

**INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY
POLISH ACADEMY OF SCIENCES
CRACOW BRANCH**

A TURNING OF AGES

IM WANDEL DER ZEITEN

*Jubilee Book Dedicated to Professor Jan Machnik
on His 70th Anniversary*

editor Sławomir Kadrow

KRAKÓW 2000

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Technical Editor: Joanna Kulczyńska
Cover design: Joanna Kulczyńska

Published by
Institute of Archaeology and Ethnology
Polish Academy of Sciences, Cracow Branch
ul. Sławkowska 17, 31-016 Kraków, Poland
telefax: 048/12/422 29 05

ISBN: 83-908823-3-7

Printed by: Drukarnia DEKA
ul. Golikówka 7,30-723 Kraków
tel./fax: 048/12/653 29 06

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FINDS OF ARCHER'S WRISTGUARDS IN THE BALTIC ZONE

Archer's wristguards belong to artefacts unequivocally linked with the Bell Beakers (BB) across the whole of Europe (Sangmeister 1964; 1974; Harrison 1980 *passim*). They are most often stone artefacts, made mainly from sandstone of a grey or reddish colour (Sangmeister 1974: 114), although other materials were also used, especially bone. Even when wristguards clearly occur in different cultural contexts, they are interpreted there as evidence of BB 'influence', a situation which is best exemplified by the presence of such artefacts in graves of the proto-stage of the Mierzanowice culture (Machnik 1978:44).

The lowland region of Central Europe to the south of the Baltic Sea, covering the area from Jutland and Schleswig-Holstein in the west to the basin of the Lower and Middle Vistula in the east, has not so far been attributed to the BB ecumene (Harrison 1980, Fig. 1 and 2). It has generally been treated as an area of "Bell Beaker culture influence", with reference to the presence of a small number of BB traits observed in certain regions of this part of Europe (Jązdżewski 1937; Struve 1955; Jensen 1972; Lomborg 1975). Only A. Kosko, in 1979, put forward a broader concept of the role of the BB in the cultural development in Kujawy at the threshold of the Bronze Age (Kośko 1979) — an interpretation which did not meet with a significant response in literature of this field. However, excavations from the last decade of the XX century provided a whole series of new finds — especially in the basins of the Oder and the Vistula (Makarowicz, Czebreszuk 1995; Czebreszuk 1996) — which will, in the

Table 1. The specification of individual types of archer's wristguards (Acc. to Sangmeister 1974 supplemented).

Type	Number of perforation		The technique of perforation		Proportions			Cross-section			Outline			Ornamentation		Colour		
	2	4	hourglass-shaped	conical-shaped	P1	P2	P3	P4	flat	slightly arch-shaped	strongly arch-shaped	arch-shaped longer sides	rectangular	without	engraves lines	die incisions	reddish	grey
A		X		X	X	X					<X	X			X		X	
B		X		X		X	X>			<X		X		X				X
C		X		X			<X	X		X			X	X				X
D		X		X			<X		X				X	X				X
E		X		X				<X	X			X		X				<X
F	X		X				X	X	X			X		X				X
G	X		X				<X	X	X				X	X				X
H	X		X				X				X	<X			X			

near future, allow a revision of the above-mentioned views to be undertaken (see also: Kuhn 1979; Jacobs 1991; Vandkilde 1996). Also extended has been the list of finds of archer's wristguards, which provided the spur for the present contribution to the question of their occurrence in the southern Baltic zone.

From the area between Jutland and the Vistula basin, we currently possess data concerning 29 wristguards (whole specimens, fragments and semi-products) from 26 sites (cf. catalogue at the end of the article).

