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The latest weapons in the Bogaczewo culture

The Bogaczewo culture armament as well as the ones of the other West Balt tribes is far from being well known. Although it lasted from the late stage of the Late Pre-Roman Period until the Late Roman Period, delivering a lot of weapon graves, our state of knowledge is extremely limited (see: Kontny 2007b) mainly because of the lack of apt publications from the pre-war period and the evaporation of the artifacts and archives of the Prussia-Museum during the Second World War. Therefore, while dealing with military problems of the Bogaczewo culture I had to search through the *Prussia-Sammlung* and the *Prussia-Archiv* rediscovered several years ago and nowadays stored in the Museum für Vor- und Frühgeschichte in Berlin (Reich 2003, p. 109-114; 2005). Naturally, also the heritage of various pre-war archaeologists like Martin Jahn¹, Herbert Jankuhn², Feliks Jakobson³, Kurt Voigtmann⁴ or Marta Schmiedehelm⁵ were taken into consideration.

In study of late weapons one may omit swords, that were extremely rare in Balts milieu and in the Bogaczewo culture appeared only in the Early Roman Period (Nowakowski 1994; 2007b). As refers to axes they were quite popular in the Bogaczewo culture but they appeared generally during the Early Roman Period and at the start of the Younger Roman Period. The later form of axes characterized by a massive blade is typical for the West Balt circle in the Younger and the Late Roman Periods but in the Bogaczewo culture frequently they were found without any dating elements (Nowakowski 1995, p. 37). So far it seems that although their late examples are documented in the Sudovian culture and in the Dollkeim-Kovrovo culture, there are not proved in the Bogaczewo culture (see: Nowakowski 1995, p. 36-38). The unique late element from Dłużec, com. Piecki, site I (former: *Langendorf, Kr. Sensburg*), grave 72 is mentioned further. I'm not dealing here with socketed axes and so called battle-knives, because of their unclear function. As refers to knives it was rather a tool, possibly used by warriors, but most probably killing wasn't their prime function because their blades were too short for it; see e.g. remarks concerning long knives from the Przeworsk culture expressed by T. Bochnak (2003). The function of socketed axes is also problematic (Kontny 2006, p. 150 with further literature; see also: Szela 2006). Instead of the above mentioned categories, the most popular form of weaponry, known from the Bogaczewo culture were without any doubt lance-heads.

So far I've managed to collect 240 lanceheads from the Bogaczewo culture or information concerning their existence (plus 13 barbed ones and 17 arrowheads). Unfortunately only 38 of them

¹ Stored in the Institute of Archaeology, University of Warsaw.

² Collected in the Archäologisches Landesmuseum Schloß Gottorf in Schleswig (I would like to express here my gratitude to Prof. C. von Carnap-Bornheim).

³ The archive of F. Jakobson is kept in the Latvian Nacionālais Vēstures Muzejs in Riga. I would like to express my gratitude to its keeper, J. Ciglis M.A. as well as Prof. W. for an opportunity to use it.

⁴ Kept in the Museum für Vor- und Frühgeschichte in Berlin; I would like to thank Ch. Reich Ph. D. and H. Wieder Ph.D. for help and showing the collection and the archives.

⁵ Collected in the Ajaloo Instituut in Tallin; I'd like to express my gratitude to A. Jurga-Szymańska, M.A. for giving me access to M. Schmiedehelm's heritage.

Artifact, site	Literature, archival sources, collection	Type, proposed chronology
Heads of a shafted weapon		
Dłużec, com. Piecki, site I (former: <i>Langendorf, Kr. Sensburg</i>), grave 72	The heritage of M. Schmiedehelm, file 7.20d-40, the information concerning the grave equipment see also file 7.13e-136, 7.13e-164; the Museum für Vor- und Frühgeschichte in Berlin, <i>Prussia-Sammlung</i> , inv. no VII, 87, 9343	Type: close to Kaczanowski XXIII, var.1 Chronology: C _{1b}
Dreństwo, com. Bargłów Kościelny, loose find The attribution to the Bogaczewo Culture uncertain	Jaskanis 1968 The collection of the Museum of Podlasie in Białystok, inv. no MB/A/130, 566	Type: Kazakevičius I.V Chronology: ?
Mojtyny, com. Piecki (former: <i>Moythienen, Kr. Sensburg</i>), grave 75	Hollack, Peiser 1904, p. 55, pl. 75: c	Type: Kaczanowski XXIII, var.2, eventually XXIV Chronology: C _{1b}
Onufryjewo, com. Ruciane-Nida (former: <i>Onufrigowen, Kr. Sensburg</i>), grave 145	the heritage of F. Jakobson	Type: ? Chronology: C ₂ ev. C _{1b}
Onufryjewo, com. Ruciane-Nida (former: <i>Onufrigowen, Kr. Sensburg</i>), grave 302b	Jahn 1916, p. 98; Kontny 2007a, p. 85-86, fig. 6: a; M. Jahn's files; the heritage of M. Schmiedehelm, files: 7.12/106, 7.13e/132, 7.1/231, 7.8a/141, 7.12/106, 7.13/25, 7.13/51, 7.13e/132	Type: ? Chronology: C ₁
Onufryjewo, com. Ruciane-Nida (former: <i>Onufrigowen, Kr. Sensburg</i>), grave 370b	H. Jankuhn's files; the heritage of M. Schmiedehelm, file 7.12.108	Type: Zieling D1 Chronology: late stage of C _{1a'} ev. C _{1b}
Skomack-Ostrów (Ostrów), com. Eik (former: <i>Werder in Aryssee, Kr. Lyck</i>), loose find	The collection of the Museum of Podlasie in Białystok, inv. no MB/A/233, 1163	Type: Kaczanowski XXIII, var.2 Chronology: C ₂ or C ₃ -D, ev. C _{1b}
Szestno, com. Mrągowo (former: <i>Wymisly, Kr. Sensburg</i>), loose find	The collection of Museum of Warmia and Mazury in Olsztyn	Type: Kaczanowski XXIII, var.2, ev. XXIV Chronology: C _{1b} -C ₂
Wojsak, com. Giżycko (former: <i>Woysack, Kr. Lötzen</i>), loose find?	K. Voigtmann's files in the Museum für Vor- und Frühgeschichte in Berlin	Type: Kaczanowski XX? C ₂ ev. C ₃ -D?
SHIELD FITTINGS		
Shield bosses		
Babięta I, com. Piecki (former: <i>Babienten, Kr. Sensburg</i>), grave 323	The heritage of M. Schmiedehelm, file 7.13e.90	Type: Ilkjær 6c Chronology: C _{1b}
Machary II, com. Piecki (former: <i>Macharren, Kr. Sensburg</i>), grave 309a	La Baume 1941, p. 10, fig. 6; Kaczanowski 1992, p. 63, 96, fig. 16: 1; Nowakowski 1995, p. 66, pl. XX: 2; Nowakowski 2001a, p. 72, pl. V: 3	Type: Zieling R2a (a Roman hemispherical umbo) Chronology: C _{1b}
Mojtyny, com. Piecki (former: <i>Moythienen, Kr. Sensburg</i>), grave 75	Hollack, Peiser 1904, p. 55, pl. 75: a	Type: Jahn 8 Chronology: C _{1b}
Onufryjewo, com. Ruciane-Nida (former: <i>Onufrigowen, Kr. Sensburg</i>), grave 370b	H. Jankuhn's files; the heritage of M. Schmiedehelm, file 7.12.108	Type: Zieling D1 Chronology: late stage of C _{1a'} ev. C _{1b}
Shield grips		
Miętkie, com. Dźwierzuty (former: <i>Mingfen, Kr. Ortelsburg</i>)	H. Jankuhn's files	Type: Ilkjær 5b/Zieling V1 Chronology: C ₁ (C _{1b})
Onufryjewo, com. Ruciane-Nida (former: <i>Onufrigowen, Kr. Sensburg</i>), grave 291	H. Jankuhn's files; the heritage of M. Schmiedehelm, file 7.13e.205; Szymański 2005, p. 70-71	Type: Ilkjær 5b/Zieling V1 Chronology: C ₁ (C _{1b})
Wyszembork, com. Mrągowo, grave 61	Szymański 2005, p. 70-71, pl. XXIV: 3	Type: Ilkjær 5b/Zieling V1 Chronology: C ₁ (C _{1a} /C _{1b})
AXES		
Dłużec, com. Piecki, site I (former: <i>Langendorf, Kr. Sensburg</i>), grave 72	The heritage of M. Schmiedehelm, file 7.20d-40, the information concerning the grave equipment see also file 7.13e-136, 7.13e-164; the Museum für Vor- und Frühgeschichte in Berlin, <i>Prussia-Sammlung</i> , inv. no VII, 87, 9343	Type: later form Chronology: C _{1b}

Table 1. The list of late weapons of the Bogaczewo culture.

I know from an autopsy. The others are documented only as photographs, sketches or only simple mentions in publications or archives. Comparing it with the Sudovian culture, known mainly from post-war excavations (70 lanceheads known, of which a great majority – 47 examples – I touched personally), one may say that the sample is not big enough. Nevertheless we cannot resent an archaeological material overlooking such studies. Taking into consideration the current state of knowledge it is inevitable to deal with the problem. Moreover being cautious one may attribute as many as 146 lanceheads from the Bogaczewo culture to the particular typology.

