FOREIGN INFLUENCES ON THE WEAPONRY OF BOGACZEWÓ AND SUDOVIAN CULTURES. THE CASE OF THE SHAFTED WEAPON

BARTOSZ KONTNY

Abstract

The author shows traces of the influence on the Baltic shafted weapon from the territory of Poland (Bogaczewo Culture, Sudovian Culture). These cultures present completely different views of the shafted weapon. In the former, the “Przeworsk” cultural impact prevailed, in the latter the Lithuanian influence is noticeable.

Key words: weapon, Bogaczewo Culture, Sudovian Culture, shafted weapon, the Roman Period.

Resources for investigations of shafted weapons

Although we know Barbarian weaponry from the Roman Period very well, the state of knowledge concerning weapons of the Baltic tribes from Poland is ultimately unsatisfying. Of course, there were a few older attempts to deal with the problem (Okulicz 1973; Jaskanis 1974; Jaskanis, Okulicz 1981) but they did not change the state of the knowledge. We should mention observations showing the rarity of swords and a certain frequency of axes, and the so-called battle-knives in the Baltic milieu published by W. Nowakowski (1994), as well as the rather unsuccessful (because of too short a sample) proposal for establishing a chronological system of Baltic weapon-graves by K. Godłowski (1994). M. Karczewski tried to use a chronological system apt for Przewors Culture for the armaments of Bogaczewo Culture (1999), but the results seem to be completely unconvincing. There are also some notices by W. Nowakowski referring to Baltic militaria from the Late Pre-Roman Period (2002) which I tried to supplement (Kontny, forthcoming). Taking into account the above situation, there is nothing particular in the fact that the famous article concerning Baltic shields published by W. La Baume (1941) is still up-to-date.

As the topic of my research, I took firstly shafted weapon heads, as they appeared to be quite a good chronological and cultural indicator (see: Kaczanowski 1995; Ilkjaer 1990; Adler 1993; Bemmann and Hahne 1994), unlike former presumptions. Unfortunately, this source of archaeological material demands very careful examination. Therefore, the archival data widely employed by archaeologists might have been used only exceptionally, as it generally includes only sketches of lance and spearheads. Nevertheless, we cannot neglect this source of information. This is why I used the files of

1 Collected in the Institute of Archaeology, Warsaw University.
2 Collected in the Archäologisches Landesmuseum Schloß Gottorf in Schleswig (I would like to express here my gratitude to Prof. Claus von Carnap-Bornheim).
3 Collected in the Ajaloo Institut in Tallinn (I would like to express my gratitude to Anna Juga-Szymańska MA preparing a PhD on the topic of those files, for the opportunity to use them).
4 Collected in Latviais Nacionālais Vēstures Muzejs in Rīga (I would like to express my gratitude to its keeper, Jānis Ciglis MA, as well as Prof. Wojciech Nowakowski, for the opportunity to use it).
5 I would like to thank Christine Reich PhD and Horst Wieder PhD from the Museum für Vor- und Frühgeschichte in Berlin for help and showing the collection and archives.
6 Limitations set by the editor do not allow me to present the full list of shafted weapon heads; therefore, I list only those Baltic heads that I mention in the text.

Ornamented lance heads

First of all, I tried to deal with the problem of ornamented lance heads. They appeared very scarce in Bogaczewo Culture, and only exceptionally in Sudovan Culture (so far a single specimen). One kind of ornament may be circumscribed as short lines, punched on the blade surface, vertical or parallel to the edges of the blade (Fig. 1). We may enumerate here an example from grave 13 at Marcinkowo (on a lance head type VII.1 after P. Kaczanowski) and from Stara Rudówka, grave 13 (type I.4/I.3 after P. Kaczanowski). Similar but not identical decoration is confirmed in Dollkem-Kovrovo Culture: on the lance head type I.4/I.3 after P. Kaczanowski from grave 154 at Tiulenino (formerly Viehof) found together with shield boss type Jahn 8 (Jahn 1916), as well as an example from Dubravka, Zelenogradsk district (formerly Regelnen). Although such a pattern is confirmed also for Luboszyce Culture, Lubusz Group, Elbian Circle and Scandinavia, it was most popular in Przeworsk Culture. I have dealt with the problem lately (Kontny 2004), and it occurred to me that its origins came from the Late Pre-Roman Period, but generally it appeared in the late stage of Phase B1 and in Phase B2. Starting from Phase B, there spread a new variant of the decoration in question: it only had smaller, arched surfaces punched along the midrib. It lasted till phase C1a (this is also the case of the lance head from grave 13 at Marcinkowo). In Phase C1a, different variations of the punched lines pattern were present, eg one stamped with a utensil with an arched or pointed punching end, one with a herring-bone design, or even one with lines acquired with the use of etching, ie treated with acid.

