both by J. Petersen and F. A. Androschuk, is explained primarily by a rather conditional typological identification of the Gnëzdovo sword.

<sup>12</sup> The lower part of one of the yellow metal wires is preserved.



Fig. 7. Gnëzdovo: 1 – the D-type sword from the C-2 barrow; 2 – the hilt of the sword. *Photo by S. Yu. Kainov.*

Ryc. 7. Gniezdowo: 1 – miecz typu D z kurhanu C-2; 2 – rękojeść miecza. *Fot. S. Yu. Kainov.*

Morphological attributes, such as large individual elements, two-parted pommel, the top of which is divided into three parts, may link it to Type D swords. However, no ornamental features or structural characteristics of the assembly parts have any similarities in any of known Type D swords. Most likely, we have a pattern of a piecework job for a customer, who sought to have a luxurious and unique sword, not similar to other ones, which prevailed in the investigated period and were produced in relatively large quantities.

### Type E

J. Petersen noted that Type E swords had developed from Type D. In general, Type E is characterised by massive crossguards, three-parted pommel head, *the extreme parts of which resemble animal heads by its shape*, but at the same time, *crossguards may be smaller*; and *the head of the pommel could also lose its three-parted shape, as an expressive form* (Петерсен 2005, 111). A distinctive feature of swords of this type is the presence of incised ornamental slots (round, oval or square-shaped) on front surfaces of the crossguard and the pommel.

Due to the nature and the grouping of the ornamental incisions, a division of this type into several variants was proposed. In 2001 in my article I identified four different variants of Type E, based on the analysis of the Old-Russian material (Кайнов 2001, 56-58). The first one (labelled as E-1), is characterised by an ornamental pattern of simple round pits with diameters of 1.5-2 mm. They are arranged in 5-9 lines. The second one (E-2), has an additional ornamentation of round pits with diameters of 3-5 mm, situated in 3-5 lines. The third one (E-3) – with oval-shaped pits, placed in three- or quatrefoils, and the fourth, (E-4) – with simple round pits grouped in rhombuses<sup>13</sup>.

F. A. Androschuk supplemented and slightly changed the foregoing division (Андрощук 2004, 100-101). He suggested an identification of the following variants: *Variant 1* – swords whose pommel heads, pommel bases and crossguards, are ornamented with pits being about two millimetres in diameter. The ornament of the crossguard and the pommel base is arranged in 5-7 lines. Based on the presence and arrangement features of encrustation of individual parts of the sword, four sub-variants were identified (a-d); *Variant 2* – sword hilts with large (about 5 mm in diameter) pits, arranged in 2-3 lines. The presence of the encrustation between pits, as well as the presence of wire inside them let us to identify two



Fig. 8. The parts of the hilt of the D-type sword from the C-2 barrow in Gnëzdovo. Photo by S. Yu. Kainov.

Ryc. 8. Elementy rękojeści miecza typu D z kurhanu C-2 w Gnëzdowie. Fot. S. Yu. Kainov.

sub-varieties (a-b); *Variant 3* – sword hilts with smaller pits which are grouped in rhombuses. Swords with the rhombus figure, arranged on lateral parts of the head of the pommel are allocated in Sub-variant a; *Variant 4* – sword hilts with oval (leaf-shaped) pits, arranged in three- or quatrefoils.

Pommels of Type E are two-parted; both parts are attached to the tang of the blade (A. Geibig's Construction Type I).

All over Europe no less than 122 (excluding the finds from early medieval Russia) Type E swords were found (Кайнов 2001, 62; Janowski, Kotowicz, Michalak 2008; Androschuk

<sup>13</sup> It was discovered later that besides circular and oval shapes of the pits, they can also be square-shaped (Кайнов 2011, 148-149).

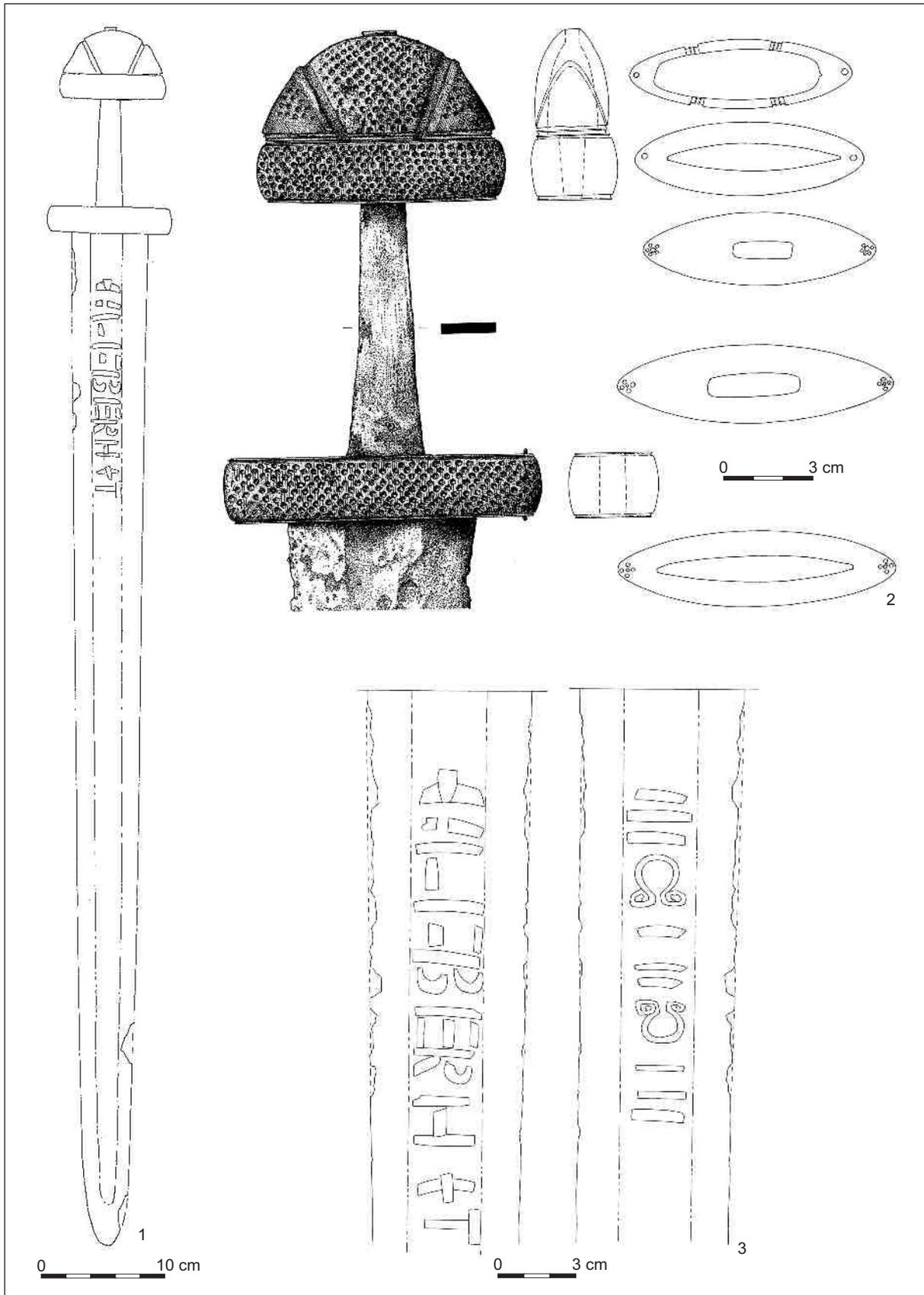


Fig. 9. Gnëzdovo: 1-2 – the E-type sword from the barrow C-15/Kusts.-1874; 3 – the stamps on the blade of the sword. Drawing by A. S. Dement'eva.

Ryc. 9. Gniezdowo: 1 – miecz typu E z kurhanu C-15/Kusts.-1874; 2 – znaki na głowni miecza. Rys. A. S. Dement'eva.

forthcoming). J. Petersen dated most of Norse swords of this type to the 9<sup>th</sup> c., and one of them – to the early 10<sup>th</sup> c. (Петерсен 2005, 114-115). Finnish swords were also dated to the 9<sup>th</sup> c. by E. Kivikoski (Kivikoski 1973, 112). According to B. von Mühlen, Prussian specimens are dated to the 10<sup>th</sup> c. (von Mühlen 1975, 31). V. Kazakevičius offers a broadened dating for Prussian swords, dating them to the early 9<sup>th</sup> – 1<sup>st</sup> half of the 10<sup>th</sup> c. (Kazakevičius 1996, 150). One of Estonian Type E swords originates from a burial dated to the 10<sup>th</sup> c. (Mandel 1991, 131).

In the territory of early medieval Russia no less than 15 swords were found. Their chronology based on archaeological context does not extend beyond the 10<sup>th</sup> c. (Каинов 2001, 57-58). The Type E sword, found in the Sarsky fort, can be presumably dated to the 9<sup>th</sup> c., due to its morphology and ornament (Каинов 2011, 149). Three (possibly four) Type E swords were found at Gnëzdovo.

3. The intact sword (Fig. 9-11). It was found in 1874 during M. Kustinsky's excavation of Barrow 15 (C-15/Kusts.-1874), which contained a double cremation burial. The sword was stuck in the ground near the urn with remains of cremation. The full length of the sword is 98.8 cm, the length of the blade – 82 cm, the width of the blade near the crossguard – 6.4 cm, the thickness of the blade near the crossguard – 0.5 cm, the length of the crossguard – 10.9 cm, the height of the crossguard – 2.2 cm, the crossguard thickness – 3.1 cm, the length of the hilt tang – 8.8 cm, the height of the pommel – 5.7 cm, the length of the pommel base – 8.4 cm, the height of the pommel base – 2.2 cm, and the thickness of the pommel base – 0.9 cm.

The sword can be defined as Variant E-1, which is characterised by the ornament of simple pits. The crossguard and the base of the pommel were decorated with pits of 1.5-2 mm in diameter, arranged in nine lines in a chequerwise manner. These pits are arranged on the central and triangle-shaped pits can be seen on the lateral sides of the head of the pommel. The surface between the pits is encrusted with silver wire. The coating of alternating silver wire with iron surface is not complete. The encrustation density is about 25 wires per 10 mm. A pair of silver twisted wires restricted the pits ornament on the crossguard and on the base of the pommel from above and from below. The head of the pommel is divided into three parts by two slots, where once three wires twisted together were fastened. On the lower surface of the pommel and on the upper and

lower surface of the crossguard two iron pintles were fixed (they were inserted into round holes with a diameter of 1.5-2 mm). Around each of the pintles there are 4-5 rounded hollows. The reason of use of these iron pintles is not completely clear. It is likely that decorative semicircular caps were fixed on them, in order to imitate rivet heads (e.g. Петерсен 2005, 111, рис. 61). It is also possible that they fastened decorative plates that fully covered the lower and the upper surfaces of the pommel and the crossguard.

Due to the mobility of the hilt elements we can see that the head and the base of the pommel are hollow. In order to prevent slacking, they were fastened to each other with two pegs.

Marks made with simple iron wire were detected on the blade. On one side there was a **+ULFBERH+T** mark and on the other side – a composition of vertical lines and two “volutes” (Fig. 9:3) (Кирпичников 1966, рис. 35:1).

Barrow 15 (C-15/Kusts.-1874) was dated to the 2<sup>nd</sup> quarter of the 10<sup>th</sup> c. (Каинов 2001, 60).

4. The intact sword (Fig. 12-14). It was found in 1949 during D. A. Avdusin's excavation of Barrow L-13 (Forest Barrow Group) with a double cremation burial (Авдусин 1952, 334-340). The sword was broken in two parts, and then stuck in the ground. The full length of the sword is 97,8 cm, the length of the blade – 79.6 cm, the width of the blade near the crossguard – 6.3 cm, the thickness of the blade near the crossguard – 0.6 cm, the length of the crossguard – 10,5 cm, the height of the crossguard – 2.7 cm, the crossguard thickness – 3.3 cm, the length of the hilt tang – about 9.5 cm<sup>14</sup>, the height of the pommel – 6.4 cm, the length of the pommel base – 8.9 cm, the height of the pommel base – 2.8 cm, and the thickness of the pommel base – 3.3 cm.

The sword can be classified as Variant E-2, which is characterised by a complex cell ornament. The crossguard and the base of the pommel are ornamented with pits of about 4 mm in diameter<sup>15</sup>, arranged in five lines in a chequerwise manner. These pits are arranged on the central side of the head of the pommel. These pits are attached to each other with slots about 2 mm in diameter, in which twisted wires are inlaid. In the last lines of the pits there is a pair of twisted wires which is placed in shape of a loop, in the remaining lines the wires overlap each other (Fig. 15).

In its original form the wire coating was preserved only on the base and on the central part of the pommel head. On the crossguard the state of preservation of the coating is fractional. Among the

<sup>14</sup> The precise measurement is impossible, as the guard is dislocated from its original place.

<sup>15</sup> Depth of the pits: 3.5-3.8 mm.



Fig. 10. Gnëzdovo: 1 – the E-type sword from the barrow C-15/Kusts.-1874; 2 – the hilt of the sword. *Photo by V. A. Mochugovskiy.*

Ryc. 10. Gniezdowo: 1 – miecz typu E z kurhanu C-15/Kusts.-1874; 2 – rękojeść miecza. *Fot. V. A. Močugovskij.*



Fig. 11. The parts of the hilt of the E-type sword from the barrow C-15/Kusts.-1874 in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 11. Elementy rękojeści miecza typu E z kurhanu C-15/Kusts.-1874 w Gniezdowie. *Fot. S. Yu. Kainov.*

pits and on the lateral sides of the pommel head a silver-wire encrustation is applied. The encrustation is not complete on the crossguard, on the base and on the central part of the head of the pommel. The encrustation density is about 13 wires per 10 mm. In two hollows, which divide the head of the pommel

into three parts, three pairs of twisted wires, representing so-called beaded wire, were fastened to each of these parts. A silver place (about 0,5 mm thick) was fixed with the use of six silver rivets on the lower surface of the base of the pommel. On the edges of each engraved step a patterned sennit decoration<sup>16</sup>

<sup>16</sup> Such plaited ornament is very indicative for the Scandinavian jewellery in the 10<sup>th</sup> c. It occurs on women's jewellery as well as on weapons – swords, spearheads. As an example, fret is also represented on the sword of Type T-1 from Monastirishche (Russia) (Кирпичников 1966, рис. 22:2).

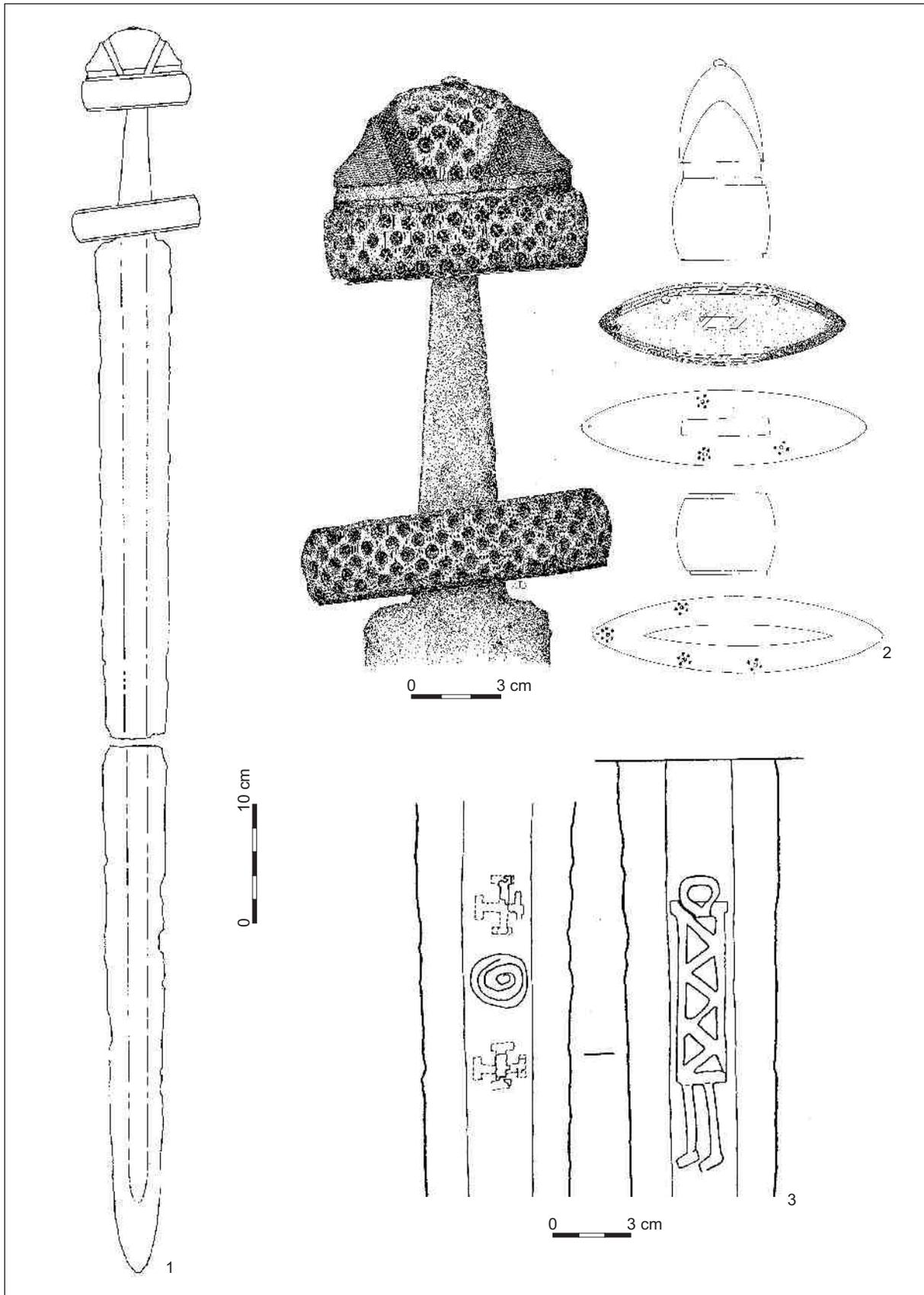


Fig. 12. Gnëzdovo: 1-2 – the E-type sword from the barrow L-13; 3 – the stamps on the blade of the sword (1-2 – drawing by A. S. Dement'eva; 2 – after Курпичников 1966, рис. 37:7).

Ryc. 12. Gnëzdowo: 1 – miecz typu E z kurhanu L-13; 2 – znaki na głowni miecza (1-2 – rys. A. S. Dement'eva; 2 – wg Курпичников 1966, рис. 37:7).

was arranged. Ornamental incisions are filled with niello (?). On the upper and lower surface of the crossguard there are several holes (6 holes on each plan) for the rivets, which fastened the aforementioned plates. These holes were surrounded by 4-7 round hollows for a better adhesion of the plate to the ends of this part of the hilt.

A mark made with damascened wire was detected on the blade: on one side there is a figure of a man, and on the other side there are two crutched crosses, with a helix situated between them (Fig. 12:3).

Barrow L-13, in V. S. Nefedov's opinion, may be dated to the 2<sup>nd</sup> quarter – the middle of the 10<sup>th</sup> c. (Нефёдов 2001a, 65).

Two other swords with an additional ornament of cells were found in the territory of early medieval Russia. One of them dates to AD 920-950 (Ust-Ribezgno, Russia), and the other – to the 2<sup>nd</sup> half of the 10<sup>th</sup> c. (Goulbische, Ukraine)<sup>17</sup>. Outside early medieval Russia these swords are known in Sweden (Androshchuk *forthcoming*).

5. The crossguard, the fragment of the blade's tang and the upper part of the blade (Fig. 16). The fragment was accidentally found in summer of 2001 in gardens, located in the immediate vicinity of the western end of the Forest Barrow Group. The condition of the blade and the tang in the point of breaking indicates that the sword was bent and broken. The most likely assumption is that this fragment of the sword comes from a ruined and ploughed barrow, that contained a cremation burial. The full length of the fragment is 20.5 cm, the width of the blade near the crossguard is 6.2 cm, the thickness of the blade near the crossguard – 0.7 cm, the length of the crossguard – 10 cm, the height of the crossguard – 2.4 cm, and the crossguard thickness – 3.1 cm.

The sword belongs to the variant with an ornament of simple pits pattern (E-1). On the sword's crossguard there are seven well-preserved lines of pits, each being about 2 mm in diameter. Among the pits there is an encrustation of inlaid white metal wire. The encrustation is not completely preserved and its density is about 20 wires per 10 mm. A pair of twisted silver wires, placed in a slot, restricted the ornament of the pits from above and from below. On the surface facing the blade, iron pins about 2 mm in diameter are preserved.

