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## Hooked Pins in the Przeworsk Culture – Typology, Chronology, Distribution and Function

### Abstract

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Thanks to the analysis of hooked pins in the Przeworsk culture, a new division of this category was introduced. A new typological classification of the hooked pins was made and their two types (1–2) and their subtypes (A–B) were defined. The article takes into account the territorial and chronological range of their occurrence, from the early Pre-Roman Period to Roman Period and the Migration Period. The function of the hooked pins is also presented.

**Keywords:** metal tools, pins, spinning, Przeworsk culture

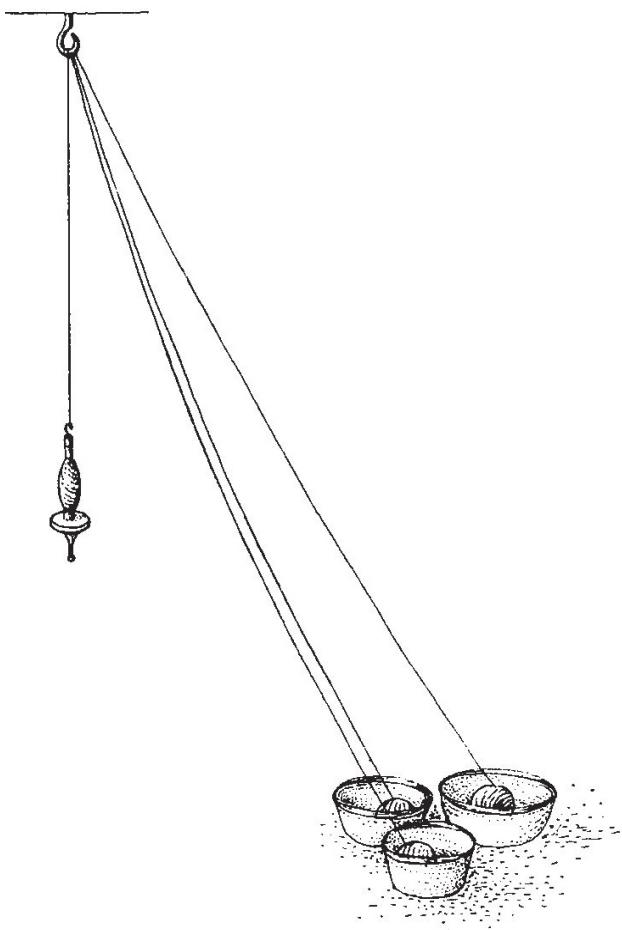
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### Introduction

One of the elements of grave equipment in Polish territory during the Roman Period were pins with a twisted or untwisted handle and a hooked head. These artefacts are known in the literature as hooked pins (German: *Hakennadel*, Polish: *szpila hakowa*, *szpila haczykowata* or *zatyczka do przedzy*). They are uncomplicated objects, usually several centimetres long.

Pins with hooked heads attracted the attention of Iron Age researchers relatively early on. Already in 1910 M. von Kimakowicz-Winnicki presented ethnographic analogies and concluded that such items could have served as parts of spindles (von Kimakowicz-Winnicki 1910, 58–64). The most complete study on metal pins is the work of B. Beckmann (1966). This researcher created a typology of metal pins from the areas of Central European *Barbaricum*, distinguishing 10 groups and defining their chronology. However, it should be clearly noted that due to the growth of the source base, this work is becoming increasingly outdated. B. Beckmann classified hooked pins in the sixth group (form numbers 103 and 104) (Beckmann 1966, 33).

In Beckmann's typology, hooked pins belonged to similar objects serving as ornaments or parts of a costume. Although very similar in formal terms, the hooked pins discussed here were most probably tools. Their function has been under discussion for a long time. Even though, as mentioned, M. von Kimakowicz-Winnicki already considered them elements of spindles, this interpretation was not generally accepted. Some researchers considered the hooked pins to be objects for fastening hair, or the shrouds or clothing in which a dead person was wrapped (Beckmann 1966, 7–8; Godłowski 1977, 41). According to R. Laser, the pins in question could have been used to fasten certain parts of light robes used by women (Laser 1987, 48). According to some researchers who dealt with the materials of the so-called Gothic circle cultures, these could have been hair ornament needles or accessories for fastening hair, clothing or the shroud in which the corpse was wrapped (Kmieciński 1962, 78; Kokowski 1993, tab. 116a: 1–26; Wołagiewicz 1995, 41). An original conception was presented by M. Biborski and P. Kaczanowski. Basing on the finding of a pyxis-type wooden casket from the site of the Wielbark culture in Lędyce, near Złotów, in which remains of a fabric



**Fig. 1.** Hook pin as part of the spindle in 1900, Transylvania (Romania) (after Laser 1987, 51, fig. 2).

with a needle and a hooked pin were found, the researchers assumed that the pins could have been used for fastening, i.e. joining fabric by means of a rare stitch for fitting before sewing garments (Biborski and Kaczanowski 2001, 74). Finds from the Wielbark culture, mainly from the Masłomęcz group, which often occur in the graves of women and children, or from the Chernyakhov culture are of great importance, as they usually come from skeletal graves, where the location of the inventory reflects the intentional arrangement of objects deposited during the funeral ceremony, and in occasional cases it is also possible to preserve fragments of objects from organic substances (Kokowski 1993; Magomedov 2015, 11–12). Next to the hooked pins, wood remnants were sometimes identified, according to A. Kokowski, being the remains of wooden sheaths (Kokowski 2005, 381).

Although there have been numerous attempts to interpret the function of hooked pins from the territory of Central European *Barbaricum* in various ways, it seems that the original concept of M. von Kima-

kowicz-Winnicki is the most probable (von Kimakowicz-Winnicki 1910, 58–64; Beckmann 1966, 7–8; Godłowski 1977, 41). As mentioned, he assumed that the items in question were parts of spindles. This hypothesis may be confirmed, among other things, by the co-occurrence of hooked pins with spindle whorls in skeletal tombs (Dąbrowska 1974, 232–233; 1997, 99; Godłowski 1977, 41). It is assumed that they were a part of wooden spindles or spinning wheels, and the hooked end of the pin head was used to catch threads and to twist several thinner threads into thicker ones (Dąbrowska 2008, 35). Both ethnographic analogies (Fig. 1; Laser 1987, 48) and examples of archaeological findings from the other periods or cultural circles (Gleba 2008, 103; Chmielewski 2009, 63–65) indicate the use of hooked pins as parts of spindles. Particularly instructive in this respect seem to be the remarks of M. Gleba, who studied textile production on the Apennine Peninsula before the period of domination enjoyed by the Roman Republic. According to the aforementioned researcher, the so-called spinning hooks were an element of spindles. They were supposed to be metal pieces about 5 cm long, which were fixed in a wooden spindle shaft (Gleba 2008, 103). Another argument confirming M. von Kimakowicz-Winnicki's hypothesis is the depiction on a vessel from the Athenian Acropolis (Fig. 2). It shows an object placed in a spindle resembling the head of a hooked pin (Graef and Langlotz 1925, pl. 93). It seems that the hook in the spindle functioned as a support for rolling several thinner threads into thicker ones and for hooking threads. J. Maik came to similar conclusions. This undisputed expert on protohistoric textiles interprets the hooked pins as parts of spindles or, more precisely, plugs to prevent the yarn from slipping off the spindle. According to J. Maik, the aforementioned "sheaths" or "cases" are the remains of wooden spindles (Maik 2012, 57–59).

The hooked pins found in the Przeworsk culture have not yet been the subject of a separate study. K. Godłowski focused on this type of findings while discussing sites from Upper Silesia. The researcher noticed that hooked pins often accompany spindle whorls and are usually found in women's graves (Godłowski 1977, 41). The observations of K. Godłowski's were complemented among others by (Dąbrowska 1997, 99; 2008, 5). However, until now, no attention has been paid to the diversity of these items and whether these differences have a chronological value. Currently, 107 hooked pins from 38 sites of the Przeworsk culture have been published in the literature. The most common are iron specimens (85 examples), but pins made

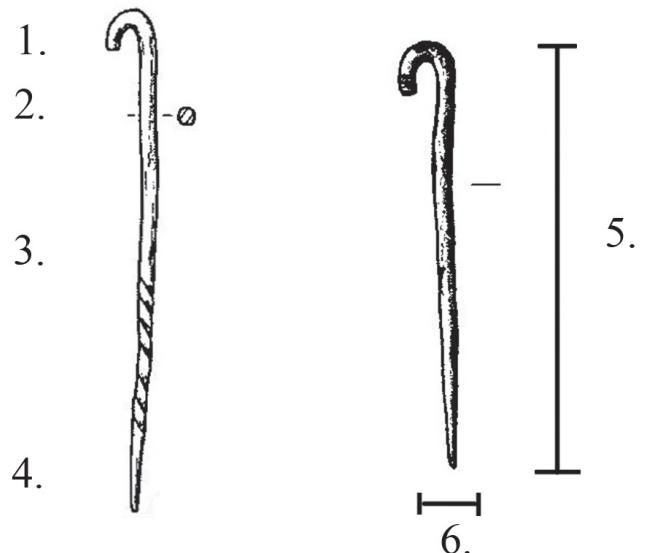


**Fig. 2.** Hook pin as part of the Acropolis spindle in Athens (after Graef and Langlotz 1925, fig. 93).

of copper alloys have also been recorded (12 pieces). In the literature, such pins are defined as those made of bronze but this is only a customary term because there are no results from metallurgical analysis in the case of aforementioned artefacts. No information on the material of which they were made is available for 10 pieces. There were 95 examples from cemeteries, 12 are fragmentary findings without context, also from cemeteries.

### Typology, chronology and distribution

The classification is based on 97 pins, for which we have information on the raw material from which they were made and their shape (Fig. 3). While analysing the diversity of hooked pins of the Przeworsk culture, a two-stage typology was adopted, i.e. a division into types and subtypes. The primary criterion for distinguishing the types was the metal material from which the objects were made (1 – iron, 2 – copper alloys). It should be noted that the hooked pins are also present in the neighbouring Wielbark culture and



**Fig. 3.** Basic construction elements and parameters of a hook pin.  
1 – head, 2 – neck, 3 – handle, 4 – spike, 5 – length, 6 – width  
(after Dąbrowska 1997, 213, fig. LXII: 14; Maciąłowicz 2010, 374,  
fig. 9: 4; modified by W. Stęcel).

for the most part are made of copper alloys. However, the summary of monuments in Wielbark culture has not yet been presented. The main distinction between this category of artefacts is the raw material, and this is the main criterion of the division adopted in this publication. The secondary features, based on which the subtypes were distinguished, were the form of the shape of the pin shaft, namely the presence (A) or absence (B) of twisting.

**Type 1** includes hooked pins made of iron. The length of preserved Type 1 hooked pins varies from 2.5 cm to 7.5 cm. This type is represented by 85 pieces. All type 1 pins come from sepulchral sites, specifically cremation graves. Two subtypes (1.A and 1.B) were identified according to the shape of the handle.

**Subtype 1.A** (Fig. 4, 5) includes iron hooked pins with a straight, i.e. without any twisting handle and with a twisted head (Fig. 6). Currently 40 examples of subtype 1.A are known and these correspond closest to the examples classified by Beckmann as group VI and numbered 104, this group also includes pins made of bronze and silver (Beckmann 1966, 33) (List of items, Tab. 1).