The example from Tiulenino should be counted as the late group, as it had a crescent punched pattern, but Bogaczewo Culture ones, and probably also specimens from Dubravka, are stylistically earlier and should be attributed to Phase B2.11 The described model of decoration was probably taken from Przeworsk Culture; less plausibly, it came from Scandinavia, as Norwegian specimens known by me12 represent Hunn type, ie a slightly different form of head (Ilkjær 1990, p.149, pl. 197).

Another kind of decoration we should deal with is the so-called negative ornament in the shape of triangles (Fig. 2). It was quite popular in Przeworsk Culture during the late stage of Phase B2 and in Phase C1a, appearing mainly on heads of type VIII and XII after P. Kaczanowski (1995). Some scholars assume that they actually represent a kind of weapon typical of Wielbark Culture (Kaczanowski and Zaborowski 1988, p.235, Fig. 9). Obviously, we generally do not know Wielbark Culture armaments, but triangular, negative decoration seems to be characteristic of it (it appears quite frequently on pottery). There is also a single example known from Bogaczewo Culture: the head of a shafted weapon type XII.2 after P. Kaczanowski from grave 13 at Stara Rudówka. Therefore, the triangular pattern here embraced the whole blade or was doubled and became a negative “square” one. There are no other objects of that kind known from the Central European barbaricum, so probably it is of local origin influenced from the outside.

We should also recall two ornamented lance heads of unclear chronology. The first of them comes from necropolis at Babięta, grave 372 (Fig. 3: b–c). It is decorated with a zigzag pattern, placed on the blade along the midrib. It was mentioned several times in literature (Okulicz 1973, p.355; Jaskanis, Okulicz 1981, p.222; Nowakowski 2002, p.139), starting from Wilhelm Gaerte’s Urgeschichte Ostpreussen (1929, Abb. 196, d), who put it in an illustration presenting punched artefacts (Gaerte 1929, p.244); it is also included in M. Schmiedehelm’s files (7.20c/102). Although so far it

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7 I am not taking into consideration punched ornaments of different kinds and patterns, very popular eg in Scandinavia in the Early and Late Roman Period (see: Ilkjær 1990, p.32ff., Fig. 20).

8 It is gathered in the Prussia Collection (Museum für Vor- und Frühgeschichte in Berlin), inv. No. IV, 36, 4073, with no more precise information.

9 From the territory of Luboszyce Culture eg Wilhelmsau, Kreis Fürstenwalde, grave 33 (Kossina 1905, Fig. 12; Schach-Dörges 1969, p.53f., Fig. 17, pl. 16-19); Sadersdorf, Kreis Guben (Jentsch 1895, pl.3.1); from Przeworsk Culture: Zbęchy, district Kościan (Kostrzewski 1914, p.329, Fig. 748).

10 Łódź-Łagiewniki, district Łódź from the territory of Przeworsk Culture (Kontny 2004).

11 They were found with no dating elements but the chronology of certain types is precise enough to establish the chronology.