On one side of the sword's fragment a volute-shaped mark, made of simple non-damascened wire, was detected. The preserved part of the other surface of the blade did not contain any marks.

### Type H/I

According to J. Petersen, *the crossguard and the pommel base of Type H swords hilt are wide and elliptical in longitudinal section. Especially wide is the base of the pommel – it is the widest of all the pommel bases of Viking Age swords (3.6 cm). Most often the crossguard and the base of the pommel are slightly rounded, but early specimens are characterised by clearly defined ribs, while crossguards without ribs, which are rectangular in section, are less common* (Петерсен 2005, 125). The most massive specimens of Type H, in J. Petersen's opinion, are the early ones. Type H swords are ornamented with encrusted wires, shaping a continuous monochrome surface, or a variety of polychrome compositions (*ibidem*, 125-126).

J. Petersen defined Type I as related to Type H, emphasising that *it is often difficult to determinate to which of these two sword types one or another sword exactly belongs* (*ibidem*, 135)<sup>18</sup>. In J. Petersen's opinion, the Type I sword differs from Type H with a smaller size of the crossguard and the pommel base. These parts of the hilt are also narrower (pommel bases are from 1.8 to 2.3 cm wide), and lower (no more than 1 cm high). *The head of the pommel is more narrowed to the top and can be slightly concave* (*ibidem*, 135). L. Bergman and B. Arrhenius, who studied Type H and I swords from the Birka Barrow Cemetery with X-ray, think that swords of these types also differ in the way of fastening the base and the head of the pommel. Type H sword with wide bases of the pommel (up to 3.6 cm high), are characterised by fastening with two pins (A. Geibig's Construction Type IIb), while Type I sword pommels with a base width of 1.8-2.3 cm were fastened with loops (A. Geibig's Construction Type IIa) (Thålin Bergman, Arrhenius 2005, 38, tab. 5). F. A. Androshchuk, studied 40 Swedish Type H/I swords with X-ray, and concluded that there was no clear boundary between the dimensional characteristics (in this case, the width of the pommel base) of Type H/I swords with different structural schemes of fastening the pommel head

<sup>17</sup> A closer study of the sword from Goulbische allowed for an identification ornamental elements on it, that characterise swords of Type T type with ornamentation of a pattern of pits (T-1). In this regard, the presence of wire inlay (characterising Type E-2) in the pits ornamentation of the swords, identified as Type T-1.

<sup>18</sup> In J. Petersen's opinion Type I is a special variant of Type H (Петерсен 2005, 138). F. A. Androshchuk also suggests combining swords of Types H and I into one type, by adding here also swords of Special Type 20 (Androshchuk *forthcoming*).



Fig. 13. Gnëzdovo: 1 – the E-type sword from the barrow L-13; 2 – the hilt of the sword. *Photo by S. Yu. Kainov.*

Ryc. 13. Gniezdowo: 1 – miecz typu E z kurhanu L-13; 2 – rękojeść miecza. *Fot. S. Yu. Kainov.*



Fig. 14. The parts of the hilt of the E-type sword from the barrow L-13 in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 14. Elementy rękojeści miecza typu E z kurhanu L-13 w Gniezdowie. *Fot. S. Yu. Kainov.*

to the base<sup>19</sup> (Androshchuk *forthcomig*). But in general, F. A. Androschuk's studies confirmed L. Bergman's and B. Arrhenius' observation – swords with wide bases of the pommel are characterised by fastening the head and the base with rivets, and swords with narrow bases of the pommel are characterised by fastening them using the loop.

In A. Geibig's typology J. Petersen's Type H/I corresponds to Variant 1 of Combination Type V.

Type H/I swords are the most widespread swords in Europe – excluding the finds from early medieval Russia, about 700 such swords were found (Jakobsson 1992, 209-210; Marek 2004, 113; Żabiński 2007; Androshchuk *forthcoming*). J. Petersen dated Type H swords to the early 9<sup>th</sup> – the middle of the 10<sup>th</sup> c. (Петерсен 2005, 130-133). Earlier datings of the appearance of the type were also offered – about the 2<sup>nd</sup> half of the 8<sup>th</sup> c.

<sup>19</sup> The width of the base of the pommel with the loop – from 2 to 3 cm, with the rivets' length from 2.1 to 4.2 cm (Androshchuk *forthcoming*).



Fig. 15. The pit design of the E-type sword base of the pommel from the barrow L-13 in Gnëzdovo. Photo by S. Yu. Kainov.

Рис. 15. Zdobienie podstawy głowicy miecza typu E z kurhanu L-13 w Gniezdowie. Fot. S. Yu. Kainov.

(Вешнякова 2005, 318, табл. 1). For Type I, the chronology is narrower – the 2<sup>nd</sup> half of the 9<sup>th</sup> – the middle of the 10<sup>th</sup> c. (Петерсен 2005, 137-138).

In the territory of early medieval Russia no less than 30 swords and their fragments, related to Type H/I, were found. Their dating fits to the 10<sup>th</sup> c. The latest Type H swords (the 11<sup>th</sup> c., perhaps circa 1000-1050), were found on the Izhora Plateau during L. Ivanovsky's excavation.

In Gnëzdovo (including separate fragments) six Type H/I swords were found.

6. The hilt and a fragment of the blade (Fig. 17-18). These were found in October of 1898 during a construction work that destroyed several mounds (*complex of finds on X.1898 (C)*). Possibly, the finds originate from a ruined chamber burial (Булкин 1982, 140). The full length of the fragment is 31.5 cm, the width of the blade near the crossguard – 6.1 cm, the thickness of the blade near the crossguard – 0.5 cm, the length of the crossguard – 9.7 cm, the height of the crossguard – 1.8 cm, the crossguard thickness – 2.8 cm, the length of the hilt's tang – 9.7 cm, the height of the pommel – 5.2 cm, the length of the pommel base – 8.4 cm, the height of the pommel's base – 1.7 cm, and the thickness of the pommel base – 3.7 cm.

A vertically arranged encrustation of yellow metal wire is partially preserved on parts of the hilt. The encrustation density is about 16 wires per 10 mm.

A mark made of damascened wire was found on the blade's fragment: on the one side there are

letter-shaped signs, on the other side – lattice weave (Fig. 17:3) (Кирпичников 1966, рис. 37:2).

B. A. Kolchin carried out a metallographic analysis of the preserved fragment of the blade which revealed a homogeneous ferritic structure (Fig. 17:4) (Колчин 1953, 133-134, рис. 105:7, 106:4). The researcher explained this circumstance with a strong destruction of the blade in the place of sampling, whereby the welded edges did not survive (*ibidem*, 242).

Supposedly, together with the sword, a fragment of a horse trapping (?) belt, ornamented with round badges, and encrusted with five-pointed stars shaped silver inserts, originates from the ruined burial. These badges are considered to be a craftwork of goldsmiths from the area of the middle course of the Dnieper. At Gnëzdovo, such badges appeared not earlier than in the middle of the 10<sup>th</sup> c. Thus, provided that the badges and the sword come from the same burial, and considering also the most likely funeral rite in a wooden chamber, the burial may be dated to the 2<sup>nd</sup> half of the 10<sup>th</sup> c.

7. The intact sword (Fig. 19-21). It was found in 1949 during D. Avdusin's excavation of Barrow L-35 (Forest Barrow Group, Barrow No. 35), which contained a double cremation burial (Авдусин 1952, 358-361). The sword was broken in two parts, and then stuck into the ground. The full length of the sword is 96.0 cm, the length of the blade is 78.8 cm, the width of the blade near the crossguard – 5.5-6 cm<sup>20</sup>, the thickness of the blade near the crossguard – about 0.5 cm, the length of the crossguard – 10.5 cm, the height of the crossguard – 2.1 cm, the crossguard thickness is 3.7 cm, the length of the hilt tang – 9.4 cm, the height of the pommel – 5.7 cm, the length of the pommel base – 9.1 cm, the height of the pommel base is 1.7 cm, and the thickness of the pommel base – 3.7 cm.

Front surfaces of the hilt's parts are coated with a vertically (at a slight angle) arranged encrustation of silver wire. Encrustation density – 13 wires per 10 mm.

Between the blade and the inner side of the blade hollow in the crossguard iron plates of about 1 mm thickness were detected. Apparently, their purpose was to strengthen the fixing of the crossguard on the blade.

On the tang, minor fragments of the hilt's wooden grip, oval in section, were preserved to the present time<sup>21</sup>. By the time of finding, the sword's hilt survived almost intact (fig. 20:3).

<sup>20</sup> It does not seem possible to determine the original width of the blade does not seem possible in view of its poor preservation.

<sup>21</sup> Determination of the wood species, obtained for the sword hilts found at Gnezdovo, has not been made yet. Analogous analyses for a number of European swords detected the following species: maple (Lake Lednica), and conifers (Donnybrook) (Hall 1978, 79; Stepanik 2011, 79).



Fig. 16. Gnëzdovo: 1-2 – the fragment of the E-type sword. Accidental find; 3 – the crossguard of the sword (1 – drawing by A. S. Dement'eva; 2-3 – photo by V. A. Baryshev).

Ryc. 16. Gniezdowo: 1-2 – fragment miecza typu E. Znalezisko luźne; 3 – jelec miecza (1 – rys. A. S. Dement'eva; 2-3 – fot. V. A. Baryshev).

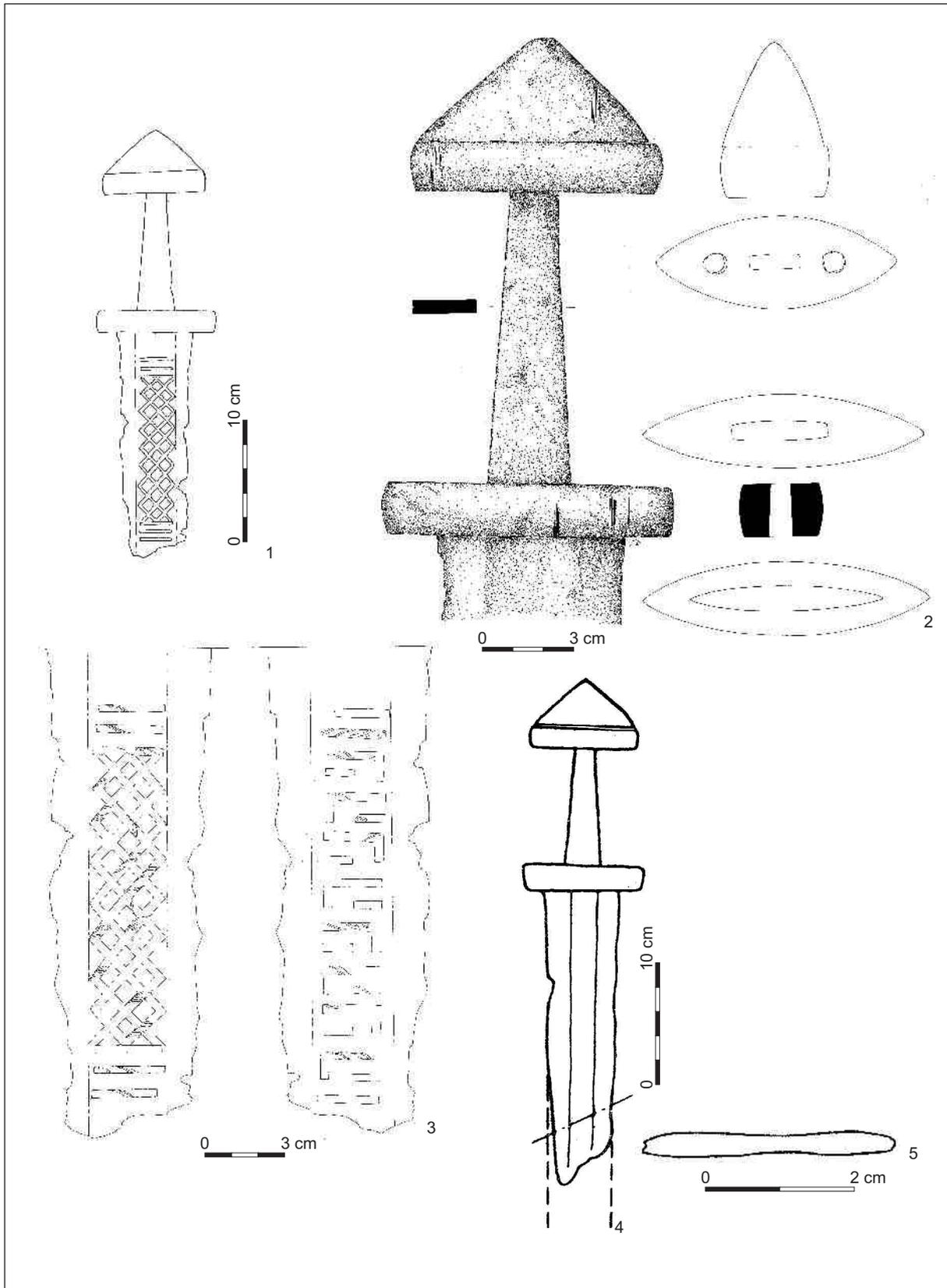


Fig. 17. Gnëzdovo: 1-2 – the fragment of the H/I-type sword from the destroyed barrow (*complex of finds on X.1898*); 3 – the stamps on the blade of the sword; 4 – the arranging of the metallographic grind on the blade of the sword; 5 – the technological scheme of the blade (1-3 – drawing by A. S. Dement'eva; 4-5 – after Колчин 1953, 133-134, *пуч.* 105:7; 106:4).

Ryc. 17. Gnëzdovo: 1-2 – fragment miecza typu H/I ze zniszczonego kurhanu (*zespół znalezisk z X 1898 r.*); 3 – znaki na głowni miecza; 4 – miejsce pobrania próbki na głowni miecza; 5 – struktura technologiczna głowni (1-3 – rys. A. S. Dement'eva; 4-5 – wg Колчин 1953, 133-134, *пуч.* 105:7; 106:4).



Fig. 18. The fragment of the H/I-type sword from the destroyed barrow in Gnëzdovo (*complex of finds on X.1898*). Photo by V. A. Mochugovskij.

Ryc. 18. Fragment miecza typu H/I ze zniszczonego kurhanu w Gniezdowie (*zespół znalezisk z X 1898 r.*). Fot. V. A. Močugovskij.

On the blade a mark made with simple wire was detected – on one side there was a fragment of a letter-shaped sign, and on the other side – a helix (fig. 19:3-4) (Кирпичников 1966, рис. 37:9).

On the basis of contextual data provided by the burial's furnishings, the barrow may be dated to the 2<sup>nd</sup> quarter – the middle of the 10<sup>th</sup> c.

8. The intact sword (hilt and the most part of the blade are preserved) (fig. 22-24). The artefact

was found in 1987 during D. A. Avdusin's excavation of Barrow Lb-1 (Left Dnieper Coast Barrow Group, Barrow No. 1), with a double cremation burial (Пушкина 1993, 113-115). The sword was bent and broken, the pommel was broken off. The width of the blade near the crossguard is 6.6 cm, the thickness of the blade near the crossguard – 0.6 cm, the length of the crossguard – 10 cm, the height of the crossguard – 1.5 cm, the crossguard thickness – 2.5 cm, the length of the hilt tang – about 9.5 cm, the height of the pommel – 4.8 cm, the length of the pommel base – 7.9 cm, the height of the pommel base – 1.4 cm, and the thickness of the pommel base – 2.5 cm. The weight of the pommel is 238 g.

All visible surfaces of the sword's crossguard and the pommel were covered with white metal. The same coating is evident on the lateral walls of the hole for the blade's tang, as well as on the top end of the pommel base, passing under the head. The way of making the coating is still unclear. When the coating was applied, the frontal surfaces of the crossguard were engraved with thin parallel lines about 0.2 mm in diameter. This is how an imitation of the encrustation was created (fig. 26). On the head of the pommel's rib a slot was made, where white metal wire was encrusted. The end sides of the crossguard and the pommel remained smooth.

On the blade a mark made with damascened wire was detected. There was an **ULFBREH+(T)** mark on one side and lattice weave on the other side (fig. 22:3).

Based on the analysis of Barrow Lb-1's burial furnishings, T. A. Pushkina concluded that this barrow may be dated to the middle of the 10<sup>th</sup> c. (*ibidem*, 115).

9. The head of the pommel (Fig. 26). It was found in 1881 during V. I. Sizov's excavation of Barrow 6, which contained a male cremation burial (L-6/Siz.-1881) (Сизов 1902, 21; Ширинский 1999, 112-113). Dimensions: length – 6.8 cm, height – 3.0 cm, width – 2.0 cm. Weight – 72 g.

On the surface of the find, despite a rather fine state of preservation, no traces of encrustation were detected. However, in some places a brass (copper?) coating was noted. The technique of coating is not clear. Perhaps the technology is

similar to the way of brazing of iron frameworks of spherical weights<sup>22</sup>.

The fragment is hollow with a clearly visible seen brass coating inside. Most likely these are traces of brazing of the loop, which fixed the head of the pommel to its base (A. Geibig's Construction Type IIa).

In addition to the original technique of non-ferrous metal coating, a remarkable feature of this find is its shape. The head of the pommel has strongly sloping bottom corners. To the best of our knowledge, swords of Type H/I<sup>23</sup> with this shape of the head of the pommel have never been found anywhere. Apparently, we are dealing with a rare variant of the sword, which in its morphological features is closest to Type H/I.

Unfortunately, the burial furnishings do not allow for dating of the barrow.

10. A crossguard (Fig. 27). The specimen was found in 1953 during D. Avdusin's excavation of the Central Fort (excavation area CG ЦГ-II). Length – 9,3 cm, height – 1.6 cm, thickness – 2.2 cm. Weight – 182 g.

On the surface of the find there is a fine-preserved continuous yellow metal vertical encrustation. The density of the encrustation is 16 wires per 10 millimeters. On the upper and the lower surfaces, small remains of a very thin solid yellow metal coating were preserved. The technique of fastening is not clear<sup>24</sup>. J. Petersen noted cases of application of such plates, which covered the upper and the lower surface of the crossguard and pommel base. The crossguard originates from a layer which is dated not earlier than to the 2<sup>nd</sup> quarter of the 10<sup>th</sup> c.

11. A head of the pommel (Fig. 28). Found in 1986 during T. A. Pushkina's excavation of the Central Fort (excavation area CG-XIX). Dimensions: length – 7.1 cm, height – 2.9 cm, width – 2.9 cm. Weight – 90 g.

The specimen is ornamented with vertical yellow metal encrustation. The encrustation density is about 17 wires per 10 mm. Three encrusted yellow metal lines are arranged on the pommel's rib.

The head is hollow and was fastened to the pommel base by two partially-preserved iron rivets about 5 mm in diameter. (A. Geibig's Construction

<sup>22</sup> Consequently, by means of using "cooper coating" – a simpler technological way of covering the iron surface with non-ferrous metal – a similar result to using monochromatic encrustation was reached.

<sup>23</sup> The sword from Lille Vestre Finstaad (Norway) seemed for us to be the closest in its form (viewed from the front), but the head of its pommel has a semicircular shape in its lateral view, as opposed to the Gnězdovo find, which is sub-triangular in its lateral view (Петерсен 2005, 114, рис. 92).

<sup>24</sup> On the Type H sword, found near the Scar farm, the upper and the lower surface of the crossguard were covered with plates of about 1 mm in diameter, made of brass (cooper with ample quantity of zinc and insignificant impurities of tin). The plates were attached to the iron framework presumably by two rivets (Owen, Dalland 1999, 107).