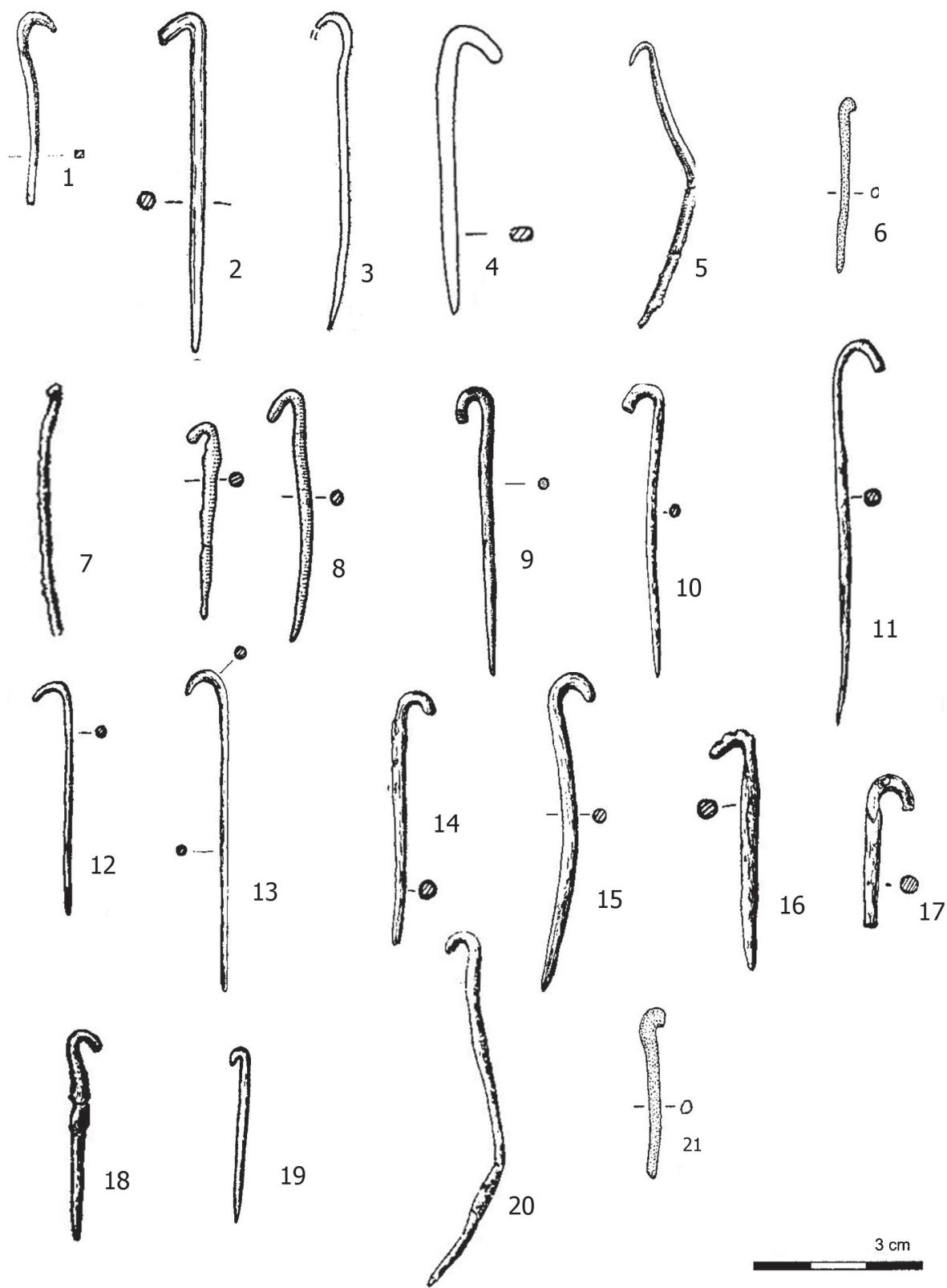
The hooked pins of subtype 1.A were often found in grave complexes, accompanied by monuments which may indicate the chronological order, among others: in Błonie, gr. 118 – a type K fibula after Kostrzewski (1919) (Mycielska and Woźniak 1988, 71–72, tab. CIC: 2), gr.

189a – a type IA knife, based on the classification used for Błonie grave field (Mycielska and Woźniak 1988, 95–96, tab. CLXVII: 2), gr. 216 – a type H fibula after Kostrzewski (1919) (Mycielska and Woźniak 1988, 103–104, tab. CLXXXIIIB: 3), gr. 224 – a type A or B fibula after Kostrzewski (1919) (Mycielska and Woźniak 1988, 105–106, tab. CLXXXVIIIB: 4), in Karczewiec, gr. 37 – pottery dated to the A2 phase (Dąbrowska 1973, 400, tab. VII: 7), in Kamieńczyk, gr. 119 – a type K fibula (Dąbrowska 1997, 33, tab. LXIV: 6), gr. 318 – type K fibula after Kostrzewski (1919) (Dąbrowska 1997, 64–65, tab. CXLIV: 5), gr. 356 – type D/E fibula after Kostrzewski (1919) (Dąbrowska 1997, 71, tab. CLXII: 2), gr. 367 – a type H fibula (Dąbrowska 1997, 73, tab. CLXXII: 2). Accordingly, the listed artefacts may be assigned to the A2 phase of the Early Pre-Roman Period. A slightly later date, to the A3 stage, should be given to pins from Oblin, gr. 12 – co-occurring with a type I knife, based on the classification used for Oblin grave field (Czarnecka 2007, 14, tab. XII: 2), gr. 56 – with a type M fibula (Czarnecka 2007, 24, tab. LXI: 6), gr. 93 – with a type M fibula after Kostrzewski (1919) (Czarnecka 2007, 32, tab. XCIX: 4). On the other hand, findings from the A2/A3 stage come from sites in: Kamieńczyk, gr. 89, which in the grave complex occurred with a Nauheim-type fibula after Kostrzewski (1919) (Dąbrowska 1997, 27, tab. XLVII: 3), and gr. 212 which was accompanied by an M-type fibula (Dąbrowska 1997, 50, tab. CXII: 6), as

**Table 1.** Type and sub-type hook pins 1.A.

Site	Grave number	Dating	Literature
			4
1 Błonie, district Sandomierz	118	A2	Mycielska and Woźniak 1988, 71–72, tab. CIC: 2.
Błonie, district Sandomierz	189a	A2	Mycielska and Woźniak 1988, 95–96, tab. CLXVII: A-2.
Błonie, district Sandomierz	216	A2	Mycielska and Woźniak 1988, 103–104, tab. CLXXXIV: B-3.
Błonie, district Sandomierz	224	A2	Mycielska and Woźniak 1988, 105–106, tab. CLXXXVII: B-4.
Brzeźce 2, district Białobrzegi	9	B2	Balke 1976, 158–159, tab. IV: 4.
Ciebłowice Duże, district Tomaszów Mazowiecki	106	B2b–C1a	Dziegielewska and Kulczyńska 2008, 33, tab. LXVIII: 6.
Ciebłowice Duże, district Tomaszów Mazowiecki	108	B2b–B2/C1	Dziegielewska and Kulczyńska 2008, 34, tab. LXIX: 3.
Domaradzice, district Rawicz	22	B1–B2a	Kostrzewski 1953, 173, fig. 24: 3.
Drochlin, district Częstochowa	stray find	-	Kaczanowski 1987, 92–93, tab. XXVIII: 36.

1	2	3	4
Drochlin, district Częstochowa	stray find	-	Kaczanowski 1987, 92–93, tab. XXVIII: 37.
Gołębiewo, district Nidzica	4	B2	Maciąłowicz 2010, 371–376, fig. 9: 4.
Kamieńczyk, district Wyszków	89	A2/A3	Dąbrowska 1997, 27, tab. XLVII: 3.
Kamieńczyk, district Wyszków	119	A2	Dąbrowska 1997, 33, tab. LXIV: 6.
Kamieńczyk, district Wyszków	212	A2/A3	Dąbrowska 1997, 50, tab. CXII: 6.
Kamieńczyk, district Wyszków	318	A2	Dąbrowska 1997, 64–65, tab. CXLIV: 5.
Kamieńczyk, district Wyszków	337	B1	Dąbrowska 1997, 68, tab. CLIV: 1.
Kamieńczyk, district Wyszków	356	A2	Dąbrowska 1997, 71, tab. CLXII: 2.
Kamieńczyk, district Wyszków	367	A2	Dąbrowska 1997, 73, tab. CLXXII: 2.
Karczewiec, district Węgrów	37	A2	Dąbrowska 1973, 400, tab. VII: 7.
Kokorzyń, district Kościan	4	B1–B2b	Kostrzewski 1956, 82–83, fig. 15: 5.
Łęgonice Małe, district Przysucha	17	B1	Liana 1976, 72–73, tab. V: 13.
Młodzikowo, district Środa Wielkopolska	52	B1–C2	Dymaczewski 1958, 221–223, fig. 92: 7.
Młodzikowo, district Środa Wielkopolska	253	B1–C2	Dymaczewski 1958, 387–389, fig. 447: 14.
Oblin, district Garwolin	12	A3	Czarnecka 2007, 14, tab. XIII: 2.
Oblin, district Garwolin	36	A2/A3	Czarnecka 2007, 19–20, tab. XXXVIII: 6.
Oblin, district Garwolin	56	A3	Czarnecka 2007, 24, tab. LXI: 6.
Oblin, district Garwolin	93	A3	Czarnecka 2007, 32, tab. XCIX: 4.
Oblin, district Garwolin	stray find	-	Czarnecka 2007, 72, tab. CCLXVI: 139.
Opatów, district Kłobuck	199	C1	Madyla-Legutko <i>et al.</i> 2011, 59, tab. LXVII: 3.
Opatów, district Kłobuck	317	C3–D1	Madyla-Legutko <i>et al.</i> 2011, 86, tab. CVIII: 5.
Opatów, district Kłobuck	677	C3–D1	Madyla-Legutko <i>et al.</i> 2011, 171, tab. LXXII: 37.
Opatów, district Kłobuck	stray find	-	Madyla-Legutko <i>et al.</i> 2011, 387–388, tab. CDXXX: 468.
Opatów, district Kłobuck	stray find	-	Madyla-Legutko <i>et al.</i> 2011, 387–388, tab. CDXXX: 469.
Pajewo-Szwelice, district Ciechanów	5/68	A3/B1	Dłubakowski 2005, 28–29, tab. XXIII: 5.
Wesółki, district Kalisz	28	B1	Kozłowska 1972, 372, fig. 21: d.
Wymysłowo, district Gostyń	97–98	A2–C3	Jasnosz 1952, 61–63, fig. 69: 11.
Wymysłowo, district Gostyń	146	A2–C3	Jasnosz 1952, 87–90, fig. 116: 18.
Wymysłowo, district Gostyń	233	A2–C3	Jasnosz 1952, 158–160, fig. 225: 22.
Wymysłowo, district Gostyń	338	B1–C1a	Jasnosz 1952, 224–225, fig. 349: 6.
Zadowice, district Gostyń	341	C1a	Kaszewska 1964, 118–119, tab. XIV: 11.



**Fig. 4.** Type 1.A hook pins from the Przeworsk culture.

1 – Błonie, gr. 118; 2 – Błonie, gr. 189a; 3 – Błonie, gr. 216; 4 – Błonie, gr. 224; 5 – Brzeźce, gr. 9; 6 – Ciebłowice Duże, gr. 106; 7 – Domaradzice, gr. 22; 8 – Drochlin, stray find; 9 – Gołębiewo, gr. 6; 10 – Kamieńczyk, gr. 89; 11 – Kamieńczyk, gr. 119; 12 – Kamieńczyk, gr. 212; 13 – Kamieńczyk, gr. 318; 14 – Kamieńczyk, gr. 337; 15 – Kamieńczyk, gr. 356; 16 – Kamieńczyk, gr. 367; 17 – Karczewiec, gr. 37; 18 – Kokorzyn, gr. 4; 19 – Łęgonice Małe, gr. 17; 20 – Młodzikowo, gr. 52; 21 – Ciebłowice Duże, gr. 108.