12 Eg Hunn, grave 2, Borge, Egge Øvre parish and Tingels- tadt, Brandbu parish (Resi 1986, p.70ff., pl. 5-9, 40).

13 In German: eingeschlagenen.
has been linked with the Late Pre-Roman Period, we cannot exclude its later chronology. Late Pre-Roman specimens were decorated with such a pattern, but it was acquired with acid treatment, punching and engraving were surely excluded (Luczkiewicz 2002, p.17; Bochnak 2005, p.81ff.). Moreover, it does not have equivalents, neither in the typology of Late Pre-Roman heads proposed by T. Bochnak (2005), nor by P. Luczkiewicz (2006). Its exact dating is unknown, but we may suppose that it should be attributed to type XV or VII after P. Kaczanowski, and then dated to phases B2b–C1a (Kaczanowski 1995, pl. XX). Similarly punched decoration is confirmed for the territory of Przeworsk Culture14, although it is not frequent here.

It was far more frequent in Scandinavia. J. Ilkjær de-

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14 Łączany, Radom district, loose find (Cieślak-Kopyt et al. 2004, p.87, Fig. 48) found on the necropolis dated to the Early Roman Period (generally Phase B) and Phase C1a. As to the form of lance head, probably both specimens were quite similar.
scribed it as an ornamental type 3 (1990, Fig. 20). Its appearance was proved for so-called bog sites\textsuperscript{15}.

The cemetery at Babięta also delivered the second ornamented lance head, from grave 321 (Fig. 3: a). Its shape is confirmed only by a very schematic drawing from M. Schmiedehelm’s files (7.13e/181, 7.20c/104), which seems to show the specimen with a very long midrib (which is a Pre-Roman trait) and irregular decorating areas, possibly etched (?), assigned by P. \textsc{\textae}uczkiewicz to his group A, dated to the Late Pre-Roman Period (\textsc{\textae}uczkiewicz 2002, pp.19-20, Table 15).

There are also two known examples of Bogaczewo Culture heads with notched edges of the blades (Fig. 3.d, f–h)\textsuperscript{17}. They came from \textsc{\textae}abapa, grave 67 (La Baume 1941a, p.87, pl. 30) and Muntowo, grave 120 (Gaerte 1990, Fig. 13). Nevertheless, due to the character of the sketch, it is not quite clear whether we are dealing with a Pre-Roman element. If this really was a Pre-Roman specimen, it should be joined with Przeworsk Culture or Oksywie Culture influences (in detail: see Kontny, forthcoming)\textsuperscript{16}.

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\textsuperscript{15} Eg Vimose (Engelhardt 1869, pl. 14: 4), Illerup (almost exclusively on lance heads type 15 – Vennolum, and sporadically also type 14 – Skiaker, both characteristic of phase C\textsubscript{1a}; Ilkjær 1990, p.163, 328, Table 102, Fig. 197), Nydam (G. Bemmann and J. Bemmann 1998, pl. 71.685), type Lynghøjgård, characteristic of phases B\textsubscript{1}–C\textsubscript{1} (Ilkjær 1990, Fig. 328).

\textsuperscript{16} The problem of attribution of both lance heads from Babięta cannot be solved based on the Prussian Archive, as despite the description of the grave furnishing, there is no precise information concerning the shape of the items and type of ornament here (SMB-PK/MVF, PM-A 096/1, 244, 247).

\textsuperscript{17} I am aware of the discussion concerning the function of notches, and also arguments questioning its ornamental
As well as the blade decoration, we should not forget the different marks located on the sockets. The most important is here the pattern of horizontal (or/and oblique) incisions and engravings made near the hole for a rivet or nail fastening in the socket. I have tackled the problem together with K. Czarnecka (Czarnecka, Kontny, forthcoming; see also Kontny 2001, p.118). A particularly numerous model consists of horizontal, straight, not very deep lines, usually of several millimetres in length, located in the lower part of the socket. It was spotted on a Bogaczewo Culture spearhead from Judziki, type F2/G after P. Kaczanowski, as well as a lance head from grave 107 at Bogaczewo-Kula and lance heads from Stręgiel Wielki, site II, grave 63 (Fig. 4: a), Skomack-Ostrów (loose find). Such marks appear also on Sudovian ones. We may enumerate here Dręstwo (type XIII after P. Kaczanowski) and Osowa, barrow 114, grave 2 (close to type II after V. Kazakevičius).

