BRONZE AGE METAL AND AMBER IN THE NETHERLANDS (IV) HOARDS AND RICH GRAVES IN THE LATE BRONZE AGE, PART A

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ABSTRACT: This, Part IV: A of the publication of Bronze Age metal and amber finds in the Netherlands, is the second part of a catalogue and evaluation of the bronze hoards and rich graves in the Netherlands. Attention is given to questions of importation and regional production of bracelets in the Late Bronze Age.

KEYWORDS: the Netherlands, Late Bronze Age, bracelets ([pen]annular, kidney-shaped, multi-ribbed, omega, palette and otherwise), ornaments, socketed axes, hoards, graves.

1. INTRODUCTION

In Part I of this series, the first writer (Butler, 1990: 47–110) described 24 hoards and grave finds from the Early and Middle Bronze Age in the Netherlands. In the present part (IV:A) we discuss Netherlands hoards and richer grave finds especially with bracelets. In Part IV:B (forthcoming) we will discuss tools and weapons of the Late Bronze Age (see fig. 1 for absolute chronology).

Bronze Age bracelets are scarce in the Netherlands: indeed, *very* scarce if we compare them with their immense number and variety in many parts of Europe.

Of course, socketed bronze axe-heads were the most numerous products of the bronze-working industry in the east of the Netherlands and surrounding areas (all sorts are scarce in the west of the country!), occurring in numerous varieties, some local, some more wide-spread. Distribution maps show that the northeast of the Netherlands favoured other varieties than the southeast; and also that there are varieties (admittedly scarce) found only in the northeast and nowhere else. Among these are the ten socketed axes with plastic sawtooth ornament (Butler & Steegstra, 2003/04: 271, 272, map 15 and fig. 93), found in the IJssel valley and farther north, in much the same area as the hoards with omega bracelets discussed below; and with the plastic sawtooth ornament as the localized feature.

Although metal-working in the Bronze Age in the Netherlands was heavily centered on the production of tools and weapons – especially axes and spearheads – there could also have been some room for the making of articles of adornment, even if such ornament production was very small scaled. Our reasoning in support of local ornament production was based on

the realization that there were socketed axes in the Netherlands with features of form and ornament, such as the sawtooth ornament, that cannot be matched in neighbouring areas, and therefore must have been locally produced in the northwest of the Netherlands. Thus one could ask whether there was also evidence for the parallel local production of articles of, for example, female attire.

There was indeed such evidence: the several finds of bronze multi-ribbed penannular bracelets with everted palettes. Although a survey does not yet exist, it seems evident that the small group of these bracelets here presented in section 2.1.2 below are products of a small-scale regional group, sometimes called North Dutch omega bracelets (O'Connor, 1980[I]: 209, 210; map 67). The principal feature common to all examples is the bending back of a portion of the ends of the body, forming a flattened expanded terminal of modest size (omega bracelets or everted palette bracelets).

A different group of penannular bracelets, solid and with slightly thickened terminals ("paws"), displays another local feature: the double row of *pointillé* on the bracelets from the hoards of Hijkersmilde (gold) and Onstwedder Holte (bronze). In the Netherlands a bronze bracelet from Odoorn, Drenthe (a stray find) has the same decoration; a bronze bracelet (one of a pair) from the hoard of Ostrhauderfehn, Kr. Leer (Sprockhoff, 1956(I): 209, No. 18, Abb. 53:1) can also be matched with the Onstwedder Holte bracelets. These three hoards (Hijkersmilde, Onstwedder Holte, Ostrhauderfehn and the stray find from Odoorn) occurred on different sides of the modern border (but in fact not far apart from each other) and suggest a small local group (see section 2.3).