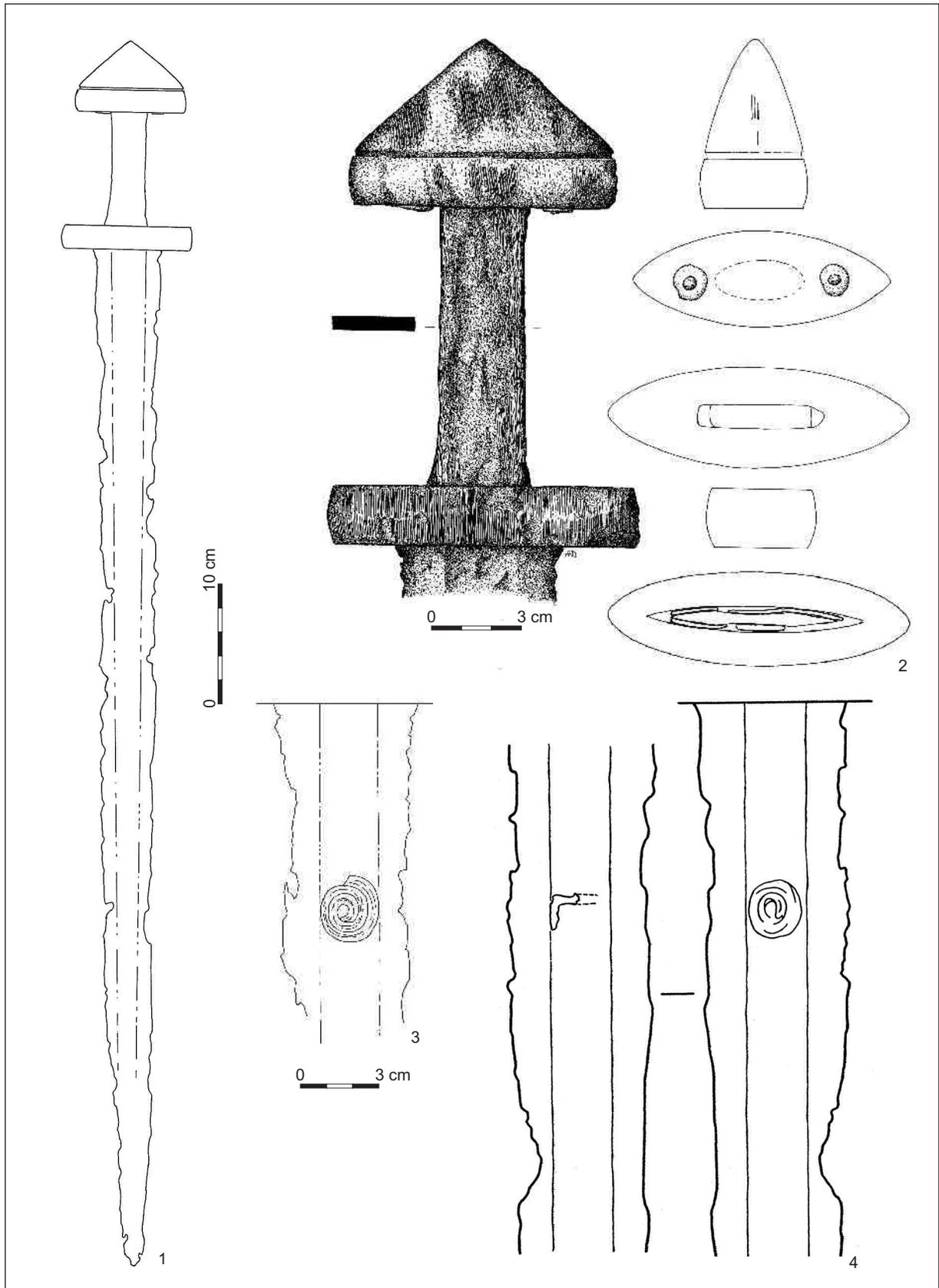


Fig. 19. Gnëzdovo: 1-2 – the H/I-type sword from the barrow L-35; 3 – the stamp on the one side of the blade of the sword from the barrow L-35; 4 – the stamps on the blade of the sword from the barrow L-35 (1-3 – drawing by A. S. Dement'eva; 4 – after Курничников 1966, puc. 37:9).

Ryc. 19. Gnëzdovo: 1-2 – miecz typu H/I z kurhanu L-35; 3 – znak na jednej ze stron głowni miecza z kurhanu L-35; 4 – znaki na głowni miecza z kurhanu L-35 (1-3 – rys. A. S. Dement'eva; 4 – wg Курничников 1966, puc. 37:9).

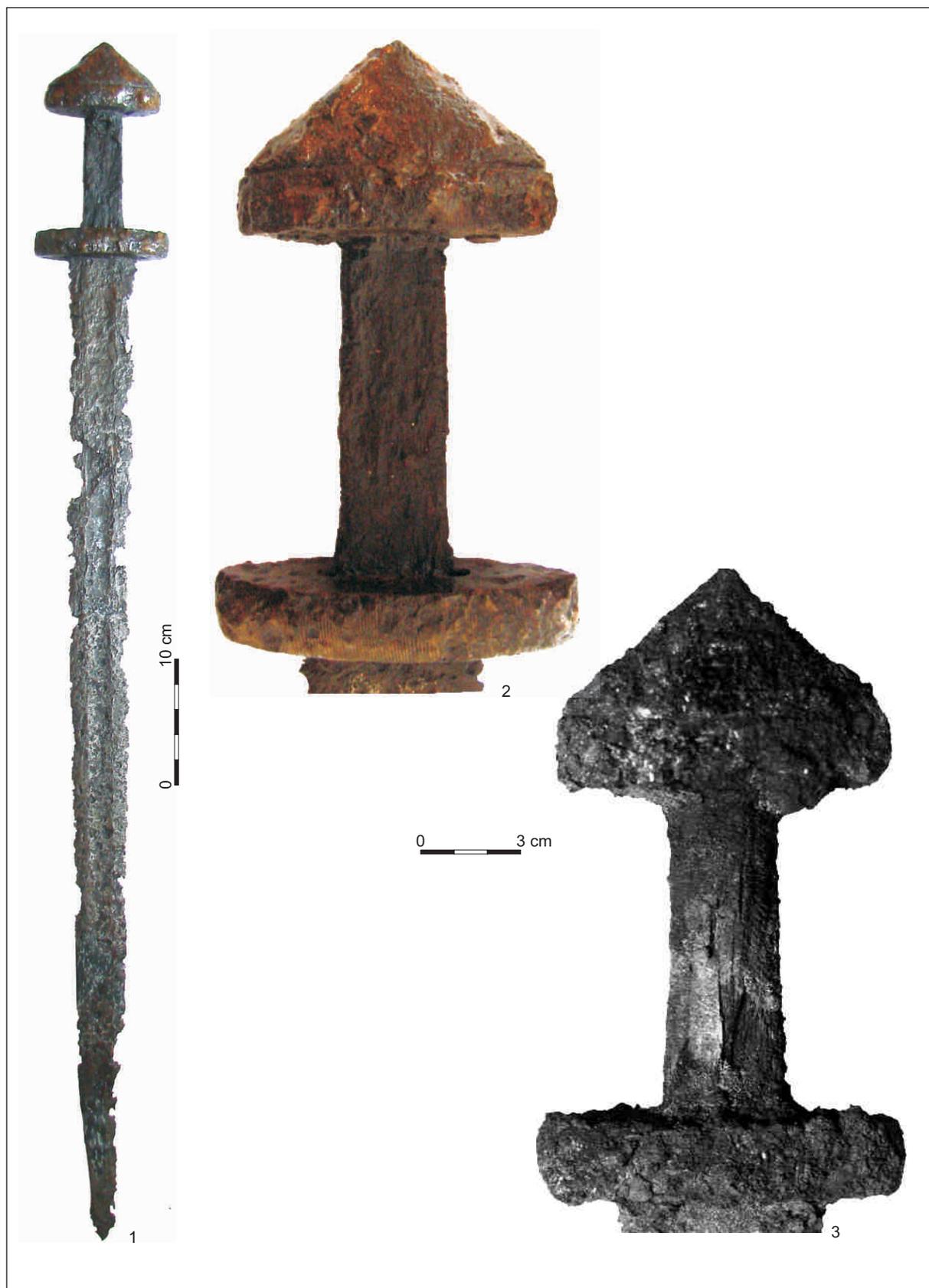


Fig. 20. Gnëzdovo: 1 – the H/I-type sword from the barrow L-35; 2 – the hilt of the H/I-type sword from the barrow L-35; 3 – the hilt of the H/I-type sword from the barrow L-35 after discovering (1-2 – photo by S. Yu. Kainov).

Ryc. 20. Gniezdowo: 1 – miecz typu H/I z kurhanu L-35; 2 – rękojeść miecza typu H/I z kurhanu L-35; 3 – rękojeść miecza typu H/I z kurhanu L-35 w momencie odkrycia (1-2 – fot. S. Yu. Kainov).



Fig. 21. The parts of the hilt of the H/I-type sword from the barrow L-35 in Gnězdovo. Photo by S. Yu. Kainov.

Ryc. 21. Elementy rękojeści miecza typu H/I z kurhanu L-35 w Gniezdowie. Fot. S. Yu. Kainov.

Type IIb). Remains of brass, preserved inside, let us consider rivets to be brazed into the pommel's head.

The find originates from the layer dated not earlier than to the 2<sup>nd</sup> quarter of the 10<sup>th</sup> c.

#### Type T

According to J. Petersen, Type T is characterised by the following features: *Crossguards are usually*

*straight or slightly curved. They are of the same height, with slightly rounded ends; on the lower crossguard the ends are rounded on the bottom, on the upper one – on the top. The head of the pommel is also three-parted, the end parts of it are more like beast's snouts than in the previous (S) type* (Петерсен 2005, 178).

Based on the details of the hilt ornament, J. Petersen identified two groups of Type T swords.

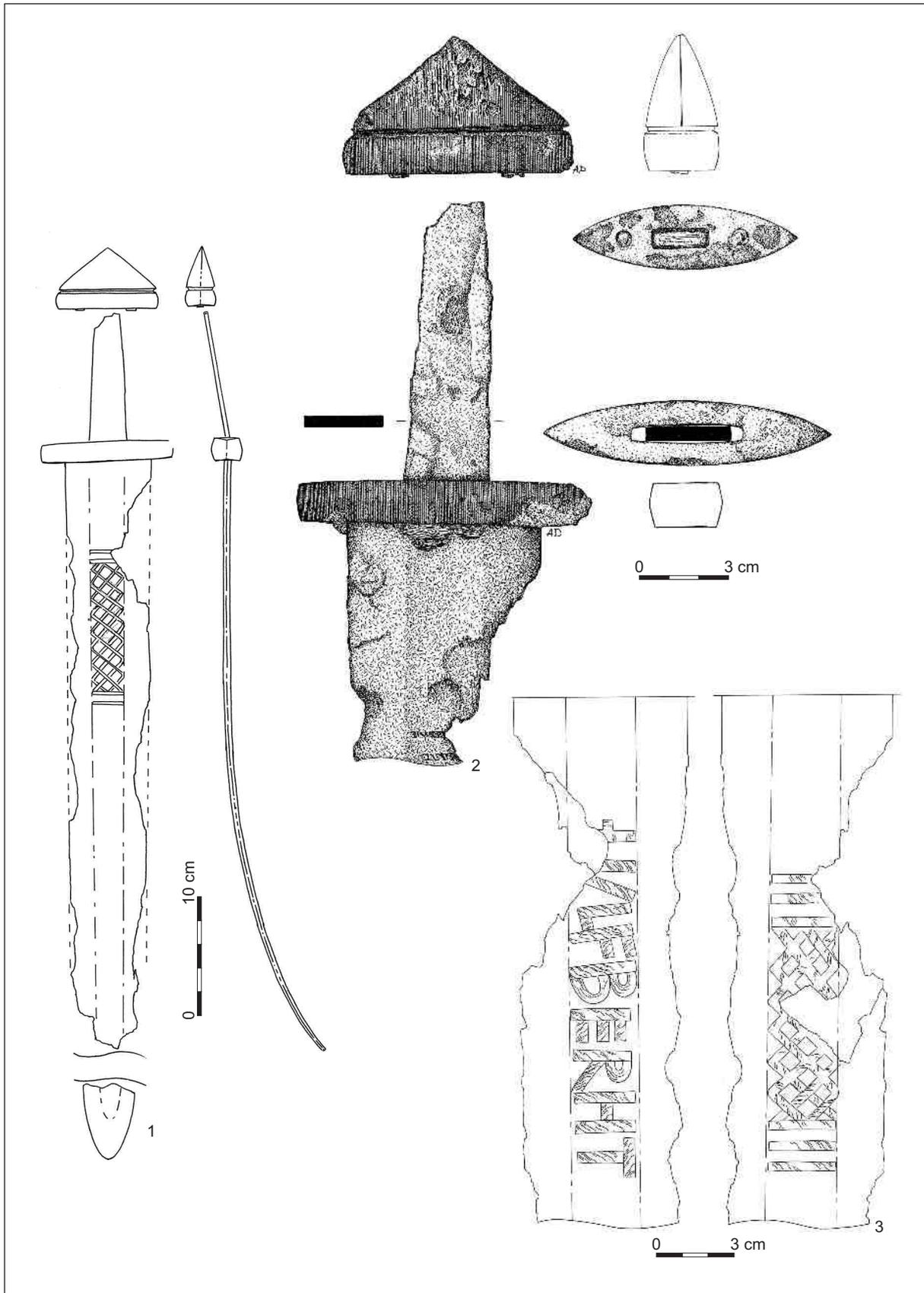


Fig. 22. Gnëzdovo: 1-2 – fragments of the H/I-type sword from the barrow Lb-1; 3 – the stamp on the blade of the H/I-type sword from the barrow Lb-1. Drawing by A. S. Dement'eva.

Ryc. 22. Gniezdowo: 1-2 – fragmenty miecza typu H/I z kurhanu Lb-1; 3 – znak na głoŃni miecza typu H/I z kurhanu Lb-1. Rys. A. S. Dement'eva.



Fig. 23. Gnėzdovo: 1 – fragment of the H/I-type sword from the barrow Lb-1; 2 – the hilt of the H/I-type sword from the barrow Lb-1. *Photo by S. Yu. Kainov.*

Ryc. 23. Gnėzdowo: 1 – fragment miecza typu H/I z kurhanu Lb-1; 2 – rękojšć miecza typu H/I z kurhanu Lb-1. *Fot. S. Yu. Kainov.*

He classified swords with beast style ornament or with several lines of round hollows as the first group. The second group is represented by swords with hilt's parts designed with triangles and rhombuses. These groups, identified by J. Petersen, are marked in A. Kirpichnikov's work as Types T-1 and T-2 (Kirpichnikov 1966, 28,30).

V. Kazakevičius's work, devoted to swords found in the territories inhabited by Baltic tribes, slightly confused the definition of Type T (Kazakevičius 1996, 44-53). There are «classic» Type T swords among other local swords, classified by V. Kazakevičius as this type, but, from my point of view, the vast majority of them

– are of some more local Baltic shape. Even a simple review of sword illustrations, included by V. Kazakevičius in Type T, convinces us about their extreme heterogeneity, both concerning their morphology and ornaments (ibidem, pav. 42, 49). Perhaps a number of swords (for example, the sword found at Gintaliske, Burial 2), represents (occurring in the 11<sup>th</sup> c.) a development of Type T-1 (according to J. Petersen) type, but it is also obvious that a significant part of Type T swords (according to V. Kazakevičius), has nothing in common with «classic» patterns of this type, except for, perhaps, three-parted head of the pommel, which are anyway common for many



0 3 cm



Fig. 24. The parts of the hilt of the H/I-type sword from the barrow Lb-1 in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 24. Elementy rękojeści miecza typu H/I z kurhanu Lb-1 w Gniezdowie. *Fot. S. Yu. Kainov.*

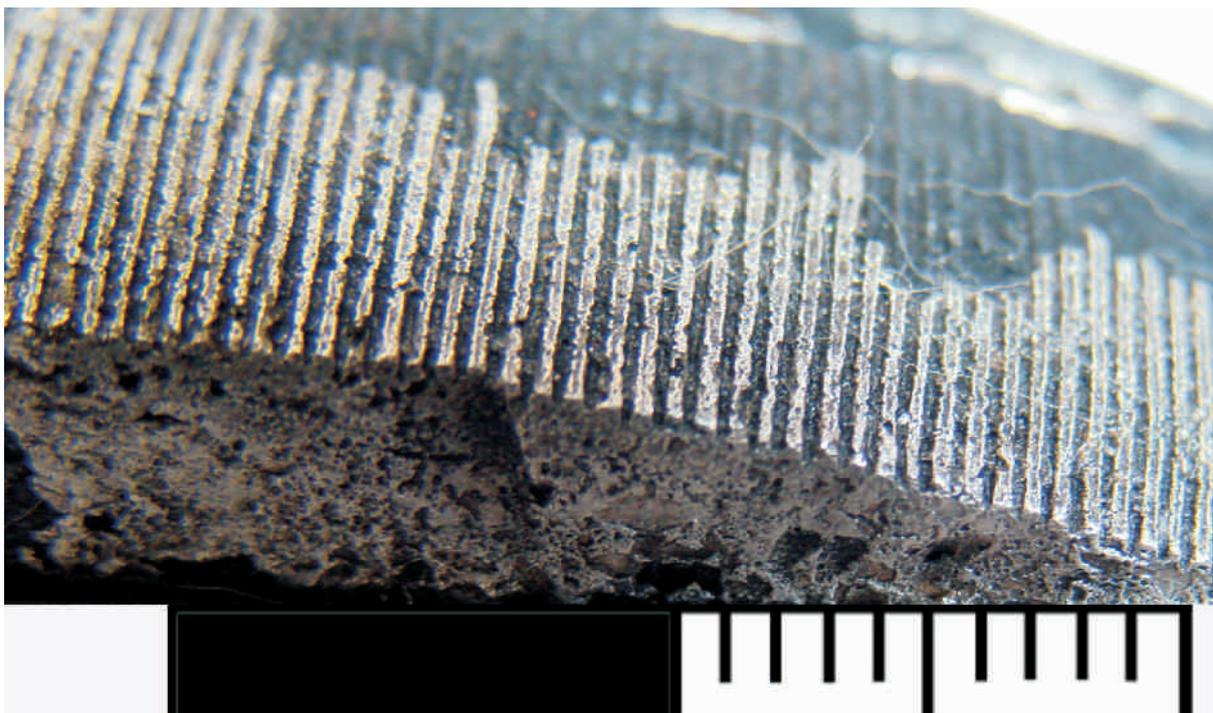


Fig. 25. The surface of the H/I-type sword pommel from the barrow Lb-1 in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 25. Powierzchnia głowicy miecza typu H/I z kurhanu Lb-1 w Gniezdowie. *Fot. S. Yu. Kainov.*

sword types<sup>25</sup>. In the case of swords of the Baltic tribes in the 11<sup>th</sup>-13<sup>th</sup> c., we face the appearance and the development of their own manufacturing tradition, manifesting in local types of sword hilts, as well as in types of their unique ornamentation<sup>26</sup>.

In A. Geibig's typology Type T has no matches.

For the European territory there is no special statistics for Types T-1 and T-2. No less than 21 specimens (without finds from the territory of settlement of Old-Russian and Baltic tribes) of Type T swords were found (Jakobsson 1992, 213; Androshchuk forthcoming). J. Petersen dated Type T to the 2<sup>nd</sup> half of 10<sup>th</sup> – early 11<sup>th</sup> c. (Петерсен 2005, 180).

In the territory of early medieval Russia<sup>27</sup> at least another 14 Type T swords were found, no less than eight of them of Type T-2, which is of interest to us. A. N. Kirpichnikov dates the Old-Russian Type T swords to the middle – the 2<sup>nd</sup> half of the 10<sup>th</sup> c. (Кирпичников 1966, 28). At Gnëzdovo one sword of Type T-2 was found.

12. A hilt and a fragment of blade (Fig. 29-31). The work of V. I. Sizov's reports about this find in the following manner: According to Mr. Filimonov (Gnëzdovo owner), this sword was found by workers during barrow demolition in a barrow's bottom, stuck into the ground (Сизов 1902, 28)<sup>28</sup>. Full length of the sword – 64.8 cm, width of the blade near the crossguard – 5.6 cm, thickness of

<sup>25</sup> It is also necessary to offer objections concerning a classification by V. Kazakevičius of the «combined» form of the swords of Type T/Z. Such-like swords have little in common with Type T swords, as like with Type Z specimens (according to J. Petersen's typology) (Kazakevičius 1996, 50-53, pav. 53-56). They differ from them both morphologically and technologically. Swords of the combined T/Z form (according to V. Kazakevičius) belong to an individual type, defined by A.N. Kirpichnikov based the analysis of Old-Russian material, as «local Type A» (Кирпичников 1966, 35-36). V. Kazakevičius' classification denotation of swords with a composition of bronze parts (indicative for Baltic tribes) as Type T-1 Curonian is hard to accept, either. This produces a false illusion of the relation of this type to Type T swords in the typology of J. Petersen (ibidem, 53-58). The ornament, the morphology, and first of all the chronology (the 2<sup>nd</sup> half of the 11<sup>th</sup> – 13<sup>th</sup> c.), in my point of view, do not let us relate this sword to the «classic» Type T and in general analyse it as a part of the «Viking age» sword typology.

<sup>26</sup> Apparently, this local tradition met a strong influence of the pan-European manufacturing tradition and in some way was its continuation, but this influence did not cramp the development of original local hilt types.

<sup>27</sup> This estimation includes Type T-1 type swords, found near the Dnieper rapids and on the Dnieper's anastomosing branch between Kherson and Aleshki (Кирпичников 1966, Кат. 36-37, 42).