This collection was ordered typologically using the schema of E. Sangmeister (Sangmeister 1974), which is the effect of many years of typological studies carried out by this author (Sangmeister 1964). He distinguished seven types, whose definitions are based on a complex system of criteria: the number of perforations (2 or 4); the technique of perforation applied (perforations of an hourglass-shaped cross-section, i.e. drilled from both sides, and of a conical cross-section, i.e. drilled from the inside); the proportions (divided into 4 states, from P₁ — the most 'stocky', to P₄ — the most slender); the cross-section (flat, and slightly or strongly arch-shaped); the outline (rectangular or with arch-shaped longer sides); the ornamentation (engraved lines, die incisions or without ornamentation); and the colour of the stone (reddish and grey). The specifications of individual types are presented in tabular form (Tab. 1).

The specimens found on the area under consideration represent almost every type. Most frequent is type A — 10 specimens (4 of them ornamented) and type C — 6 specimens. Examples of other types were found individually: namely, type B — 2 specimens, type D — 2, type F — 1 and type G — 2. Only two of the finds could not be identified, due to their overly fragmented state. In addition, four wristguards were also found in this area whose form does not permit them to be classified according to the typology of E. Sangmeister. These wristguards were found in Frellesvig (no. 3 in catalogue), Lojtvedgard (no. 11), Myrholm (no. 14) and Rügen Island (no. 16). They are characterised by the presence of two perforations in the middle part. I propose to classify these wristguards as a separate type — H — with the following major specific characteristics: (two) perforations in the middle part (but not exactly in the centre), an hourglass cross-section of the perforations, the proportion P₄ (according to E. Sangmeister), a strongly arch-shaped cross-section, a rectangular outline and — usually — an ornamentation of engraved lines. This proposed type would mainly comprise artefacts made from bone.

In the area of Europe under consideration, archer's wristguards have been found in both grave (5) and settlement contexts (6), but they are most frequently

'loose' finds (18). Singularly characteristic, and at the same time striking, is how little information is provided by the burial finds. Only in the case of Frellesvig (no. 3 in the catalogue) do we possess sufficient information for the identification of the type of burial. This a single cist grave constructed from large flat slabs, with a similar 'cover' formed from 2-3 slabs (Schwentens 1958, Fig. 130). Unfortunately, neither the grave goods, whose chief element is the bone wristguard described, nor the form of the grave allows us to carry out a more precise chronological-cultural analysis of this find.

The most informative contexts in the Baltic zone are the settlement ones. In all of the most important areas of this zone, the presence of wristguards has been recorded in settlements with a rich range of BB traits. Such is the case in Jutland (in the Myrhoj settlement — Jensen 1972) in Mecklenburg (the settlements in Lanz -Wetzel 1976: 58; Jacobs 1991: 57 — and Techentin — Nagel 1986) and most probably in Kujawy (the settlement in Rybiny — Makarowicz 1989). The Rybiny settlement is not classified as BB, but rather under the Trzciniec 2 horizon. This horizon is, however, genetically linked to the Kujawy branch of the BB, known as the Iwno culture (Czebreszuk 1996; Makarowicz 1998). All of the above-mentioned settlements are characterised by ceramic ornamentation in the form of complex, zone-metopic engraved patterns. A particularly striking similarity is evident in the first three sites. The specificity of the assemblages in question is determined by the following traits: stocky (vase-like) bell-shaped beakers (reminiscent in form of the Dutch Veluwe type — van der Waals, Glasbergen 1955: 24-27), Reisenbecher (prototypes of 'Trzciniec pots' — Czebreszuk 1998: 414-420), flower-pot-shaped vessels, zone-metopic ornamentation made using engraving and knurling techniques, flint daggers (type I according to E. Lomborg — Lomborg 1973), heart-shaped arrowheads, and amber buttons with a V-shaped perforation. This is a classical BB range of taxonomical traits in this part of Europe (Czebreszuk, Szmyt 2000).