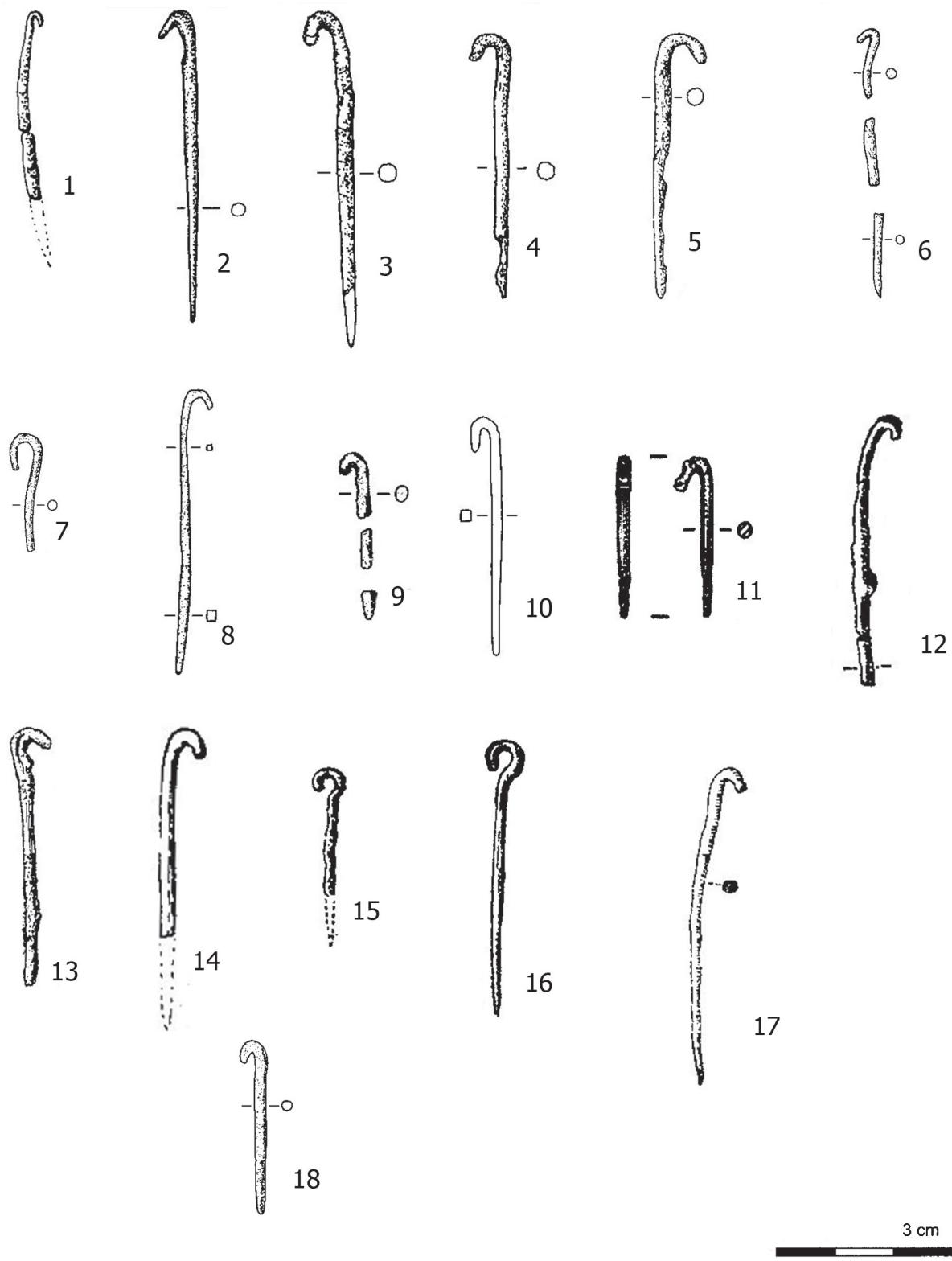
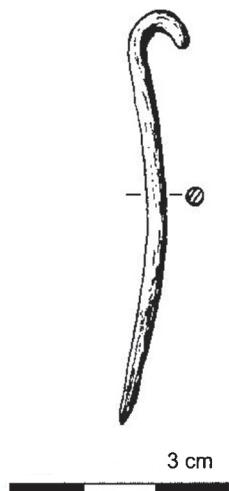


Fig. 5. Type 1.A hook pins from the Przeworsk culture.

1 – Młodzikowo, gr. 253; 2 – Oblin, gr. 12; 3 – Oblin, gr. 36; 4 – Oblin, gr. 56; 5 – Oblin, gr. 93; 6 – Oblin, stray find; 7 – Opatów, gr. 199; 8 – Opatów, gr. 317; 9 – Opatów, stray find; 10 – Opatów, stray find; 11 – Pajewo Szwelice, gr. 30; 12 – Wesółki – gr. 28; 13 – Wymysłowo, gr. 97–98; 14 – Wymysłowo, gr. 146; 15 – Wymysłowo, gr. 233; 16 – Wymysłowo, gr. 338; 17 – Zadowice, gr. 341; 18 – Opatów, gr. 677.



**Fig. 6.** Hook pin subtype 1.A (after Dąbrowska 1997, fig. CLXII: 2; modified by W. Stącel).

well as in Oblin, gr. 36 which in the grave complex co-occurred with a type M fibula (Czarnecka 2007, 19–20, tab. XXXVII: 6).

The hooked pins dated to phase B1 of the Early Roman Period, subtype 1.A, were accompanied in the grave complexes, among others: in Kamieńczyk, gr. 337 – a ceramic vessel of type A.3 after Almgren (1923) (Dąbrowska 1997, 68, tab. CLIV: 1), in Łęgonice Małe, gr. 17 – ceramic vessels dated to phase B1 (Liana 1976, 72–73, tab. V: 13), in Wesółki, gr. 28 – ceramic vessels type I, zw 1A, based on the classification used for Wesółki grave field (Kozłowska 1972, 372, fig. 21: d). On the other hand, the chronology of a pin from Gołębiewo, gr. 4, was established in the B2 phase, which was found in the complex with an inverted pear-shaped vessel of the A.1 type, based on the classification used for Gołębiewo grave field (Maciąłowicz 2010, 371–376, tab. 9: 4). Pins from Ciebłowice Duże, where in gr. 106 they were placed together with a ceramic vessel, dated to the B1 phase (Dzięgielewska and Kulczyńska 2008, 33, tab. LXVIII: 6), and in gr. 108 they were accompanied by a fibula, dated to the B2/C1 phase (Dzięgielewska and Kulczyńska 2008, 34, tab. LXIX: 3), are dated to the younger Roman phase B2/C1.

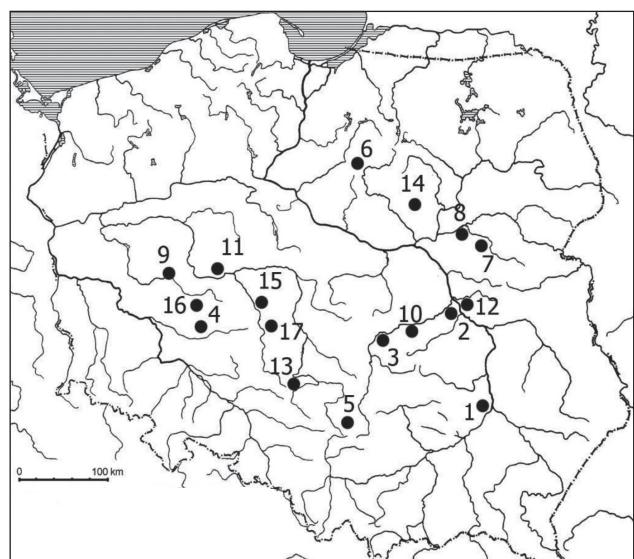
The hooked pins of subtype 1.A were also used in the Late Roman Period. Some specimens from Opatów, gr. 199 (Madyda-Legutko *et al.* 2011, 59, tab. LXVII: 3), and from Zadowice, gr. 341 (Kaszewska 1964, 118–119, tab. XIV: 11) are dated to the C1 phase; in both cases the chronology of complexes was determined on the basis of the vessel ceramics. The chronology of the Opatów pin, gr. 317, which was associated with an iron key of type C13, based on the

classification used for Opatów grave field (Madyda-Legutko *et al.* 2011, 86, tab. CVIII: 5), as well as gr. 677, which contained, among others, a fibula of type A.158 (Madyda-Legutko *et al.* 2011, 171, tab. CCXXXIII: 5).

The hooked pins of subtype 1.A have a wide distribution range (Fig. 5), as they were found in Masovia (16 examples), Greater Poland (8 examples), the Liswarta basin (7 examples), the Kamienna basin (4 examples), Central Poland (2 examples), Lower Silesia (2 examples), and Warmia and Masuria (1 example).

**Subtype 1.B** (Fig. 8, 9) includes hooked pins having a torsional shaft with a hooked head (Fig. 10). It is represented by 45 pieces, which correspond closest to group VI and form number 103 in the classification of B. Beckmann (1966, 33). The length of the shortest pin is 2.9 cm and the longest one measures 7.5 cm. Most probably, the torsion of the handles had a functional aspect – it facilitated the screwing of the pin into the body of the spindle and prevented it from slipping out (List of items, Tab. 2).

The chronology of examples from Karczewiec, gr. 116, which were found with a type K fibula (Dąbrowska 1973, 453–454, tab. XXIX: 10) and from Nadkole, gr. 23, which occurred in a complex with a ceramic vessel of type VB2, based on the classification used for Nadkole grave field (Andrzejowski 1998, 21, tab. XIX: 12), are dated to the A2 phase of the pre-Roman Period. On the other hand, a specimen from Karczewiec, gr. 60a, comes from the A3 phase and was



**Fig. 7.** The Przeworsk culture sites with hook pins of type 1.A.

1. Błonie;
2. Brzeźce 2;
3. Ciebłowice Duże;
4. Domaradzice;
5. Drochlin;
6. Gołębiewo;
7. Karczewiec;
8. Kamieńczyk;
9. Kokorzyn;
10. Łęgonice Małe;
11. Młodzikowo;
12. Oblin;
13. Opatów;
14. Pajewo-Szwelice;
15. Wesółki;
16. Wymysłów;
17. Zadowice.

**Table 2.** Type and sub-type hook pins 1.B.

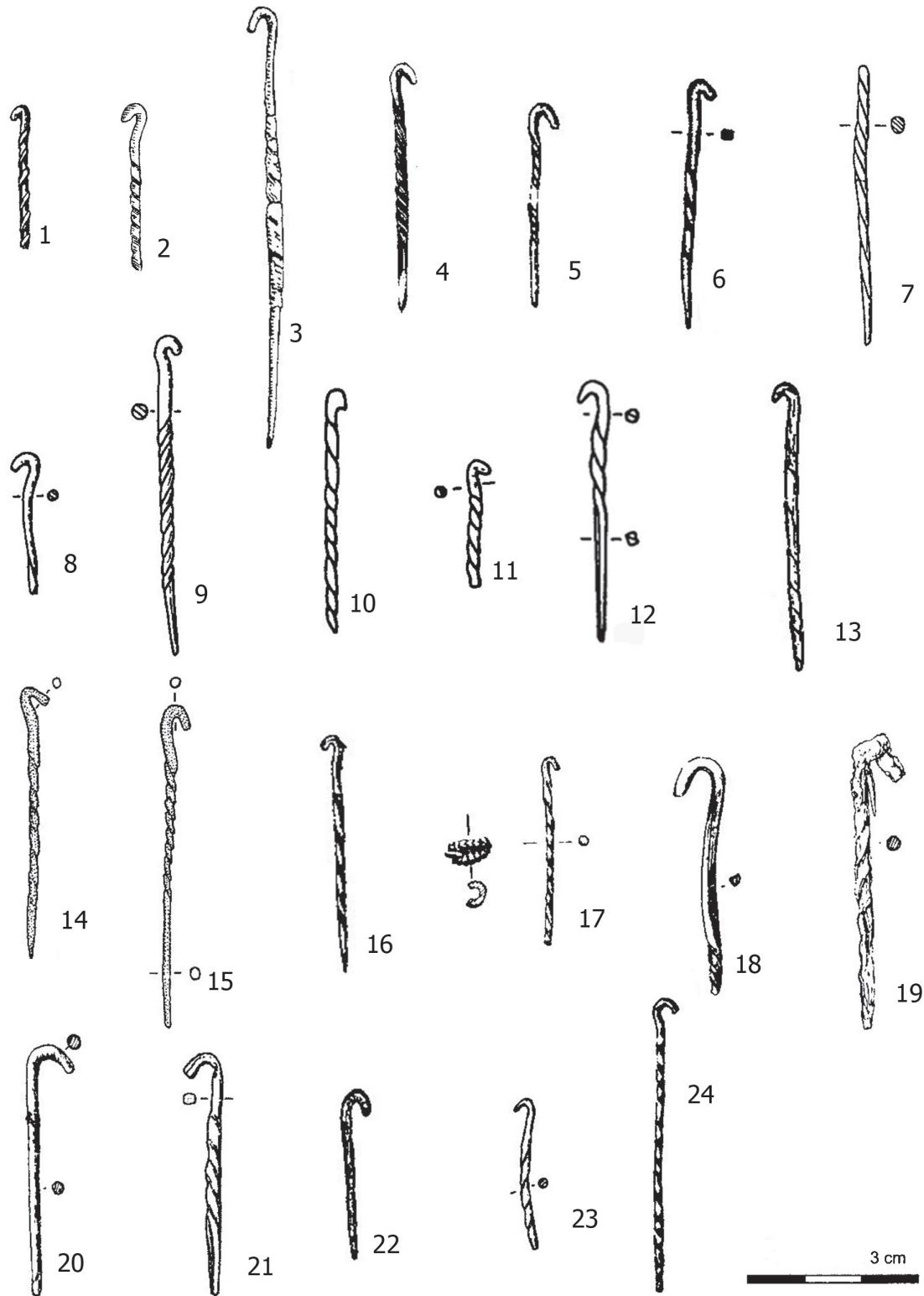
Site	Grave number	Dating	Literature
1	2	3	4
Brzeźce 1, district Białobrzegi	9	B2/C1	Balke 1976, 43– 44, fig. 16: C.
Brzeźce 2, district Białobrzegi	2	B2	Balke 1976, 158–159, tab. II: 6.
Brzeźce 2, district Białobrzegi	9	B2	Balke 1976, 163–168, tab. IV: 8.
Brzeźce 2, district Białobrzegi	20	B2	Balke 1976, 172–173, fig. 26: c.
Brzeźce 2, district Białobrzegi	30	B2	Balke 1976, 176, fig. 40: e.
Charłupia Mała, district Ostrowiec Świętokrzyski	5	B1c	Kurowicz and Olędzki 2002, 29–30, tab. XXVI: 5.
Chmielów Piaskowy, district Ostrowiec Świętokrzyski	2a	B2 (B2–C1a)	Godłowski and Wichman 1998, 15, tab. II: 3.
Chmielów Piaskowy, district Ostrowiec Świętokrzyski	34	B2 (B2/C1)	Godłowski and Wichman 1998, 32–33, tab. LI: 13.
Chmielów Piaskowy, district Ostrowiec Świętokrzyski	40	B2/C1	Godłowski and Wichman 1998, 37, tab. LXV: 11.
Chmielów Piaskowy, district Ostrowiec Świętokrzyski	52	C1	Godłowski and Wichman 1998, 39–40, tab. LXXII: 1.
Chmielów Piaskowy, district Ostrowiec Świętokrzyski	53b	B2b (B2b–C1a)	Godłowski and Wichman 1998, 40, tab. LXXIV: 7.
Chmielów Piaskowy, district Ostrowiec Świętokrzyski	58	B2	Godłowski and Wichman 1998, 41, tab. LXXVII: 7.
Chorula, district Krapkowice	37	B2–D1	Szydłowski 1964, 45–46, fig. 35: 3.
Ciebłowice Duże, district Tomaszów Mazowiecki	110	B2b	Dziegielewska and Kulczyńska 2008, 34, tab. LXIX, LXX.
Ciebłowice Duże, district Tomaszów Mazowiecki	128	B2b–B2/C1	Dziegielewska and Kulczyńska 2008, 38, tab. LXIX: 3.
Czarnocin, district Piotrków Trybunalski	stray find	-	Mączyńska and Jagusiak 2002, 358, tab. VII: 4.
Domaradzice, district Rawicz	144	B1–B2a	Kostrzewski 1953, 237–240, fig. 166: 13.
Domaradzyn, district Zgierz	7	B2–C1a	Piętka-Dąbrowska 1959–1960, 227, tab. LIV: 14.
Karczewiec, district Węgrów	60a	A3	Dąbrowska 1973, 417–418, tab. XIV: 5.
Karczewiec, district Węgrów	116	A2	Dąbrowska 1973, 453–454, tab. XXIX: 10.
Karczewiec, district Węgrów	stray find	-	Dąbrowska 1973, 499, tab. XLIX: 14.
Kołacz, district Mińsk Mazowiecki	9	B1	Dąbrowska 2002, 222–223, tab. IV: 9.
Konin, district Konin	106	B2–C3	Kostrzewski 1947, 244, fig. 86: 4.
Krupice, district Siemiatycze	207	B2/C1	Jaskanis 2005, 53, tab. LIX: 2.
Kuców, district Bełchatów	47	B2/C1–C1b	Olędzki 1985, 72, tab. XVIII: 7.
Łętowice, district Tarnów	7	A3–B2	Szpunar 1987, 185, fig. 6: d.