Southern Germany and adjacent areas		Southern Scandinavia	NW Germany	Netherlands	UK	Brittany Normandy	E. France
Ha D 625-480 BC 2500-2400 BP							
Ha C 800-625 BC 2650-2450 BP		M VI 750-575 BC 2525-2450 BP	Harpstedt		Llynfawr 800-600 BC		
Ha B3 925-800 BC 2800-2650 BP	Späte Uf	M V 925-750 BC 2800-2450 BP		Drouwen (1939), Onstwedder Holte, Hijkersmilde, Hijken, Bruggelen, Elsen	Ewart Park 900-800 BC	B.f. atl. III carps tongue 950-800 BC	B.f. IIIb
Ha B1 1025-925 BC 2875-2800 BP	Jüngere Uf.	M IV 1125-925 BC 2900-2800 BP	ZG. III: late Deutsch-Evern	St. Maartenskliniek	Blackmoor 975-900 BC	B.f. atl. II	B.f. IIIa
Ha A2 1125-1025 BC 3000-2875 BP	Mitl. Uf.			Angelslo	Wilburton 1125-975 BC	St. Brieuc-des-Iffs 1125-950 BC	B.f. IIb
Ha A1 1200-1125 BC 3000-2950 BP	Ältere Uf,	M III	ZG. III:	Balloërveld	Penard 1250-1125 BC	B.f. atl. I Rosnoën 1300-1125 BC	B.f. IIa
MB D 1325-1200 BC 3100-3000 BP	Späte Hg/ Frühe Uf. Riegsee	1325-1125 BC 3100-2900 BP	early Deutsch-Evern	Holset	Taunton		B.f. I
MB C2 1400-1325 BC 3100-3050 BP	Jüngere Hg., Asenkofen	M II	ZG. II	Weerdinge + Epe	Acton Pk 1575-1400 BC	B.m. atl. II Bignan 1450/25-1300 BC	B.m. III
MB C1 1475-1400 BC 3200-3100 BP	Mittlere Hg., Göggenhofen	1475-1325 BC 3200-3050 BP	ZG. I	Voorhout			B.m. II
MB B 1575-1475 BC 3325-3200 BP	Ältere Hg., Locham	M IB 1575-1475 BC 3325-3200 BP	Sögel/Wohlde	Sögel/Wohlde		B.m. atl. I Tréboul 1575-1450/25 BC	B.m. I
EB A2 1775-1575 BC	Jüngere Frühbronzezeit Langquaid	M IA 1775-1575 BC 3500-3300 BP		WKD pottery	Wessex 2: Arreton (Camerton) 1700-1575 BC		
EB A1b 1900-1775 BC	Ältere Frühbronzezeit	LN II 1900-1775 BC 3550-3475 BP	WKD pottery	WKD pottery Emmen axes	Wessex 1: 1825-1700 BC Lockington 1900-1850 BC		B.a III
EBA 1a/late 2025-1900 BC	Ältere Frühbronzezeit	LN I 2000-1900 BC 3650-3550 BP		- Wageningen			B.a II
EBA 1a/early 2150-2025 BC	Ältere Frühbronzezeit						B.a. I

Fig. 1. Absolute chronology (After: Lanting & Van der Plicht, 2001/02) (drawing H. Steegstra, GIA).

2. THE BRACELETS

2.1. Horizontally multi-ribbed penannular bracelets

Thanks to H. Müller-Karpe, his successor A. Jockenhövel, and the army of their collaborators in the evergrowing row of publications of the Prähistorische Bronzefunde series, we are now very much better informed than we were in 1965 over the occurrence of the penannular multi-ribbed bracelets. We now know that variants of such bracelets have been found over a very wide area, extending from Rumania on the southeast (Petrescu-Dîmbovița, 1998), Bohemia (Kytlicová, 2007; Moucha, 2005), Slovakia (Furmánek et al., 1991), Bayern-Oberfpalz (Torbrügge, 1959), Central Germany (Richter, 1970), Denmark (Aner & Kersten, 1973–1993) even to Somerset in the southwest of England (Smith, 1959; Megaw & Simpson, 1981) and Co. Offaly in Ireland (Raftery, 1961; Eogan, 1983; Waddell, 2000); though varying greatly in the frequency of their occurrence from region to region. Most are of bronze, occasional examples are of gold.