In the Baltic zone of the appearance of archer's wristguards, we come across an important complication on the genetic level, specifically concerning bone wristguards. In Jutland, there are cases of such wristguards being found in assemblages of the local Funnel Beaker culture (Skaarup 1993: 106). In this context, the linking of all the bone wristguards to the BB should be considered as open to question, all the more so since their typology is of the distinct H type (with the exception of Riigen — Fig. 2:7 and the repaired specimen from Myrhoj — Jensen 1972, Fig. 16).

Similarly, not all stone wristguards can be considered as genetically linked to the BB. Such is the case of site 14 in the Rybiny settlement, which has been attributed to the Trzciniec 2 horizon (Czebreszuk 1996: 160-164; Makarowicz 1998).

The relative chronology of individual types of archer's wristguards is the work of E. Sangmeister (Sangmeister 1974, p. from 122), and was established prior to the large-scale introduction of radiocarbon dating (Lanting, Mook, van der Waals 1973; Włodarczak, Kowalewska-Marszałek 1998; Muller, van Willigen 1999). From this perspective, its value must presently be interpreted with due caution. One example is the dating of the grave in EgelN-Galgenberg in the Solawa region of Germany, where an assemblage containing wristguards of type C — one of the earliest according to E. Sangmeister (Sangmeister 1974: 122) — received a very late dating, namely approx. 2200-2030 BC (KN-4865, 3738±42 BP, Muller 1999/2000, Abb. 14). With this in mind, any attempt to determine an absolute chronology for the finds of wristguards from the Baltic zone areas should primarily refer to local contexts. The time range of the appearance of particular types should only be defined when a radiocarbon chronology has been established.

Of key significance to this task is the settlement in Myrhoj, for which a series of ¹⁴C (Vandkilde 1996: 372-373) dates have determined the period of inhabitation at 2410 to 2140 BC (Czebreszuk 1998, Fig. 3, with a probability of 1 sigma level). This dating should also be attributed to the principle stage in the appearance of archer's wristguards in the Baltic zone. The opening and closing dates may alter depending on the solutions accepted to the question of the genetic position of Jutland bone wristguards and the actual presence of this type of artefact on the settlement in Rybiny, site 14, in Kujawy. Admitting the hypothesis of an unbroken period of use by the Jutland society of archer's wristguards (firstly made from bone, later from stone), the beginnings of this period should be sought in the developmental phase of the Funnel Beaker culture, i.e. somewhere in the IV mill. BC. (Liversage 1992, Table 4). At the same time, if we accept as accurate the identification of two stone items from Rybiny as an abandoned, semi-finished archer's wristguard, it should be accepted that the decline of their use in Kujawy could be as late as 1600 BC. (Makarowicz 1998, Fig. 38).

The short review presented here of problematics concerning the genetic and cultural-chronological position of archer's wristguards in the Baltic zone

shows that this group of finds — relatively small in number — is much varied typologically and is known from a wide range of functional and cultural contexts. To date, specialist authors (E. Sangmeister is a good example) have attempted to explain this typological variety as the work of time. There are, however, other possible interpretations — particularly intriguing when a more complex conception of the BB phenomenon is adopted, referring not only to categories of "archaeological culture", but also to the idea of a cultural "packet" (Burgess 1976, for a detailed exposition of this idea, cf. Czebreszuk 1998: 413-414; Czebreszuk, Szmyt 2000). The typological richness of archer's wristguards, which does not seem to be attributable to the time factor, points to a high level of cultural significance of this artefact. Without dwelling on the nature of this significance (which is a task beyond the scope of this report), it is important to note the fact that archer's wristguards were an important "tools" of transmitting cultural information between the societies of the Northern European Lowlands. However, the question as to whether artefacts of this same type bore the same cultural content on the Tagus, the Rhine and the Vistula is another story altogether.

Endnote. This article was written within the framework of grant KBN no. 1H01H019 17.

The article made use of information from the Roland Schroeder Archive, held in the Institute of Pre- and Proto-history of the University of Kiel, for access to which I am grateful to the Institute authorities.