1	2	3	4
Młodzikowo, district Środa Wielkopolska	70	B1–C2	Dymaczewski 1958, 239, fig. 122: 22.
Nadkole, district Węgrów	6	B2	Andrzejowski 1998, 17, tab. VI: 9.
Nadkole, district Węgrów	23	A2	Andrzejowski 1998, 21, tab. XIX: 12.
Nadkole, district Węgrów	97	B2	Andrzejowski 1998, 39, tab. LXII: 14.
Nadkole, district Węgrów	stray find	-	Andrzejowski 1998, 51, tab. LXXXIX: 38.
Niedanowo, district Nidzica	505	B2	Ziemlińska-Odojowa 1999, 89, tab. CLXXXIII: 8.
Oblin, district Garwolin	182	A2–B2	Czarnecka 2007, 49, CLXXII: 1.
Oblin, district Garwolin	186	B2	Czarnecka 2007, 49, tab. CLXXIV: 4.
Oblin, district Garwolin	204	A2–B2	Czarnecka 2007, 52, tab. CLXXXIII: 1.
Opatów, district Kłobuck	19	B2/C1	Madyla-Legutko <i>et al.</i> 2011, 33, tab. VII: 15.
Opatów, district Kłobuck	545	C3-D1	Madyla-Legutko <i>et al.</i> 2011, 135–136, tab. CLXXXV: 4.
Opatów, district Kłobuck	1216	C1	Madyla-Legutko <i>et al.</i> 2011, 246–247, tab. CCCLXXX: 4.
Opatów, district Kłobuck	ZG83	B2/C1	Madyla-Legutko <i>et al.</i> 2011, 268, tab. CCCXCIX: 2.
Opatów, district Kłobuck	stray find	-	Madyla-Legutko <i>et al.</i> 2011, 387–388, tab. CDXXX: 473.
Starachowice, district Starachowice	1	C1b	Jamka 1957/1958, 32–35, fig. 4: f.
Starachowice, district Starachowice	6	B2a/B2b	Jamka 1957/1958, 41, fig. 16: g.
Tarnów, district Nysa	116	B2	Godłowski and Szadkowska 1975, 69, tab. XLIII: 2.
Wymysłowo, district Gostyń	262	A2–C3	Jasnosz 1952, 175–176, fig. 258: 12.
Żdżarów, district Sochaczew	138	B2b–D	Nowakowski and Tyszler 1998, 106–107, tab. VI: 2.

found in a site with ceramic pottery dating to the A3 phase (Dąbrowska 1973, 417–418, tab. XIV: 5).

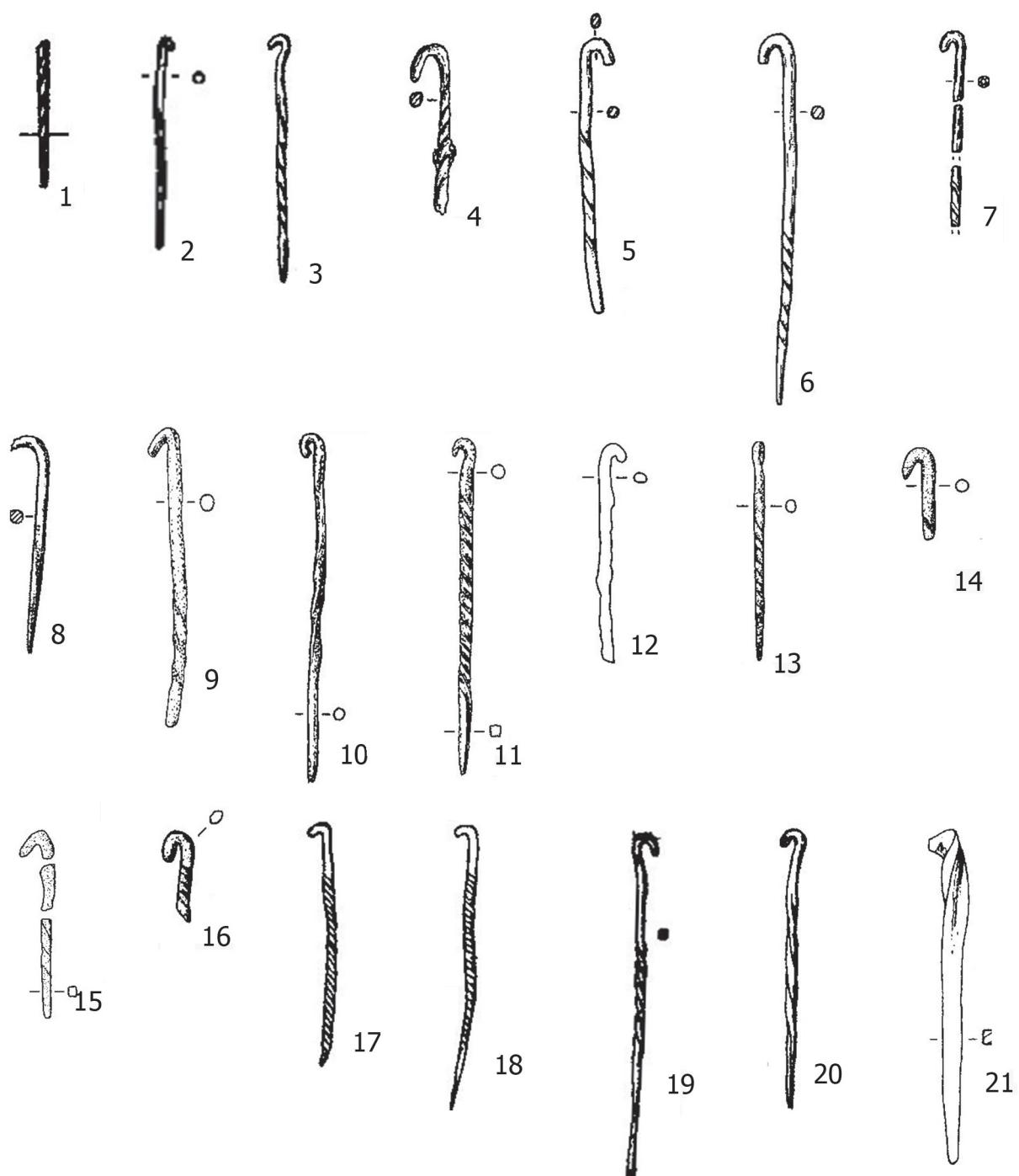
The hooked pins dated to the B1 phase of the Early Roman Period, subtype 1.B were accompanied in the grave complexes of, among others: Charłupia Mała, gr. 5 – a type A.68 fibula after Almgren (1923) (Kurowicz and Olędzki 2002, 29–30, tab. XXVI: 5), Kołacz, gr. 9 – a type A.68 fibula (Dąbrowska 2002, 222–223, tab. IV: 9). On the other hand, from the B2 phase come hooked pins, which were accompanied in the sites, among others: in Brzeźec, site 2, gr. 2, – pottery dated to the B2 phase (Balke 1976, 158–159, tab. II: 6), gr. 9 – a type A.37 fibula after Almgren (1923) (Balke 1976, 163–168, tab. IV: 4), gr. 20 – pottery dated to the B2 phase (Balke 1976, 172–173, fig. 26: c), gr.

30 – a type A.38 fibula after Almgren (1923) (Balke 1976, 176, fig. 40: e), in Chmielów Piaskowy, gr. 58 – a type A.123 fibula after Almgren (1923) (Godłowski and Wichman 1998, 41, tab. LXXVII: 7), in Ciebłowice Duże, gr. 110 – a key dated to phase B2, based on the classification used for Ciebłowice Duże grave field (Dziegielewska and Kulczyńska 2008, 34, tab. LXIX: 3), in Nadkole, gr. 6 – two fibulae, type A.38 and A.39 after Almgren (1923) (Andrzejowski 1998, 17, tab. VI: 9) gr. 97 – a type A.77/79 fibula after Almgren (1923) (Andrzejowski 1998, 39, tabl. LXI–LXII: 14, 15), from Niedanowo, gr. 505 – a ceramic vessel, type A.2, based on the classification used for Niedanowo grave field (Ziemlińska-Odojowa 1999, 89, tab. CLXXXIII: 2), from Oblin, gr. 186 – a type A.61 fibula after Almgren



**Fig. 8.** Type 1.B hook pins from the Przeworsk culture.

1 – Brzeźce 1, gr. 9; 2 – Brzeźce 2, gr. 2; 3 – Brzeźce 2, gr. 9; 4 – Brzeźce 2, gr. 20; 5 – Brzeźce 2, gr. 30; 6 – Charlupia Mała, gr. 5; 7 – Chmielów Piaskowy, gr. 2a; 8 – Chmielów Piaskowy, gr. 34; 9 – Chmielów Piaskowy, gr. 40; 10 – Chmielów Piaskowy, gr. 52; 11 – Chmielów Piaskowy, gr. 53b; 12 – Chmielów Piaskowy, gr. 58; 13 – Chorula, gr. 37; 14 – Ciebłowice Duże, gr. 110; 15 – Ciebłowice Duże, gr. 128; 16 – Domaradzice, gr. 144; 17 – Domaradzyn, gr. 7; 18 – Karczewiec 60a; 19 – Karczewiec, gr. 116; 20 – Karczewiec, stray find; 21 – Kołacz, gr. 9; 22 – Konin, gr. 106; 23 – Krupice, gr. 207; 24 – Czarnocin, stray find.