As I tried to prove in the other place (Kontny 2007b), weaponry of the Bogaczewo culture, including lanceheads, was as a whole influenced by forms from the Przeworsk culture. The latter ones became quite a good chronological factor (Kaczanowski 1995). Therefore it is possible to date them

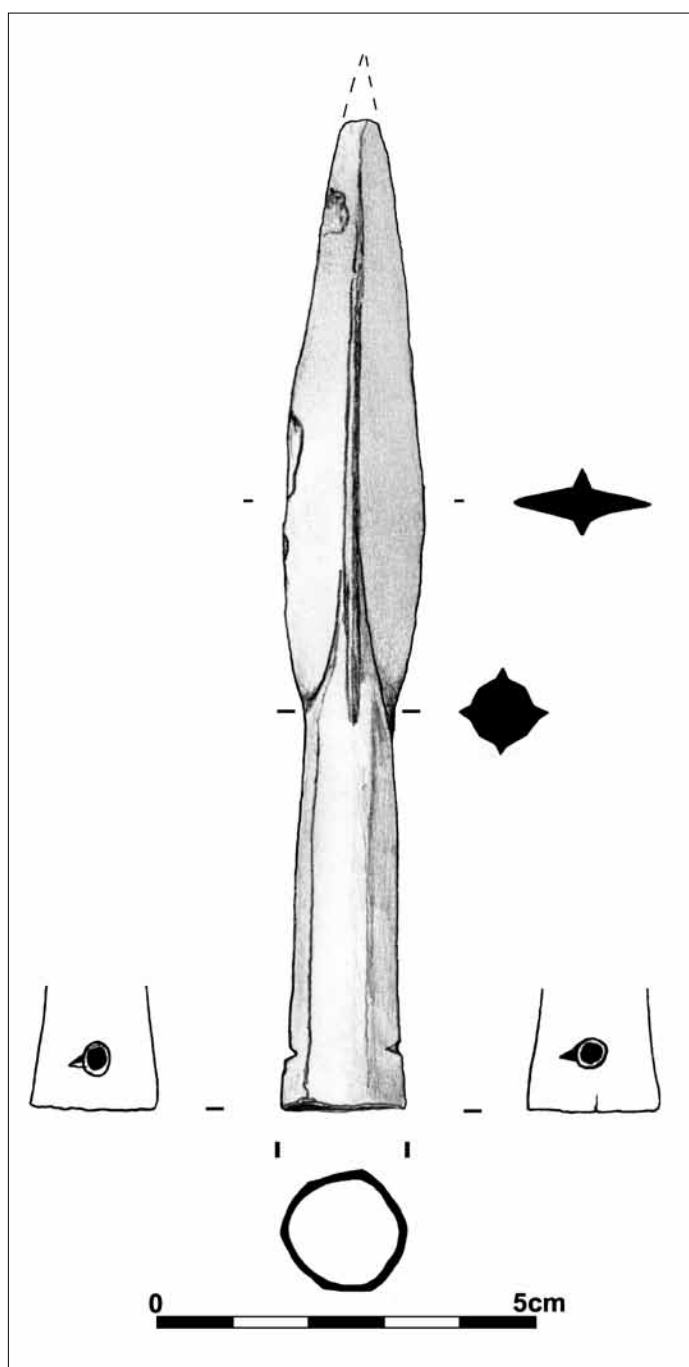


Fig. 1. The head of a shafted weapon from Skomack-Ostrów, com. Elk, loose find (drawn by B. Kontny; courtesy of the Museum of Podlasie in Białystok).

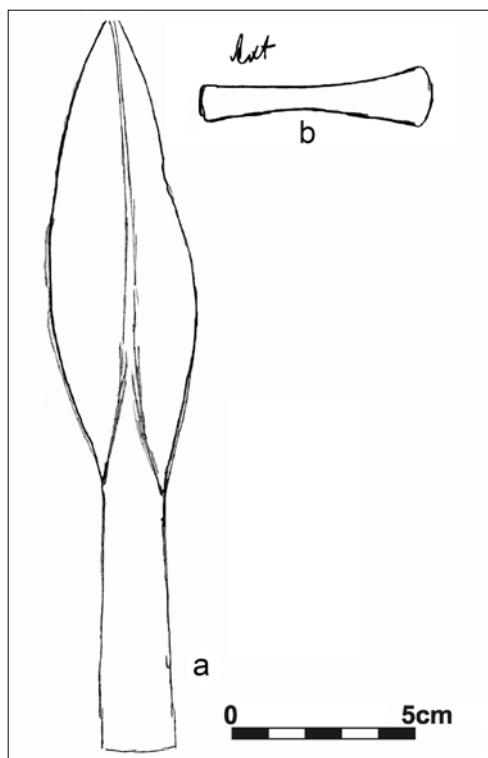


Fig. 2. The weaponry from Dłużec, com. Piecki, site I, grave 72 (after the heritage of M. Schmiedehelm, file 7.20d-40; courtesy of the Ajaloo Instituut in Tallin).

precisely also in the Bogaczewo culture and – oppositely to M. Karczewski’s opinion (1999, p. 97, 101-102) – there are no serious premises to generally establish their later (not just prolonged) chronology (see: Kontny 2007b).

Basing on the results of typological studies on the Bogaczewo culture weaponry that I’m working on, I’ll try to pinpoint here the specimens dated to the latest stages of the culture (beside mentioned above I also took into consideration shield elements).

The first of them is the loose find from the survey taking place at Skomack-Ostrów, com. Ełk (fig. 1)⁶. Presently it is kept in the Museum of Podlasie in Białystok⁷. Its basic dimensions and coefficients are⁸: G (total length) = 14,0 cm (after the reconstruction), A (the maximum width = 1,8 cm), L (the length of the blade) = 9,0 cm (after the reconstruction), T (the length of the socket) = 5,0 cm, Q (the length of the blade’s part from the widest point to the top), PL (the cross section of the blade) 3C, PT (the cross section of the socket) ~7, T (the socket shape) 2, T/G = 0,36, A/L/ = 0,20, Q/L = 0,69. Taking into account the above, it should be attributed to type XXIII var. 2 after P. Kaczanowski what means that its chronology most

probably should be linked with phases C₂ or C₃-D (Kaczanowski 1995, pl. XX); it is less probable to join it with phase C_{1b}, as it has quite a narrow blade characteristic for later stages of its appearance (Kaczanowski 1995, p. 27).

The second artifact comes from the cemetery at Dłużec, com. Piecki, site I (former: *Langendorf, Kr. Sensburg*), grave 72 (fig. 2). The amazing fact is that I came across the information concerning it in the heritage of M. Schmiedehelm (file 7.20d-40), who wasn’t particularly interested in an armament (see: Juga-Szymańska, Szymański 2003; Juga-Szymańska, Kontny 2006, p. 81). Instead of sketches of two knives (one of them was ornamented) and an axe of the later form (see: Nowakowski 1995, p. 37), the grave furnishing embraced also a lancehead. One should notice that drawings made by M. Schmiedehelm were frequently imprecise, impossible to attribute them to a certain type; the above notice refers particularly to a shafted weapon. Nevertheless in that case it wasn’t true. That unusual drawing documents some important details so it is apt enough to search for the original. Therefore it was possible to identify the artifact, now stored in the *Prussia-Sammlung* in the Museum für Vor- und Frühgeschichte in Berlin (inv. no. VII, 87, 9343). Although now it is covered with a foil to protect it from rust, doubtlessly we have to do with the same object: see the outline, shape of a midrib and the gap in the upper part of blade’s edge. As refers to the chronology,

⁶ The site is registered in the museum collection under that name. However usually it was described as Ostrów, com. Ełk (former: *Werder in Aryssee, Kr. Lyck*), see: Engel, Iwanicki, Rzeszotarska-Nowakiewicz 2006, p. 210, fig. 2.

⁷ Inv. no MB/A/233, 1163. I’d like to express my gratitude to K. Bierkowska M.A., the Manager of the Archaeological Section of the Museum of Podlasie, for the access to the object and letting me to include it herein.

⁸ According to the P. Kaczanowski’s scheme (1995). The same refers to the further descriptions of heads of the shafted weapon.

there are no firm premises to establish it⁹ apart from dating of the lancehead type itself, i.e. phases C₂ eventually C_{1b} or C₃-D as we deal with the form very close to type XXIII var. 1 after P. Kaczanowski. Basic dimensions of the specimen are as follows: G = 18,3 cm, A = 3,7 cm, L = 8,0 cm, T = 8,0 cm, Q = 7,0 cm, PL ? (impossible to reconstruct because of a strong corrosion; traces of the high midrib are noticeable), PT 1, T 1, T/G = 0,44, A/L = 0,36, Q/L = 0,68. Comparing it to the Przeworsk culture form the only difference comes from the fact that the artifact in question is significantly wider. It seems to be the Balt trait. As examples of similarly wide form there may serve the artifacts of the same type from the Sudovian culture: Płociczno, com. Bakalarzewo (former: *Plociczno, Kr. Sudauen*), grave 9 (fig. 3) and 11¹⁰. Such trait is treated by P. Kaczanowski as quite early (Kaczanowski 1995, p. 27) so its earlier chronology (subphase C_{1b}) is most possible.