The production and use of penannular horizontally multi-ribbed bracelets, in bronze and occasionally in gold (cf. fig. 2 for sampling), goes back to the Early Bronze Age in Central Germany (Bartelheim, 1998[II]: Taf. 48 and Karte 173; Moucha, 2005: 10–11 and 57–58, Taf. 174–178 and 189). Among the earliest examples is that from the Dieskau I hoard, with five ribs and round ends, executed in solid gold (Montelius, 1900: 42; most recently Gerloff, 2007: 133, fig. 13.8b). This and several other gold objects from this find were formerly believed to constitute a hoard (Montelius, 1900: 42; Von Brunn, 1959: 55, Taf. 12:1–5); recent re-excavation has shown the find to be the location of a Fürstengrab (Schmidt & Nitschke, 1980: 179–183), datable to the end of the Early Bronze Age by the gold axe of Langquaid (phase A2) type in the same deposit.

In the Middle Bronze Age, multi-ribbed bracelets were frequently deposited as grave gifts for females, in burials in grave mounds on and near the Lüneburger Heide. (The distribution map of Piesker [1958: Taf. 70, reproduced in Butler, 1965: 170, fig. 5], shows several dozens of find-spots in a small area, but this reflects in part the intensive archaeological activity there connected with the preparations of the German army for World War II). Pieskers' map shows two find-spots with multi-ribbed bracelets of the type with rounded ends, like the Dieskau I example (but in bronze, not in gold) and a much larger number with other sorts of terminals that are, however, not bent back (see Butler, 1965: 171, note 5). The Lüneburg finds are grouped by

German archaeologists under the heading of bracelets of *Typ Deutsch-Evern* (recently Laux, 2005: 4). More or less similar bracelets are well known from finds of the South German *Hügelgräberbronzezeit*, but also in Denmark. There is no systematic combined study of the variants of adjacent areas.

Later multi-ribbed bracelets from the Lüneburger Heide and Denmark are characterised by parallel sides and squared-off terminals, and are known as bracelets of Type Deutsch-Evern (*cf.* fig. 2). Rare examples occur in southern England (Ramsgate, Edington Burtle); a gold example is known from Stokkerup in Denmark (Aner & Kersten, 1973: 13, No. 48 and Taf. 8); two Irish examples were found in a hoard in Derrinboy, Co. Offaly (Raftery, 1961: 55–58; Waddell, 2000: 197). These gold finds are presumably imitations of the Lüneburg and Danish bronze Deutsch-Evern bracelets, and have served as evidence for dating the British examples to a phase contemporary with the South Scandinavian-Lüneburg Period III.

At the other end of Europe, there are also horizontally multi-ribbed bracelets with parallel sides, some of these even have the "checker-board" punched ornamentation which is a specific feature of bracelets on the Lüneburger Heide and in Denmark. Petrescu-Dîmboviţa (1998: esp.182–185) dates her Transylvanian multi-ribbed bracelets (her Cat.Nos 2255–2319) to Müller-Karpe's Ha A1.

Dating: horizontally multi-ribbed bracelets have a long currency in the Bronze Age, going back to the endphase of the Early Bronze (1575 BC) Age in Central Germany (Gerloff, 2007: 133, fig. 13.8); in the Middle Bronze Age they are common both in Central Europe (Torbrügge, 1959: Taf. 81) and in the Lüneburger Heide area (Laux, 1976: 9; 1996: 95-116). The tradition evidently continued into the very end of the Bronze Age (West Central European Urnfield period [cf. the HaB1 hoard from the Wasserburg Buchau, Württemberg]), now dated to around 1025-925 BC (see fig. 1 for absolute dating). Large numbers of such ribbed bracelets were produced, chiefly for feminine users, in the whole Central European area, and after death buried in mounds, often as part of elaborate sets of grave goods. Although such sets have not been found in the Netherlands, a single pair of Lüneburg bracelets accompanied a secondary burial in a mound on the Balloërveld, Drenthe.