**Fig. 9.** Type 1.B hook pins of the Przeworsk culture.

1 – Kuców, gr. 47; 2 – Łętowice, gr. 7; 3 – Młodzikowo, gr. 70; 4 – Nadkole, gr. 6; 5 – Nadkole, gr. 23; 6 – Nadkole, gr. 97; 7 – Nadkole stray find; 8 – Niedanowo, gr. 505; 9 – Oblin, gr. 182; 10 – Oblin, gr. 186; 11 – Oblin, gr. 204; 12 – Opatów, gr. 19; 13 – Opatów, gr. 545; 14 – Opatów, gr. 1216; 15 – Opatów, a stray find; 16 – Opatów, gr. Zg83; 17 – Starachowice, gr. 1; 18 – Starachowice, gr. 6; 19 – Tarnów, gr. 116; 20 – Wymysłów, gr. 262; 21 – Żdżarów, gr. 138.

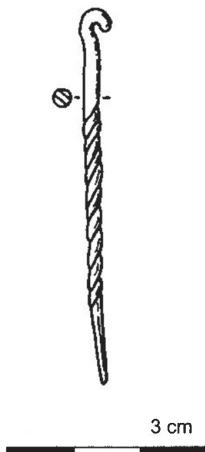


Fig. 10. Hook pin subtype 1.B (after Godłowski and Wichman 1998, 158, fig. LXV; modified by W. Stęcel).

(1923) (Czarnecka 2007, 49, tab. CLXXIV: 4), from Starachowice, gr. 6 – pottery dated to phase B2 (Janka 1957/1958, 41, fig. 16: g), from Tarnów, gr. 116 – a type A.40 fibula after Almgren (1923) (Godłowski and Szadkowska 1972, 69, tab. XLIII: 2). Subsequently, the hooked pins dated to the B2/C1 phase were accompanied, among others, in Brzeźce, site 1, gr. 9 – a bone comb after Chmielowska (1971) (Balke 1976, 43–44, fig. 16: c), in Chmielów Piaskowy, gr. 2a – a belt buckle type M-L.D1, based on the classification used for Chmielów Piaskowy grave field (Godłowski and Wichman 1998, 15, tabl. II: 3), gr. 34 – a type fibul A.V series 8 after Almgren (1923) (Godłowski and Wichman 1998, 32–33, tabl. LI: 13), gr. 40 – a fibula type A.43 after Almgren (1923) (Godłowski and Wichman 1998, 37, tab. LXV: 11), gr. 53b – a fibula type A.V series 8 after Almgren (1923) (Godłowski and Wichman 1998, 40, tab. LXXIV: 7), in Ciebłowice Duże, gr. 128 – a key dated to phase B1, based on the classification used for Ciebłowice Duże grave field (Dzięgielewska and Kulczyńska 2008, 38, tab. LXXX: 4), in Krupice, gr. 207 – a type A.V ser. 8 fibula (Jaskaniś 2005, 53, tab. LIX, LX: 2), in Opatów, gr. 19 – a type XIX spearhead, based on the classification used for Opatów grave field (Madyda-Legutko *et al.* 2011, 33, tab. VII; VIII: 15), gr. ZG83 – a type A.40 fibula (Madyda-Legutko *et al.* 2011, 268, tab. CCCXCIX: 2).

The chronology of hooked pins from Chmielów Piaskowy, gr. 52, which co-occurred with a bucket pendant of the Ka. II type, based on the classification used for Chmielów Piaskowy grave field (Godłowski and Wichman 1998, 39–40, tab. LXXII: 1) and from Opatów, gr. 1216, which in group was accompanied by a fibula of the A.158 type (Madyda-Legutko *et al.* 2011, 246–247, tab. CCCLXXX: 4). A hooked pin

from Opatów, gr. 545, is dated to the turn of phases C3/D1, i.e. to the Late Roman Period and the beginning of the Migration Period. It occurred in the complex with the typical for this chronological section vessel ceramics (Madyda-Legutko *et al.* 2011, 135–136, tab. CLXXXV: 4).

As well as the pins of subtype 1.A discussed above, specimens of subtype 1.B are found all over the area of the Przeworsk culture (Fig. 11), as they were discovered in Masovia (17 examples), Świętokrzyskie (9 examples), Central Poland (5 examples), Silesia (5 examples), Greater Poland (4 examples), Opole region (2 examples), Lesser Poland (1 examples), Podlasie (1 examples) and Warmia and Masuria (1 examples).

**Type 2** comprises hooked pins made of copper alloys (Tab. 5). The length of the preserved type 2 hooked pins varies from 2.5 cm to 7.5 cm. This type is represented by 12 pieces. Due to the shape of the handle, two subtypes (2.A and 2.B) were identified among the 12 hooked pins.

**Subtype 2.A** (Fig. 12) consists of hooked pins with a straight, i.e. not torsional handle (Fig. 13). This subtype includes 5 pieces, which correspond to monuments classified in group VI, number 104 in B. Beckmann's classification (1966, 33). The shortest pin is 4.6 cm long and the longest 5.5 cm. In terms of form,

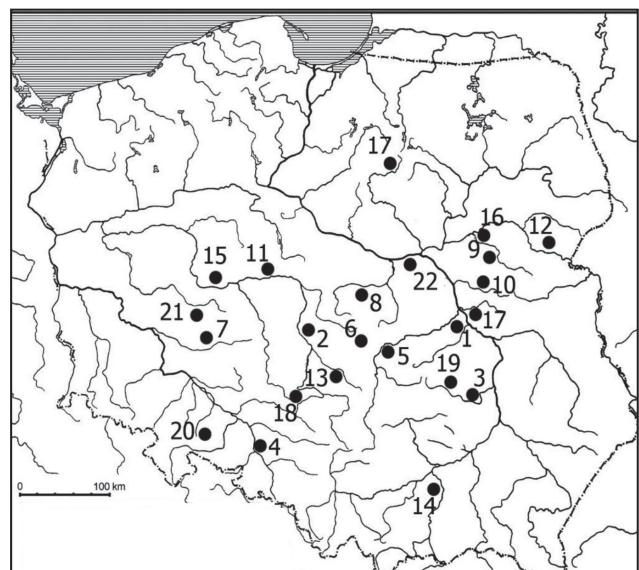
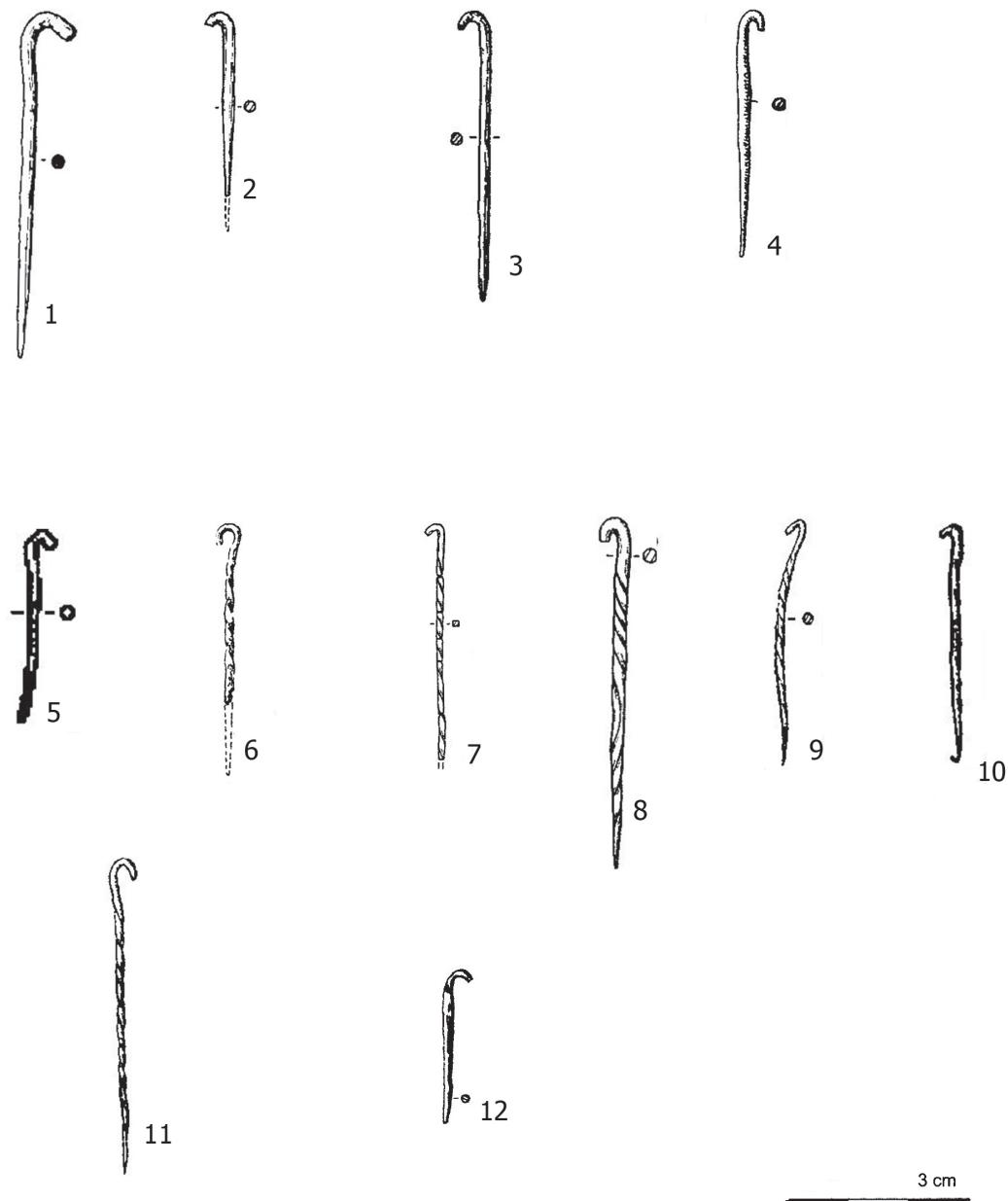


Fig. 11. The Przeworsk culture sites with hook pins of type 1.B.

1. Brzeźce 1, 2; 2. Charlupia Mała; 3. Chmielów Piaskowy;
4. Chorula; 5. Ciebłowice Duże; 6. Czarnocin; 7. Domaradzice;
8. Domaradzyn; 9. Karczewiec; 10. Kołacz; 11. Konin; 12. Krupice; 13. Kuców; 14. Łętowice; 15. Młodzikowo; 16. Nadkole;
17. Niedanowo; 18. Opatów; 19. Starachowice; 20. Tarnów;
21. Wymysłowo; 22. Żdżarów.



**Fig. 12.** Types 2.A and 2.B hook pins from the Przeworsk culture.

1 – Karczewiec, gr. 75a; 2 – Nadkole, gr. 63; 3 – Nadkole, gr. 142; 4 – Warszawa-Kawęczyn, stray find; 5 – Mierzyn-Grobla, gr. 80; 6 – Młodzikowo, gr. 5; 7 – Nadkole, gr. 80c; 8 – Nadkole, gr. 97; 9 – Niecieplin, gr. 15; 10 – Słopanowo, gr. 19; 11 – Słopanowo, gr. 43; 12 – Czarnocin, stray find.

these pieces like the previous ones, constitute a very homogeneous group (List of items, Tab. 3).

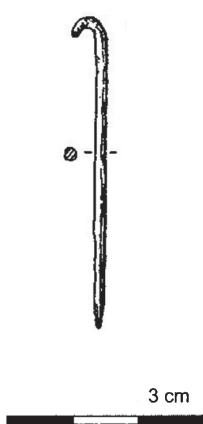
The chronology of the hooked pin from Karczewiec, gr. 75a, which in the archaeological group co-occurred with a Nauheim type fibula, was established in the A2 phase of the Pre-Roman Period (Dąbrowska 1973, 422–427, tab. XVI: 13). At the B2 stage of the Roman Period are dated monuments from Nadkole, gr. 63, where the hooked pin co-occurred with a fibula of the A.38–39 type (Andrzejowski 1998, 32, tab. XLV:

9), and gr. 142, where the hooked pin was accompanied by a fibula of the A.77 type (Andrzejowski 1998, 50, tab. LXXXVI: 7). The lack of dating artefacts in the grave complexes does not allow to determine the exact chronology of the remaining pieces. Hooked pins of subtype 2.A have a small distribution range (Fig. 14), as they have only been discovered in Masovia (4 examples) and Central Poland (1 example).