<sup>28</sup> A. N. Kirpichnikov classified it as Type V-type, which is wrong in my point of view. Larger parts, a high middle part of the head of the pommel, and horizontally arranged ornamental triangles are remarkable features of Type T-2 swords.

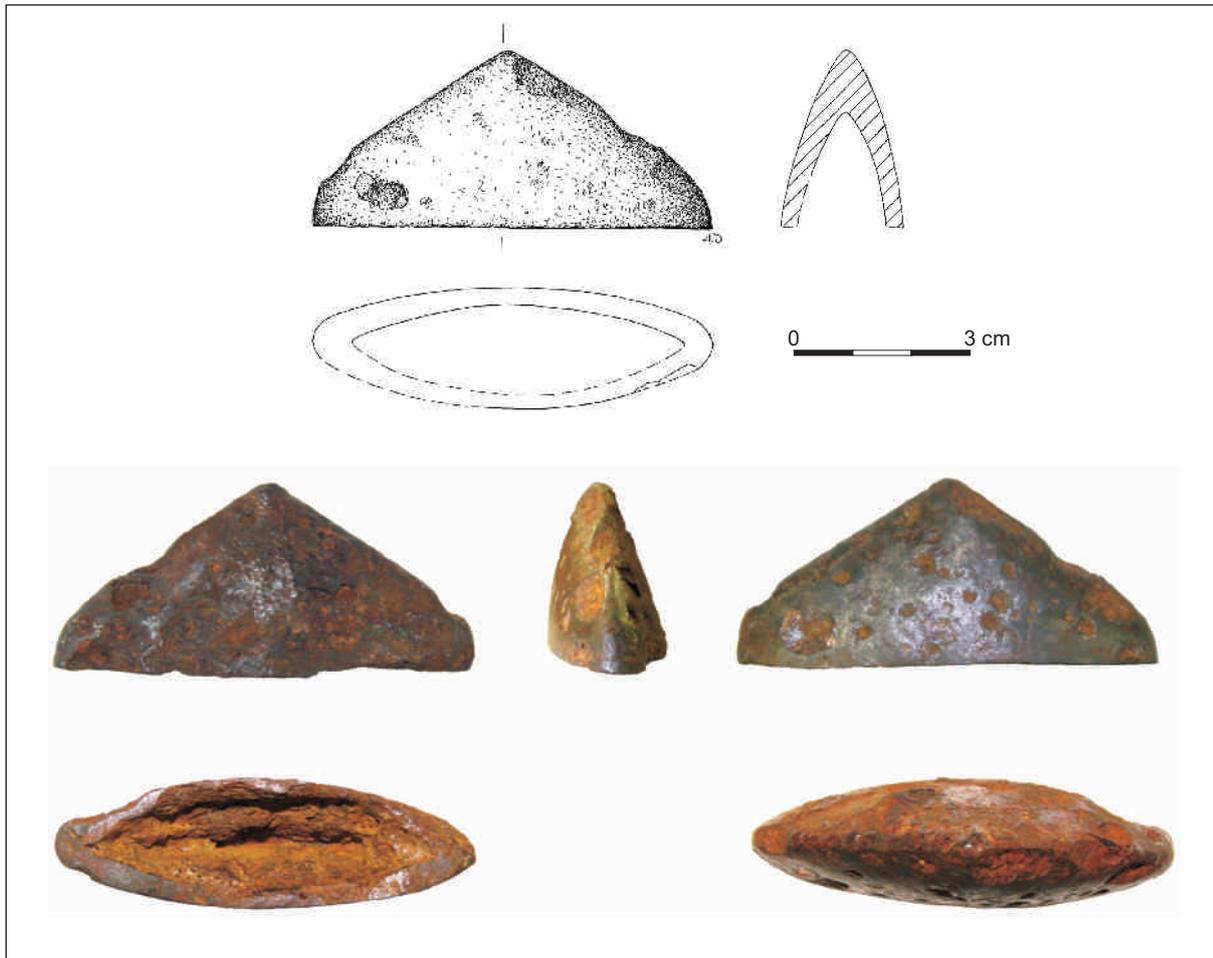


Fig. 26. The head of the pommel of the H/I(?) sword from the barrow C-11/Sizov-1881 in Gnėzdovo. Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.

Ryc. 26. Nakładka głowicy miecza typu H/I(?) z kurhanu C-11/Sizov-1881 w Gniezdowie. Rys. A. S. Dement'eva; fot. S. Yu. Kainov.

the blade near the crossguard – 0.5 cm, length of the crossguard – 11.4 cm, height of the crossguard – 1.9 cm, crossguard's thickness – 2.4 cm, length of the hilt tang – 9.8 cm, height of the pommel – 5.7 cm, length of the pommel base – 8.2 cm, height of the pommel base – 2.1 cm, thickness of the pommel base – 2.6 cm.

There is a geometrical decoration in the central part of the frontal surfaces of the crossguard and the pommel base. It combines step-patterned rhombuses and triangles, arranged in a vertical manner, and it is applied in the technique of encrustation. On the lateral sides of the crossguard and the pommel base there are triangles and rhombuses, which are arranged in a horizontal manner. The central part of the pommel head is also decorated with vertically arranged triangles and rhombuses. The triangles are inlaid with silver wire and contoured with copper wire; the rhombuses between them are inlaid with twisted copper and silver wires. The ornament of the lateral sides of the pommel head

is in a rather poor state of preservation and we can reconstruct it as follows: the central part is taken by sub-triangular figures with a fringe from one of the sides. V. I. Kulakov proposes to consider these figures as images of flags (Кулаков 1989, 69). The rest of the space is occupied by a continuous silver encrustation and, maybe step-patterned triangles with silver-copper inlay. The very edge is coated with a copper wire encrustation. An ornament of step-patterned triangles is applied on the central part of the upper surface of the crossguard. On the lateral parts there is a circular ornament. On the lateral sides of the lower surface of the crossguard there are copper wire figures of weaving lines against the silver background. The remaining part of this surface is encrusted with a combination of wires of different colours. In the central part of the lower surface of the pommel there are step-patterned rhombuses, and on the lateral sides – a combination of wires of different colours. The encrustation density is about 35-40 wires per 10 mm.

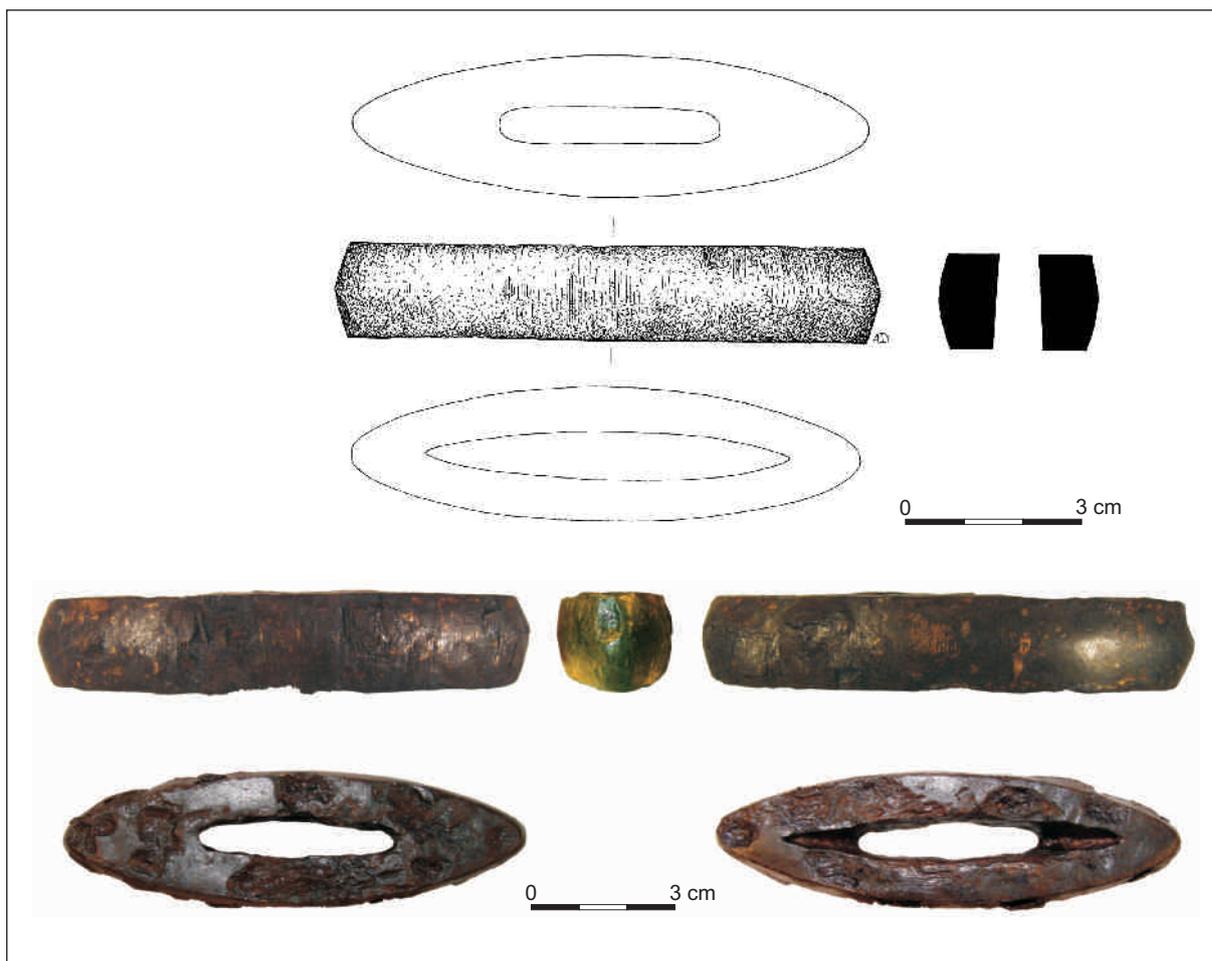


Fig. 27. The crossguard of the H/I-type sword from the Central stronghold excavation in Gnëzdovo. *Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.*

Рис. 27. Jelec miecza typu H/I z badań na terenie grodziska Centralnego w Gniezdowie. *Rys. A. S. Dement'eva; fot. S. Yu. Kainov.*

The Construction Type of individual parts of the pommel can be defined as A. Geibig's Type II. The head of the pommel is fastened to the base with an iron loop, brazed inside the head of the pommel (we can see solder from heavily corroded parts of the pommel). On the lower surface of the pommel base under the riveting of the bracket there are brass washers.

On the sword's blade A. N. Kirpichnikov uncovered a mark: on one side – +ULFBERH+T; on the other – lattice weave (Fig. 29:4) (Кирпичников 1966, рис 35:2).

Polishing of the blade's scrap revealed the scheme of welding of a tempered steel edge on the blade's core, which contained almost no carbon (Арендт 1935, 181).

As the sword was found in a destroyed burial with no preserved furnishings, it is impossible to date it on the basis of the archaeological context.

### Type V

J. Petersen notes that in addition to types with straight crossguards and removable three-parted

pommel heads, which were defined by him as Types A, D, E, R, S, T, and U, there are also swords which are equipped with three-parted pommel heads, but their shape is so indefinite, that it is extremely difficult to indicate the type they may be referred to (Пересен 2005, 183). He classified such swords as Type V. They have the following characteristics: The head of the pommel is rather high – about 3-4 cm, round-shaped. The crossguards are narrow in their cross-sections, with tapering ends. The transition from the central part of the pommel head to the outer parts is quite smooth. The head of the pommel is not thickened and is roughly of the same thickness as the base of the pommel. Parts of the hilt are always designed with silver and bronze wires, usually in the form of step-patterned figures (ibidem, 183).

The ornamentation and the shape of (the head of the pommel in the first place) of Type V hilt parts are very similar to Type T-2 swords. Sometimes it is difficult to determine to which type one or another sword belongs. In our opinion, generally larger

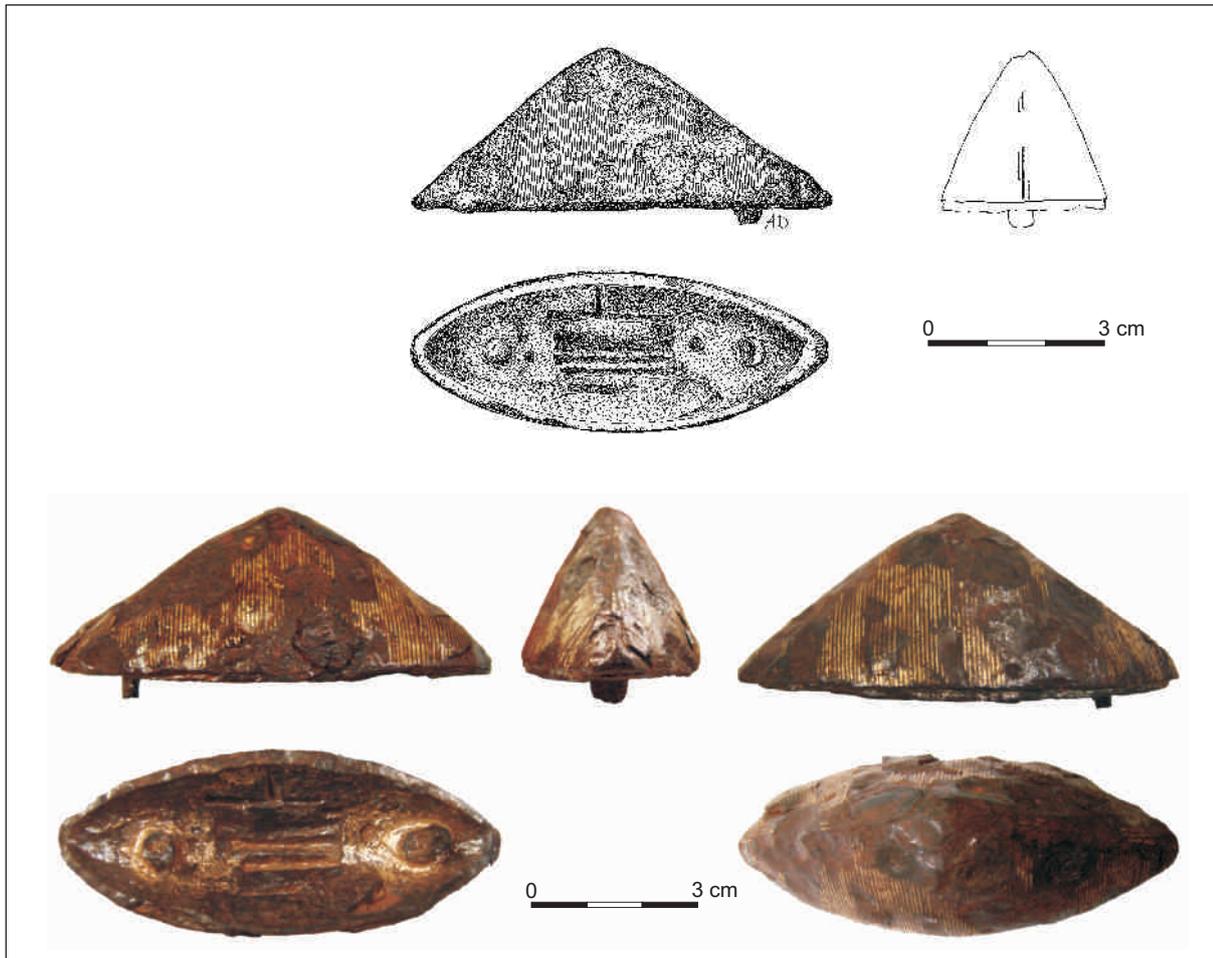


Fig. 28. The head of the pommel of the H/I-type sword from the Central stronghold excavation in Gnëzdovo. Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.

Ryc. 28. Nakładka głowicy miecza typu H/I z badań na terenie grodziska Centralnego w Gniezdowie. Rys. A. S. Dement'eva; fot. S. Yu. Kainov.

parts of Type T-2 hilts, strongly rising central parts and more clearly drawn lateral parts of the pommel, as well as the presence of ornaments of horizontal triangles and rhombuses on the lateral sides of the crossguard and on the pommel base are determinants here.

In A. Geibig's typology Type V corresponds to Combination Type 11.

In the territory of Europe, excluding finds from Old Russia, no less than 56 Type V swords were found (Sweden – 16, Denmark – 12, Germany – 3, Norway – 6, Finland – 3, Estonia – 1, Ireland – 1, Iceland – 1, the territory of settlement of Baltic tribes – 13<sup>29</sup>) (Jakobsson 1992, 213; Androschuk forthcoming). J. Petersen dated this type to the 1<sup>st</sup> half of the 10<sup>th</sup> c. (Петерсен 2005, 184).

In the territory of early medieval Russia no less than 25 Type V swords were discovered. These

finds may be dated to the middle – the 2<sup>nd</sup> half of the 10<sup>th</sup> c. At Gnëzdovo four swords of this type were found.

13. An intact sword (a pommel and a part of the blade are preserved)<sup>30</sup> (Fig. 32). It was found in 1885 during V.I. Sizov's excavation of Barrow 20 (41), located in the Central Barrow Group (C-41/Siz.-1885), containing a double cremation burial (Сизов 1902, 8-11). Height of the pommel – 4.9 cm, length of the pommel base – 7.4 cm, height of the pommel base – 1.6 cm, thickness of the pommel base – 2.5 cm. Weight of the pommel – 266 g.

The ornament is in poor state of preservation. On the head of the pommel and the lower surface of the pommel base there are remains of grooves for inlays, and hardly fused encrusted areas. Based on some of its remains, we may suggest that the

<sup>29</sup> In my opinion, not all the swords, classified by V. Kazakevičius as Type V, are similar to the "classic" type as defined by J. Petersen.

<sup>30</sup> The most part of the blade and of the crossguard survived in a lump with other items (spearheads, a battle knife etc.).

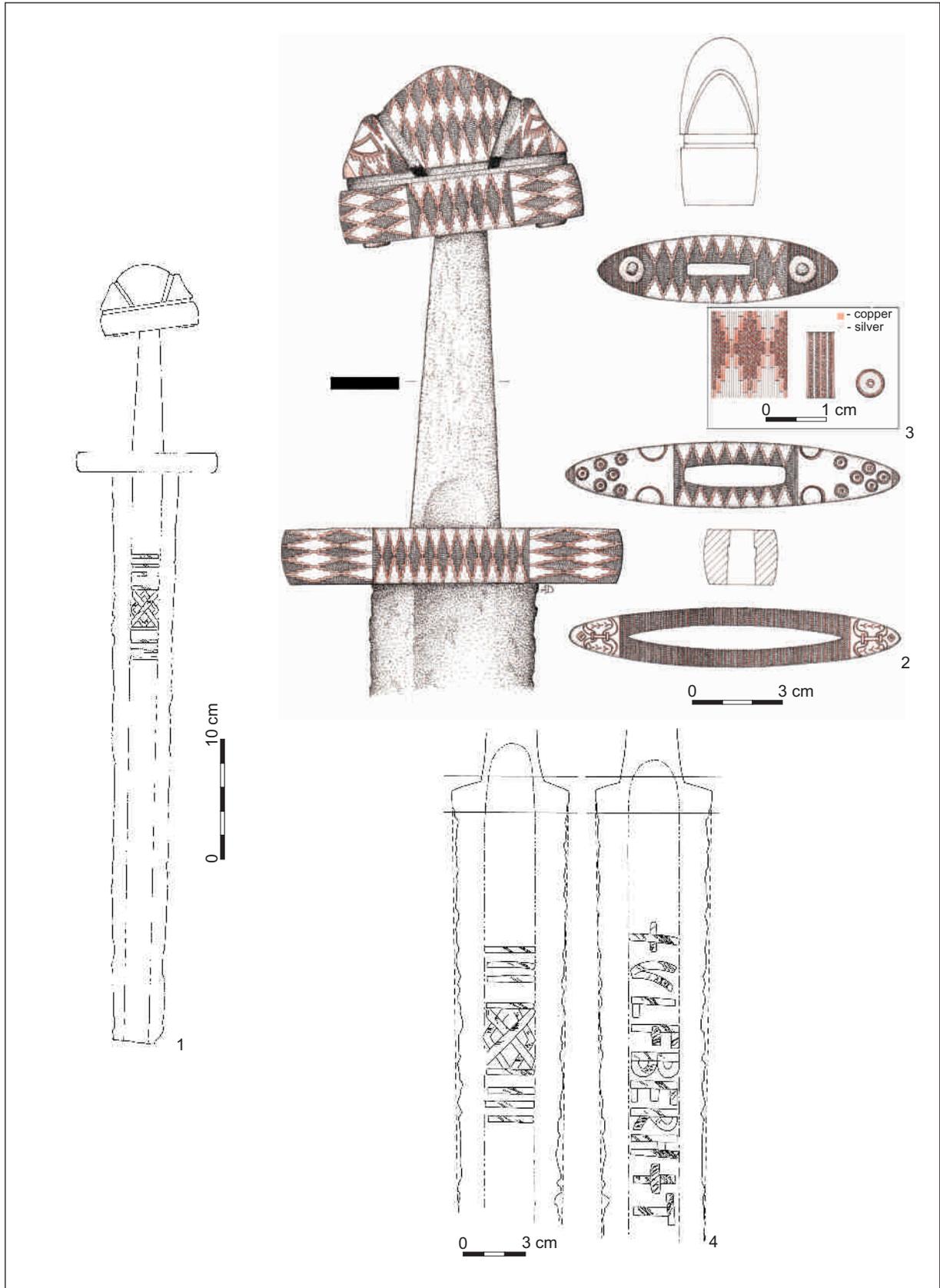


Fig. 29. Gnězdovo: 1-2 – the T-2-type sword from the destroyed barrow (with attributes of reconstruction); 3 – schemes of the encrustation arrangement on the details of the hilt; 4 – the stamps on the blade. Drawing by A. S. Dement'eva.