These, possibly the earliest of the ribbed bracelets in the Netherlands, are the pair from Tumulus 6 on the Balloërveld in Drenthe, excavated in 1933 by Dr. A.E. Van Giffen. The two Balloërveld bracelets (one example shown in fig. 2) were found at the bottom



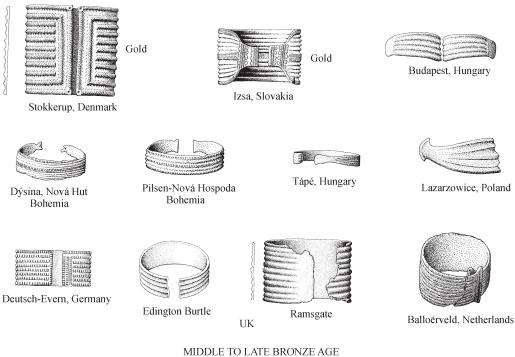


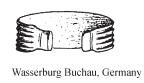


Lhotka, Bohemia

Beratzhausen, Bavaria

EARLY BRONZE AGE









Drouwen, Netherlands

Elsen, Netherlands

LATE BRONZE AGE

Fig. 2. Variant renderings of the horizontally multi-ribbed bracelets (bronze and gold) with varied terminals (After: Müller-Karpe, 1980: Band IV); Lhotka (After: Moucha, 2005: Taf. 178:8); Stokkerup (After: Aner & Kersten, 1973: Taf. 8); Balloërveld (drawing GIA); Drouwen and Elsen, present paper. Scale: 35%.

of a shaft grave, dug into the flank of a multi-period tumulus with two concentric post circles, unaccompanied by other surviving grave goods. They have an oval body, like many of the multi-ribbed bracelets of the Middle Bronze Age, but they lack the bent-back

terminals that characterize the North Dutch omega bracelets or the everted palette bracelets (see section 2.1.1); instead, their terminals are almost squared off, and possess transverse ribs.

We could find no close parallels for the terminals

of these two Balloërveld bracelets. One bracelet from the hoard of Rugbjerg, Åbenrå Amt in Denmark (Aner & Kersten, 1981: 108, No. 3115, Taf. 72) shows a beginning of a squared off terminal, but the shape of this Period III bracelet is different from the Balloërveld examples. The form of the terminals and the shape of the Balloërveld bracelets suggest that they are ancestors to the North Dutch omega bracelets of the Late Bronze Age.

This pair of bronze bracelets, presumably made on distant heathlands and imported to Drenthe, symbolizes the wealth of the few; the half-dozen tomb-mates buried in the same mound were not accorded the same honours.

2.1.1. *The everted palette (omega) bracelets*

Note: Parts of this section appeared in an article ("Something for the ladies too") by the first writer. This article was translated into Dutch ("Ook eens iets voor dames") by the then curator of the *Provinciaal Museum van Drenthe* (now *Drents Museum*), later professor J.D. van der Waals, and was published in the *Nieuwe Drentsche Volksalmanak* 1965 (163–198). The original English text was, for whatever reason, never published, and in part appears here, with appropriate updated information.

A number of hoards in the Netherlands, Belgium and France are characterised by the presence of bracelets with small everted palette terminals. These can be distinguished from the Lüneburg ribbed bracelets, treated especially by, among others, Piesker (1958) and Laux (1971), which do not have everted terminals, and the bracelets with *grande palette* terminals known from Late Bronze Age Belgian, French and Swiss finds (Mariën, 1953; Courtois, 1960; Richter, 1970).