The catalogue of finds of archer's wristguards in the Baltic zone

1. BARSMARK, Kr. Lojt Kirkerby, (Denemark).

A 'loose' find of a stone wristguard. Type G ace. to E. Sangmeister.

Referencies: R. Schroeder Archive, Kiel; Sangmeister 1974: 135, item 201.

2. BATTIN, Kr. Pasewalk, (Germany) Fig. 2: 2 (based on: Raddatz 1952, Abb. 1:1)

The stone wristguard is from a private collection (Raddatz 1952: 379). The specimen was most probably repaired: after the original form had been broken, two openings were perforated near the fractured edge. The resulting artefact was a disproportionately stocky wristguard, closest to type C ace. to E. Sangmeister. Bearing in mind, additionally, the fact that the collection from the same locality also contained further 'beaker' style artefacts (two model bows made

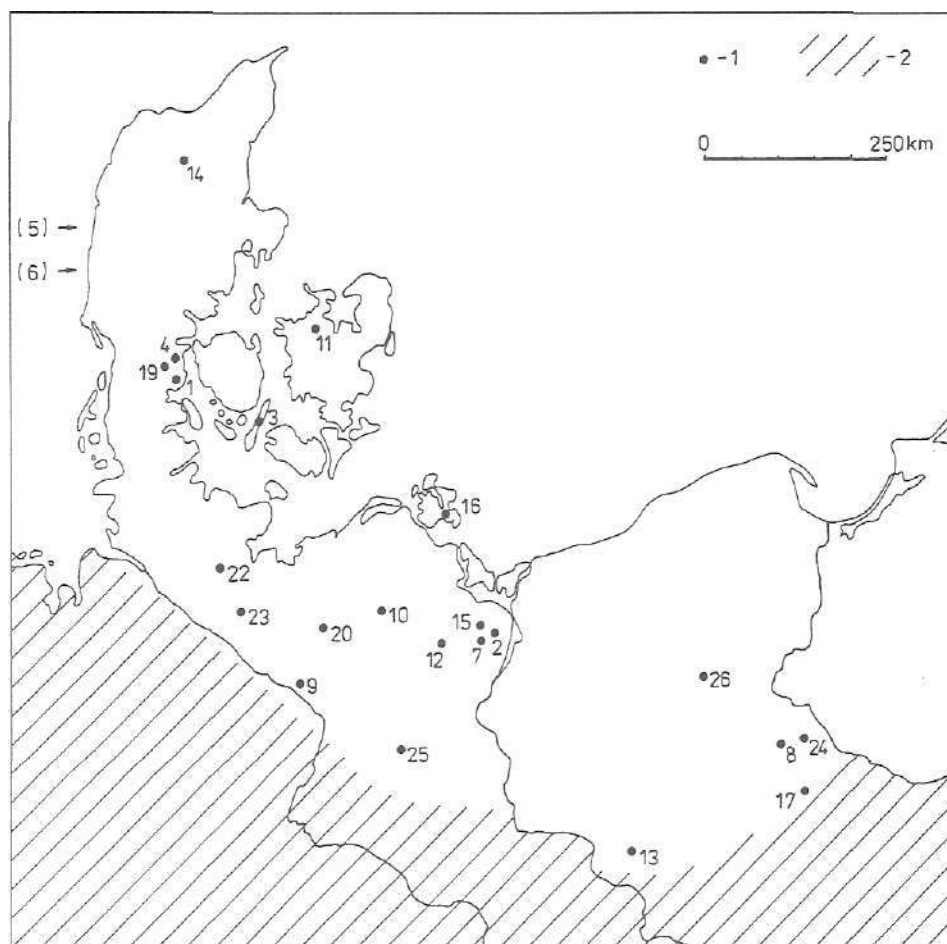


Fig. 1. Distribution of the finds of archer's wristguards. 1 — finds of archer's wristguards, 2 — area outside consideration.

from bone — Raddatz 1952, Abb. 1: 3-4), it may be assumed that the find originates from a grave.