Ryc. 29. Gniezdowo: 1-2 – miecz typu T-2 ze zniszczonego kurhanu (z elementami rekonstrukcji); 3 – schemat wzoru inkrustacji na elementach rękojeści; 4 – znaki na głowni. Rys. A. S. Dement'eva.



Fig. 30. Gnëzdovo: 1 – the fragment of the T-2-type sword from the destroyed barrow; 2 – the hilt of the T-2-type sword. Photo by V. A. Mochugovskiy.

Ryc. 30. Gniezdowo: 1 – fragment miecza typu T-2 ze zniszczonego kurhanu; 3 – rękojeść miecza typu T-2. Fot. V. A. Mochugovskij.

ornamentation represented a combination of triangles and rhombuses. On the lateral sides flag-shaped figures are fragmentally preserved. The main encrustation is made of silver and brass wire, while the “flags” are made with copper wire. The edges of the lateral parts of the pommel head are completely covered with encrusted copper wire. Remains of hardly fused encrustation were detected on the lower surface of the pommel base. The encrustation density is about 30 wires per 10 mm.

No marks were detected on the blade.

On the lower surface of the pommel base there are fragmentally preserved iron rivets (or ends of the loop), which slightly protrude outside. The pommel can be defined as Construction Type II according to A. Geibig.

In my opinion, based on the furnishings' context, we can date the barrow to the middle – the 2<sup>nd</sup> half of the 10<sup>th</sup> c.

14. An intact sword (a pommel and fragments of the crossguard and a part of the blade are preserved) (Fig. 33). It was found in 1901 during



Fig. 31. The parts of the hilt of the T-2-type sword from the destroyed barrow in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 31. Elementy rękojeści miecza typu T-2 ze zniszczonego kurhanu w Gniezdowie. *Fot. S. Yu. Kainov.*

S. I. Sergeev's excavation of Barrow 86 of the Dnieper barrow group (Dn-86/Serg.-1901), containing a double cremation burial (Спицын 1905, 50-51). Width of the blade near the crossguard – 5.9 cm, height of the crossguard – about 1.9 cm,

height of the pommel – 5.1 cm, length of the pommel base – 7.6 cm, height of the pommel base – 1.8 cm, thickness of the pommel base – 2.2 cm.

On the surface of the hilt parts mainly grooves for inlay were preserved. Only on the lateral part of

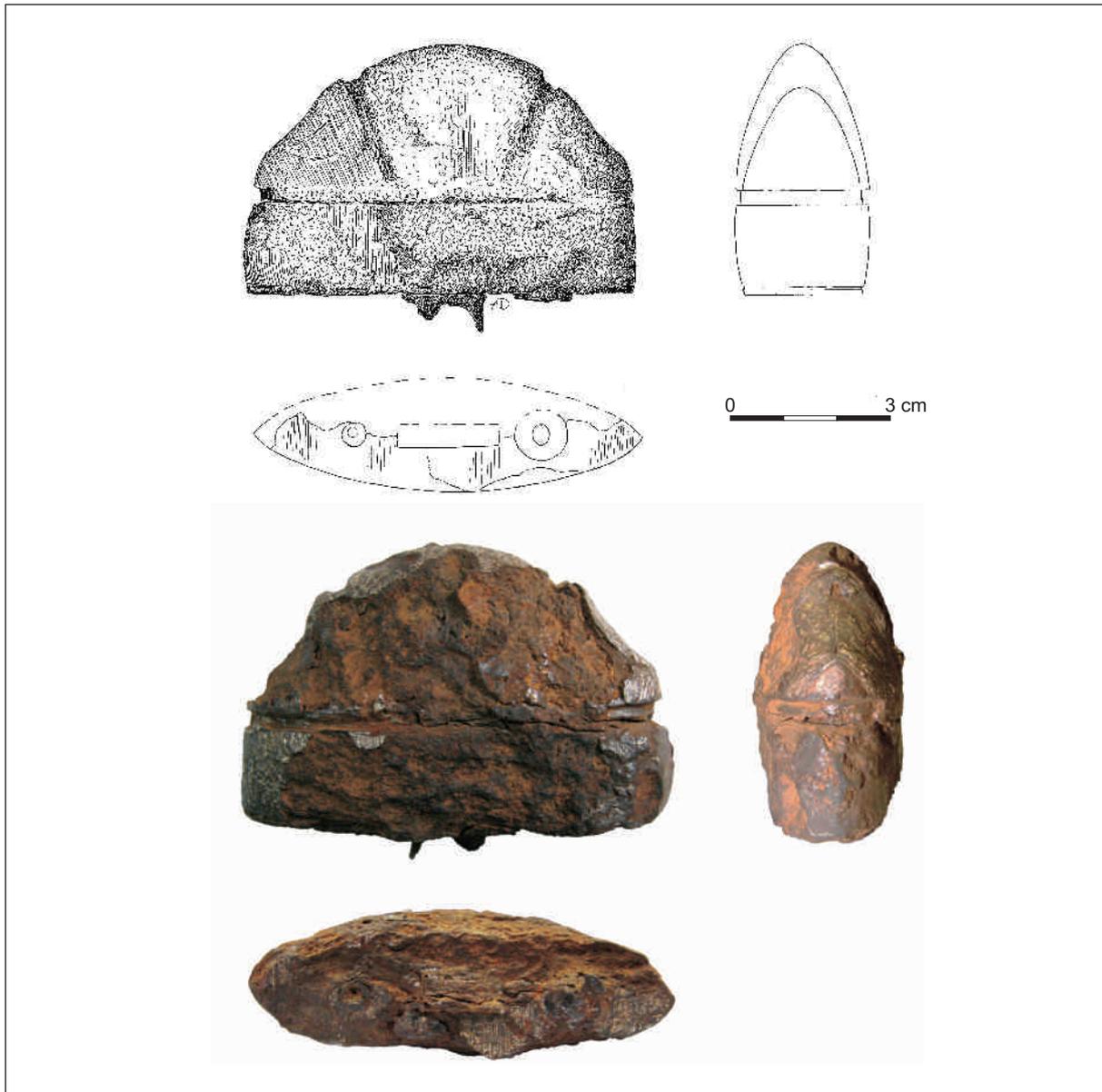


Fig. 32. The pommel of the V-type sword from the barrow C-20/Sizov-1885 in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 32. Głowica miecza typu V z kurhanu C-20/Sizov-1885 w Gniezdowie. *Fot. S. Yu. Kainov.*

the pommel head remains of encrustation with silver wire were detected. Density of grooves for inlay – about 22 slots per 10 mm.

Two iron washers, enclosed under riveted rivets or ends of the U-shaped loop, were fixed on the lower surface of the pommel base (A. Geibig's Construction Type II).

The context where the sword was found may be dated to the middle – the 2<sup>nd</sup> half of the 10<sup>th</sup> c., based on the find of a Type 52 fibula (according to J. Petersen).

15. An intact sword (the hilt and the most part of the blade are preserved) (Fig. 34-36). It was found during construction works in July

1899 (complex of finds on July, 14, 1899) (Булкин 1982, 140). It comes from a ruined barrow, which contained an inhumation burial in a wooden chamber. Full length of the sword – 104 cm, length of the blade – 87,5 cm, width of the blade near the crossguard – 6.1 cm, length of the crossguard – 10.3 cm, height of the crossguard – 1.5 cm, crossguard thickness – 2.5 cm, length of the hilt tang – 10.2 cm, height of the pommel – 4.6 cm, length of the pommel base – 7.5 cm, height of the pommel base – 1.5 cm, thickness of the pommel base – 2.2 cm.

A distinctive feature of this sword is the lack of hollows, dividing the head of the pommel into



Fig. 33. Gnëzdovo: 1 – fragments of the V-type sword from the barrow Dn-86/Serg.-1901 (current condition of artefact's preservation); 2 – the V-type sword from the barrow Dn-86/Serg.-1901 (condition after discovering); 3-4 – the pommel, the fragment of tang and the fragment of crossguard of the V-type sword from the barrow Dn-86/Serg.-1901 (1, 4 – photo by S. Yu. Kainov; 2 – after Спицын 1905, 64, puc 120; 3 – drawing by A. S. Dement'eva).

Ryc. 33. Gniezdowo: 1 – fragmenty miecza typu V z kurhanu Dn-86/Serg.-1901 (aktualny stan zachowania); 2 – miecz typu V z kurhanu Dn-86/Serg.-1901 (stan zachowania po odkryciu); 3-4 – głowica, fragment rękojeści i fragment jelca miecza typu V z kurhanu Dn-86/Serg.-1901 (1, 4 – fot. S. Yu. Kainov; 2 – wg Спицын 1905, 64, puc 120; 3 – rys. A. S. Dement'eva).

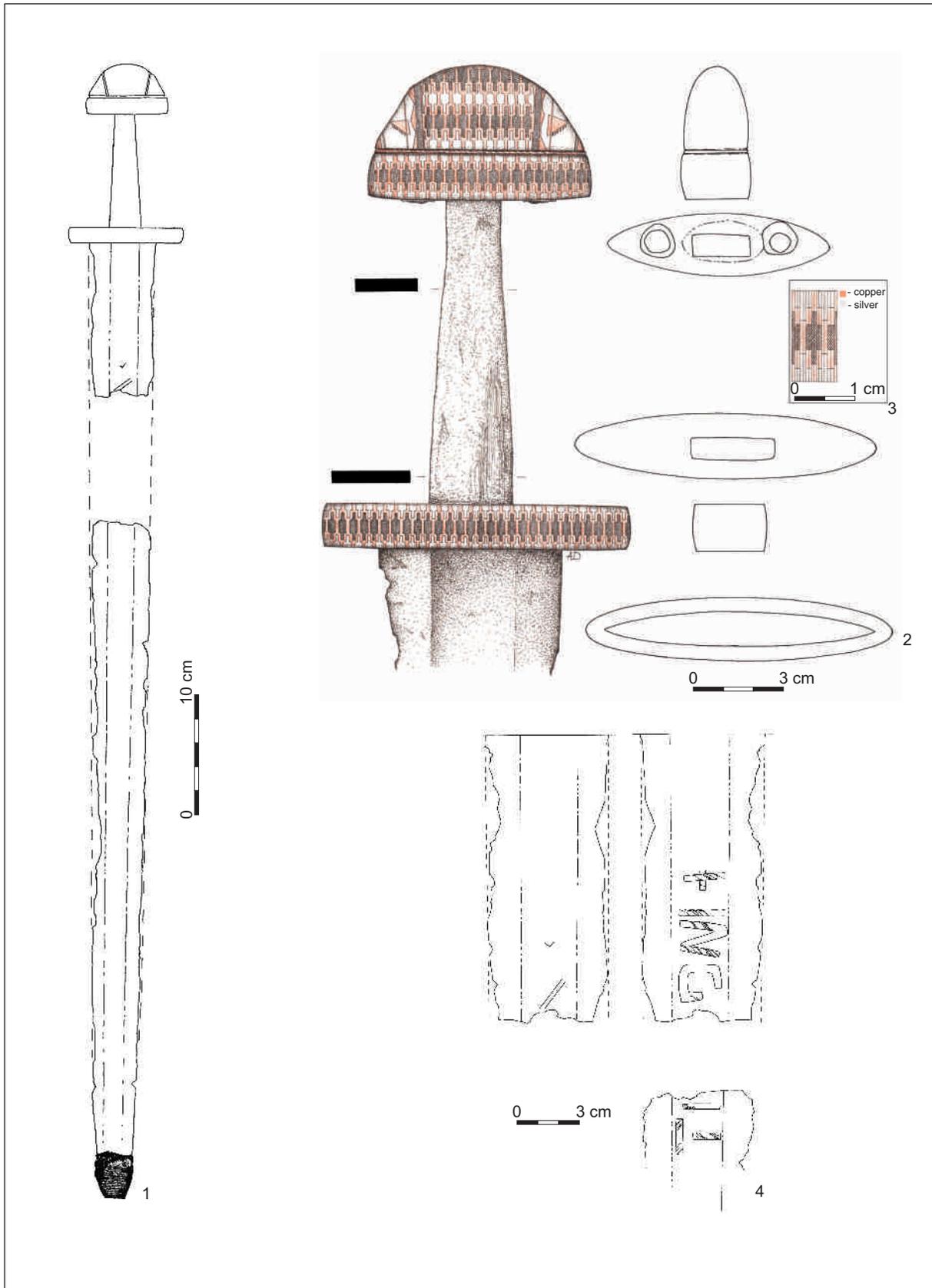


Fig. 34. Gnëzdovo: 1-2 – fragments and the hilt of the V-type sword from the destroyed barrow (with the attributes of reconstruction); 3 – schemes of the encrustation arrangement on the details of the hilt; 4 – fragmented stamps on the blade. *Drawing by A. S. Dement'eva.*

Ryc. 34. Gniezdowo: 1-2 – fragmenty miecza typu V ze zniszczonego kurhanu (z elementami rekonstrukcji); 3 – schemat wzoru inkrustacji na elementach rękojeści; 4 – fragmenty znaków na głowni. *Rys. A. S. Dement'eva.*



Fig. 35. Gnězdovo: 1 – the V-type sword from the destroyed barrow; 2 – the hilt of the V-type sword. Photo by V. A. Mochugovskiy.

Ryc. 35. Gniezdowo: 1 – miecz typu V ze zniszczonego kurhanu; 2 – rękojeść miecza typu V. Fot. V. A. Mochugovskij.



Fig. 36. The parts of the hilt of the V-type sword from the destroyed barrow in Gnëzdovo. *Photo by S. Yu. Kainov.*

Ryc. 36. Elementy rękojeści miecza typu V ze zniszczonego kurhanu w Gniezdowie. *S. Yu. Kainov.*

three parts. These hollows and twisted wires which were fastened into them were imitated with encrusted twisted silver wires. The ornament of the main part of the surface is based on the combination of vertically arranged step-patterned triangles and rhombuses. Triangular figures were inlaid with silver, rhombuses – with twisted silver and copper wires. Among rhombuses and triangles there is the inlay of copper wire. In the central part of the lateral parts of the pommel's head there are “flags” inlaid with copper wire. The edges of the lateral sides are inlaid with copper wire and are ornamented with triangles. The encrustation density is about 24 wires per 10 mm. In a hollow between the upper and the lower part of the pommel a pair of twisted copper wires is inserted.

On the lower surface of the pommels base there are two brass washers, enclosed under riveted

rivets or ends of the U-shaped loop (A. Geibig's Construction Type II).

On the fragments of the blade A.N. Kirpichnikov uncovered remains of a mark (Кирпичников 1966, рис. 35:6). Unfortunately, the blade was preserved only partially, so the mark is not complete. On one side there are fragments of the mark – +INGE...IT, and on the other side – lattice weave (Fig. 34:4). The main part of the manufacturer's mark (about 12 cm in length) did not survive. The mark obviously belongs to the group of INGELRII marks.

B. A. Kolchin carried out metallographic analysis, taking samples in two places<sup>31</sup> (Fig. 37). Polishing done 14 cm from the crossguard revealed three-layer structure of the ferritic core. The edges which were welded on the sides of the core demonstrated a structure of very fine martensite

<sup>31</sup> B. A. Kolchin believed that he analyzed parts of different swords.

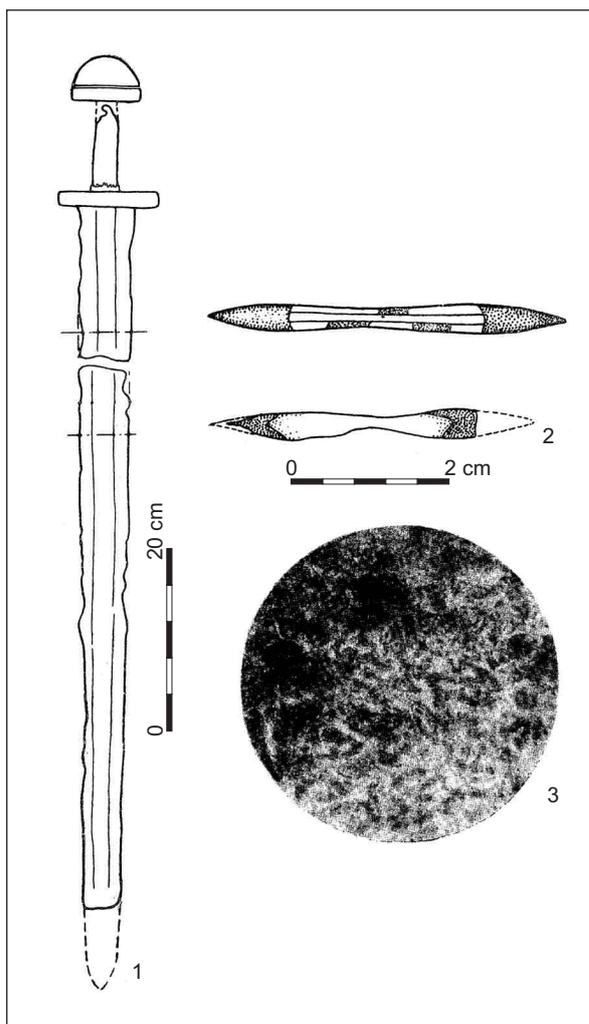


Fig. 37. Gnëzdovo, the V-type sword from the ruined barrow: 1 – an arrangement of the metallographic grinds on the sword's blade; 2 – technological schemes of the blade; 3 – the microtexture of the welded edges of the blade (martensite; 200-fold) (1-3 – after Колчин 1953, 133-134, 245, *рис.* 105:8-9, 106:3,5; 164:3).

Ryc. 37. Gniezdowo, miecz typu V ze zniszczonego kurhanu: 1 – miejsce pobrania próbki; 2 – schemat technologiczny budowy głowni; 3 – mikrostruktura zgrzewanych krawędzi głowni (martenzyt, pow. x 200) (1-3 – wg Колчин 1953, 133-134, 245, *рис.* 105:8-9, 106:3,5; 164:3).

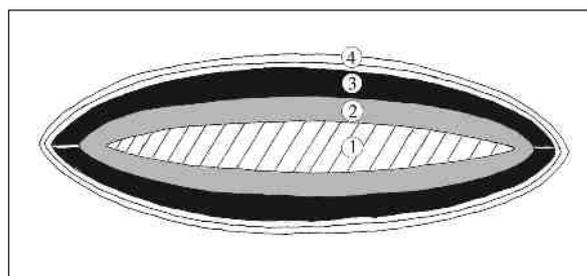


Fig. 38. Gnëzdovo, the V-type sword from the ruined barrow. Scheme of the scabbard: 1 – blade; 2 – skin; 3 – wood; 4 – linen. Drawing by A. S. Dement'eva.

Ryc. 38. Gniezdowo, miecz typu V ze zniszczonego kurhanu. Schemat budowy pochwy: 1 – głownia; 2 – skóra; 3 – drewno; 4 – tkanina. Rys. A. S. Dement'eva.

(troostite). At the edges of the core rectangular insertions of sorbitic-ferritic structure were detected. They were separated from clear ferritic zones by welding seams (Колчин 1953, 134, 242, *рис.* 106:5). It is obvious that polishing passed through the mark which was inlaid in the core of the blade. Sorbitic-ferritic insertions are damascened lines, shaping the mark<sup>32</sup>. Another polishing was done 8 cm from the upper fragment of the blade. It revealed that the structure of the blade core consisted of ferrite with small patches of sorbite. Edges were welded on the core. Their structure consisted of tempered martensite, while troostite was found closer to the welding seam (Fig. 37:3). The carbon content in the edges was 0.85% C (ibidem, 242).