Among the "ring-ditch" finds of the Drouwen 1939 urnfield were six bronze omega bracelets, generally similar in form but very varying in detail, so that no two are quite alike. Four of the bracelets are undamaged, two are broken. In cross-section, four are flat or nearly flat, one is slightly curved with beaded edges, one has a C-shaped cross-section and is partially hollow. Transverse ribs near the terminals number three or four; one unornamented bracelet has a broad rib adjacent to the terminals. All six of the bracelets have small pointed-oval everted terminals. One bracelet is partially hollow-cast and has pointillé edging. Three have longitudinal ribbing; uniquely one of the bracelets is ribbed both inside and out; it has five lengthwise ribs, a single transverse rib inside, and four terminal ribs.

The term "omega shaped" was, as far as we can determine, first employed by Van Giffen (1944: 486). Here he refers to seven omega bracelets in the Drouwen find. There are, however, only six examples in this find; one of the bracelets having been drawn twice, to display different features.

It is noteworthy that all the bracelets of this character in the Netherlands have terminals of basically the same form: they are pointed-oval in shape and set at right angles to the body of the bracelets. This holds good regardless of the shape of the body and the character of the ribbing. This may well be another expression of a pattern we have noted in our catalogue of the socketed axes in the Netherlands: a striving for individualization in form and ornamentation. In the catalogue we have employed various descriptions of the form of the terminals, but in retrospect the description 'pointed-oval' seems most appropriate, though we have here retained Van Giffen's 'omega' in his honour.

The hoard from Hijken (Hijkerveld) in Drenthe (Find No. 25) contained at least four omega bracelets (two or three multi-ribbed with transverse ribs, one without longitudinal ribs but with terminal ribs), a disc-headed pin with a ring of pellets, a dome-shaped button, and at least two simple paw bracelets. The hoard from Bruggelen (Find No. 27) has a multi-ribbed omega bracelet, one with separated groups of ribs as with the two bracelets in the Elsen hoard (Overijssel, Find No. 28) and a fragment of a Central European Urnfield socketed knife. The Elsen hoard already mentioned contains also a twisted ring, wire rings, and a fragment of the blade of a socketed axe.

The largest find with omega bracelets is that from Drouwen (Drenthe, Find No. 26); excavated in 1939 by A.E. van Giffen. The Drouwen site was an extensive urnfield with numerous ring-ditches; despite its importance it has never been published with all descriptive details (*cf.* Kooi, 1979: 91–93, figs 87–8). The bronzes were, it seems, deposited in the ring-ditch surrounding a pit without cremation, and were somewhat scattered by the plough. The bronzes, recovered from a small area, included such rarities for our region as a cast bronze bowl (hanging bowl) of Northern Period V, a Northern spectacle brooch of the Oerel type of Laux (1973: 48–9, Nos 225–7, Taf. 43–45), and six of the omega bracelets discussed here.

In the north of Belgium two palette bracelets (plain, with one and three transverse ribs respectively and both of C-section were found in the hoard of Lutlommel, Belgian Limburg. Only the *pointillé* on the Drouwen bracelet (fig. 6a:6) is missing on the Lutlommel example (Van Impe, 1995–6: 18, No. 10,



Map 1. Distribution of everted palette bracelets (omega) in the Netherlands and Belgium.

discussion on 23-4). Also in this hoard were 15 or more socketed axes (mostly variants of Type Plainseau) and a variety of rings, cylindrical objects, and bronze beads. Lutlommel is just across the border between the Netherlands and Belgium (see map 1), and the extension southward of the area with finds of omega-related palette bracelets is thus of significance.

The West Alpine finds from Aresle-Longue à L'Epine (Hautes Alpes, France; Courtois, 1960: fig. 49:1; this paper: fig. 3:b) and Corcelettes (Vaud, Switzerland; Courtois, 1960: 107, Fig. 53; Pászthory, 1985: Taf. 98:1199; Taf. 99:1210; Taf. 100:1215, 1221) with rich incised decoration, are also of Ha B3 date. The bracelets from Corcelettes suggest that the partly hollow bracelets were cast with two gates; which would be helpful for avoiding trapped air in the casting (Butler, 1965: 168–9 and Courtois, 1960: fig. 53).