There is one more artifact alike: the lancehead from Mojtyny, com. Piecki (former: *Moythienen, Kr. Sensburg*), grave 75 (Hollack, Peiser 1904, p. 55, pl. 75: c). Probably that one should be described as a form close to type XXIII, var. 2 or – less probably – type XXIV (basic dimensions are not given in the publication so we can only reconstruct a part of them basing on the included scale: G = 12,9 cm, A = 1,9 cm, L = 6,2 cm, T = 6,7 cm, Q = 4,6 cm, T/G = 0,52, A/L = 0,31, Q/L = 0,74). In furnishing (fig. 4) there were also found (Hollack, Peiser 1904, p. 55, pl. 75: a-b, d): an iron bar-like fire-steel type IICa after M. Jonakowski (1996), a knife and a hemispherical umbo type 8 after M. Jahn (1916). Because of that fact we have to take into consideration an earlier chronology: such umbos appeared in the Przeworsk culture during subphase C_{1b} or even the later stages of subphase C_{1a} (Godłowski 1992, p. 74; 1994, p. 171) and in the Dollkeim-Kovrovo one they are linked with its 3rd phase (not 3a) (Nowakowski 1996, p. 58, pl. 107), i.e. phase C₁ (Nowakowski 1996, pl. XVI: d). K. Godłowski believed that in Balt tribes milieu they should be linked with subphase C_{1b} or the initial stage of phase C₂ (Godłowski 1994, p. 171). Probably in that case we have to do with the dating for phase C_{1b}, what is quite possible, also having in mind the type of a strike-a-light

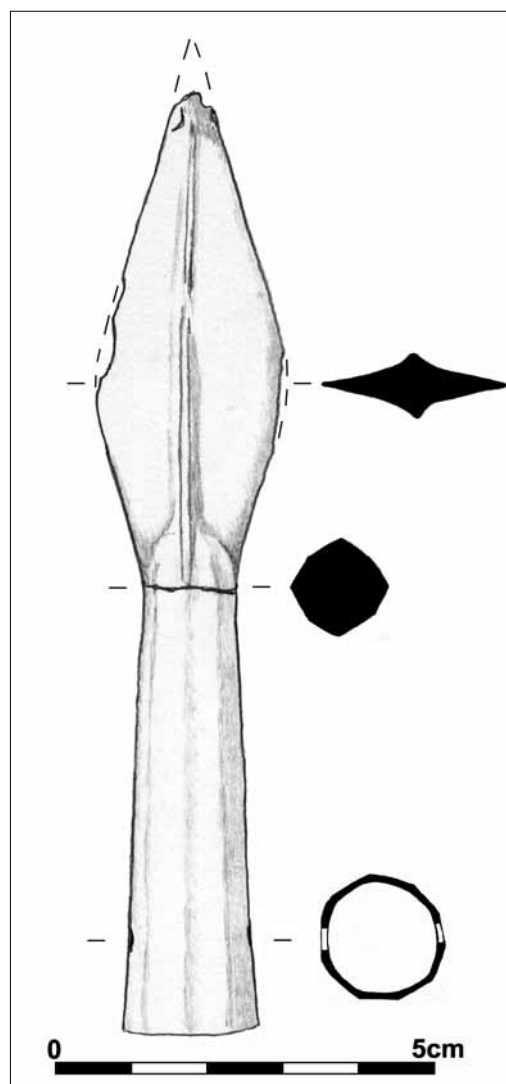


Fig. 3. The Sudovian culture (?) head of a shafted weapon from Płociczno, com. Bakalarzewo, grave 9 (drawn by B. Kontny; courtesy of the Museum für Vor- und Frühgeschichte).

⁹ Axes of the later form are dated widely from late stage of the Early Roman Period to Late Roman Period (Nowakowski 1995, p. 37-38).

¹⁰ *Prussia Archiv* PM-F 939, *Prussia Sammlung* 1941: 100. The "Sudovian" character of the lanceheads from Płociczno could be also a matter of discussion, what is strengthened by the fact that materials were probably mixed and that there were no further artifacts, incl. dating elements, attributed to the furnishing of grave 9 and 11 (Nowakowski 2007a, p. 190). Despite this I presume that both lanceheads should be linked with the Sudovian culture as they are late and moreover they find the closest analogies in the Sudovian culture material: Szwajcaria, com. Suwałki, barrow 33, grave 2 (Antoniewicz 1963, p. 173); I'd like to express my gratitude to J. Jaskanis Ph.D. and W. Gawrysiak-Leszczynska M.A. for the access to the lanceheads from Szwajcaria.

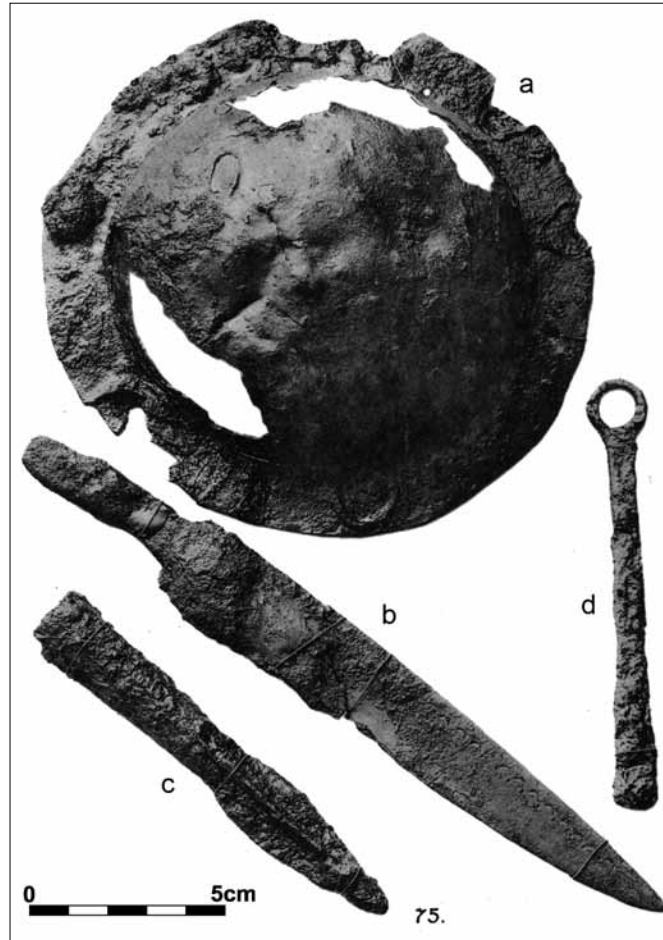


Fig. 4. The furnishing of grave 75 from Mojtyny, com. Piecki (Hollack, Peiser 1904, pl. 75).

(see: Jonakowski 1996, tabl. 1). The very similar example of a lancehead was found lately on a destroyed cemetery from the site that was located on the E. Hollack's map at Wymisly, Kr. Sensburg (Hollack 1908, p. 188; Szymański 2005, p. 114), the village not existing now¹¹. Unfortunately it was a loose specimen (finds from the site create the collection and cannot be attributed to particular graves) so we cannot date it precisely. Its basic dimensions are: $G = 9,0$ cm (after the reconstruction), $A = 1,3$ cm, $L = 4,5$ cm (after the reconstruction), $T = 4,5$ cm, $Q = 3,5$ cm (after the reconstruction), $T/G = 0,50$, $A/L = 0,29$, $Q/L = 0,78$. Because of a narrow blade (see: Kaczanowski 1995, p. 27) it should be dated quite late (phase C_2 ?) but the closest analogy coming from Mojtyny is evidently earlier so one cannot be sure how to date it utterly.

The next example (fig. 5) was found in Wojsak, com. Giżycko (former: *Woysack, Kr. Lötzen*). Probably it was a loose find as in the K. Voigtmann's files, where the drawing of the specimen was included, there is no information concerning the grave number or other elements of grave furnishing. One may reconstruct only the following dimensions of the lancehead: $G = 36,7$ cm (after the reconstruction), $A = 2,7$ cm, $L = 27,3$ cm (after the reconstruction), $T = 9,4$ cm, $Q = 21,3$ cm (after the reconstruction), $T/G = 0,26$, $A/L = 0,10$, $Q/L = 0,78$, so it is quite similar to type XX after P. Kaczanowski (1995). If so, probably it could be joined with phase C_2 or – less plausibly – phases C_3 -D (Kaczanowski

¹¹ Today the area belongs to the administrative territory of Szeszno, com. Mrągowo. I'm very thankful for the information and an access to the materials from Szeszno to T. Nowakiewicz Ph.D. (the National Heritage Board of Poland) and J. Sobieraj Ph.D. (the Museum of Warmia and Mazury in Olsztyn).

1995, p. 25). Nevertheless in my opinion the drawing is not precise enough to exclude a different chronology. One may consider e.g. the Late Migration Period¹² or early medieval times, although the latter possibility seems less probable¹³.

The next late example comes from the cemetery at Onufryjewo, com. Ruciane-Nida, grave 145 (former: *Onufrigowen, Kr. Sensburg*). Its sketch was documented in the heritage of F. Jakobson but it is of so bad quality that we cannot attribute it to a particular type (fig. 6: a). Nevertheless it seems very probable that we deal with a late form as it was found together with an iron cross-bow tendril fibula type Almgren 161-162 (1923) characterized by a knee-shaped bow as well as additionally toilet tweezers and a knife. Such brooches are dated to phase C₂, eventually also C_{1b} (Nowakowski 2001b, p. 133).