The results of the analysis are remarkable. Examinations in spots located at 20-25 cm apart showed different technological schemes of blade manufacture – the upper part of the blade consisted of the composite core with welded edges, and the lower part consisted of the one-piece core with welded edges<sup>33</sup>.

<sup>32</sup> The Swedish researcher M. Törnblom studied the technology of manufacture of the mark on a Viking Age sword (No. SHM 907; Go, Hurgen, Alands) (Törnblom 1981). A half of polishing was done on the longitudinal section of the blade and it passed through three cells of the mark. The analysis revealed that the symbols which constitute the mark are made from a twisted pair of wires. The structure consists of coarse ferritic grains almost without carbon. The section of the mark's cells has a trapezoidal shape. The manufacturing technology of the mark may be reconstructed as follows: first, slots were hatched in the semi-finished blade and then the symbols of the mark were hammered or welded into them. Eventually, the final manufacturing procedures of the blade were carried out.

<sup>33</sup> A similar situation, where two parts of a broken sword blade had different structures, was detected by B. A. Kolchin in the case of a sword from Barrow 1 of the Mikhailovsky barrow field (Yaroslavl Oblast, Russia). Polishing done in the upper part of the blade revealed that the core of the blade (middle part) was welded of three bars – the iron one in the middle with steel strips on lateral sides. On the sides of this “pile” steel edges were welded (Колчин 1953, 134, *рис.* 106:9). The lack of welding seams between the strips which constituted the core of the blade is explained by B. A. Kolchin by considerable decarburisation of the surface in consequence of the sword having been burned on the funeral pyre. What was also detected was the presence of a clear seam between the core and the edges (ibidem, 244). Polishing on the surface of the lower part of the blade revealed a typical structure of cementation of the product's surface. The middle part of the blade consisted of ferrite, with the zone of cementation being noticeable on its entire surface.

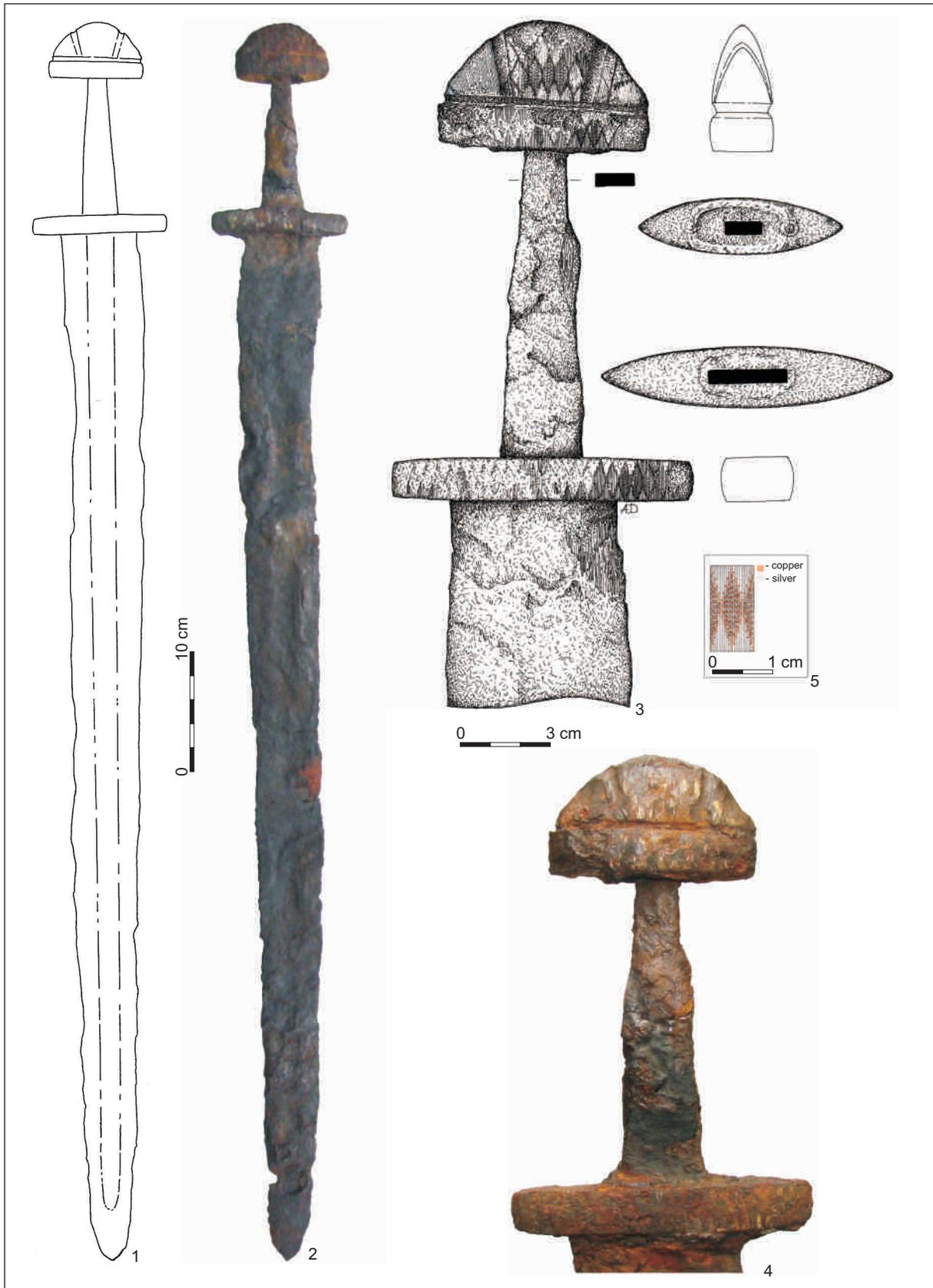


Fig. 39. Gnëzdovo: 1-4 – The V-type sword from the barrow Dn-4; 5 – scheme of the encrusted wire arranging on the details of the sword's hilt (1, 3, 5 – drawing by A. S. Dement'eva; 2, 4 – photo by S. Yu. Kainov).

Ryc. 39. Gniezdowo: 1-4 – miecz typu V z kurhanu Dn-4; 5 – schemat wzoru inkrustacji na elementach rękojeści (1, 3, 5 – rys. A. S. Dement'eva; 2, 4 – fot. S. Yu. Kainov).



Fig. 40. The pommel with the fragment of the tang of the X-type sword from the Central stronghold excavation in Gnëzdovo. *Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.*

Ryc. 40. Głowica z fragmentem rękojeści od miecza typu X z grodziska Centralnego w Gniezdowie. *Rys. A. S. Dement'eva; fot. S. Yu. Kainov.*

Remains of the scabbard survived on the sword blade. The fragment of the scabbard, which covered the very end of the blade is in the best state of preservation. The scabbard's composition in this area may be reconstructed as follows: animal skin, with fur turned inwards, adjoined directly the blade of the sword. The skin was enclosed between two wooden planks (2 mm in thickness). On the outer surface of wood a very thin (about 0.3 mm) layer with smooth surface was observed. Perhaps it is leather (however, in this case its small thickness is confusing), or the remains of glue by which linen weave cloth (flax?) was glued onto the wood. On the lower top of the scabbard, a strip of twisted cloth, on which the chape of the scabbard was mounted<sup>34</sup> was wound over the layer of cloth (Fig. 38). A similar structure of the scabbard: leather (probably sheep) – wood – cloth) was noted in the scabbard of the sword from Scar (UK)<sup>35</sup> (Owen, Dalland 1999, 109-112). The inner layer of the scabbard of a sword from the Isle of Man (UK) consisted of cloth, then wooden planks, the outer side of which were pasted over

with another layer of cloth and leather (Bersu, Wilson 1966, 52). A scabbard, found in Gdańsk (Poland) in a mid-11<sup>th</sup> c. layer, was made of wood, covered with cloth and horse leather (Nadolski 1955, 186-192). The sword's scabbard, whose fragments were found in the burial in the Church of the Tithes in Kiev (M. Karger's excavation of 1939), was made of two boxwood planks, covered with twill weave cloth (Бредіс 1996, 47). On the basis of radiocarbon analysis, the site is dated to 1011 in the range of +/-14 years (Андрощук, Панченко, Ковалюх 1996, 46).

In my opinion, based on the burial custom and furnishings, the site may be dated to the middle – the 2<sup>nd</sup> half of the 10<sup>th</sup> c.

16. An intact sword (Fig. 39). It was found in 1984 during D.A. Avdusin's excavation of Barrow Dn-4 barrow (the Dnieper Barrow Group), containing a male inhumation burial in a wooden chamber (Авдусин, Пушкина 1989). Full length of the sword – 105 cm, length of the blade – 87.5 cm, width of the blade near the crossguard – 5.5 cm, length of the crossguard – 10.1 cm, height of the

<sup>34</sup> Inside of one of the scabbard chapes known from Gnëzdovo remains of scabbard wood were also detected (Кайнов 2009, 95-96, фото 5). The scabbard was covered with plain cloth. The analysis of the wood fragments in order to identify the species has not been carried out yet. Analyses of some other European Viking Age finds revealed that sword scabbards had been made of ash (Scar), oak (Palace of Westminster), willow or poplar (Skrene) (Dunning, Evison 1964, 126; Owen, Dalland 1999, 110-111).

<sup>35</sup> The lack of the scabbard leather coating, from the researchers' point of view, lets us suppose that the "case" in which the sword was found was not a scabbard but was intended just for the sword's storage (Owen, Dalland 1999, 112).



Fig. 41. The pommel of the X-type sword. Accidental find from Gnězdovo. *Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.*

Ryc. 41. Głowica miecza typu X. Znaleźisko luźne z Gniezdowa. *Rys. A. S. Dement'eva; fot. S. Yu. Kainov.*

crossguard – 1.4 cm, crossguard thickness – 2.4 cm, length of the hilt tang – cm, height of the pommel – 4.4 cm, length of the pommel base – 6.9 cm, height of the pommel base – 1.4 cm, thickness of the pommel base – 2.3 cm.

On the crossguard and on the pommel base there is ornamentation in the form of two lines of triangles, which are opposite to one another by their apexes. The triangles are inlaid with white metal. The space between them is taken by rhombuses made of twisted wires where “red” and white metal interweave. There is a thin line between the rhombuses and the triangles (of about 1 mm in width), inlaid with “red” metal wire. A combination of rhombuses and triangles is also visible on the central part of the pommel head. The ornamentation of the lateral sides of the pommel head is in a poor state of preservation. However, the presence of “flags” is obvious and the remaining surface was continuously coated with white metal (silver?). Wires, dividing the head of the pommel into three parts, did not survive.

On the lower surface of the pommel base and on the upper surface of the crossguard fragments of the grip were observed. These are sub-rectangular in section, with rounded corners.

Remains of the scabbard fragmentally were preserved on the sword's blade. Remains of animal

skin, with fur facing the blade and covered with a layer of wood, are also traceable.

No mark was found on the blade.

During the examination of this burial remains of a few logs were found. Their tree-ring analysis revealed that the logs had been felled about AD 975 (ibidem, 203). Thus, we have all the reasons to date the burial to AD 975-980.

### Type X

According to J. Petersen, The pommel is made of one piece of metal, semi-circular in longitudinal section of uniform width, with rounded ends (Петерсен 2005, 186). Two versions are identified – the early and the later one. The early one has a higher and thinner pommel, the lower crossguard is also higher, slightly curved, in longitudinal section often with narrowed ends. The later version of X-type swords «has a lower, thicker and shorter pommel, a lower and wider crossguard, which in its turn can be quite long and short [...] In the longitudinal section crossguards are of the same width, with rounded ends. J. Petersen also gives metric characteristics of the early and later versions of Type X (Table II).

Type X sword pommels are one-parted and fastened to the blade's tang according to A. Geibig's Construction Type III.

Type X	Length of the pommel (cm)	Height of the pommel (cm)	Length of the crossguard (cm)	Height of the crossguard (cm)
Early version	7,8	5,1		Up to 2
Later version	5-6,5	2,7-3,5	10,7-17,7	0,7-1,4

Table II. The differences between variants of Petersen's type X.

Tab. II. Różnice między odmianami typu X wg J. Petersena.

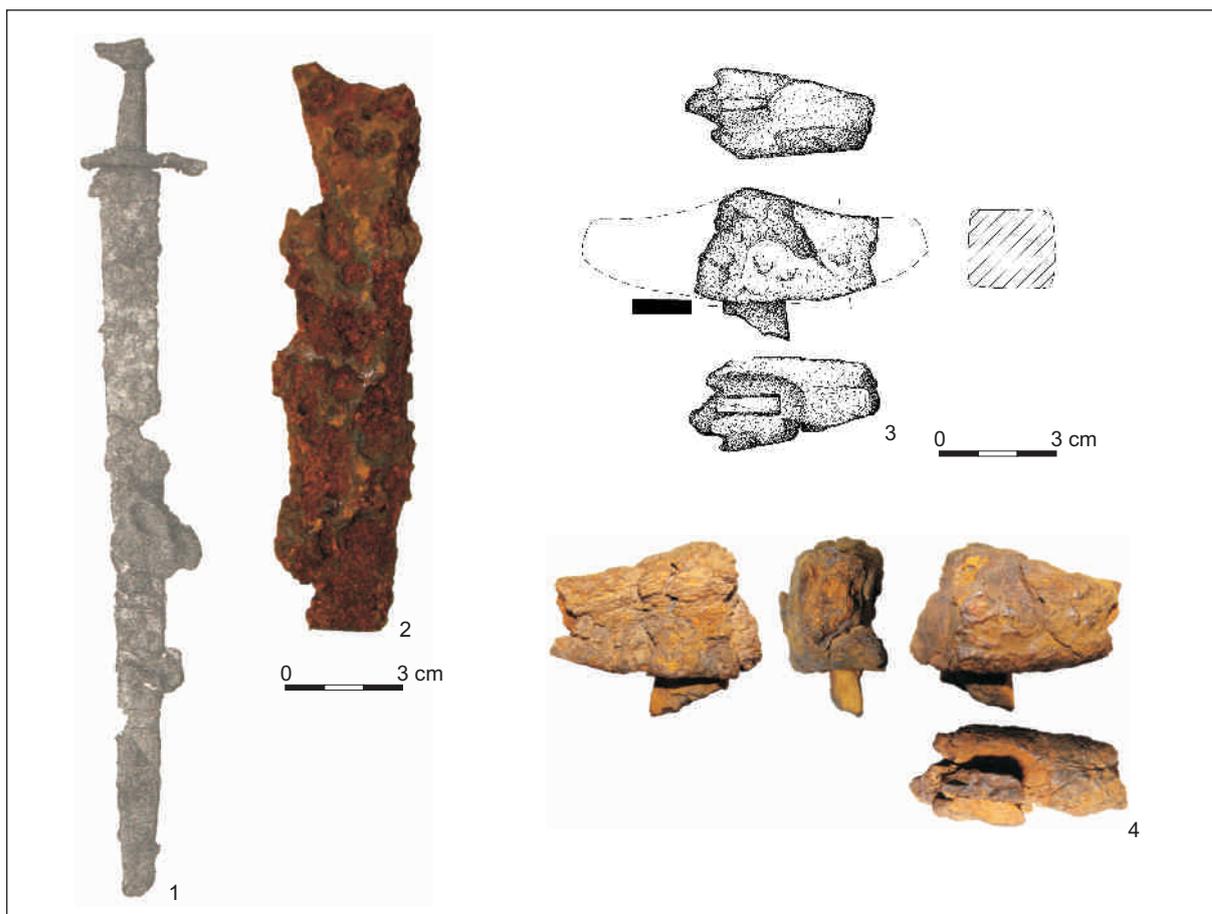


Fig. 42. Gnëzdovo: 1 – the Y-type sword from the barrow Dn-88/Serg.-1901; 2-4 – the fragments of the Y-type sword from the barrow Dn-88/Serg.-1901 (current condition) (1 – after Спицын 1905, 64, рис 119; 2, 4 – photo by S. Yu. Kainov; 3 – drawing by A. S. Dement'eva).

Ryc. 42. Gniezdowo: 1 – miecz typu Y z kurhanu Dn-88/Serg.-1901; 2-4 – fragmenty miecza typu Y z kurhanu Dn-88/Serg.-1901 (aktualny stan zachowania) (1 – wg Спицын 1905, 64, рис 119; 2, 4 – fot. S. Yu. Kainov; 3 – rys. A. S. Dement'eva).

According to J. Petersen, Type X swords appear in the 2<sup>nd</sup> half of the 10<sup>th</sup> c. and exist until the end of the Viking Age (ibidem, 192-193).

F. A. Androschuk expressed the opinion that there was no chronological development from early to later versions of Type X swords. He used the argument of a burial, which in his opinion can be dated to the 1<sup>st</sup> half of the 10<sup>th</sup> c. In this burial a Type X sword was found, among other furnishings (Андрoшук 2004, 5-6).

In recent article it was stated that the clarification of the chronology of occurrence of a number of Scandinavian fibulae allows us to determine the chronology of the early variant of Type X to the 2<sup>nd</sup> quarter – the middle of the 10<sup>th</sup> c. It was also pointed out that three Type X swords (later variants) had been found in Birka burial mounds, which were constructed before the building of the fort's earthwork in the middle – the 2<sup>nd</sup> half of the 10<sup>th</sup> c. (Янсон, Потупчик, Андрoшук 2011, 578).

A much earlier dating of Type X swords is proposed by Czech researchers. In the opinion of J. Košta and J. Hošek, based on Burials No. 438, 805 and 1347 in the Mikulčice cemetery, the chronology of Type X swords starts in the middle of the 9<sup>th</sup> c. (or little later) (Košta, Hošek 2009, 109-111). This point of view about such an early appearance of Type X seems rather strange to us, especially considering the lack of finds of this type swords, dated to the 2<sup>nd</sup> half of the 9<sup>th</sup> c. in other regions.

In A. Geibig's typology Type X swords match Variant 1 of Combination Type 12. A. Geibig dates them to the 2<sup>nd</sup> half of the 10<sup>th</sup> – the 11<sup>th</sup> c.

In the European territory – excluding the finds from early medieval Russia – no less than 268 specimens of Type X swords were found (Jakobsson 1992, 213-214; Marek 2004, 106-114; Androschuk forthcoming).

In the territory of early medieval Russia nine Type X swords were discovered. They are dated to

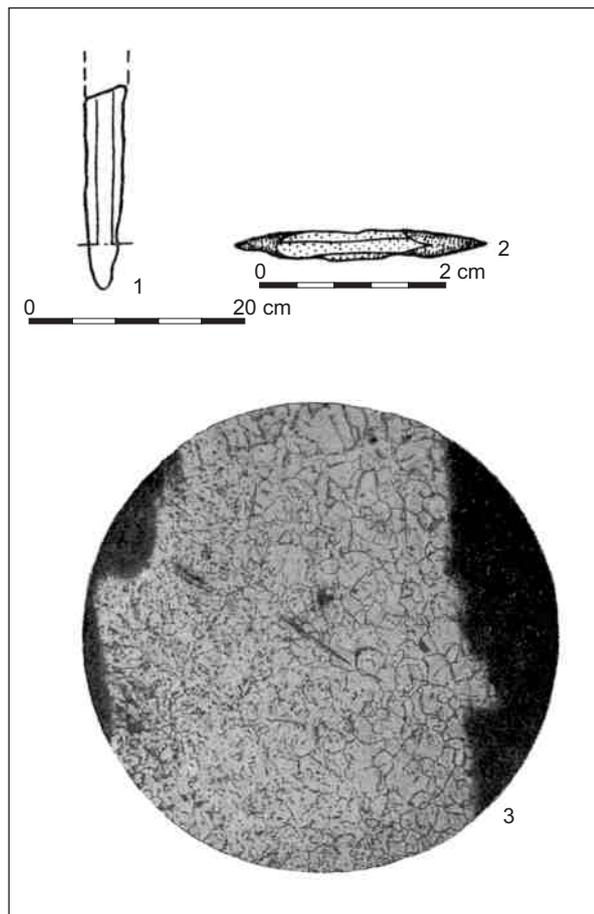


Fig. 43. Gnëzdovo, the Y-type sword from barrow Dn-88/Serg.-1901: 1 – an arrangement of the metallographic grind on the blade of the sword; 2 – the technological scheme of the blade; 3 – the microtexture of the welded edges of the blade (pearlite and cementit; 100-fold) (1-3 – after *Колчин 1953, 133-134, 245, puc. 105:12, 106:2, puc. 164:2*).

Рис. 43. Гнездово, меч типа Y з курхану Dn-88/Serg.-1901: 1 – місце pobrania próbki; 2 – схематичний технологічний будову голви; 3 – мікроструктура зрzwаних кrawędzi голви (перліт і цементит, pow. x 100) (1-3 – wg *Колчин 1953, 133-134, 245, puc. 105:12, 106:2, puc. 164:2*).

the 10<sup>th</sup> – early 11<sup>th</sup> c., were found. Two of them (fragments) were found at Gnëzdovo.