Palette bracelets may be cast solid, partially hollow, or completely hollow. They may be unornamented to richly ornamented. They are frequently associated in hoards with bronzes of the French phase *Bronze final III* ('Plainseau' types, carps-tongue swords) or Ewart Park (LBA 3) swords (O'Connor, 1980: 158). Very varied palette bracelets from Late Bronze Age

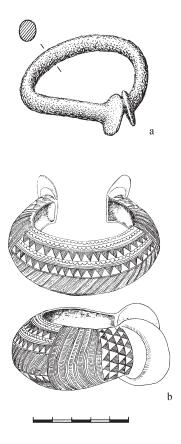


Fig. 3. a. Undecorated palette bracelet from un urnfield at Luyksgestel, Noord-Brabant, Netherlands. Drawing: GIA; b. "Grande palette" bracelet from Aresle-Longue à l'Epine, Hautes Alpes, France (After: Courtois, 1960: fig. 49).

hoards in Picardy are illustrated by Blanchet, 1984: figs 154–159, 164–165); from the southeast English hoard of Birchington (Kent) by O'Connor, 1980: fig. 61; and the plain gold C-sectioned examples from Bexley Heath I-II (Kent) by Eogan, 1994 (figs 8–9)

In Luyksgestel (Noord-Brabant), in the Boshoverheide urnfield, a plain, solid bracelet was found with bent back palettes (Fontijn, 2002: 367; this paper: fig. 3:a). This is a good match for the undecorated examples of the B.f. III palette bracelets from the Lyzel-Saint-Omer (Pas de Calais) hoard (Blanchet, 1984: 279, fig. 165:7; O'Connor, 1980: List 199, Map 68). Other bracelets from this hoard are similar in form, but without ornament.

The variable details (see for examples fig. 3:a–b) of the individual specimens are summarized in Table 1; a complete list of their findspots is given in Appendix A.

Table 1. Everted palette bracelets.

Pointillé edging	- Netherlands: Drouwen		
Transverse ribs	Netherlands: Diouwen Netherlands: Hijken, Drouwen		
Transverse rios	Belgium: Gent, Lutlommel		
	,		
	- France: Dreuil, Amiens		
	 Switzerland: Aresle-Longue à l'Epine (incised decoration) 		
(Spaced) horizontal ribbing (North Dutch omega bracelets)	 Netherlands: Hijken, Drouwen, Bruggelen, Elsen 		
More or less pointed-oval shaped terminals	 Netherlands: Hijken, Drouwen, Bruggelen, Elsen 		
	 Belgium: Lutlommel 		
Plain, terminals bent back	 Netherlands: Bruggelen, Luyksgestel (solid) 		
	 Belgium: Spiennes (Hainaut) 		
	 France: Amiens, Marlers 		
	- Germany: "Wiesbaden"		
	- UK: Bexley Heath (Kent), Tilsbury (Wilts.)		
Incised decoration, terminals bent back	- France: Dreuil, Marlers, Juvincourt-Damary, St. Omer-Lyzel		
	Saint-Genouph		
	 Germany: Bad Homburg, Merfeld 		
	 Switzerland: around Lac Leman and Lac de Neuchâtel 		
Elaborate geometrical incised decoration, terminals bent back	- Germany: Rüdesheim-Eibingen		
The hollow casting indicates the use of the cire-perdue (lost wax) casting	 UK: Shoebury, Walderslade (gold) 		
method.	- Switzerland: Corcelettes, Chevroux, Auvernier, Mörigen,		
	Cortaillod, Sion, Vallamand		
Elaborate geometrical incised decoration, "grande palettes" bent back	- Belgium: Gent, Jemeppe-sur-Sambre (solid)		
The hollow casting indicates the use of the cire-perdue (lost wax) casting	 Germany: Gambach, Ockstadt 		
method.	 France: Aresle-Longue à L'Epine 		
	 Switzerland: Mörigen 		

The North Dutch omega bracelets

The omega bracelets described by Butler (1965) and O'Connor, 1981: 209 (North Dutch omega bracelets) can be divided into two varieties.