Actually, it was not the decoration but simply the technological trace. They probably served to make the socket thinner, and, as a result, easier to punch a rivet or nail hole in. It should be character (for the discussion see eg Bochnak 2005, p.84f.) which I do not deny.
noted that the incision provided a stable support for the working part of the punch, which would not slip on the rounded surface of the socket, and this made it easier to pierce the hole. This explains why the phenomenon can be observed for such a very long period (from the Pre-Roman Period till the Late Migration Period) and for very distant areas of Barbarian Europe (from West Europe through the territory of the Elbian Circle and Przeworsk Culture up to the Baltic Circle). This technique of making holes could have been discovered separately in various places so it cannot be treated as a premise of outer influences (Czarnacka, Kontny, forthcoming).

Nevertheless, there are also more specific marks (Fig. 4: b–f) known from Stręgiel Wielki (formerly Groß Strengen), site II, grave 128, Skrzypy (formerly Steinhof), loose finds (2 specimens) and Judziki, loose find (type XIV/XV after P. Kaczanowski). They represent oblique lines around the rivet or nail hole making up a rhomboid or lenticular pattern resembling an eye motif. Heads of shafted weapons decorated in that way appeared almost exclusively in Przeworsk Culture, starting from phase A₂ (Kontny, forthcoming). This intentional sign had no technological, but only a decorative and, possibly, also magical meaning.

Fig. 4. The Baltic heads of shafted weapons ornamented with an eye pattern: a Stręgiel Wielki II, grave 63 (H. Jankuhn’s files); b Stręgiel Wielki II, grave 128 (H. Jankuhn’s files); c Judziki, loose find (drawn by B. Kontny); d, e Skrzypy, loose finds (H. Jankuhn’s files); f Pakalniai, barrow 2, grave 2 (Vaitkevičius 2003, Fig. 7: 4).
It is less probable to join it directly with the Celtic heritage. Inasmuch as representations of human heads are one of the most characteristic motifs in Celtic art, the eye motif itself is almost entirely unknown. It refers rather to German mythology. The eye may thus be somehow connected with the figure of Odin/Votan. This deity devoted his own eye to gain wisdom, knowledge of the supernatural. It should be remembered that his attribute was the spear. It is not known how old the story of Odin/Votan’s eye is, or whether it was known in Roman times. The representations on the bracteates from the Migration Period are interpreted as images of Odin/Votan, so it should be assumed that this myth might have been known a little earlier. Drawing the eye motif on the head of a spear, Odin/Votan’s weapon, is absolutely understandable, and may symbolise the act of evoking this deity of war and

Moreover, images of a human face with eyes shown in different ways (one of them is considered to be blind) are supposed to be representations of Odin/Votan as seen on the vessel from Guldagergård, Stenum (parish, Norway), Hjørring (parish), dated to the Early Roman Period or on a plate from Torslunda (Öland) dated to the Migration Period. It may thus be assumed that the myth about Odin/Votan’s eye was known in the period when the presented spearheads were used.

Fig. 5. Inlaid lance head from Szwańca, barrow 2, grave 1 (drawn by B. Kontny).
Inasmuch as decorating lines on Przeworsk Culture specimens were incised, lance heads from Bogaczewo Culture were produced with the use of other techniques (with the exception of finds from the cemetery at Skrzypy). The most sophisticated form is represented by the head from Judziki: the eye design is in relief, extending the socket, but does not encircle the whole socket. Another solution is represented on a find from the cemetery at Stręgiel Wielki, site II, grave 128. Here the motif of an eye was probably punched, but it is impossible to identify ultimately the exact design, as the information is derived from an unclear drawing from H. Jahnkuhn’s files. The presented observations together with the chronology show that an eye motif was adopted by Baltic tribes from Przeworsk Culture. Probably through Bogaczewo Culture it came further to the east, which seems to be confirmed by a lance head from the East.