One should also mention the other specimen from Onufryjewo, grave 302b with the out-curved blade's edge (Jahn 1916, p. 98; Kontny 2007a, p. 85-86, fig. 6: a; M. Jahn's files; heritage of M. Schmiedehelm, files: 7.12/106, 7.13e/132, 7.1/231, 7.8a/141, 7.12/106, 7.13/25, 7.13/51, 7.13e/132) which is dated to phase C₁, as it was found together with the bronze pin type Beckmann C (1969)¹⁴ and an

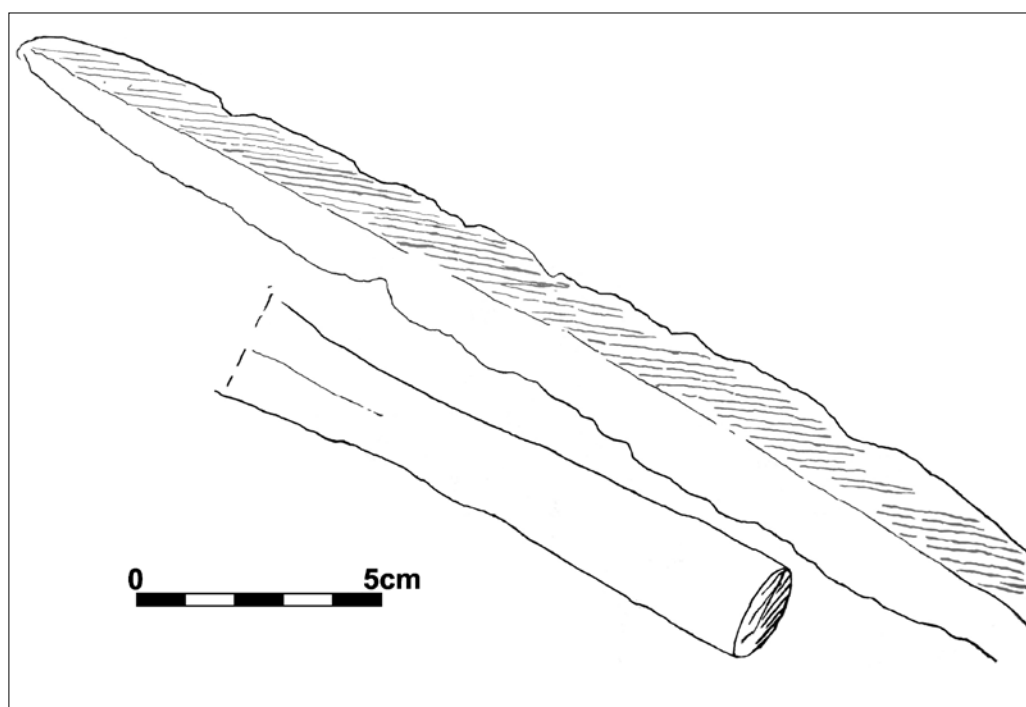


Fig. 5. The lancehead from Wojsak, com. Giżycko, loose find (?) (the heritage of Kurt Voigtmann; courtesy of the Museum für Vor- und Frühgeschichte).

¹² See e.g. the Olsztyn group specimen from Tumiany, com. Barczewo (former: *Daumen, Kr. Allenstein*), grave 120 (Juga, Ots, Szymański 2003, p. 214, fig. 4213: 2) or the Elbląg group specimens from Nowinka, com. Tolkmicko, grave 17 and 85 (unpublished materials; I'm grateful to M. Pietrzak M.A. from Archaeological Museum in Gdańsk for the access to the lanceheads). The lancehead from Wojsak reminds examples of type V after V. Kazakevičius, dated by him extremely widely from the 2nd till the 13th century but frequent starting from the 7th century (1988, p. 48-49).

¹³ Lack of up to date classifications with aptly defined types concerning heads of the shafted weapon from the early medieval period doesn't let to propose any definite statements; e.g. quite a new proposition by W. Tokarski (2000, p. 84-85) is far from being precise. Nevertheless we may observe certain similarities referring to types II or V after A. Nadolski (1954) or type V after V. Kazakevičius (1988); the latter is imprecisely described and probably therefore its chronology is as wide as 2nd-13th century AD (Kazakevičius 1988, p. 48-52; see also the remark by Iwanowska 2006, p. 54). The number of later heads is too small to draw any definite conclusions (see e.g. Głosek 1990, p. 132).

¹⁴ Dated to phase B₂/C₁-C_{1a} and not later than subphase C_{1a} (Juga-Szymańska, Kontny 2006, p. 84-85); P. Szymański claimed that rarely they might have appeared also later (Szymański 2005, p. 28-29).

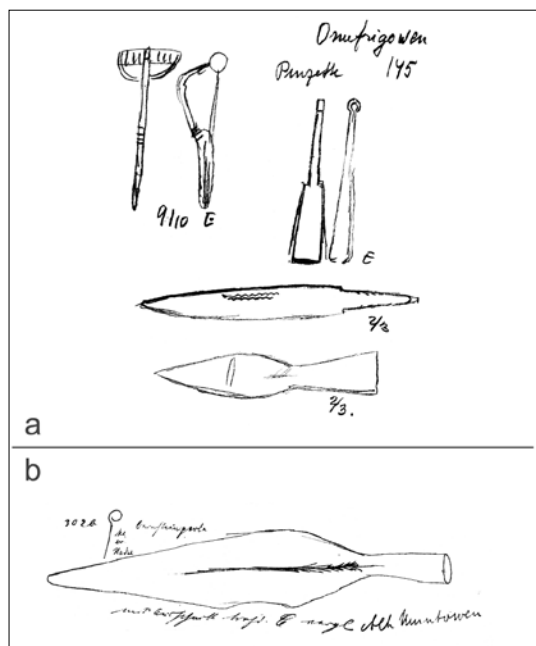


Fig. 6. The furnishing of weapon graves from Onufryjowo, com. Ruciane-Nida. a: grave 145 (the heritage of Feliks Jakobson; courtesy of the Latvian Nacionālais Vēstures Muzejs in Riga); b: grave 302b (the heritage of Martin Jahn; Kontny 2007, fig. 6: a).

amber bead (fig. 6: b)¹⁵. Unfortunately it cannot be ascribed to the particular type as the only known drawing of it, the sketch drawn by M. Jahn, is not precise enough to do so (see: Kontny 2007a, fig. 6: a)¹⁶.

The other possibly late lancehead from the Bogaczewo culture is not dated precisely enough (fig. 7). A loose find of a lancehead type I.V after V. Kazakevičius (1988) from Dręstwo, com. Bargłów Kościelny belongs to group of extremely rare specimens described accordingly to V. Kazakevičius' typology, not the P. Kaczanowski's one¹⁷. Its basic dimensions are: G = 16,6 cm, A = 3,7 cm (after the reconstruction), L = 9,4 cm, T = 7,2 cm, Q = 6,6 cm, PL 4C, PT 1/2, T2¹⁸. V. Kazakevičius proposed a very wide chronological scope for the type I.V, i.e. 3rd-6th century AD (Kazakevičius 1988, p. 29). Comparable finds are known from the Sudovian culture¹⁹. Therefore one may assume the late chronology, unfortunately so far there are no premises for more exact statements. Because of the fact that we do not know its exact chronology we cannot exclude the possibility that we have to do with the isolated find of the Sudovian culture itself (an import?): its area became quite close to the Augustów region, where Dręstwo is situated, starting from the turn of the 2nd and 3rd century AD; we must not forget that cultural processes in the Augustów region during the Late Roman and the Migration

¹⁵ Amber beads appeared in Bogaczewo culture graves from the Younger and the Late Roman Periods starting from phase B₂/C₁, with single - possibly Early Roman - exception (Szymański 2005, p. 47).

¹⁶ It should be mentioned that in Onufryjowo there was also the head of a shafted weapon that might be late also but their chronology is not very precise: in grave 220 the lancehead of uncertain form appeared together with 8 figure-of-eight amber beads (the heritage of M. Schmiedehelm, file 7.13b.331), dated generally do the Late Roman Period, starting from phase B₂/C₁ (Bitner-Wróblewska 2007a, p. 62-63).

¹⁷ The specimen is stored in the Museum of Podlasie in Białystok (inv. no. MB/A/130, 566). I'd like to express my gratitude to K. Bieńkowska M.A., the Manager of the Archaeological Section of the Museum of Podlasie, for the access to the artifact in question and letting me to include it herein. Although it was published (Jaskanis 1968) as the specimen from a grave, together with a lancehead type XIII after P. Kaczanowski, a knife and a comb type B after S. Thomas (1960) it was still found by chance and unprofessionally acquired so I cannot treat it as a furnishing of a single grave (as refers to interpretation of similar cases see Kontny 2003).

¹⁸ I resign from including the coefficients as they aren't used in V. Kazakevičius typology.

¹⁹ The closest analogy comes from Osowa, com. Suwałki, barrow 14, grave 1 (Jaskanis 1958, p. 90, pl. XX: 3).