17. A pommel and a fragment of the hilt's tang (Fig. 40). These were found in 1953 during D. A. Avdusin's excavation of the Central Fort (excavation area CG-IV). Full length of the fragment – 9.8 cm, length of the pommel – 5.1 cm, height of the pommel – 3.0 cm, thickness of the pommel – 3.0 cm. The pommel is clear semicircular shaped with a straight base. The base is oval-shaped with slightly flattened sides. Structural type of the base fastening – A. Geibig's Construction Type III.

The stratigraphic situation at the site where the sword's fragments were found does not allow us to date them more precisely than to about the 2<sup>nd</sup> quarter – the end of the 10<sup>th</sup> c.

18. A pommel (Fig. 41). This is a stray find, discovered in 2001-2002 in the eastern outskirts of the eastern part of the site of unfortified settlement. Length of the pommel – 5.5 cm, height – 3.4 cm, thickness – 2.6 cm. The pommel is semicircular shaped with a straight base. The shape of the base of the pommel is sub-rectangular with slightly rounded short sides.

### Type Y

J. Petersen: The pommel is one-parted, saddle-shaped – with elevations on the central part and on the edges. The lower crossguard tends to be relatively long and curved down to the opposite side of the pommel. The pommel and the crossguard taper to the edges, which are often cut (Петерсен 2005, 194-195). It is noted that the type is known in numerous variants, which can be classified in two main groups. Swords of the first group resemble swords of Type P<sup>36</sup>, differing in a larger size and the lack of ornamentation. Swords of the second group are identified based on to low crossguards and rounded middle parts of the pommel (ibidem, 195). J. Petersen defines a separate Special Type 7 as a sword with a two-parted pommel, which is similar to Type Y with regard to its shape. Based on the chronology of burials, the origin of this type can be dated to the 1<sup>st</sup> half of the 9<sup>th</sup> c. (ibidem, 124).

Fastening of Type Y pommels (according to J. Petersen) is defined as A. Geibig's Construction Type III, and of Special Type 7 – as Construction Type I. J. Petersen dates the appearance of Type Y swords to the 1<sup>st</sup> half of the 10<sup>th</sup> c. (ibidem, 198-199). They occur in the entire 10<sup>th</sup> c. In the territory of settlement of Baltic tribes this sword type dates to within the 10<sup>th</sup>-11<sup>th</sup> c. (Kazakevičius 1996, 159).

In A. Geibig's typology Type Y matches Variant 1 of Combination Type 13.

About 60 swords of this type are known in the European territory (Jakobsson 1992, 214; Androshchuk forthcoming).

In the territory of early medieval Russia no less than 5 Type swords are known. A. N. Kirpichnikov dates this type to the 10<sup>th</sup> – beginning of the 11<sup>th</sup> c. (Кирпичников 1966, 34). One of these swords was found at Gnëzdovo.

19. An intact sword (fragments of the pommel and of the blade are preserved) (Fig. 42). It was

<sup>36</sup> J. Petersen defines Type P in the following way: Crossguards are slightly curved, a little broadened on the ends, the head of the pommel is lacking. The upper side on the pommel's centre is spired in almost all specimens (Петерсен 2005, 165).

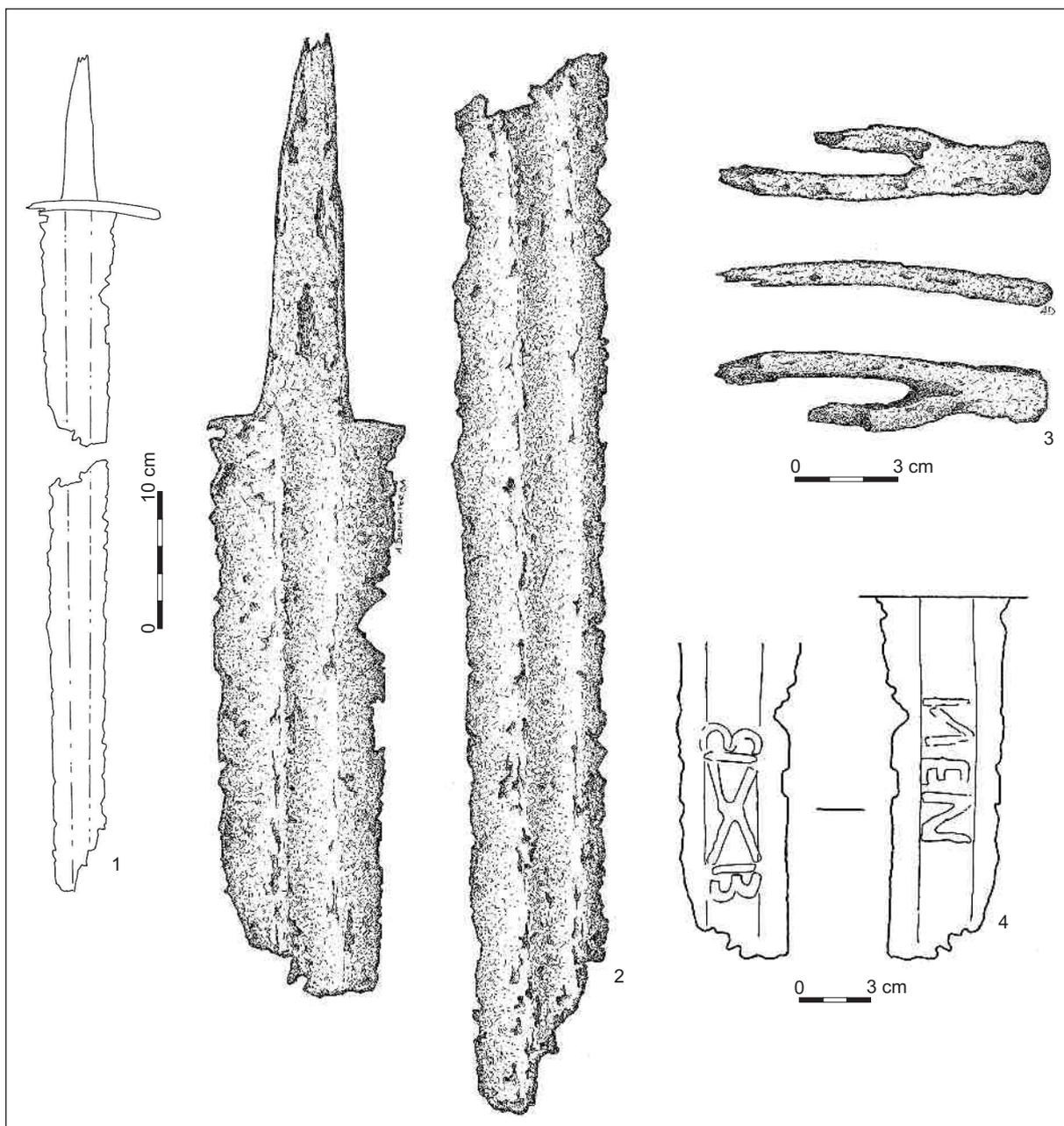


Fig. 44. Gnëzdovo: 1-3 – fragments of the blade and the crossguard of the Y-type (?) sword from the destroyed barrow; 4 – the stamps on the blade of the Y-type (?) sword (1-3 – drawing by A. S. Dement'eva; 4 – after Курпичников 1966, рис. 36:3).

Ryc. 44. Gniezdowo: 1-3 – fragmenty głowni i jelca miecza typu Y (?) ze zniszczonego kurhanu; 4 – znaki na głowni miecza typu Y (?) (1-3 – rys. A. S. Dement'eva; 4 – wg Курпичников 1966, рис. 36:3).

found in 1901 during S. I. Sergeev's excavation of Barrow 88 of the Dnieper Barrow Group (Dn-88/Serg.-1901), containing a male cremation burial (Спицын 1905, 51-52). Full length of the sword – about 91 cm, length of the blade – 78 cm, length of the crossguard – about 16 cm, length of the hilt tang – about 9.0 cm, height of the pommel – 3.0 cm, length of the pommel – about 9 cm.

Based on the shape of its pommel, this sword can be defined as Type Y-1 – swords with

pommels resembling Type P pommels. According to A. Geibig's typology this sword matches Variant 1 of Combination Type 13. On the lower surface of the pommel traces of grip survived. It was oval in section.

It was B. A. Kolchin who performed metallographic analysis of the lower part of the blade. The analysis revealed that the core of the blade was formed of three layers of ferrite and pearlite (Fig. 43:2) (Колчин 1953, 133-134, 245,

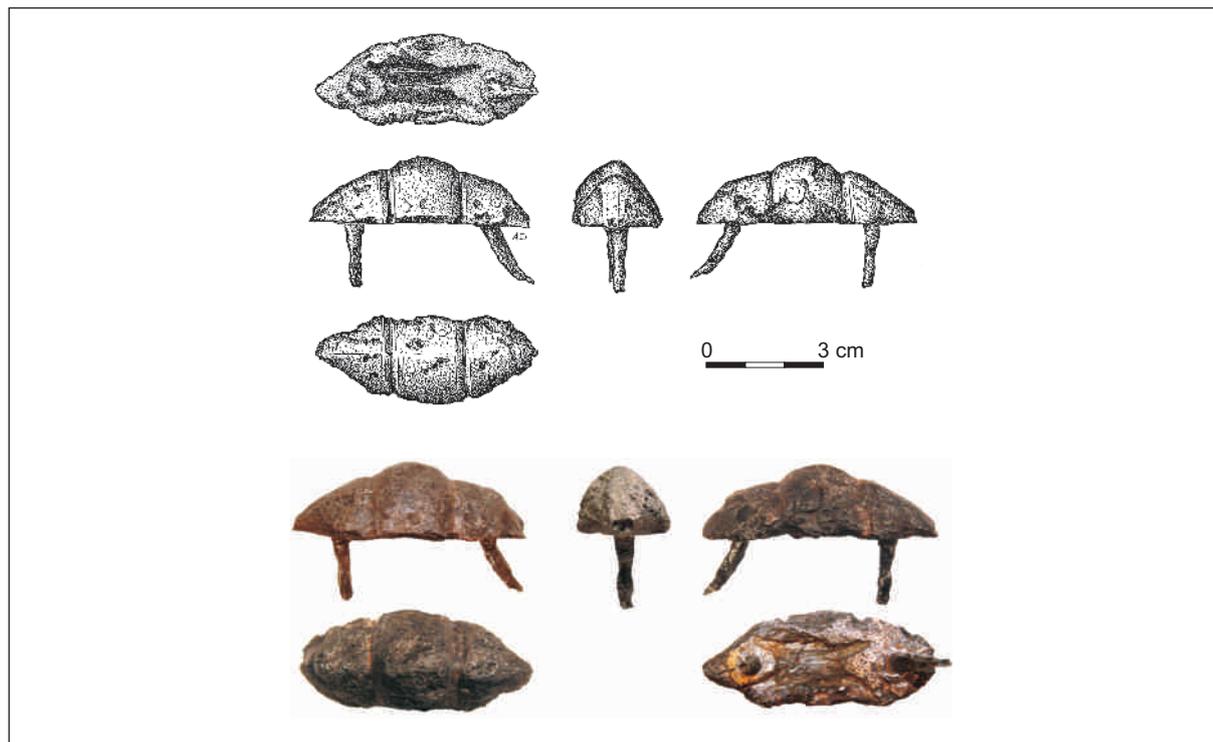


Fig. 45. The head of the pommel of the special type-2 or Mannheim-type sword from the excavation of the Central stronghold in Gnëzdovo. Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.

Ryc. 45. Nakładka głowicy miecza typu specjalnego 2 lub Mannheim z badań grodziska Centralnego w Gniezdowie. Rys. A. S. Dement'eva; fot. S. Yu. Kainov.

рис. 105:2, 106:2, 164:2). The carbon content in the middle strip is about 0.2% C, and in the lateral ones – up to 0.5% C. The edges, which were welded on the core, consisted of the structure of pearlite and cementite to structure. The carbon content in the edges was about 1,2% C and their hardness is 340 HV. After welding the edges, the blade was subjected to further cementation.

Dating capabilities at our disposal do not allow us to date this burial more precisely than to the 2<sup>nd</sup> quarter – the end of the 10<sup>th</sup> c.

#### Unclear or unknown type

20. A crossguard and two fragments of the blade (Fig. 44). These come from a burial, ruined during construction works (the finds were previously wrongly attributed to the complex of the 1868 hoard). The burial was possibly made using inhumation rites (Пушкина 1998, 372-374). Full length of the sword's preserved fragment – 59.7 cm (31.2 cm and 28.5 cm), width of the blade near the crossguard – 5.7 cm, thickness of the blade near the crossguard – 0.5 cm, length of the crossguard – about 16 cm, height of the crossguard – 0.7 cm, crossguard thickness – 2.2 cm.

Marks were discovered on the blade: on one side – ULEN; on the other side – a saltire with B-shaped figures adjacent to it from different sides (Fig. 44:4) (Кирпичников 1966, рис. 36:3).

The curved shape and the dimensions of the crossguard allow concluding that the sword most likely matches Type Y.

21. A head of the pommel (Fig. 45). Found in 1987 in the course of T. A. Pushkina's excavation of the Central Fort (excavation area CG-XX). This find is divided by vertically arranged slots into three parts. The central part is slightly taller than the lateral ones. The original surface of the specimen is in a poor state of preservation; however, we succeeded to detect small fragments of encrusted copper wire. Poorly preserved pre-encrustation slots were also noted. The arrangement of the encrusted wire fragments and pre-encrustation slots allow us to conclude that the frontal surface of the find (or part of it) was coated by vertically arranged encrustation made of copper wire. In the slots dividing the specimen into three parts copper wire was inlaid. Its remains were detected in the bottom part of two slots. On the lower surface of the pommel head copper coating survived. Its ends extended beyond the edges of the specimen, thus forming an ornamental band which separated the

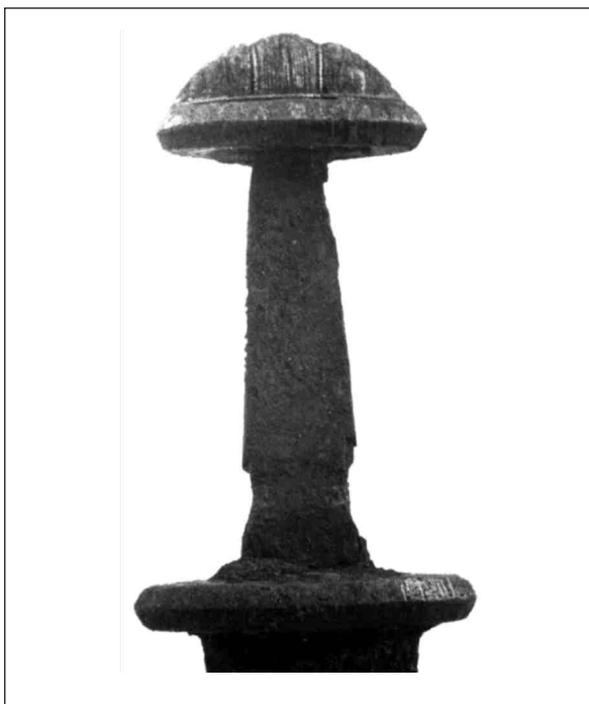


Fig. 46. The special type-2 sword from Wijk bij Duurstede Holland (after Dunning, Evison 1961, pl. XXXIX:a).

Ryc. 46. Miecz typu specjalnego 2 z Wijk bij Duurstede, Holandia (after Dunning, Evison 1961, pl. XXXIX:a).

upper and the lower parts of the pommel. In the central part of the lower surface there was a hollow made to reduce the specimen's weight. In the lateral parts of the lower surface two iron rivets were inserted right through, in order to fasten together the head and the base of the pommel. Rivets break through the copper coating on the lower surface of the find. On the outer surface of the lateral parts of the pommel head top part of rivets are clearly visible. Length of the pommel – 5.7 cm, height of the pommel – 1.7 cm, putative original thickness – 2.5 cm. Weight – 62 g. Preserved rivets' length – 1.7-1.8 cm<sup>37</sup>. Rivets' diameter – 4-5 mm.

The described fragment best matches Special Type 2 according to J. Petersen's typology, or Type Mannheim, which is related to Special Type 2.

J. Petersen characterises Special Type 2 sword hilts as follows: The pommel is two-parted, crossguards are wide, with the rib. The head of the pommel is three-parted, and the central part is slightly taller than the lateral ones. Hilt parts are ornamented with silver wires, hammered in slots which are, vertically arranged on the iron core (Петерсен 2005, 120). Type Mannheim was

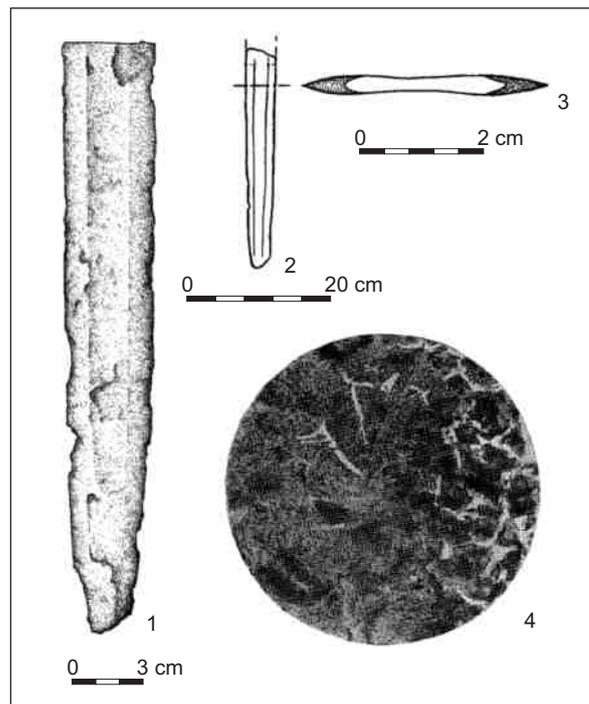


Fig. 47. Gnëzdovo: 1 – the fragment of the blade from the barrow Dn-55/Serg.-1899; 2 – an arrangement of the metallographic grind on the blade of the sword; 3 – the technological scheme of the blade; 4 – the microtexture of the welded edges of the sword (sorbite; 100-fold) (1 – drawing by A. S. Dement'eva; 2-4 – after Колчин 1953, 133, 134, 245, puc. 105:11, 106:1, 164:1).

Ryc. 47. Gniezdowo: 1 – fragment głowni miecza z kurhanu Dn-55/Serg.-1899; 2 – miejsce pobrania próbki; 3 – schemat technologiczny budowy głowni; 4 – mikrostruktura zgrzewanych krawędzi głowni (sorbit, pow. x 100) (1 – rys. A. S. Dement'eva; 2-4 – wg Колчин 1953, 133, 134, 245, puc. 105:11, 106:1, 164:1).

defined by H. Jankuhn in his article in 1939 (Jankuhn 1939). The difference between swords of this type and of Special Type 2 is what horizontal ornamental wraps pass through the centre of the crossguard and of the pommel base in the case of Type Mannheim. Often, these wraps were vertically arranged at the centre of pommel heads of Type Mannheim.

The British researchers G. C. Dunning and V. I. Evison devoted a special study to swords of Special Types 1, 2, and Type Mannheim (Dunning, Evison 1964, 131-137). Based on the ornament, three variants of swords of Special Type 2 were identified. The head of the pommel from Gnëzdovo best matches Variants IIb and IIa (where Type Mannheim swords were included). Based on the shape and the presence of vertically arranged encrustation, the Gnëzdovo find is most closely related to the sword from Wijk bij Duurstede,

<sup>37</sup>Length of the rivets allows us to suppose that the length of the pommel's base was about 1.8 cm.