The eye appeared among decorative motifs also together with birds-scavengers, i.e., ravens, which accompany the battle and deal with the dead. Odin’s attributes include animals, especially two ravens: Huginn and Muninn, which are found together with Odin in various representations (bracteates, decorative plates of helmets from Vendel, the drawing of the scabbard from Nydam). Ravens appear quite frequently as decorative motifs on various elements of Barbarian military equipment (helmets, appliqués on scabbards, shield bosses) mainly from Scandinavia from the Early and Late Roman Period; sometimes they were presented holding an eye in their beak. Like other animals feeding on the dead (pecking out the eyes), they were guides on the way to Valhalla and, according to many sagas, they accompany heroes to the battlefield. An expression “to feed the ravens” is often used meaning killing the enemies (e.g., Hrafnsmál, raven song, Corpus Poeticum Boreale; Helga kvida Hundingsbana I, 5, Gudrunarkvida 8–10, Edda) and link the eye motif with the battle, the warrior, Valhalla, etc. Ravens with eyes in their beaks also appear in the sagas (Svipdagsmal 45, Edda). This kind of imagery, a specific familiarity with such dramatic images, may seem shocking but it was probably perceived quite differently by warriors in Late Antiquity. Besides, the eyes in question belonged to the enemy and were offered in this specific way to Odin, like enemies were offered before the battle by throwing the spear.

Fig. 6. Bogaczewo Culture heads of shafted weapons: a Woźnice, loose find, type I after Kaczanowski (H. Jankuhn’s files); b Wyszembork, grave 33, type VI after Kaczanowski (Szymański 2005, pl. XXV: 3); c Muntowo, grave 47, type VII after Kaczanowski (Gaerte 1929, Fig. 147: k); d Bogaczewo-Kuła, grave in stone cist (?), type XII after Kaczanowski (drawn by B. Kontny); e Miętkie, loose find, type XIII after Kaczanowski (Nowakowski 1998, pl. 17: 342); f Wyszembork, grave 12, type XVII after Kaczanowski (Szymański 2005, pl. XIII: 7).
Lithuanian Barrows Culture cemetery at Pakalniai, barrow 2, grave 2, dated to the Late Migration Period.

A problem drawing special attention is the only decorated lance head from Sudovian Culture, found at Szwajcaria, in barrow 2, grave 1, the only known inlaid specimen from Baltic territory (Fig. 5). The surface of its blade is fostered with symbolic meanings: there are solar and crescent motifs here, known from numerous Przeworsk Culture or generally Central European objects of that kind. It was discussed several times by scholars, e.g. J. Antoniewicz claimed that it was a Przeworsk Culture import (Antoniewicz 1962, p.198ff.), but P. Kaczanowski questioned that statement, taking into consideration the fact that it was generally of non-Przeworsk form (Kaczanowski 1988, p.64). Actually, it is very similar to type XV after P. Kaczanowski, but there are technological premises to exclude the “import theory”. As far as I know, all Przeworsk Culture inlaid decorations on heads of shafted weapons were made in the following way: small depressions in the surface were punched or engraved, then...
filled with molten silver and finally polished after setting. Instead, the specimen from Szwajcaria was ornamented with silver fragments cut out in a sheet of silver, and then pressed down the holes in the blade’s surface. There is one more non-Przeworsk trait: the rivet head ornamented in a typically Baltic way, i.e. pearl-wire encircling it. We should remember that at that time (late stage of Phase C₁b) inlaid ornamentation was no longer used in Przeworsk Culture (Kaczanowski 1988, p.63).

In concluding, we may assume that we are dealing with a form influenced by Przeworsk Culture but surely locally made.

Shafted weapon heads from Bogaczewo and Sudovian cultures

As for types of heads of shafted weapons, we may notice a surprisingly different situation if we take into consider-
Also, we have to mention the scarce but registered barbed spearheads of type G, F2/G and L.3. It should be underlined, nevertheless, that sometimes local solutions also appear: eg loose finds from Bogaczewo-Kula and Spychówko (Fig. 7). Other cultural elements: Scandinavian and eastern are hardly recognizable; only some rarely noticed features like the concave upper part of the blade (Koczek II, grave 22), a wide conical socket (Onufryjewo, grave 187), or the quite frequent employment of nails (not only rivets, I noticed on roughly a quarter of the specimens) to fasten the socket seem to be eastern traits.