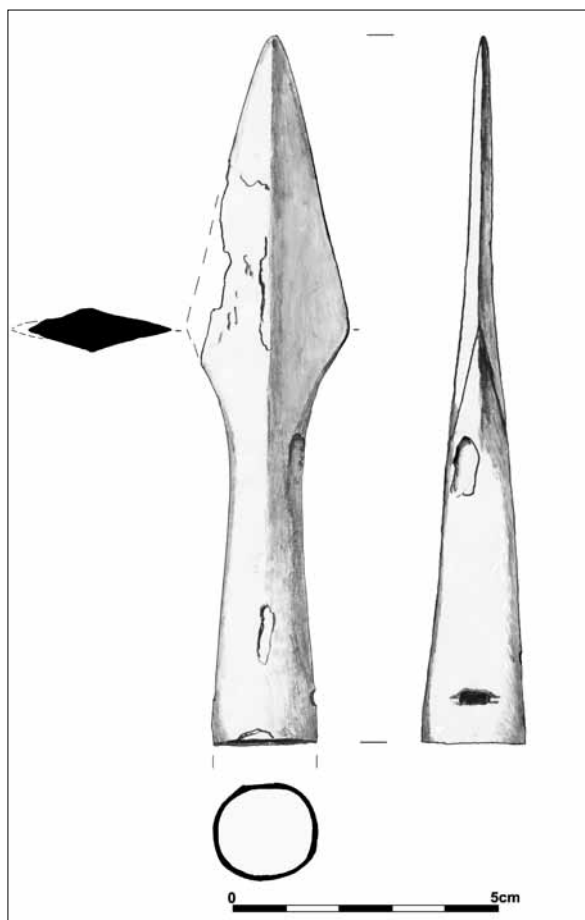


Fig. 7. The lancehead from Dręstwo, com. Bargłów Kościelny, loose find (drawn by B. Kontny; courtesy of the Museum of Podlasie in Białystok).

Periods are at least unclear (Engel, Iwanicki, Rzeszotarska-Nowakiewicz 2006, p. 204, fig. 3-5)²⁰.

The observed rarity of late heads of a shafted weapon may be also presented as a result of a certain downward trend referring to a frequency of particular types of lanceheads from the Bogaczewo culture in successive chronological stages. On the bar chart (fig. 8) one may notice that after a quite significant frequency of the Early Roman types (I-V), the specimens of types VII, VIII and XII after P. Kaczanowski, dated generally to phases B_{2b}-C_{1a'}, became most popular. Later on (the heads of types XVI-XX, XXII-XXIV), the situation changed significantly and lanceheads almost utterly disappeared from a grave furnishing.

Also other weapons, like a few hemispherical umbos could not be dated surely later than phase C_{1b} (fig. 4). Beside the item from Mojtyny (mentioned earlier) and the bronze Roman import type Zielsing R2a (1989) from Machary II, com. Piecki, grave 309a (former: *Macharren, Kr. Sensburg*), which is dated generally to phase C₁ according among the others to the cross-bow tendril brooch (La Baume 1941, p. 10, fig. 6; Kaczanowski 1992, p. 63, 96, fig. 16: 1; Nowakowski 1995, p. 66, pl. XX: 2; 2001a, p. 72, pl. V: 3), one may recall here only the shield boss from grave 323 at Babięta I, com. Piecki

²⁰ Another quite late lancehead from grave 370b at Onufryjewo is described further in this article. One could not neglect another artifact treated as late, i.e. the head of a shafted weapon from grave 61b at Romoty, com. Kalinowo (former: *Romotten, Kr. Lyck*), published lately (Juga, Ots, Szymański 2003, p. 243, fig. 4230: 2). It was ascribed to type XVIII after P. Kaczanowski (1995) and dated to phase C₁ (Iwanicki 2007, p. 150). However such attribution is definitely wrong: we have to do with type V.2, eventually V.3 after P. Kaczanowski, both dated to the Early Roman Period (Kaczanowski 1995, p. 16-17, to compare dimensions and coefficients see also table 1). Thus it is not the artifact to be discussed hereby.

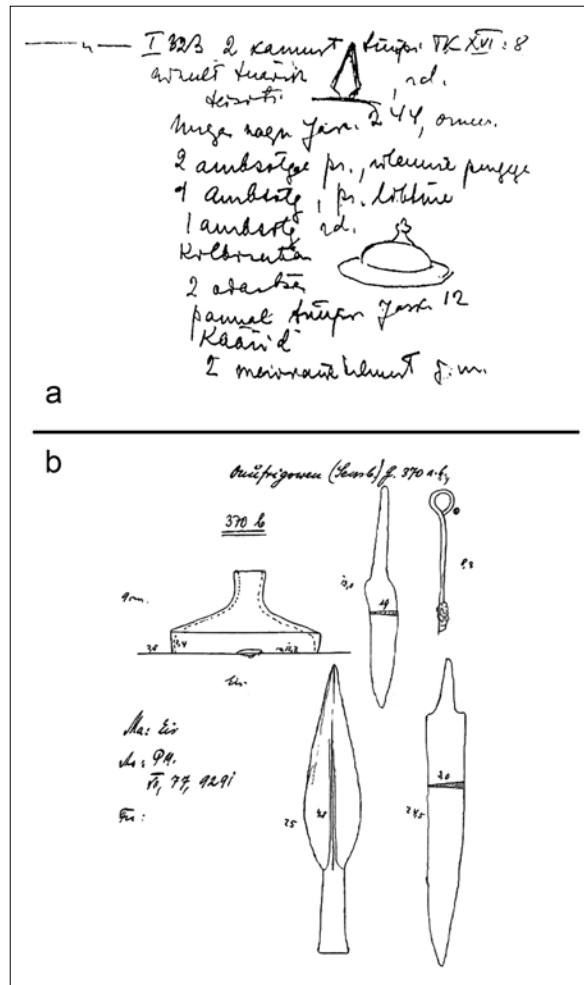


Fig. 9. Examples of late shield bosses from the Bogaczewo culture. a: Babięta, com. Piecki, site I, grave 323 (the heritage of M. Schmiedehelm, file 7.13e.90; courtesy of the Ajaloo Instituut in Tallin); b: Onufryjowo, com. Ruciane-Nida, grave 370b (the heritage of H. Jankuhn; courtesy of the Archäologisches Landesmuseum Schloß Gottorf in Schleswig).

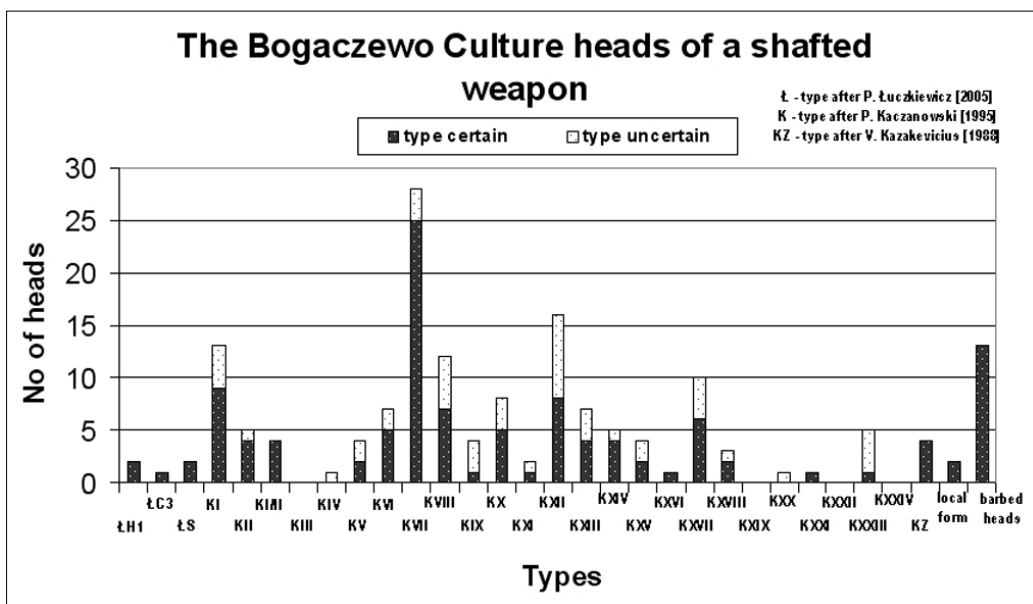


Fig. 8. Frequency of the Bogaczewo culture heads of a shafted weapon.

(former: *Babienten, Kr. Sensburg*). It is known from M. Schmiedehelm's files (file 7.13e.90)²¹, where the sketch of it was included (fig. 9: a). Although it is of a very bad quality we may surely describe it as an example of type Jahn 8 (1916), version with a knob (type 5c after J. Ilkjær/S2 after N. Zieling) or the Scandinavian form Ilkjær 6c (Ilkjær 1990)/Zieling S4 (Zieling 1989). Lately there appeared also the next source of information making the above data more precise i.e. inventory books of the Prussia-Museum (Bitner-Wróblewska 2008, pl. CII). Basing on the drawing included here one should be sure that the latter attribution is right. Therefore its chronology would be linked with the subphase C_{1b} or the early stage of phase C₂ (Ilkjær 1990, fig. 199). The appearance of among the others: cross-bow tendril brooches²², a belt buckle type D 17 after R. Madyda-Legutko²³ and 2 amber beads²⁴ in grave equipment suppose that the grave should be dated to phase C_{1b}²⁵.

Another shield boss came from grave 370b at Onufryjewo (fig. 9: b). It is of type with pseudo-spike, typical for group 6 of the Przeworsk culture weapon graves (Godłowski 1994, fig. 1: 40)²⁶ but appearing also in the Dollkeim-Kovrovo culture²⁷. The grave equipment embraced additionally an iron pin type Beckmann B²⁸ (1969), two knives and a lancehead close to type I.3 after P. Kaczanowski²⁹ (H. Jankuhn's files; M. Schmiedehelm's heritage, file 7.12.108) and as a whole should be most probably dated to the later stage of subphase C_{1a} or – less probably – to subphase C_{1b}.