**Subtype 2.B** (Fig. 15) consists of hooked pins made of copper alloy, with a torsional shaft (Fig. 16).

**Table 3.** Type and sub-type hook pins 2.A.

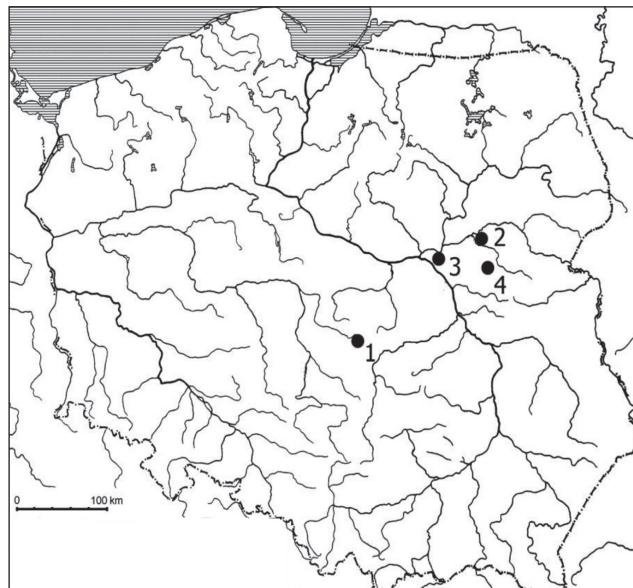
Site	Grave number	dating	Literature
Czarnocin, district Piotrków Trybunalski	stray find	-	Mączyńska and Jagusiak 2002, 358, tab. VII: 5.
Karczewiec, district Węgrów	75a	A2	Dąbrowska 1973, 422–427, tab. XVI: 13.
Nadkole, district Węgrów	63	B2	Andrzejowski 1998, 32, tab. XLV: 9.
Nadkole, district Węgrów	142	B2	Andrzejowski 1998, 50, tab. LXXXVI: 7.
Warszawa-Kawęczyn, district Warszawa	1	B2/C1–C3/D	Jankowska 1962, 331, tab. LXXI: 12.



**Fig. 13.** Hook pin subtype 2.A (after Dąbrowska 1997, 237, fig. LXXXVI: 7; modified by W. Stęcel).

This type of hooked pins is represented by 7 examples, which correspond closest to group VI and form number 103 in the classification of B. Beckmann (1966, 33). The length of the shortest is 3.1 cm and the longest is 5.6 cm. Similar to the subtypes discussed above, the subtype 2.B examples represent a very homogeneous collection (List of items, Tab. 4).

The oldest hooked pins of this type found in the Przeworsk culture are documented as late as phase B2 of the Roman Period. The artefacts come from the site: Nadkole, from gr. 80c and 97, where in gr. 80c the hooked pin occurred with a belt buckle type AD1, based on the classification used for Nadkole grave field (Andrzejowski 1998, 35, tab. LII: 6), and in gr. 97 – with a fibula type A.77/79 (Andrzejowski 1998, 39, tab. LXI, LXII: 14, 15). The chronology of a hooked pin from Słopanów, gr. 19, which co-occurred in the grave with a fibula type A.40, was established at the B2/C1 stage of the Roman Period (Przewoźna 1954, 104–105, fig. 54: 4). The lack of dating artefacts in the grave complexes does not allow the determination of the exact chronology of the remaining pieces.



**Fig. 14.** The Przeworsk culture sites with hook pins of type 2.A.

1. Czarnocin; 2. Nadkole; 3. Warszawa-Kawęczyn; 4. Karczewiec.

The hooked pins of subtype 2.B also have a small distribution range (Fig. 17), as they were discovered in Masovia (4 examples) and Greater Poland (3 examples).

The shaft type could not be determined in all cases (Fig 18). This remark applies to pieces from the sites: Brzeźce 2, gr. 22 (Balke 1976, 173–174, tab. VI: 4), Charłupia Mała, gr. 19 (Kurowicz and Olędzki 2002, 19–20, tab. XII, XIII/19: 10), Domaradzice, gr. 126 (Kostrzewski 1953, 227–228, fig. 142: 13), Nadkole, gr. 56 (Andrzejowski 1998, 30, tab. XLI: 13), Niedanowo, gr. 478 (Ziemlińska-Odojowa 1999, 85, tab. CLXXIV: 8), Opatów – 2 examples discovered separately (Madyda-Legutko *et al.* 2011, 387–388, tab. CDXXX: 473), Słopanowo, gr. 27 (Przewoźna 1954, 107–108, fig. 58: 7), Osieck – 2 copies from one grave, no. 36 (Dąbrowska 1958, 274, tab. XCII: 2) (List of items, Tab. 5).

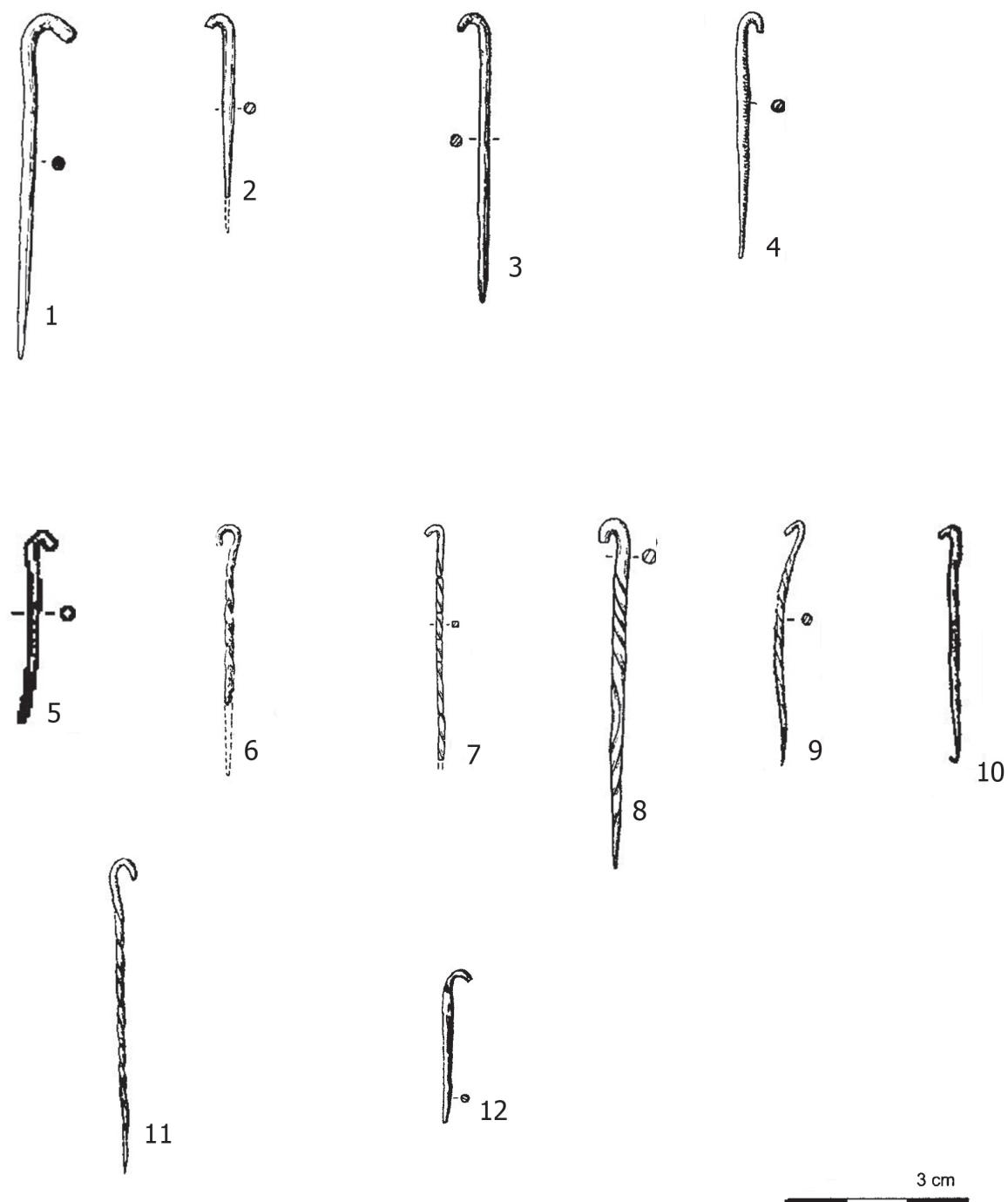
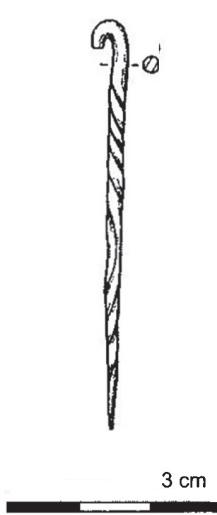
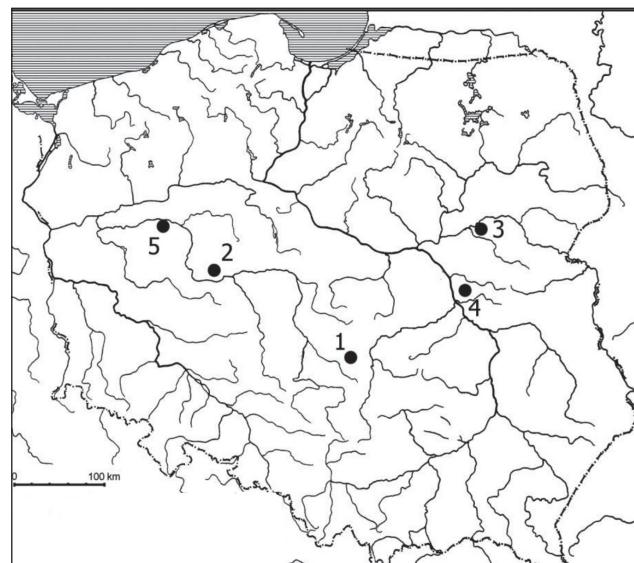


Fig. 15. Types 2.A and 2.B hook pins from the Przeworsk culture.

1 – Karczewiec, gr. 75a; 2 – Nadkole, gr. 63; 3 – Nadkole, gr. 142; 4 – Warszawa-Kawęczyn, stray find; 5 – Mierzyn-Grobla, gr. 80; 6 – Młodzikowo, gr. 5; 7 – Nadkole, gr. 80c; 8 – Nadkole, gr. 97; 9 – Niecieplin, gr. 15; 10 – Słopanowo, gr. 19; 11 – Słopanowo, gr. 43; 12 – Czarnocin, stray find.



**Fig. 16.** Hook pin subtype 2.B (after Dąbrowska 1997, 213, fig. LXII: 14; modified by W. Stęcel).



**Fig. 17.** The Przeworsk culture sites with hook pins of type 2.B.

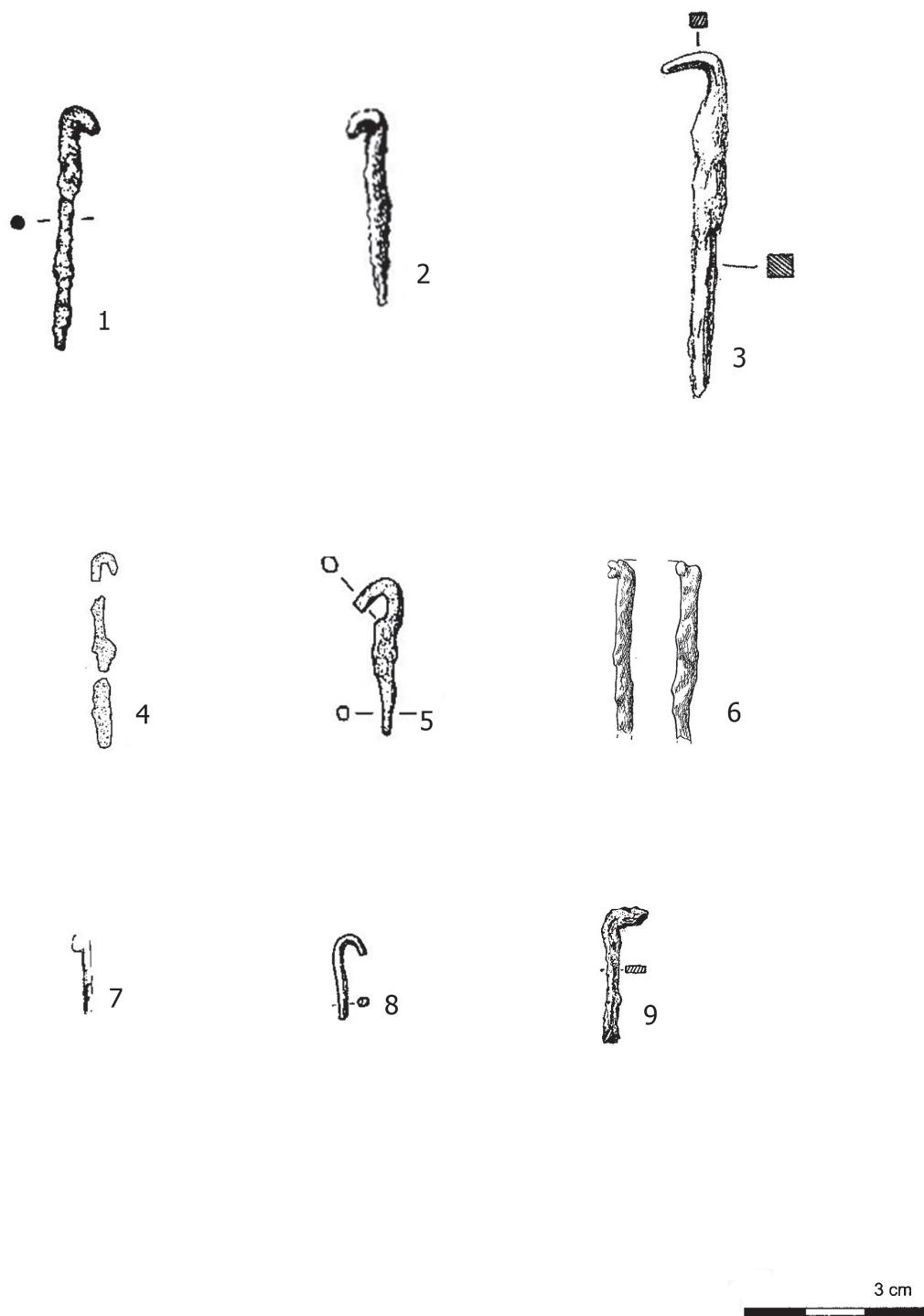
1. Mierzyn-Groble;
2. Młodzikowo;
3. Nadkole;
4. Niecieplin;
5. Słopanowo.