The most popular were types VII, VIII and XII, partly also X, XIII–XV (Fig. 8). Frequently they had faceted sockets. Examples of types I–II and XVII, XVIII are rarely spotted. Nevertheless, some forms seem to be more primitive than their Przeworsk Culture models, eg specimens of type XII from grave 107 at Bogaczewo-Kula. The V-shaped lower part of the blade proved on specimens of type VI, VII, VIII from Bogaczewo Culture seems to be also of local origin.

We should not forget the rarity on barbed spearheads
and other forms (like type VI after P. Kaczanowski), very popular in Przeworsk Culture. Therefore, I believe that the overwhelming majority of Bogaczewo Culture shafted weapon heads were produced in local workshops, and so far eventual Przeworsk Culture imports are almost impossible to point out.

Chronological aspects are hard to scrutinize, as lance heads frequently come from graves with no precise chronological indicators. Despite this, there are grounds enough to draw some conclusions and state that generally there are no discrepancies in dating of Przeworsk Culture artefacts and Bogaczewo Culture ones. An astounding fact is that specimens dated to the later stages of the Roman period, starting from phase C1b are unique. The latest specimens known by me are loose finds from Skomack, Płociczno (both type XXIII after P. Kaczanowski) and Dręstwo (type I.V after V. Kazakevičius). The first type is dated to phase C2, and the chronology of the other is not precise. I have to stress the fact that these two objects may not be linked unequivocally with Bogaczewo Culture, eg in the late stages of the Late Roman Period the Augustów region, where Dręstwo is placed, should rather be joined with Sudovian Culture, whilst an item from Płociczno should be unequivocally linked with it.

A completely different situation existed in Sudovian Culture. Heads of shafted weapons as a whole cannot be connected with the Bogaczewo Culture influence on the process of formation of Sudovian Culture. Nevertheless, Scandinavian influences seem to be of greater importance (Fig. 9). We may mention here the lance head from Osowa, barrow 13, very close to type Mollum or Dörby, the specimen of type Vennolum from Szwalcaria, barrow 2, grave 1 from Phase C1b (see Ilkjær 1990, p. 387; von Carnap-Bornheim and Ilkjær 2001, p. 320, 477), and Netta, grave 81, spearhead type Saeli or Ilkjær 23, probably from Phase B3b or C1b (Bitter-Wróblewska 2002). The last one had a faceted socket and the remains of a blade protruding from the upper part of a clearly visible socket. We are dealing with a locally made lance head (type Kaczanowski VIII) that was rearranged into a spearhead with one barb, based on the Scandinavian pattern22. The most astonishing is the fact that the vast majority of Sudovian lance heads (Fig. 10) should be linked with examples described by V. Kazakevičius (1988). Most frequent are specimens of type IB (inc. its variant), then IVA, finally IA, ID, II and different “mixed” types.

Conclusions

In concluding, it should be stressed that we are dealing with two different milieus as regards heads of shafted weapons, which are very good cultural indicators. Bogaczewo Culture, as far as we know, was strongly influenced by Przeworsk Culture, although there are also local elements noticeable. The Sudovian lance heads and spearheads, on the contrary, expressed mainly Lithuanian forms. We should remember that, hypothetically, Sudovian Culture appeared as a mixture of eastern and western (Bogaczewo Culture) elements (see eg Nowakowski 1995, p.76ff.; Vaitkevičius 2005). Taking into consideration the heads of shafted weapons, this theory is delivered with a strong premise. Scandinavian specimens create here evidence of northern influence of so far unknown importance. It demands further research to conclude how strong the Scandinavian current was.

Translated by the author

List of Baltic shafted weapon heads mentioned in the text23:

Abbreviations

AMW – State Archaeological Museum in Warsaw.
PMB – Podlascie Museum in Białystok.
Prussia Collection in MVF – Prussia Collection in the Museum für Vor- und Frühgeschichte in Berlin.