Referencies: Raddatz 1952; Jacobs 1991: 66 and Taf. 64: 9, here older works on the subject.

3. FRELLESVIG, Tullebolle s., Langeland Norre h., Svenborg a., (Denemark) Fig. 2: 18 (based on: R. Schroeder Archive, Kiel) and Fig. 2: 17 (based on: Glob 1952, Fig. 481).

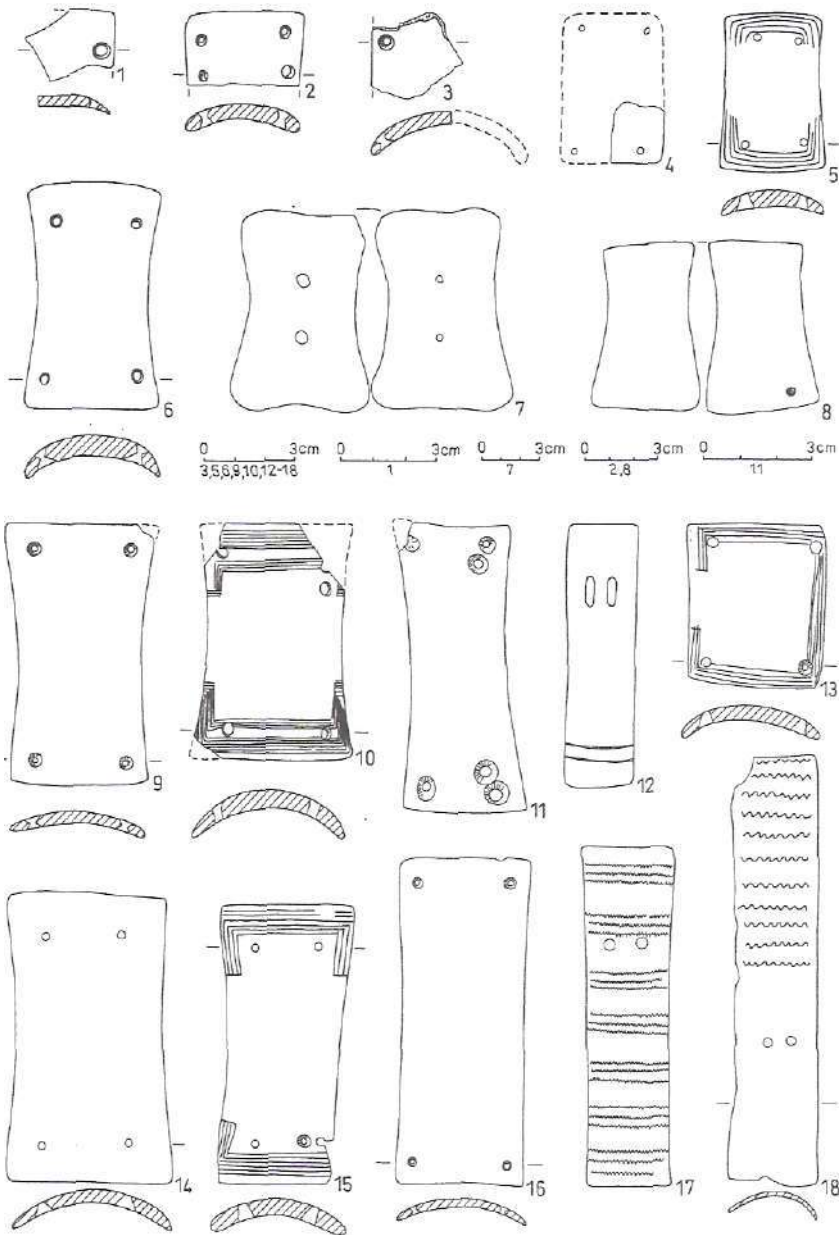


Fig. 2. Archer's wristguards from the Baltic area. 1,3 — Lanz, 2 — Battin, 4 — Liepen, 5 — Techentin, 6 — Wustermark, 7, 8 — Riigen, 9 — Mechow, 10 — Pasewalk, 11 — Tralau, 12 — Lojtvedgard, 13 — Sterusbjerg, 14 — Valluhn, 15 — Hortrup, 16 — Kleptow, 17,18 — Frellesvig.