**Table 4.** Type and sub-type hook pins 2.B.

Site	Grave number	Dating	Literature
Mierzyn Groble, district Piotrków Trybunalski	80	C2/D1	Ziętek 2004, 38, tab. XXI: 7.
Młodzikowo, district Środa Wielkopolska	5	B1–C2	Dymaczewski 1958, 183–184, fig. 10: 5.
Nadkole, district Węgrów	80c	B2	Andrzejowski 1998, 35, tab. LII: 6.
Nadkole, district Węgrów	97	B2	Andrzejowski 1998, 39, tab. LXII: 15.
Niecieplin, district Węgrów	XV	B1–C1a	Kozłowska 1958, 346, tab. CX: 21.
Słopanowo, district Szamotuły	19	C1a/C1b	Przewoźna 1954, 104–105, fig. 54: 4.
Słopanowo, district Szamotuły	43	B2a–B2b	Przewoźna 1954, 115–116, fig. 70: 3.

**Table 5.** No information on type and subtype of hook pins.

Site	Grave number	Dating	Literature
Brzeźce 2, district Białobrzegi	22	B2/C1	Balke 1976, 173–174, tab. IV: 4.
Charlupia Mała, district Środa Wielkopolska	19	B1	Kurowicz and Olędzki 2002, 19–20, tab. XIII: 10.
Domaradzice, district Rawicz	126	B1–B2a	Kostrzewski 1953, 227–228, fig. 142: 9.
Nadkole, district Węgrów	56	B1	Andrzejowski 1998, 30, tab. XLI: 13.
Niedanowo, district Nidzica	478	B1b	Ziemlińska-Odojowa 1999, 85, tab. CLXXIV: 8.
Opatów, district Kłobuck	stray find	-	Madyda-Legutko <i>et al.</i> 2011, 387–388, tab. CDXXX: 469.
Opatów, district Kłobuck	stray find	-	Madyda-Legutko <i>et al.</i> 2011, 387–388, tab. CDXXX: 470.
Osieck, district Otwock	36	B2b–C1	Dąbrowska 1958, 274, tab. XCII: 2.
Osieck, district Otwock	36	B2b–C1	Dąbrowska 1958, 274, tab. XCII: 2.
Słopanowo, district Szamotuły	27	C1b–C2	Przewoźna 1954, 107–108, fig. 58: 7.



**Fig. 18.** Hook pins typologically unidentified from the Przeworsk culture.

1 – Charłupia Mała, gr. 19; 2 – Domaradzice, gr. 126; 3 – Niedanowo, gr. 478; 4 – Opatów, stray find; 5 – Opatów, stray find; 6 – Osieck, gr. 26; 7 – Brzeźce 2, 22; 8 – Nadkole, gr. 56; 9 – Słopanowo, gr. 27.

## Function – the presence of hook pins in grave complexes

As mentioned, hooked pins are now generally considered to be a part of spindles, tools associated with textile manufacturing. It is assumed that spinning was generally the domain of women in Central European *Barbaricum*, and that they undertook this activity as part of their domestic work. This assumption should, however, be verified by an analysis of the occurrence of hooked pins in grave sites. The Przeworsk culture was dominated by the cremation ritual (Czarnecka 1990, 89), therefore the study of the remains is difficult. Despite these problems, an analysis was carried out to show the connection (or lack of connection) between the sex of the deceased and the presence of the hooked pins in the grave inventory (Fig. 19). The analysis was based on 56 complexes in relation to which we have the results of anthropological studies, but also those in which archaeological gender markers were present. This group represents 59% of all the graves included in this study.

The largest proportion of identified graves are female burials, accounting for 18% of graves. These include the following burials: Brzeźce 2, from graves numbered: 2, 20, 30, 32 (Balke 1976, 158–180), Nadkole, from graves numbered: 6, 23, 63, 97, 142 (Andrzejowski 1998, 17–50), Kamieńczyk, from graves numbered: 119 and 212 (Dąbrowska 1997, 33–50), Chmielów Piaskowy, from graves numbered: 2a and 34 (Godłowski and Wichman 1998, 15–33), Kołacz, from grave number 9 (Dąbrowska 2002, 222–223), Krupice, from grave number 207 (Jaskanis 2005, 53), Opatów, from grave number 677 (Madyda-Legutko *et al.* 2011, 171), Wymysłowo, from grave numbers 97

and 98 (Jasnosz 1952, 61–63), Słopanowo, from grave numbers 27, 43 (Przewoźna 1954, 107–116), Wólka Domaniowska, from grave number 25 (Olędzki 2000, 13). There are 11% of mass graves. These are burials of women with children (four such graves), one burial of a man with a child and collective burials of children only (two or even four children in one grave). The lowest number of graves are those of men and children – 6% each. In 17% of the graves, it was impossible to determine the sex of the deceased. In conclusion, the anthropological analysis of the Przeworsk culture burials, in which hooked pins were found, shows that this category of artefacts was most often found in the graves of women. It should be added here that hooked pins are very often found in graves with spindle whorls – 58 out of 95 graves with hooked pins contained spindle whorls. They also often occur together with needles.

## Summary

As a result of the analyses, types and subtypes of hooked pins were identified. The criterion for their distinction was the metal material from which the objects were made (1 – iron, 2 – copper alloys).

Iron pins predominate in the complexes of the Przeworsk culture, with a slight predominance of examples with a torsional shaft. Copper alloy pins are much less numerous. Most of them occur in the vicinity of the zone occupied by the settlement of the Wielbark culture, e.g. specimens from Masovia and northern Greater Poland. The presence of hooked pins made of the copper alloy in the graves of the Przeworsk culture in the mentioned areas may be related to the neighbouring with this specific cultural

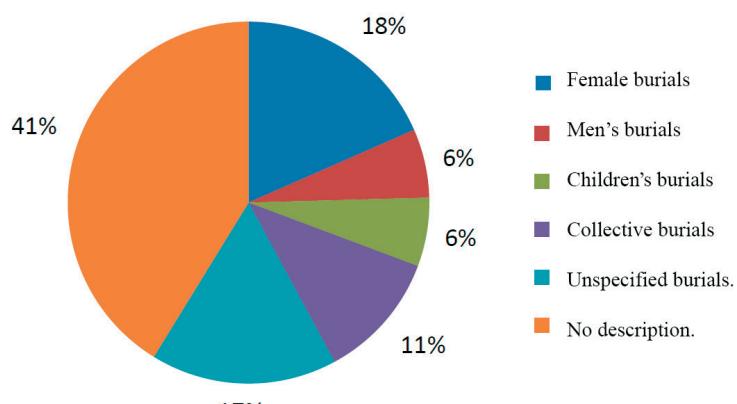


Fig. 19. Percentage of burials in the presented graves.

entity. The clear disproportion of pins results from the well-known reluctance of the people from the Wielbark culture to equip the deceased with iron relics as opposed to the people from the Przeworsk culture. Right now, there is a lack of the comparison of hooked pins from the Wielbark culture so it seems legitimate to create a comparison of this category in the future. The hooked pins are found in complexes of the Przeworsk culture dated from the A2 phase of the Early Pre-Roman Period to the beginning of the Migration Period, with iron specimens occurring throughout that time, whereas copper alloy specimens are found primarily in complexes from the Older Roman Period.

In the Early Pre-Roman period, hooked pins are found in the eastern zone of the Przeworsk culture. In the Roman Period, hooked pins appear almost throughout the entire territory of the Przeworsk culture, but are still more common in its eastern part. The results of the anthropological analysis indicate that in the vast majority of cases, hooked pins constituted equipment in graves of women, or in mass graves where at least one woman was buried. In the graves of children and men, pins were rarely found. This observation is also confirmed by the results of the analysis of the co-occurrence of the hooked pins with monuments considered to be archaeological indicators of gender. Approximately 80% of graves containing such hooked pins contain equipment typical for female burials. Therefore, it seems that researchers interpreting the hooked pins as the remains of spindles are right (Dąbrowska 1974, 232–233; 1997, 99; 2008, 35; Godłowski 1977, 41; Schuster 2010, 757; Maik 2012, 57–59). Much less convincing are the hypotheses assuming that the hooked pins served as ornaments or as a part of a costume.

## References

- Almgren O. 1923. *Studien über nordeuropäische Fibelformen der ersten nachchristlichen Jahrhunderte mit Berücksichtigung der provinzialrömischen und südrussischen Formen* (= *Mannus-Bibliothek* 32). Leipzig: Verlag von Curt Kabitzsch.
- Andrzejowski J. 1998. *Nadkole 2. A Cemetery of the Przeworsk Culture in Eastern Poland* (= *Monumenta Archaeologica Barbarica* 5). Warszawa, Kraków: Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Państwowe Muzeum Archeologiczne w Warszawie.
- Balke B. 1976. Cmentarzysko z okresu rzymskiego w Brzeźcach pow. Białobrzegi, stanowisko 1. *Wiadomości Archeologiczne* 41, 37–63.
- Beckmann B. 1966. Studien über die Metallnadeln der römischen Kaiserzeit im Freien Germanien. *Saalburg Jahrbuch* 23, 1–101.
- Biborski M. and Kaczanowski P. 2001. Neue römische Importe aus dem Gebiet Polens. Pyxidi aus Lędyczek, Kr. Piła. In A. Bursche and J. Kolendo (eds.), *Korpus der römischen Funde im europäischen Barbaricum. Nowe znaleziska importów rzymskich z ziemi Polski*, 2. Warszawa: Instytut Archeologii Uniwersytetu Warszawskiego, 69–88.
- Błażejewski A. 1998. *Obrządek pogrzebowy kultury przeworskiej na Śląsku*. Wrocław: Katedra Archeologii Uniwersytetu Wrocławskiego.
- Chmielewski T. 2009. *Po nitce do kłębka... o przedzalnictwie i tkactwie w młodszej epoce kamienia w Europie Środkowej*. Warszawa: Semper.
- Chmielowska A. 1971. *Grzebienie starożytne i wczesnośredniowieczne z ziemi polskich* (= *Acta Archaeologica Łódziana* 20). Łódź: Łódzkie Towarzystwo Naukowe.
- Czarnecka K. 1990. *Struktura społeczna ludności kultury przeworskiej. Próba rekonstrukcji na podstawie źródeł archeologicznych i analizy danych antropologicznych z cmentarzyska*. Warszawa: Państwowe Muzeum Archeologiczne w Warszawie.
- Czarnecka K. 2007. *Oblin. Ein Gräberfeld der Przeworsk-Kultur in Südmasowien* (= *Monumenta Archaeologica Barbarica* 13). Warszawa: Państwowe Muzeum Archeologiczne w Warszawie, Fundacja Monumenta Archaeologica Barbarica.
- Dąbrowska I. 1958. Cmentarzysko z okresu rzymskiego w Osiecku, pow. Garwolin. *Materiały Starożytne* 4, 255–300.
- Dąbrowska T. 1973. Cmentarzysko kultury przeworskiej w Karczewcu, pow. Węgrów. *Materiały Starożytne i Wczesnośredniowieczne* 2, 383–531.
- Dąbrowska T. 1974. Cmentarzysko kultury czerniachowskiej w Gródku Nadbużnym, pow. Hrubieszów. *Wiadomości Archeologiczne* 39, 229–236.
- Dąbrowska T. 1997. *Kamieńczyk. Ein Gräberfeld der Przeworsk-Kultur in Ostmasowien* (= *Monumenta Archaeologica Barbarica* 3). Warszawa, Kraków: Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Państwowe Muzeum Archeologiczne w Warszawie.
- Dąbrowska T. 2002. Cmentarzysko kultury przeworskiej w Kołaczku, stan. 2, gm. Mrozy, pow. Mińsk Mazowiecki, woj. mazowieckie. In J. Andrzejowski, R. Prochowicz and A. Żórawska (eds.), *Varia Barbarica Zenoni Woźniak ab amicis dicata* (= *Monumenta Archaeologica Barbarica. Series Gemina* 1). Warszawa, Lublin: Fundacja Przyjaciół Instytutu Archeologii Uniwersyteckiej.