22 In the Przeworsk Culture such spear-heads described as a type O after P. Kaczanowski are extremely rare. So far there are known only two examples of that kind: Sulmierycz, Kalisz com. (according to A. Gałęzowska M.A. from the Archaeological Museum in Poznań, it was probably found together with fibula type 132 after O. Almgren (1923) and shield boss type 7a after M. Jahn (1916)) and a loose find from Wola Skarbkowa, Radziejów (parish) (see: Kaczanowski 1995, p.35).

23 I would like to express my gratitude to Anna Bitner-Wróblewska PhD from the State Archaeological Museum in Warsaw, Katarzyna Rusin M.A. from Podlaskie Museum in Białystok, Christine Reich PhD and Horst Wieder PhD from the Museum für Vor- und Frühgeschichte in Berlin, Prof. Dr habil Wojciech Nowakowski and Anna Juga-Szymańska MA from the Institute of Archaeology, Warsaw University, Mirosław Hoffmann PhD from the Museum of Warmia and Mazury in Olsztyn, and last but not least Prof. Dr Claus von Carnap-Bornheim from Archäologisches Landesmuseum Schloß Götterf in Schleswig, for their help and for giving me an opportunity to use the collections and archives they keep.
1. Babiaż, Mragow district, site I (formerly Babienten, Kreis Sensburg), grave 321 (M. Schmiedehelm's files 7.20c.104; Prussia Archive SMB-PK/MVF, PM-A 096/1, 244), type? 
2. Babiaż, Mragow district, site I (formerly Babienten, Kreis Sensburg), grave 372 (Gaerte 1929, Fig. 196: d; M. Schmiedehelm's files 7.20c.102; Prussia Archive SMB-PK/MVF, PM-A 096/1, 247), type? 
7. Netta, Augustów district, grave 37 (Gaerte 1929, Fig. 196: d; M. Schmiedehelm's files 7.20c.102; Prussia Archive SMB-PK/MVF, PM-A 1162/1, 145), close to type IG or I.D after V. Kazakevičius? (wide socket). 
11. Koczek, Szczytno district (formerly Regehnen, Kreis Sensburg), grave 13 (Gaerte 1929, Fig. 196: f; M. Jahn's files; Prussia Archive SMB-PK/MVF, PM-A without no), type I.4/I.I after P. Kaczanowski. 
12. Stara Rudówka, Giżycko district (formerly Alt Rudowken, Kreis Sensburg), grave 13 (Gaerte 1929, Fig. 196: f; M. Jahn's files; Prussia Archive SMB-PK/MVF, PM-A without no), type I.4/I.I after P. Kaczanowski. 
13. Stara Rudówka, Giżycko district (formerly Alt Rudowken, Kreis Sensburg), grave 13 (M. Jahn's files), type XII.2 after P. Kaczanowski. 
17. Netta, Augustów district, loose find (Bitner-Wróblewska 2007; collection of AMW, inv. no PMA IV/364), type IB variant after V. Kazakevičius. 
18. Netta, Augustów district, grave 55 (Bitner-Wróblewska 2007; collection of AMW, inv. no PMA IV/364), type II after V. Kazakevičius. 
19. Netta, Augustów district, grave 81 (Bitner-Wróblewska 2002, p.287, Fig. 3: 3; collection of AMW, inv. no PMA IV/364), type Saeli/Ilkjær 23 or VIII? after P. Kaczanowski.
41. Woźnice, Mrągowo district (formerly Wosnitzen, Kreis Sensburg), loose find (H. Jankuhn’s files), type I after P. Kaczanowski.

42. Wyszembork, Mrągowo district, grave 33 (Szymański 2005, pl. XXV: 3), type VI after P. Kaczanowski.


44. Żywa Woda, Suwałki district, barrow 6 (Ziemlińska-Od- ojowa 1958, p.103, Fig. 5), type VI.2 after P. Kaczanowski.

45. Żywa Woda, Suwałki district, barrow 16 (Ziemlińska- Odojowa 1966, pp.234-235, Fig. 5; collection of PMB, inv. no MBA/155, 694), type Vennolum or Dörby.

References