A bone wristguard from a cist grave containing the remains of a single individual in a stretched position (Schwentes 1958, Abb. 130). Type H. Bearing in mind that the photograph from the work of P. V. Glob differs in several details (most importantly: the length, the amount of surface area ornamented and the structure of the ornamental pattern) from the sketch from the original found in the Roland Schroeder Archive, it is possible that we are dealing here with two separate finds.

References: R. Schroeder Archive, Kiel (as: Hagenbergwald, Ksp. Hagenberg, Alsen, Kr. Sonderburg); Schwentes 1958: 319 and 331 (as: Hagenberger Wald); Glob 1952, p. 61.

4. HOPTRUP sdr., Hoptrup s., Gram h., Haderslev a. (Denemark) Fig. 2: 15 (based on: R. Schroeder Archive, Kiel).

A 'loose' find of a stone wristguard. Type A ace. to E. Sangmeister.

References: R. Schroeder Archive, Kiel (as: Helnaes); Glob 1952: 61; Sangmeister 1974:132, item 39 (as: Helnaes), Lomborg 1975: 37.

5. JUTLAND (unknown place) (Denemark)

A 'loose' find of a stone wristguard. Type A ace. to E. Sangmeister.

References: Sangmeister 1974: 132, item 52.

6. JUTLAND (unknown place) (Denemark)

A 'loose' find of a stone wristguard. Type C ace. to E. Sangmeister.

References: Sangmeister 1974: 133, item 115.

7. KLEPTOW, Kr. Prenzlau, (Germany) Fig. 2:16 (based on: R. Schroeder Archive, Kiel).

A 'loose' find of a stone wristguard. Type C ace. to E. Sangmeister.

References: R. Schroeder Archive, Kiel; Sangmeister 1974: 133, item 120; Jacobs 1991: 76 and Taf. 64:10, here older works on the subject.

8. KRUSZWICA, gm. loco, pow. Inowrocław, woj. kujawsko-pomorskie, site. 4, (Poland) Fig. 3:4 (based on: Makarowicz, Czebreszuk 1995, Fig. 8:11).

A 'loose' find of a fragment of stone wristguard. Type D ace. to E. Sangmeister.

References: Makarowicz, Czebreszuk 1995:113 and Fig. 8:11.

9. LANZ, Kr. Ludwigslust, site 14, (Germany) Fig. 2: 1,3 (based on: Jacobs 1991, Taf. 27: 16 and Wetzel 1976, Abb. 3: 11).

Two stone wristguards preserved in fragments in a settlement with a rich range of BB traits, such as a variety of vessel forms (e. g. Riesenbecher), knurled and zone-metopic ornamentation, amber buttons with V-shaped perforation,