- tetu Warszawskiego, Instytut Archeologii Uniwersytetu Marii Curie-Skłodowskiej w Lublinie, Państwowe Muzeum Archeologiczne w Warszawie, 219–262.
- Dąbrowska T. 2008. Młodszy okres przedrzymski na Mazowszu i zachodnim Podlasiu. *Materiały Starożytne i Wczesnośredniowieczne* 7, 1–214.
- Dłubakowski Z. 2005. Stanowisko wielokulturowe w miejscowości Pajewo-Szwelice, woj. Mazowieckie. *Warszawskie Materiały Archeologiczne* 9, 9–218.
- Dymaczewski A. 1958. Cmentarzysko z okresu rzymskiego w Młodzikowie pow. Środa. *Fontes Archaeologici Posnanienses* 8/9, 179–433.
- Dzięgielewska M. and Kulczyńska M. 2008. *Cieblowice Duże. Ein Gräberfeld der Przeworsk-Kultur in südwestlichen Masowien* (= *Monumenta Archaeologica Barbarica* 14). Warszawa: Fundacja Monumenta Archaeologica Barbarica, Państwowe Muzeum Archeologiczne w Warszawie.
- Gleba M. 2008. *Textile Production in Pre-Roman Italy* (= *Ancient Textile Series* 4). Oxford: Oxbow Books.
- Godłowski K. 1977. Materiały do poznania kultury przeworskiej na Górnym Śląsku. *Materiały Starożytne i Wczesnośredniowieczne* 4, 7–237.
- Godłowski K. and Szadkowska L. 1972. Cmentarzysko z okresu rzymskiego w Tarnowie, powiat Opole. *Opolski Rocznik Muzealny* 5, 5–246.
- Godłowski K. and Wichman T. 1998. *Chmielów Piaskowy. Ein Gräberfeld der Przeworsk-Kultur im Świętokrzyskie-Gebirge* (= *Monumenta Archaeologica Barbarica* 6). Kraków: Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Muzeum Archeologiczne w Krakowie, Instytut Archeologii Uniwersytetu Jagiellońskiego.
- Graef B. and Langlotz E. 1925. *Die antiken Vasen von der Akropolis zu Athen*. Berlin: De Gruyter.
- Jamka R. 1957/1958. Cmentarzysko z okresu rzymskiego w Starachowicach. *Przegląd Archeologiczny* 11, 32–62.
- Jankowska B. 1962. Cmentarzysko z późnego okresu rzymskiego w Warszawie-Kawęczynie. *Wiadomości Archeologiczne* 28, 330–358.
- Jaskanis J. 2005. *Krupice. Ein Gräberfeld der Przeworsk- und Wielbark-Kultur in Ostpolen* (= *Monumenta Archaeologica Barbarica* 10). Warszawa: Fundacja Przyjaciół Instytutu Archeologii Uniwersytetu Warszawskiego, Stowarzyszenie Naukowe Archeologów Polskich Oddział w Warszawie, Państwowe Muzeum Archeologiczne w Warszawie.
- Jasnosz S. 1952. Cmentarzysko z okresu późnolateńskiego i rzymskiego w Wymysłowie, pow. Gostyń. *Fontes Archaeologici Posnanienses* 2, 1–282.
- Kaczanowski P. 1987. *Drochlin, ciałopalne cmentarzysko kultury przeworskiej z okresu wpływów rzymskich* (= *Zeszyty Naukowe Uniwersytetu Jagiellońskiego* 828. *Prace Archeologiczne* 40). Kraków: Instytut Archeologii Uniwersytetu Jagiellońskiego.
- Kaszewska E. 1964. Materiały z cmentarzyska w Zadowicach pow. Kalisz. *Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi. Seria archeologiczna* 11, 101–189.
- von Kimakowicz-Winnicki M. 1910. *Spinn- und Weberwerkzeuge. Entwicklung und Anwendung in vorgeschichtlicher Zeit Europas* (= *Mannus Bibliothek* 2). Würzburg: Kabitzsch (Stuber).
- Kmiecinski J. 1962. *Zagadnienie kultury gocko-gepidzkiej*, Łódź: Łódzkie Towarzystwo Naukowe.
- Kokowski A. 1993. Période Romanie tardive. *Civilisation de Černjachov. Inventaria Archaeologica* 50, 1–26.
- Kokowski A. 2005. *Starożytna Polska. Od trzeciego stulecia przed narodzeniem Chrystusa do schyłku starożytności*. Warszawa: Trio.
- Kostrzewski B. 1947. Cmentarzysko z okresu rzymskiego w Koninie (woj. Poznań). *Przegląd Archeologiczny* 8, 192–294.
- Kostrzewski B. 1953. Cmentarzysko z okresu późnolateńskiego i rzymskiego w Domaradzicach, pow. Rawicz. *Fontes Archaeologici Posnanienses* 4, 153–274.
- Kostrzewski B. 1956. Cmentarzyska z okresu rzymskiego w Czaczu i Kokorzyńcu w pow. kościańskim i w Pieczkowie w pow. średzkim. *Fontes Archaeologici Posnanienses* 6, 65–103.
- Kostrzewski J. 1919. *Die ostgermanische Kultur der Spätlatènezeit* (= *Mannus-Bibliothek* 18–19). Würzburg: Verlag von Curt Kabitzsch.
- Kozłowska R. 1958. Cmentarzysko z okresu późnolateńskiego i wczesnorzymskiego w Niecieplinie, pow. Garwolin. *Materiały Starożytne* 4, 337–365.
- Kozłowska R. 1972. Cmentarzysko z okresów późnolateńskiego i wpływów rzymskich w Wesółkach, pow. Kalisz (stan. 5). *Sprawozdania Archeologiczne* 24, 349–390.
- Kurowicz P. and Olędzki M. 2002. *Cmentarzysko ludności kultury przeworskiej w Charlupi Małej koło Sieradza*. Łódź: Ibidem.

- Laser R. 1987. Wozu dienten die spätkaiserzeitlichen Bronzenadeln mit tordiertem Schaft und hakenförmigen Kopfteil. *Zeitschrift für Archäologie* 21, 57–52.
- Liana T. 1976. Kurhan i cmentarzysko płaskie kultury przeworskiej na stan. II w Łęgonicach Małych, pow. Opoczno. *Wiadomości Archeologiczne* 41, 64–127.
- Maciałowicz A. 2010. Interesujący zespół grobowy z nowych badań na cmentarzysku kultury przeworskiej w Gołębiewie, pow. Nidzica. In A. Urbaniak, R. Prochowicz, I. Jakubczyk, M. Levada and J. Schuster (eds.), *Terra Barbarica. Studia ofiarowane Magdalenie Mączyńskiej w 65. rocznicę urodzin* (= *Monumenta Archaeologica Barbarica. Series Gemina* 2). Łódź, Warszawa: Instytut Archeologii Uniwersytetu Łódzkiego, Fundacja Uniwersytetu Łódzkiego, Fundacja Monumenta Archaeologica Barbarica, Państwowe Muzeum Archeologiczne w Warszawie, 367–386.
- Madyda-Legutko R., Rodzińska-Nowak J. and Zagórska-Telega J. 2011. *Opatów, Fpl 1. Ein Gräberfeld der Przeworsk-Kultur im nordwestlichen Kleinpolen. Katalog* (= *Monumenta Archaeologica Barbarica* 15/1). Warszawa, Kraków: Fundacja Monumenta Archaeologica Barbarica, Instytut Archeologii Uniwersytetu Jagiellońskiego, Państwowe Muzeum Archeologiczne w Warszawie.
- Magomedov B. V. 2015. *Keramičeskie prâslica černâhovskoj kul'tury*. Kiev: Institut arheologii. Nacionaľnaâ akademîa nauk Ukrayiny.
- Maik J. 2012. *Włókiennictwo kultury wielbarskiej*. Łódź: Instytut Archeologii i Etnologii Polskiej Akademii Nauk.
- Mączyńska M. and Jagusiak M. 2002. Cmentarzysko z okresu rzymskiego w Czarnocinie pow. Piotrków Trybunalski, stanowisko 1. In J. Andrzejowski, R. Prochowicz and A. Żórawska (eds.), *Varia Barbarica Zenoni Woźniak ab amicis dicata* (= *Monumenta Archaeologica Barbarica. Series Gemina* 1). Warszawa, Lublin: Fundacja Przyjaciół Instytutu Archeologii Uniwersytetu Warszawskiego, Instytut Archeologii Uniwersytetu Marii Curie-Skłodowskiej w Lublinie, Państwowe Muzeum Archeologiczne w Warszawie, 353–374.
- Mycielska R. and Woźniak Z. 1988. Cmentarzysko wiełokulturowe w Błoniu. *Materiały Archeologiczne* 24, 5–326.
- Nowakowski Z. and Tyszler I. 1998. Terra sigillata z cmentarzyska w Źdżarowie, stan. 1, woj. skierniewickie. In J. Kolendo (ed.), *Korpus der römischen Funde im europäischen Barbaricum. Nowe znaleziska importów rzymskich z ziem polskich*, 1, Warszawa: Instytut Archeologii Uniwersytetu Warszawskiego, 105–118.
- Olędzki M. 1985. Cmentarzysko z okresu rzymskiego w Kućowie, gm. Kleszczów woj. Piotrków Tryb. (stan. 7). *Acta Universitatis Lodzienensis. Folia Archaeologica* 7, 33–125.
- Olędzki M. 2000. *Cmentarzysko z młodszego okresu przedrzymskiego i okresu rzymskiego w Wólce Domaniowskiej koło Radomia*. Łódź: Katedra Badań Wschodu ISM UŁ.
- Piętka-Dąbrowska T. 1959/1960. Cmentarzysko z okresu rzymskiego w miejscowości Domaradzyn, pow. Łowicz. *Wiadomości Archeologiczne* 26, 225–230.
- Przewoźna K. 1954. Osada i cmentarzysko z okresu rzymskiego w Słopanowie, pow. Szamotuły. *Fontes Archaeologici Posnanienses* 5, 60–140.
- Schuster J. 2010. Germanische Spinnrocken im nördlichen, pow. Nidzica. In A. Urbaniak, R. Prochowicz, I. Jakubczyk, M. Levada and J. Schuster (eds.), *Terra Barbarica. Studia ofiarowane Magdalenie Mączyńskiej w 65. rocznicę urodzin* (= *Monumenta Archaeologica Barbarica. Series Gemina* 2). Łódź, Warszawa: Instytut Archeologii Uniwersytetu Łódzkiego, Fundacja Uniwersytetu Łódzkiego, Fundacja Monumenta Archaeologica Barbarica, Państwowe Muzeum Archeologiczne w Warszawie, 755–765.
- Szpunar A. 1987. Cmentarzysko w Łętowicach gm. Wierchosławice, woj. Tarnów, badania 1984–1985. *Sprawozdania Archeologiczne* 34, 179–192.
- Szydłowski J. 1964. *Cmentarzysko z okresu wpływów rzymskich w Choruli, pow. Krapkowice*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Wołagiewicz R. 1995. *Lubowidz. Ein birituelles Gräberfeld der Wielbark-Kultur aus der Zeit vom Ende des 1. Jhs. v. Chr. bis zum Anfang des 3. Jhs. n. Chr* (= *Monumenta Archaeologica Barbarica* 1). Kraków, Szczecin: Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Muzeum Narodowe w Szczecinie.
- Ziemlińska-Odojowa W. 1999. *Niedanowo. Ein Gräberfeld der Przeworsk- und Wielbark-Kultur in Nordmasowien* (= *Monumenta Archaeologica Barbarica* 7). Kraków, Olsztyn: Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Państwowe Muzeum Archeologiczne w Warszawie, Muzeum Warmii i Mazur w Olsztynie.
- Ziętek J. 2004. Cmentarzysko kultury przeworskiej w Mierzynie-Grobli, stan. 2, gm. Rozprza, woj. łódzkie. In M. Olędzki and J. Skowron (eds.), *Kultura przeworska. Odkrycia – interpretacje – hipotezy*. Łódź: Instytut Studiów Międzynarodowych UŁ, 25–83.