One may mention here also a shield grip from grave 61 at Wyszembork, com. Mragowo (type Ilkjær 5b/Zieling VI: form with trapezoid rivet-plates). Such specimens are dated to the late stage of subphase C_{1a} and subphase C_{1b}³⁰, what is confirmed by the other elements of the grave furnishing. It was found together with a pin type C after Beckmann (1969)³¹, a belt buckle type Madyda-Legutko D 29 (1987)³², and a fragment of a spindle whorl (Szymański 2005, p. 70-71, pl. XXIV) so its dating should be set most probably around the turn of subphases C_{1a} and C_{1b} (fig. 10: a).

²¹ It is in Estonian. I'm grateful to A. Juga-Szymańska M.A. for translating the text.

²² Probably type A.158 and two specimens of type A.161-162 (Almgren 1923). Cross-bow tendril brooches of the latter type from the Bogaczewo culture are generally dated to phase C₁; later specimens, characterized by knee-shaped bow are rare (Nowakowski 1995, p. 34-35; 2001b, p. 136-137).

²³ M. Schmiedehelm wrote that it was a belt buckle similar to one known from „Jask. 12” what surely means cemetery at Gašior, com. Ruciane-Nida (former: *Jaskowska See, Kr. Sensburg*), grave 12, where belt buckle type D 17 after R. Madyda-Legutko (1987) was found (Schmiedehelm 1990, p. 19, pl. XIII: 5). Such buckles were typical for phase C₁ (Madyda-Legutko 1987, tabl. 9).

²⁴ See footnote 15.

²⁵ One should not forget K. Godłowski's remark that hemispherical umbos in Balt milieu should be ascribed rather to later stage of subphase C_{1b} or initial stage of phase C₂ (Godłowski 1994, p. 171). Nevertheless his observation has been made basing on a very small sample originating from the Sudovian not the Bogaczewo culture. Therefore it cannot be conclusive for us.

²⁶ Dated to the late stage of subphase C_{1a} and vast part of subphase C_{1b} (Godłowski 1992, p. 74).

²⁷ See e.g. Elyanovka, raj. Bagratyonovsk, grave 38 (former: *Wackern, Kr. Pr.-Eylau*): Nowakowski 1996, pl. 56: 7); *Prussia Archiv*, no PM-A 636/1, p. 084-085; M. Jahn's files; H. Jankuhn's files. However objects attributed to the grave furnishing seem not to be chronologically coherent. It refers especially to the brooch, described by H. Jankuhn as *raupenförmige gerippten Bügel*, characteristic for the Late Roman Period or Early Migration Period.

²⁸ Dated generally to the Early Roman Period but documented also for the initial stage of the Younger Roman Period (Szymański 2006, p. 28).

²⁹ Identification after the sketch of the artifact drawn by H. Jankuhn; additionally he noticed that its length was 25 cm and the maximum width of the blade 4,8 cm. The coefficients calculated on the base of the drawing are following: T/G = 0,29, A/L = 0,27, Q/L = 0,74. However the typological description evokes slight doubts as the specimen is dated very late, comparing to the general time span characterizing that type i.e. the Early Roman Period; the other subtypes of type I after P. Kaczanowski lasted until the start of subphase C_{1a} (Kaczanowski 1995, tabl. XX).

³⁰ They are typical for group 6 of the Przeworsk culture weapon graves (Godłowski 1994, fig. 1: 45).

³¹ See footnote 14.

³² As refers to cultures of the West Balt circle it is dated to phases C_{1b}-C₂ (Madyda-Legutko 1987, p. 33, tab. 9).

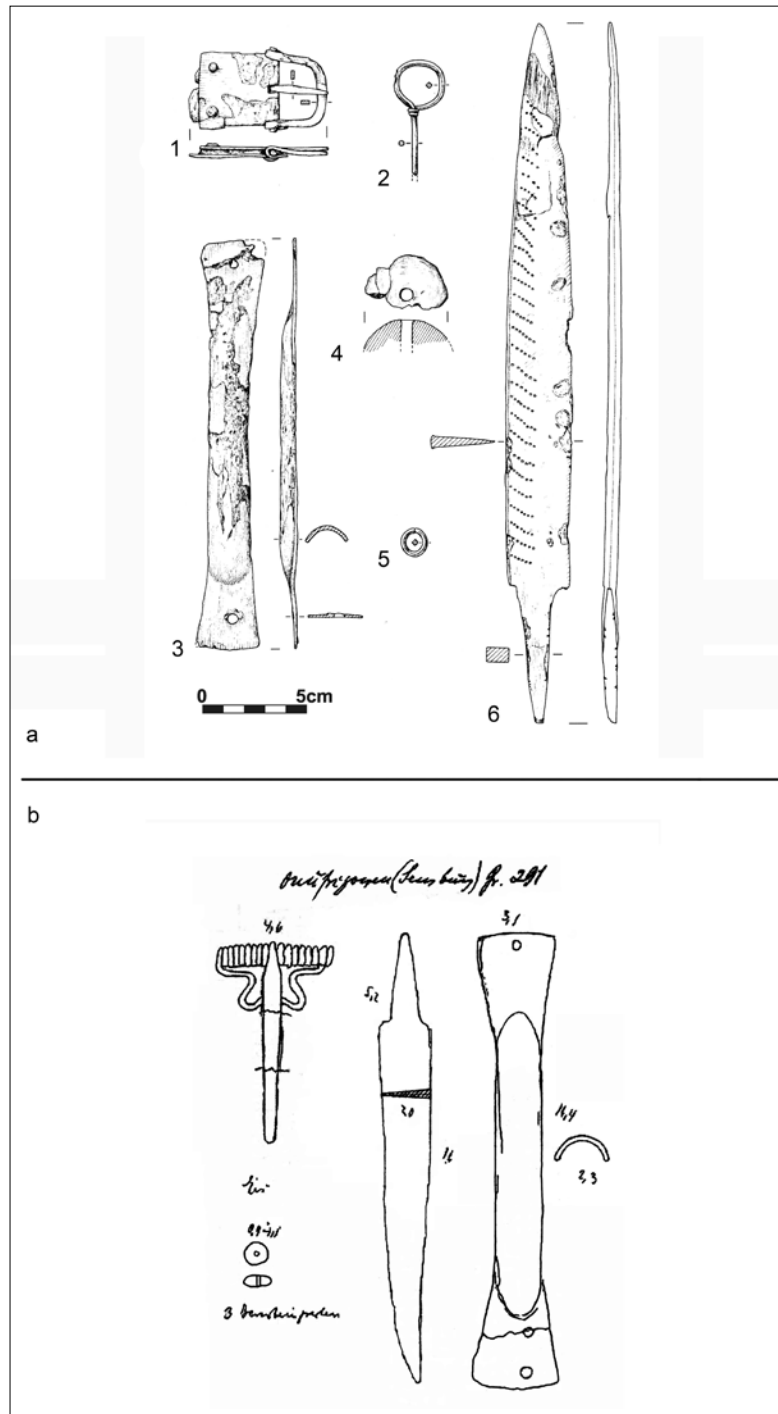


Fig. 10. Examples of late shield grips from the Bogaczewo culture. a: Wyszembork, com. Mrągowo, grave 61 (Szymański 2005, pl. XXIV); b: Onufryjowo, com. Ruciane Nida, grave 291 (the heritage of H. Jankuhn; courtesy of the Archäologisches Landesmuseum Schloß Gottorf in Schleswig).

A similar shield grip came from Onufryjowo, grave 291 (H. Jankuhn's files; M. Schmiedehelm's legacy, file 7.13e.205; Szymański 2005, p. 70-71)³³. It appeared together with an iron brooch with a lyre-shaped chord type A.167 (1923), a knife and 3 amber beads (fig. 10: b). The grave furnishing should also be dated to phase C₁, probably its later stage, because of the shape of the shield grip,

³³ It is worth to notice that probably the specimen was repaired, what is proved by appearance of two rivet-holes on one of the rivet-plates.

the fact that such fibulas appeared during the Late Roman Period³⁴ and additionally because of the appearance of amber beads³⁵. Analogical shield grip was found in grave 260 from Miętkie, com. Dźwierzuty (former: *Mingfen, Kr. Ortelsburg*), unfortunately only with a nail (H. Jankuhn's files), so its chronology cannot be set precisely. Therefore, the shield fittings presented above don't change the fact that late weapon forms are exceptional in the Bogaczewo culture³⁶.

Concluding one should say that examples of late weapons in the Bogaczewo culture are unique; so far we can enumerate only a few specimens and there are almost no artifacts dated later than phase C_{1b} (table 1). The question appears: is this a result of a general impoverishment of a burial rite and a grave furnishing? It has been noticed that a grave furnishing became poor during the Younger and the Late Roman Period not only in the Przeworsk culture (Szydłowski 1977, p. 76; Godłowski 1985, p. 91; Błażejowski 1998, p. 111) but also in the Bogaczewo one (Nowakowski 1995, p. 19-20; Szymański 2005, p. 105). Comparing it with the Przeworsk culture case it is clear that in the latter one, a general impoverishment of burial rite didn't exclude weapons from grave furnishing. They were still quite numerous from phase C₂ on, although frequently they appeared only symbolically, as single specimens (or fragments of them) not the whole sets (Kontny 2002, p. 127-128). The only elements that almost ultimately evaporated were spurs (Kontny 2001, p. 102-104, diagram 10). Therefore it seems equivocal to explain the rarity of weapons in that way. Moreover the impoverishment mentioned above was not the overwhelming rule, as graves characterized by relatively rich equipment still appeared in the Bogaczewo culture as late as phase C₂, e.g. Wyszembork, grave 201a³⁷, grave 201c³⁸ or grave 191a-b³⁹ (remarks concerning the chronology of those graves: Szymański 2005, p. 106). It should be underlined that weapons are invariably frequent in the neighboring cultures of the West Balt circle during the Younger and the Late Roman Period. Despite reduction in number of specimens in a grave furnishing, weapon graves are well documented in the Dollkeim-Kovrovo culture at least to phase D (Nowakowski 1996, p. 58). Also in the Sudovian culture there are a lot of graves with an armament from phases C₃-D from cemeteries at Netta, com. Augustów, Osowa, com. Suwałki, Sz wajcaria, com. Suwałki, Żywa Woda, com. Jeleniewo (Kontny 2007b; see: Bitner-Wróblewska 2007b, p. 114).