In 1965 – by coincidence the very year of the publication of the article that linked together the four hoards in the north of the Netherlands containing omega bracelets – the brothers Jan and Jozef Engelen, building contractors at Lutlommel (*gem.* Lommel, in the extreme north of Belgium) turned up in a load of sand a hoard of bronze socketed axes and ornaments. Among the objects recovered were at least 15 socketed axes and two bracelets; the whole hoard, or what has survived of it, was very well published (Van Impe, 1996/6). The find-spot could be localized to an area of a few hundred meters. All but two of the socketed axes were various versions of the socketed axes of Type Plainseau, the standard Late Bronze Age axe type of northern France.

Of special interest here are the two bracelets (nos 10 and 36) from the Lutlommel hoard. As Van Impe recognized, they are both partially hollow palette bracelets quite like the examples found in the

north Netherlands hoards of Hijkerveld (fig. 4:4) and Drouwen (fig. 6a:4–6).

In the light of the Lutlommel find, we can divide the omega bracelets in the Netherlands into two varieties:

- A group of omega bracelets characterized by longitudinal ribbing (the North Dutch omega bracelets) that cannot be matched in neighbouring areas, and harks back to a tradition begun in the Early Bronze Age with the Naumburg and Lhotka types (fig. 2), and continuing to be made throughout the Late Bronze Age in very varied versions;
- A second group of omega bracelets where the horizontal ribbing is no longer present, although transverse ribs may be present adjacent to the terminals (figs 4:4, 6a:4–6, 10:3–4).

Our count of the North Dutch omega bracelets should therefore be reduced to three specimens from the Hijkerveld hoard (fig. 4:1–3), three specimens from the Drouwen hoard (fig. 6a:1–3), two examples from the Bruggelen hoard (fig. 10:1–2) and two examples from the Elsen hoard (fig. 11:4–5).

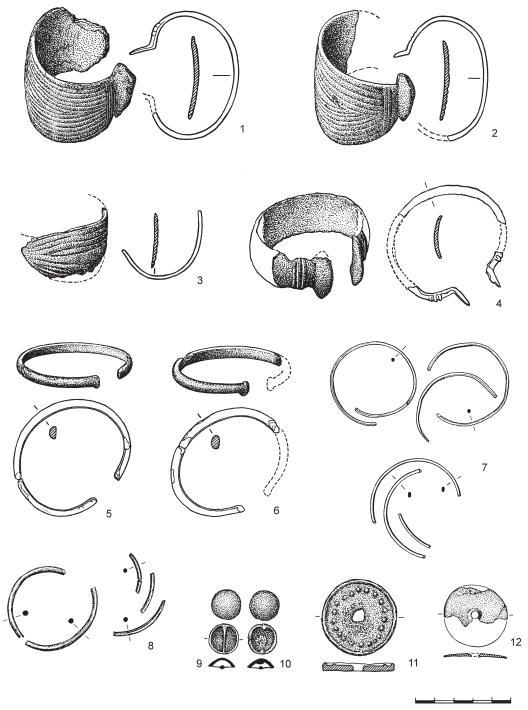


Fig. 4. Find No. 25. Hoard from Hijken (Hijkerveld), gemeente Beilen, Drenthe (drawings GIA).