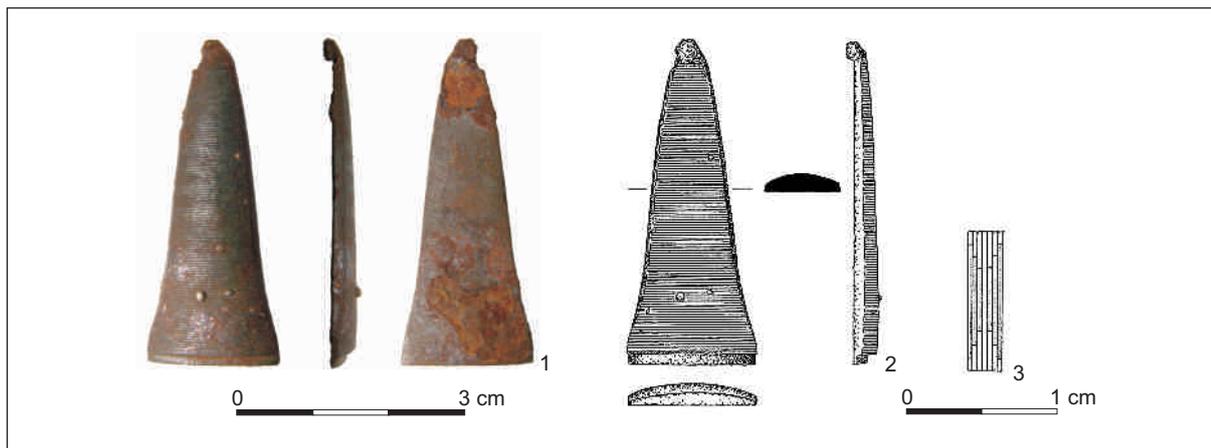


Fig. 48. Gnëzdovo: 1-2 – the grip's plate of the sword from unknown barrow; 3 – scheme of the encrustation arrangement on the plate. *Drawing by A. S. Dement'eva; photo by S. Yu. Kainov.*

Ryc. 48. Gnëzdowo: 1-2 – metalowa okładzina rękojeści miecza z niezidentyfikowanego kurhanu; 3 – schemat wzoru inkrustacji na okładzinie. *Rys. A. S. Dement'eva; fot. S. Yu. Kainov.*

Holland (Special Type 2, Variant IIb) (Fig. 46) (ibidem, 133, fig 3:11). A certain similarity in the shape to the sword from De Wierhuizen, Holland (Special Type 2, Variant IIa) can also be seen (ibidem, 135, fig. 4).

Unambiguous attribution of the Gnëzdovo find to Special Type 2 (as defined in J. Petersen's typology) is prevented by the fact that the fastening of the upper and lower parts of the pommels of these swords was done on the blade's tang (A. Geibig's Construction Type I)<sup>38</sup>. On the other hand, as noted above, the find from Gnëzdovo was fastened to the base of the pommel with iron pins (Construction Type II). There are several possible explanations. First of all, the find could actually belong to Type Mannheim, whose pommels are in some cases fastened together in a way corresponding to A. Geibig's Construction Types II. Secondly, we cannot completely deny the possibility that some pommels of Special Type 2 swords were actually fastened together with the use of two rivets. This looks strange, taking into account that both construction types of pommels are present both in Type Mannheim and Special Type 1 swords, which existed in the same period as Special Type 2 swords did (Geibig 1991, 34, Abb. 4).

Chronological attribution of Special Type 2 swords made by different researchers fits into the period between the 2<sup>nd</sup> half of the 8<sup>th</sup> and the 1<sup>st</sup> half of the 9<sup>th</sup> c. (Вешнякова 2005, 318-320, табл. 1). Type Mannheim swords are dated to roughly the same period – the 2<sup>nd</sup> half of the 8<sup>th</sup> – the early 9<sup>th</sup> c.

Such an early find at the site, whose origin is dated to the turn of the 9<sup>th</sup>-10<sup>th</sup> c. is rather unexpected, but some "early" items (in the context of the 10<sup>th</sup> c.) were already found there before. As already noted, it is possible that the site came into being a little earlier, and layers of that time were ruined later.

According to M. Jakobsson's estimates, no less than 29 swords of Special Type 2 and no less than 24 Mannheim-type swords were found in Europe (Jakobsson 1992, 215). The pommel fragment from Gnëzdovo is the most eastern find of one of these sword types, and maybe the earliest find of a Viking Age sword in the territory of early medieval Russia.

22. An intact sword (?). It was in the collection of Countess P. S. Uvarova. From V. I. Sizov's description: Made of iron. The cross and the top of the hilt of Countess Uvarova's sword were ornamented with bronze plates with dotted ornament; the same ornament occurs on the hilt found by Mr. Kustsinsky (Сизов 1902, 69-70) – we can conclude that the sword's hilt most probably belonged to Type E and was encrusted with yellow metal wire.

23. An intact sword. It was found in summer of 1901, during the excavation of a barrow, carried out at the expense of M. K. Tennisheva (ibidem, 79). There was a cremation burial in the barrow, located in the southern outskirts of the forest cemetery (Forest Barrow Group – S.K.). The sword was "wrapped" around the urn with calcined bones. The urn, on its part, was placed in a wooden bucket with iron hoops. The sword was given to the

<sup>38</sup> This method of fastening is traced almost to all of the special type-2 swords, found on the German and Swedish territory.



Fig. 49. The V-type sword from Priekule Gyugeri, Latvia (1 – after Tomsons 2006, 12, att. 10; 2 – photo from the Author's archive).

Ryc. 49. Miecz typu V z Priekule Gyuger, Lotwa (1 – wg Tomsons 2006, 12, att. 10; 2 – fot. archiwum Autora).

Museum of Smolensk. By now, among loose items stored in the museum and originating from the pre-war excavations at Gnězdovo there are several heavily corroded fragments of a blade. They most likely belong to this sword.

According to V. I. Sizov, this sword belonged to swords found at Gnězdovo. It had a wide blade and a small crossguard. The pommel consisted of one lower part, shaped like a crossguard, while the upper part (which was usually rounded), was missing (*ibidem*, 79). Based on the description, we may conclude that the sword belonged to Type M, widespread in Northern Europe in the 2<sup>nd</sup> half of the 9<sup>th</sup> – the 1<sup>st</sup> half of the 10<sup>th</sup> c. No Type M swords were found in the territory of early medieval Russia. But it should be noted that sometimes swords of other types (D, E, H, V), but with intentionally removed or lost pommel heads<sup>39</sup>, are referred to as Type M.

24. An intact sword. In 1914 shepherds found a Norman sword, an iron neck ring and an axe in the excellent state of preservation in a barrow (Клетнова 1916, 39). Also a skull, which allows to claim that this was an inhumation burial, was found with these items. All the items were given to Smolensk Tenisheva's museum, and apparently were lost during World War II. The type of the sword is unknown.

25. A fragment of the lower part of the blade (Fig. 47). It was found in 1899 during S. I. Sergeev's excavation of Barrow 55 of the Dnieper Barrow Group (Dn-55/Serg.-1899), containing a double cremation burial. The burial furnishings allow us to date the burial to the 2<sup>nd</sup> half of the 10<sup>th</sup> c. Full length of the fragment – 32 cm.

A sample was taken by B. A. Kolchin for the analysis from a wider part of the blade fragment. The analysis revealed the technology of

<sup>39</sup> The head of the pommel is lacking in the case of the swords of Type D-type from the Mikhailovsky barrow field, of Type E from Rockot (Russia), of Type H from the Timirevsky barrow field (Russia) and so on. A.N. Kirpichnikov explains the lack of this part with attempts to change the sword's balance in order to enable the weapon to deliver more forcible blows (Кирпичников, Сакса 2006, 43). Without challenging the credibility of this explanation, we afford to offer another one. The blade is apparently the most exposed to damages part of the sword. In case of its damaging, parts of the hilt, especially these rich in ornament, could be reattached to another blade. During the reattaching, rivets or U-shaped loops of two-parted pommels were shortened. Thus, attaching the head of the pommel without specific labour-consuming procedures, such as the replacement of the rivets or loops, was unreal. Therefore, the sword could be reassembled only without the head of the pommel.

manufacture of the blade by welding steel edges on the iron core (Fig. 47:3) (Колчин 1953, 133-134, 242, 524, рис. 105:11; 106:1, 164:1). The core's structure is ferritic, while the structure of the welded edges consists of sorbite (Fig. 47:4). HV hardness = 224.

26. Fragments of the sword's blade. They come from S. I. Sergeev's excavation of the Central Fort's rampart in 1900-1901. They were found in a caked heap, where fragments of spears could also be guessed, besides the fragments of the sword's blade (Leningrad Department of The Institute of Archaeology of the Russian Academy of Sciences, fund 1, No. 106, list 42).

#### A sword hilt plate

27. During V. I. Sizov's excavation of one of the barrows a sword hilt plate was found (Fig. 48). Unfortunately, the barrow where this specimen was found is still unidentified<sup>40</sup>.

This plate is made of iron (44x17x3 mm), and it is shaped as an elongated triangle with a rounded top corner and little sunken long sides. There is a small ledge on the lower side. The frontal surface of the plate is covered with parallel slots (density of slots' arranging – 30 units per 10 mm), which were originally encrusted with wire. The encrustation hardly survived, at it was exposed to fire of the funeral pyre, except a pair of twisted wires, arranged along the ledge and small areas in the lower part of the plate. The encrustation motif may be reconstructed based on various corrosion state of the surface. The encrustation represented triangles facing each other, arranged along the long sides of the plate tops. Between the triangles, rhombuses were arranged. This encrustation is typical for Type V sword hilts.

In the territory of early medieval Russia similar items are known from Barrow 38 of the Petrovsky barrow field (Yaroslavl Oblast, Russia). In this cremation burial two triangular plates, encrusted with triangles and rhombuses, were found. In addition to the plates, a head of the pommel of a Type V sword's hilt was found in the burial.

Another find of a Type V sword is known from the barrow field of Priekule Gyugeri, Burial

No. 30 (Latvia) which, based on a dirham find, dates to about AD 1000. This find helps to understand the layout of plates on the hilt (Fig. 49) (Tomsons 2006, 12, att. 10). On the wooden plates of the sword's grip 4 (two on each side) plates were arranged. They were identical to the Gnēzdovo find in terms of their shape and ornament. The bases of the plates faced the crossguard or the pommel, and their tops faced each other. Among them a wire of nonferrous metal<sup>41</sup> was wrapped around the centre of the grip.

Thus, the Gnēzdovo plate (in the original set of 4 plates) may have been fixed on the wooden grip of the sword. The fastening technique is not clear. Perhaps, considering slightly sloping lateral sides of the plates, it was inserted into the slots in a pre-done hollow which precisely matched the shape of the plate. The ledge on the short side of the plate could be used for arranging of the wire wrapping, which additionally fastened the plates on the grip<sup>42</sup>.

#### Conclusions

By the present moment, we have data of finds of no less than 27 intact swords, their parts and fragments at Gnēzdovo. It was possible to identify the type of the hilt in the case of 22 (19+3 (?)) specimens. This is the greatest concentration of sword finds in the territory of early medieval Russia. This is partially explained by relatively good state of preservation of the site, but at the same time it also emphasises the significance of Gnēzdovo as an important point in the system of political and military relations in the period of development of the early medieval Russian state.

The assemblage of swords from Gnēzdovo is not only numerous; it is also diversified in typological terms. It contains both early types, such as Special Type 2, Type Mannheim, or Type B (which are rare or unknown from other sites in the territory of early medieval Russia), and relatively widespread types. Finds of early swords types in the rest of Europe, which are themselves datable to no later than the 9<sup>th</sup> c., but which occurred in the archaeological context of the 10<sup>th</sup> c., allows us to return to the issue raised by

<sup>40</sup> In S. S. Shirinsky's work, Barrow C-62/Siz.-1896-97 was mentioned as the find place of this specimen (Шири́нский 1999, 109, 133, рис. 19).

<sup>41</sup> Three triangular plates (two on one side, one on the other), made of silver and ornamented with, were found on a Type V sword from Errindlev, Denmark (Brøndsted 1936, 185, fig. 94). Triangular figures, identical with these on the plates in question, were engraved on the antler grip scales of a Type V sword from Rosta (Sweden) (Paulsen 1953, 37, Abb. 37). It is also remarkable that the plates (or their imitations) were encountered exactly with Type V swords. Such are also ornamented with patterns of triangles and rhombuses. It affords an opportunity to suppose carefully that the plate may have come from Barrow 20 (41), excavated by V. I. Sizov in 1885 (C-41/Siz.-1885), where a luxuriously ornamented Type V sword was found.

<sup>42</sup> The wire wrapping on the Latvian sword is, in my opinion, secondary because it covered some of the plates' encrustation and was supposed to prevent the plates from falling off.

A. N. Kirpichnikov, i.e., the delay of Old-Russian swords' chronology as compared with their Norwegian and European counterparts as a whole. The chronology of Gnëzdovo swords and Old-Russian swords in general is "late" not only in comparison with J. Petersen's chronology, but also with the chronology of F. A. Androschuk, who strongly "rejuvenated" certain types. Moreover, we can see a trend – the later the sword, the smaller the gap.

The most likely explanation lies in the peculiarities of the presence of swords in the Old-Russian territory in the early stage of their appearance.

There is no doubt that the main way of appearance and spread of these swords in Eastern Europe was due to the activities of Scandinavian warriors and merchants. The initial phase (the 2<sup>nd</sup> half of the 8<sup>th</sup> – the 9<sup>th</sup> c.) of Scandinavian penetration in Eastern Europe is associated with the area of the lower reaches of the Neva and the Volhov. Early signs of their presence are noted on the Sarsky fort (the 2<sup>nd</sup> half of the 8<sup>th</sup> – the 1<sup>st</sup> half of the 9<sup>th</sup> c.), the Yaroslavl Volga region and in the upper reaches of the Western Dvina (the 2<sup>nd</sup> half of the 9<sup>th</sup> c.). Swords are not found in burial contexts and in the layers of the 2<sup>nd</sup> half of the 8<sup>th</sup> – 9<sup>th</sup> c. But the irrefutable proof of existence of the swords in the north-west of the future Old Russian state in the 8<sup>th</sup>-9<sup>th</sup> c. are the finds of wooden swords in the lower horizons of the Old Ladoga. These no doubt replicated real weapons – swords of early Types A, B, C, and H (?) (Рябинин 1999, 56). Already in the 9<sup>th</sup> c. (at least in its 2<sup>nd</sup> half), the Scandinavians, known to Arab written sources under the name of "Rus," carried swords for sale via the Volga trade route. Ibn Khordabeh noted that the Russes take out beaver fur and black fox fur and swords of the most remote (parts of) of the Slavs' country to the Rumskoe Sea (Древняя Русь... 2009, 30).

In the 1<sup>st</sup> half of the 10<sup>th</sup> c. the number and the territorial range of sites with Scandinavian

presence greatly increased. The earliest reliably dated sites with swords are related to the 1<sup>st</sup> half of the 10<sup>th</sup> c. Swords of Types B/N (?), D, E, and H, whose period of existence in other territories dates to the 8<sup>th</sup> – the 1<sup>st</sup> half of the 10<sup>th</sup> c., were found here. Most likely, in the 8<sup>th</sup>-9<sup>th</sup> c. swords were rather rare and expensive items in the territory of the future Old-Russian state. Once they appeared here, such swords prevailed for a rather long time, although in most regions of Europe (especially these situated close to manufacturing centres of swords), such types were already out of use<sup>43</sup>. The sword could be inherited, which is well-illustrated by the Arabian traveler Ibn-Rhuste: When a son is born to them, he (Russ), gives the newborn a naked sword, puts it in front of the child and says: I will not give you any inheritance of property, and there you have nothing, besides what you get by this sword (ibidem, 48).

The beginning of swords' "archaeologisation" is, most likely, associated with the increase of their number in the territory of early medieval Russia. In the burial complexes swords of types which had already ceased to exist in the rest of Europe (Type B), as well as those still remaining "in vogue" in some regions (Types E and H), were placed.

In burials of the 2<sup>nd</sup> half of the 10<sup>th</sup> c. the number and variety of swords increases significantly (Types H, X, W, Y, T, V, and Z). A "chronological gap", compared with European analogies for the majority of sword types, is very small or absent. It is obvious that the number of swords in the Old-Russian territory significantly increases. It can be explained primarily by the significant increase in the extent of swords' import, and, possibly, by the organisation of local sword manufacture.

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Translated by A. Ambarnov

<sup>43</sup> It is interesting to understand the mechanisms of the evolution of Viking Age hilt types. What was it – the changing idea of a good-looking sword or results of still unclear changes in the sword-fighting techniques, and an implementation of attempts to make a sword a perfect lethal weapon?

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## MIECZE Z GNIEZDOWA

### Streszczenie

Archeologiczny kompleks w Gniezdowie jest największym zachowanym zespołem stanowisk z okresu powstawania wczesnośredniowiecznego państwa ruskiego. Składa się on z dwóch ufortyfikowanych osad (grodzisko Centralne i grodzisko Olszańskie) i osad otwartych z ziemiankami oraz ośmiu cmentarzysk kurhanowych, na których znajduje się ok. 4000 pochówków. Badania archeologiczne stanowiska rozpoczęły się w 1874 r. i trwają do dziś.

W trakcie badań udało się pozyskać rozległą kolekcję przedmiotów uzbrojenia, obejmującą ponad 1000 zabytków różnych kategorii, zarówno broni zaczepnej, jak i uzbrojenia ochronnego, typowego dla końca I tysiąclecia n.e.

Artykuł ten omawia kolekcję mieczy odkrytych w Gniezdowie. Do chwili obecnej dysponujemy informacjami o znalezieniu tutaj nie mniej niż 27 mieczy, ich elementów bądź fragmentów. Typ oprawy udało się ustalić z dużym prawdopodobieństwem dla 22 (19+3 [?]) egzemplarzy. Jest to największa koncentracja znalezisk mieczy na terytorium wczesnośredniowiecznej Rusi. Można to częściowo wytłumaczyć relatywnie dobrym stanem zachowania stanowiska, ale również specjalnym znaczeniem Gniezdowa jako ważnego punktu w systemie politycznym i militarnym powstającego wczesnośredniowiecznego państwa ruskiego.

Kolekcja mieczy pochodzących z Gniezdowa jest nie tylko liczna, ale również zróżnicowana typologicznie. Zawiera zarówno dwa wczesne typy – typ specjalny 2/Mannheim oraz typ B bądź D – rzadkie bądź nie występujące dotychczas na terenie wczesnośredniowiecznej Rusi – jak też relatywnie szeroko rozpowszechnione typy, jak E, H, T, V, X czy Y.

Kwestia pochodzenia mieczy z Gniezdowa pozwala nam powrócić do problemu zarysowanego przez A. N. Kirpičnikova – całościowego opóźnienia chronologii staroruskich mieczy w porównaniu z ich norweskiimi czy zachodnioeuropejskimi odpowiednikami. Datowanie gniezdowskich mieczy oraz mieczy staroruskich jest generalnie „późne” nie tylko w stosunku do chronologii J. Petersena, ale również relatywnie w stosunku do datowania F. Androščuka, który mocno „odmładza” poszczególne typy.

Nie ma wątpliwości, że pojawienie się i rozprzestrzenienie tych mieczy w Europie Wschodniej nastąpiło w wyniku aktywności skandynawskich najemników i kupców. Fazę wstępną (2. połowa VIII – IX w.) ich obecności na tych terenach wiązać można z dolnym biegiem rzek Newy i Wołchow. Jak dotąd brak jednak mieczy ze stanowisk sepulkralnych i nawarstwień kulturowych z tego okresu. Niepodważalnym dowodem na ich używanie na północno-zachodnich

terenach przyszłego państwa staroruskiego w tym czasie są jednakże znaleziska drewnianych mieczy wczesnych typów – A, B, C, H (?), ze starszego horyzontu Starej Ładogi, bez wątpienia replik prawdziwej broni.

W 1. połowie X w. znacznie wzrasta liczba i zasięg terytorialny występowania „stanowisk skandynawskich”. W tym czasie pojawiają się również miecze typów B/N (?), D, E, H, których okres użytkowania na innych terenach przypada na VIII – 1. połowę X w. Prawdopodobnie w VIII-IX w. na terytorium przyszłego państwa staroruskiego miecze były raczej rzadkim i dość drogim dobrem. Gdy zaistniały więc na tym terenie, były użytkowane przez dość długi okres czasu, mimo że na większości europejskich terytoriów (szczególnie tych umiejscowionych blisko centrów produkcyjnych mieczy) tego typu okazy wyszły już z użycia.

Początek „archeologizacji” mieczy wiązać można prawdopodobnie ze zwiększeniem się ich liczby na terytorium wczesnośredniowiecznej Rusi. W kompleksach grobowych występują zarówno miecze, które wyszły już z użytkowania na pozostałych terenach Europy (typ B), jak i te, które w niektórych jej rejonach były jeszcze „modne” (typ E i H).

W pochówkach z 2. połowy X w. liczba i różnorodność mieczy znacząco rośnie (typy H, X, W, Y, T, V, Z). W porównaniu do europejskich analogii większości typów mieczy „luka chronologiczna” jest niewielka lub w ogóle nie występuje. Można to tłumaczyć poważnym wzrostem rozmiarów ich importu, jak również rozwojem własnej wytwórczości mieczniczej.

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Tłumaczył: Arkadiusz Michalak