³⁴ See Szymański 2005, p. 25-26.

³⁵ See footnote 15.

³⁶ As refers to shield elements, P. Iwanicki included to the Bogaczewo culture materials also the hemispherical shield boss from grave 79 at Netta, com. Augustów (Iwanicki 2007, p. 149). In my opinion, however, the attribution is not so obvious. The grave is dated quite lately, to phase C₂ (Bitner-Wróblewska 2007a, p. 25-26, pl. XXXVII-XL), although one may suggest even earlier dating, to subphase C_{1b} (a bronze crossbow tendril brooch with a false spring and a knee-shaped bow appeared here – see: Nowakowski 2001b, p. 133). Therefore it seems to be too late to be joined univocally with the Bogaczewo culture. It is generally accepted that starting from subphase C_{1b} we have to do with the Sudovian culture (Nowakowski 1995, p. 77), although such a view could change with further researches taking into consideration archival data. One should mention here A. Bitner-Wróblewska, who underlines that despite the Bogaczewo culture influences clearly visible in the materials from Netta, its local features are well apparent. She enumerates i.a. rectangular grave pits (Bitner-Wróblewska 2007a, p. 116), and it was also the shape of grave 79 mentioned above (Bitner-Wróblewska 2007a, pl. XXXVII). Moreover stone structures documented in that case find analogies in Suwałki area (Bitner-Wróblewska 2007a, p. 103). Concluding, so far there are no grounds to treat grave 79 as the Bogaczewo culture one, especially if we take into consideration fact that P. Iwanicki didn't accounted for his controversial thesis.

³⁷ The grave equipment embraced: beads, a clay vessel and two cross-bow fibulas incl. one with a full catch-plate (Szymański 2001, pl. XLIV).

³⁸ In grave there were found: a fibula type A.168 with a knee shaped bow, 3 clay vessels, a knife, 2 beads, a fragment of an ornamented bone item (Szymański 2001, pl. XLV).

³⁹ Several glass beads, different belt fittings, a fibula A.172 and clay vessels were found here (Szymański 2001, pl. XXXIX-XL).

As refers to the Bogaczewo culture, in my opinion, at the moment it seems most probable that the custom of putting weapons into graves was abandoned or at least significantly limited before the end of the culture itself⁴⁰. Later on, the phenomenon touched the Sudovian culture but here it was strictly connected with a general pauperization of a grave equipment. How then to explain the excluding the armament from grave furnishing in the case of the Bogaczewo culture? One cannot exclude the possibility that it was a result of influences from the Wielbark culture, where a custom of putting weapons into graves hadn't been practiced⁴¹. It should also be noticed that the contact zone between the Bogaczewo culture and the Wielbark culture became longer after replacing the Przeworsk culture in its east zone by the Wielbark culture during the Younger Roman Period. Together with almost entire evaporating of the border zone between the Bogaczewo and the Wielbark cultures in the Paślęka basin (Andrzejowski, Cieśliński 2007, p. 281-282) it had an impact on better prospects for the ideas exchange, cutting it out from the Przeworsk culture influences (see: Bitner-Wróblewska 1989, p. 165; Nowakowski 1989, p. 151). It is documented e.g. by the appearance of bronze buckles and cross-bow tendril brooches ornamented with coils of a notched wire typical for the Wielbark culture (Nowakowski 1989, p. 151, 153). Some scholars even claim that we have to do with the stylistic community joining both cultures (Andrzejowski, Cieśliński 2007, p. 305). If really so, why couldn't it concern also a burial rite, namely an absence of weapons? Such supposition has already appeared in the archaeological literature but referring to the Sudovian culture during its late stage, so called "Prudziszki phase" (Bitner-Wróblewska 2005). A. Bitner-Wróblewska assumed that such trait of the funerary ritual was adopted by the Sudovian culture through the Olsztyn group (Bitner-Wróblewska 2005, p. 38-40). It has been questioned lately (Szymański 2006, p. 375-376) because of chronological reasons: weaponry had disappeared from the Sudovian culture graves earlier than the Olsztyn group emerged. Nevertheless "Gothic" influences on the Sudovian culture are not denied utterly as they quite reasonably explain the lack of weapons in Gołdapa region (Szymański 2006, p. 375) linked with the Sudovian culture but showing many Bogaczewo culture traits. Can we employ the same explanation in the case of the Bogaczewo culture itself? Such supposition seems the most plausible, but so far problem cannot be solved ultimately and it demands further studies...

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⁴⁰ The process of the Bogaczewo culture's atrophy is still the subject of discussion e.g. W. Nowakowski (2000, p. 170-171) versus A. Bitner-Wróblewska (2000; 2007b).

⁴¹ The problem of contacts between both cultural units has been already discussed (Bitner-Wróblewska 1989; Nowakowski 1989; Andrzejowski, Cieśliński 2007) however without touching the problem of weaponry.