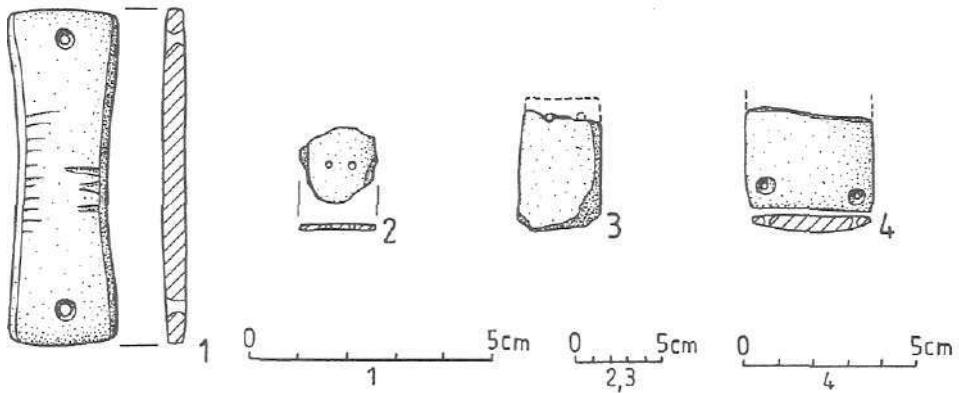


Fig. 3. Archer's wristguards from the Baltic area. 1 — Wąsewo, 2-3, Złotów, 4 — Kruszwica.

a stone beltfastener and a heart-shaped arrowhead. Both fragments are close to type C ace. to E. Sangmeister.

References: Wetzel 1976, p. 58 and Abb. 1: 12-22; 2: 1-8; 3: 9-12; Jacobs 1991: 57 and Taf. 27:14-17, here older works on the subject.

10. LIEPEN, Kr. Malchin, site 5, (Germany) Fig. 2: 4 (based on: Jacobs 1991, Taf. 64: 12)

A fragment of a stone wristguard, probable from a settlement. The closer to type C ace. to E. Sangmeister.

References: Wetzel 1976: 58; Jacobs 1991: 77 and Taf. 64: 12.

11. LOJTVEDGARD, Viskinde s., Skippinge h., Holbaek a., (Denemark) Fig. 2: 12 (based on: Glob 1952, Fig. 482).

A 'loose' find (in moor) of a stone wristguard. Type H.

References: Glob 1952: 61 and Fig. 482.

12. MECHOW, Kr. Neustrelitz, (Germany) Fig. 2: 9 (based on: R. Schroeder Archive, Kiel).

A stone wristguard, probable from a grave. Type B ace. to E. Sangmeister.

References: R. Schroeder Archive, Kiel; Sangmeister 1974: 132, item 63; Jacobs 1991: 78 and Taf. 64: 11, here older works on the subject.

13. MIASTKO, gm. Wijewo, po w. Leszno, woj. wielkopolskie (Poland).

A 'loose' find of a stone wristguard. Type G ace. to E. Sangmeister.

References: Czembreszuk, Iwanicka-Pinkosz 2001.

14. MYRHOJ, Aalborg a., (Denemark).

On the settlement of multiple-building construction, with a rich range of BB traits, in homestead D was found a stone wristguard. It is a repaired specimen

whose original form featured four perforations. The fracture was smoothed, and one perforation was made, resulting in an atypical artefact with three perforations. It has been defined as closest to type H. In terms of BB traits, the Myrhoj settlement is the richest feature not only in Jutland, but of the whole of the Baltic zone. Moreover, seven 14C (Vandkilde 1996: 372-373) datings come from this settlement, which together place the period of its use between 2410 and 2140 BC (Czebreszuk 1998, Fig. 3 with a probability on a level of 1 sigma).

References: Jensen 1972.

15. PASEWALK. Kr. loco, (Germany) Fig. 2: 10 (based on: Jacobs 1991, Taf. 64: 13).

A 'loose' find of a stone wristguard. Type A ace. to E. Sangmeister.

References: Jacobs 1991: 81 and Taf. 64: 13, here older works on the subject.

16. RUGEN (island), Kr. Riigen, (Germany) Fig. 2: 7, 8 (based on: Jacobs 1991, Taf. 64:7-8).

A 'loose' find of two stone wristguards. One wristguard, a semi-finished product, most probably of type A ace. to E. Sangmeister. Its shape had already been completely formed when work on the artefact was abandoned at the stage of the perforation of the first opening. The second specimen, with two centrally-positioned perforations, can be attributed to the proposed type H.

References: Jacobs 1991: 51 and Taf. 64: 7-8, here older works on the subject.