Bibliography

- Almgren O.
1923 *Studien über nordeuropäischen Fibelformen der ersten nachchristlichen Jahrhunderte mit Berücksichtigung der provinzialrömischen und südrussischen Formen*, Mannus-Bibliothek 32, Leipzig².
- Andrzejowski J., Cieśliński A.
2007 *Germanie i Baltowie u schyłku starożytności. Przyjane związki czy wrogie sąsiedztwo?*, [in:] *Kultura bogaczewska*, p. 279-319.
- Antoniewicz J.
1963 *Wyniki badań przeprowadzonych w latach 1958-1960 na cmentarzysku w miejscowości Szwajcaria, pow. Suwałki*, WA XXX/2, p. 166-192.
- Beckmann B.
1969 *Die baltischen Metallnadeln der römischen Kaiserzeit*, SaalBj XXVI, p. 107-119.
- Bitner-Wróblewska A.
1989 *Elementy batyjskie w kulturze wielbarskiej*, [in:] *Kultura wielbarska II*, p. 161-177.
2000 *Early Migration Period in the Mazurian Lakeland – Phantom or Reality?*, [in:] *Die spätrömische Kaiserzeit*, p. 153-167.
2005 *Suwalscy „pacyfiści”. Wpływ Gotów na obrządek pogrzebowy mieszkańców Suwalszczyzny w okresie wędrówek ludów?*, [in:] *Europa barbaria*, p. 33-42.
2007a *Netta. A Balt Cemetery in Northeastern Poland*, Mon. Arch. Barbarica XII, Warszawa.
2007b *Zmierzch kultury bogaczewskiej i jej relacje z grupą olsztyńską*, [in:] *Kultura bogaczewska*, p. 219-237.
2008 *Archeologiczne księgi inwentarzowe dawnego Prussia-Museum, Aestiorum Hereditas I*, Olsztyn.
- Błażejowski A.
1998 *Obrządek pogrzebowy kultury przeworskiej na Śląsku*, Wrocław.
- Bochnak T.
2003 *„Długie noże” w grobach kultury przeworskiej z młodszego okresu przedrzymskiego – broń czy narzędzie?*, *MatArch XXXIV*, p. 5-18.
- Engel M., Iwanicki P., Rzeszotarska Nowakiewicz A.
2006 *„Sudovia in qua Sudovitae”. The New hypothesis about the origin of Sudovian culture*, *AL 7*, p. 184-211.
- Głosek M.
1990 *Broń drzewcowa i obuchowa*, [in:] A. Nadolski (ed.), *Uzbrojenie w Polsce średniowiecznej 1350-1450*, Łódź, p. 131-142.
- Godłowski K.
1985 *Przemiany kulturowe i osadnicze w południowej i środkowej Polsce w młodszym okresie przedrzymskim i w okresie rzymskim*, Wrocław-Warszawa-Kraków-Gdańsk-Łódź.
1992 *Zmiany w uzbrojeniu ludności kultury przeworskiej w okresie wpływów rzymskich*, [in:] *Arma et Ollae. Studia dedykowane Profesorowi Andrzejowi Nadolskiemu w 70 rocznicę urodzin i 45 rocznicę pracy naukowej. Sesja naukowa, Łódź, 7-8 maja 1992 r.*, Łódź, p. 71-88.
1994 *Die Chronologie der germanischen Waffengräber in der jüngeren und späten Kaiserzeit*, [in:] *Beiträge zu römischer und barbarischer Bewaffnung*, p. 169-178.
- Hollack E.
1908 *Erläuterungen zur vorgeschichtlichen Übersichtskarte von Ostpreussen*, Berlin-Glogau.
- Hollack E., Peiser F.
1904 *Das Gräberfeld von Moythienen, Königsberg*.
- Ilkjaer J.
1990 *Illerup Ådal. 1. Die Lanzen und Speere. Textband*, *JASP XXV/1*, Aarhus.
- Iwanicki P.
2007 *Wschodnia strefa kultury bogaczewskiej w świetle materiałów archeologicznych. Zarys problematyki*, [in:] *Kultura bogaczewska*, p. 139-166.
- Iwanowska G.
2006 *Cmentarzysko kurhanowe w Żwirblach pod Wilnem. Wprowadzenie w problematykę*. Katalog, Warszawa.
- Jahn M.
1916 *Die Bewaffnung der Germanen in der älteren Eisenzeit, etwa von 700 v. Chr. bis 200 n. Chr.*, Mannus-Bibliothek 16, Würzburg.
- Jaskanis J.
1958 *Sprawozdanie z badań w 1956 r. na cmentarzysku kurhanowym w miejscowości Osowa, pow. Suwałki*, WA XXV/1-2, p. 75-98.
1968 *Grób z okresu rzymskiego – odkryty w Dreństwie pow. Augustów*, *RB VIII*, 1967, 401-404.
- Jonakowski M.
1996 *Komplet narzędzi do krzesania ognia w kulturze przeworskiej ze szczególnym uwzględnieniem krzesiw sztabkowatych*, [in:] W. Nowakowski (ed.), *Concordia. Studia ofiarowane Jerzemu Okuliczowi-Kozarynowi w sześćdziesiątą piątą rocznicę urodzin*, Warszawa, p. 93-104.
- Juga A., Ots M., Szymański P.
2003 *Über die Vorteile der Bildung einer „didaktischen Kollektion”. Materialien der Bogaczewo-Kultur und Olsztym-Gruppe in Ajaloo Instituut in Tallinn (Estland)*, [in:] *Antyk i Barbarzyńcy*, p. 205-243.
- Juga-Szymańska A., Kontny B.,
2006 *Szkło z Nikutowa przez szkielko i oko. Rzadki import rzymski z Pojezierza Mazurskiego*, [in:] A. Bursche, R. Ciolek (ed.), *Korpus znalezisk rzymskich z europejskiego Barbaricum. Polska. Supplement 3, Nowe znaleziska importów rzymskich z ziem Polski III*, Warszawa, p. 79-92.
- Juga-Szymańska A., Szymański P.
2003 *Das Archiv von Martha Schmiedehelm und die Möglichkeiten seiner Ausnutzung in heutiger Vor- und Frühgeschichte*, [in:] W. Nowakowski, M. Lemke (eds.), *Auf der Suche nach der verlorenen Archäologie*, Warszawa, p. 57-60.
- Kaczanowski P.
1992 *Importy broni rzymskiej na obszarze europejskiego Barbaricum*, Kraków.
1995 *Klasyfikacja grotów broni drzewcowej kultury przeworskiej z okresu rzymskiego*, Kraków.
- Karczewski M.
1999 *Chronologia grobów z bronią odkrytych na cmentarzysku kultury bogaczewskiej z okresu wpływów rzymskich i wędrówek ludów w Paprotniach-Kolonii, stan. 1, w Krainie Wielkich Jezior Mazurskich*, *AL 1*, p. 72-109.
- Kazakevičius V.
1988 *Oružie baltskich plemen II-VIII vekov na teritorii Litvy*, Vilnius.
- Kontny B.
2001 *Wojna oczami archeologa. Uwagi na temat sposobów walki ludności kultury przeworskiej w okresie wpływów rzymskich w świetle źródeł archeologicznych*, *Światowit, Fasc. B, N. S. III (XLIV)*, p. 91-119.
2002 *Broń jako wyraz zmian w obrządku pogrzebowym. Analiza zestawów uzbrojenia w kulturze przeworskiej od młodszego okresu wpływów rzymskich do początków okresu wędrówek ludów*, *Światowit, Fasc. B, N. S. IV (XLV)*, p. 101-144.
2003 *Die Wiederentdeckung eines Fundes aus Grudynia Mała – Versuch einer Neuinterpretation des Grabes 2*,

- [in:] W. Nowakowski, M. Lemke (eds.), *Auf der Suche nach der verlorenen Archäologie*, Warszawa, p. 61-71.
- 2006 Powracający temat. Głos w sprawie odkrycia z Żarnowca, [in:] *Goci i ich sąsiedzi*, p. 143-160.
- 2007a Najwcześniejsze elementy uzbrojenia w kulturze bogaczewskiej w świetle zewnętrznych wpływów kulturowych, [in:] *Kultura bogaczewska*, p. 73-111.
- 2007b Foreign influences on the weaponry of the Bogaczewo and Sudovian cultures. The case of shafted weapon, [in:] A. Bliujienė (ed.), *Weapons, Weaponry and Man (in memoriam Vytautas Kazakevičius)*, Archaeologia Baltica 8, Klaipėda, p. 117-132.
- La Baume W.
1941 *Der Altpreußische Schild*, Alt-Preußen 6/1, p. 5-12.
- Łuczkiwicz P.
2006 *Uzbrojenie ludności ziem Polski w młodszym okresie przedrzymskim*, Lublin.
- Madyda-Legutko R.
1987 *Die Gürtelschnallen der römischen Kaiserzeit und der frühen Völkerwanderungszeit im mitteleuropäischen Barbaricum*, BARIntSer 360, Oxford.
- Nadolski A.
1954 *Studia nad uzbrojeniem polskim w X, XI i XII wieku*, Łódź.
- Nowakowski W.
1989 *Kultura wielbarska a zachodniobałtyjski krąg kulturowy*, [in:] *Kultura wielbarska II*, p. 143-159.
- 1994 *Krieger ohne Schwerter – Die Bewaffnung der Aestii in der römischen Kaiserzeit*, [in:] *Beiträge zu römischer und barbarischer Bewaffnung*, p. 379-391.
- 1995 *Od Galindai do Galinditae. Z badań nad pradziejami bałtyjskiego ludu z Pojezierza Mazurskiego*, Barbaricum 4, Warszawa.
- 1996 *Das Samland in der römischen Kaiserzeit und seine Verbindungen mit dem römischen Reich und der barbarischen Welt*, Veröffentlichung Marburg, Sonderband 10, Marburg-Warszawa.
- 2000 *Die Olsztyn-Gruppe (masurgermanische Kultur) in der Völkerwanderungszeit. Das Problem ihrer chronologischen und territorialen Grenzen*, [in:] *Die spätrömische Kaiserzeit*, p. 168-180.
- 2001a *Masuren, Corpus der römischen Funde im europäischen Barbaricum 1*, Polen, Warszawa.
- 2001b *Żelazne zapinki kuszowate z podwiniętą nóżką w europejskim Barbaricum*, WA LIV, (1995-1998), p. 129-146.
- 2007a *Remarks in discussion*, [in:] *Kultura bogaczewska*, p. 189-190.
- 2007b *Aestiorum Gladii. Swords in the West Baltic Circle in the Roman Period*, [in:] A. Bliujienė (ed.), *Weapons, Weaponry and Man (in memoriam Vytautas Kazakevičius)*, Archaeologia Baltica 8, Klaipėda, p. 85-94.
- Reich Ch.
2003 *Die Prussia-Sammlung im Berliner Museum für Vor- und Frühgeschichte. Geschichte und Stand der Bearbeitung* [in:] W. Nowakowski, M. Lemke (eds.) *Auf der Suche nach der Verlorenen Archäologie*, Warszawa, p. 109-114.
- 2005 *Die Prussia-Sammlung im Museum für Vor- und Frühgeschichte*, ActaPraehistA 36/37 (2004/2005), p. 343-354.
- Schmiedehelm M.
1990 *Das Gräberfeld Gąsior*, Arch.Baltica IX, p. 5-126.
- Szela A.
2006 *Żelazna siekierka ze stanowiska kultury przeworskiej w Dzierzgowie, pow. mławski*, [in:] *Pogranicze trzech światów*, p. 363-367.
- Szydłowski J.
1977 *Grupa dobrodzieńska jako wyraz lokalnych przemian w sychłkowiej fazie kultury przeworskiej*, Katowice.
- Szymański P.
2001 *Mikroregion osadniczy z okresu wpływów rzymskich w rejonie jeziora Sałęt na Pojezierzu Mazurskim*, Ph.D. thesis, Library of Institute of Archaeology, University of Warsaw.
- 2005 *Mikroregion osadniczy z okresu wpływów rzymskich w rejonie jeziora Sałęt na Pojezierzu Mazurskim*, Światowit Supplement Series P: Prehistory and Middle Ages X, Warszawa.
- 2006 *Dwie zapinki z dawnego Rothebude i z Czerwonego Dworu. Kontakty tzw. skupienia goldapskiego kultury sudowskiej*, [in:] *Pogranicze trzech światów*, p. 369-380.
- Thomas S.
1960 *Studien zu den germanischen Kämmen der römischen Kaiserzeit*, ArbFBerSächs 8, 54-215.
- Tokarski W.
2000 *Militaria – broń miotająca, obuchowa i drzewcowa, oraz elementy rzędu końskiego i oporządzenia jeździeckiego*, [in:] Z. Kurnatowska (ed.), *Wczesnośredniowieczne mosty przy Ostrowie Lednickim. Tom I – mosty traktu gnieźnieńskiego*, Lednica-Toruń, p. 77-103.
- Zieling N.
1989 *Studien zu germanischen Schilden der Spätlatène- und der römischen Kaiserzeit im freien Germanien*, BARIntSer 505, Oxford.