17. RYBINY, gm. Topólka, pow. Radziejów Kuj., woj. kujawsko-pomorskie, site 14, (Poland).

A fragment of a stone plate from a settlement with a rich range of traits genetically connected with the BB (Makarowicz 1989). Due to the absence of any signs of perforation, this find can only tentatively be classified as an archer's wristguard.

References: Chachlikowski 1989; Makarowicz 1989.

18. SAHL s., Ringkobing a., (Denemark).

A 'loose' find of a stone wristguard. Type B ace. to E. Sangmeister.

References: Sangmeister 1974:133, item 100.

19. STERUSBJERG, Kjestrugo s., Haderslev a., (Denemark) Fig. 2: 13 (based on: R. Schroeder Archive, Kiel).

A stone wristguard. The find was discovered together with other stone and amber artefacts, indicating that it originated from a grave. Type A ace. to E. Sangmeister.

Referencies: R. Schroeder Archive, Kiel; Sangmeister 1974:131, item 32.

20. TECHENTIN, Kr. Ludwigslust, site 5, (Germany) Fig. 2: 5 (based on: Nagel 1986, Fig. 2n).

A stone wristguard found among material in a destroyed settlement featuring BB ceramics with the following traits: knurled and zone-metopic ornamentation, ceramic with flat holder, a stone object most commonly associated with metallurgy (an anvil? — Nagel 1986, Fig. 2m.), fragments of flint daggers (close to type I ace. to E. Lomborg — Lomborg 1973) and heart-shaped arrowheads. Type A ace. to E. Sangmeister.

Referencies: Nagel 1986.

21. THY (Denemark)

Mention of a stone wristguard found there resembling the find from Hoptrup (cp. no. 4 in the catalogue).

Referencies: Glob 1952, p. 120.

22. TRALAU, Kr. Stormarn, (Germany) Fig. 2: 11 (based on: Sonder 1941/42, Abb. 1).

A stone wristguard found in the River Trave during its deepening in 1935-37. Type A ace. to E. Sangmeister.

Referencies: Sonder 1941/1942; Struve 1955: 57 and 180 (there as: Neversdorf Kr. Segeberg); Sangmeister 1974:132, item 40; Kiihn 1979: 92.

23. VALLUHN, Kr. Hagenow, (Germany) Fig. 2: 14 (based on: R. Schroeder Archive, Kiel).

A 'loose' find of a stone wristguard. Type A ace. to E. Sangmeister.

Referencies: R. Schroeder Archive, Kiel; Sangmeister 1974: 131, item 22; Jacobs 1991: 62 and Taf. 64: 6, here older works on the subject.

24. WĄSEWO, gm. Radziejów Kuj, pow. Radziejów Kuj., woj. kujawsko-pomorskie, site 3, (Poland) Fig. 3: 1 (based on: Czebreszuk 1998a, Fig. 8: 7).

A 'loose' find of a stone wristguard, probable from a grave. Type F ace. to E. Sangmeister.

Referencies: Czebreszuk 1996, Catalogue, item 1754; Czebreszuk 1998a, Fig. 8: 7.

25. WUSTERMARK, Kr. Nauen, (Germany) Fig. 2: 6 (based on: Horst 1962, Fig. 2:1).

A 'loose' find of a stone wristguard from the Havel Canal. Type A ace. to E. Sangmeister.

Referencies: Horst 1962; Sangmeister 1974, p. 131, item 27.

26. ZŁOTÓW, pow. loco, woj. wielkopolskie, site 2, (Poland) Fig. 3: 2, 3 (based on: Rączkowski 1987, Tabl. XVIII: 4,5).

A 'loose' find of two fragments of stone wristguards. In the absence of any cultural context, the formal traits of these fragments which could be determined are so unclear that their connection with the BB is questionable. One of the specimens (Fig. 3: 3) is closest to type D ace. to E. Sangmeister, whilst the other is impossible to classify.

Referencies: Rączkowski 1987, Catalogue, item 259 and Tabl. XVIII: 4,5.

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