Hoards with 'North Dutch' omega bracelets in the Netherlands

FIND NO. 25. HIJKERVELD, GEMEENTE BEILEN, DRENTHE (fig. 4)

Hoard, containing three longitudinal multi-ribbed omega bracelets,

one omega bracelet with three transverse ribs adjacent to the terminals, two slender solid bracelets of D-section with paw terminals (otherwise unornamented), two dome-shaped bronze buttons, one disc-headed pin (*Scheibenkopfnadel*), fragment of another disc, and fragments of several wire ornaments.

Patina: grey-green, breaks patinated.

Circumstances of find: found around 1938 in the Hijkerveld, 2–3 km NE of the potato factory "Oranje" at the Oranjekanaal, close to Diependal.

Map reference: Sheet 17A, c. 226.5/547.5

Collection: Museum Assen, 1941/V.8(1-12); purchased May 1941 from J. Huizinga of Assen. The objects were never provided with museum inventory numbers. Around 1965 the objects were loaned to the Biologisch-Archeologisch Instituut (BAI) to be drawn for publication (Butler, 1965) but were not returned to the Assen museum because of the lack of identifying inventory numbers. The objects have since remained in the BAI study collection. At some stage some of the objects were rather clumsily restored, with plaster and/ or wax replacing the lost parts.

Documentation: Museumverslag 1941: 14, No. 25, 26, Dagboek 1941; handwritten note Brunsting (with footnote of Van Giffen) with description of the objects.

Reference: Butler, 1965: 175, figs 9-10.

Description of the objects:

- Bracelet, omega, North Dutch. Damaged (but c. ³/₄ well preserved); width 4.1 cm, narrowing to 2.6 cm. The slightly arched outer surface is entirely ribbed lengthwise, except for the terminal which has four transverse ribs. The almost intact surviving pointed-oval terminal measures 3.1x0.9 cm. Patina: dull greygreen (DB 1299).
- Bracelet, omega, North Dutch, three fragments (c. half well preserved). Ancient (patinated) break. Slightly arched outer surface, like 1., but with 2x7 lengthwise ribs flanking a narrow plain field. Width 4.1 cm, narrowing to 1.65 cm; with four transverse ribs. Pointed-oval terminal 2.4x0.8 cm, ancient (patinated) break. Patina: as 1. Clumsy restoration with wax (DB 1300).
- 3. *Bracelet*, omega, North Dutch, fragment with five shallow ribs on each side of the narrow plain field. (DB 1301)
- 4. *Bracelet*, three fragments, omega, with shallow C-shaped section; nearly parallel sides, width 2.25–2.3 cm. Three transverse ribs flanking pointed-oval terminals (2.8x1.0 cm) (DB 1302). *Note*: this example has a narrower body and differs from the other bracelets in this series in that it has no longitudinal ribbing, although it is evidently closely related to the other bracelets in the omega series, and has three transverse ribs like 1. and 2
- Two fragments of penannular *bracelet* of D section, diam. 0.6
 cm, with faintly expanded paw terminal(s). Patina: grey-green
 (DB 1303).
- Two fragments of *bracelet* of D section; diam. 0.7 cm, with slight paw terminal expanding to 0.8 cm. Patina: grey-green (DB 1304).
- 7–8. Bits of thinner wire, presumably from spirals, with rectangular or round section. (DB 2682).
- 9–10. Pair of *dome-shaped buttons*, each with bar (but one bar is broken out and missing). Diam. 1.5 cm. Patina: green-grey (DB 1305–1306).

Parallels for the buttons: We have little information concerning the occurrence of these buttons in Northwest Germany; in the Netherlands they are, apart from the 20 examples from the Drouwenerveld hoard, certainly very scarce. A single example is present in the Drouwen hoard of 1939 (fig. 6e:13); the other (but with a bar rather than D-shaped loop) is 9. An example of that type is also present in the richest Belgian Late Bronze Age hoard of women's goods, that from Port Arthur, Gent (Mariën, 1953: B.1:9).

Buttons with D-loop (for example, of the varieties found in the Hijkerveld and Drouwenerveld hoards), seem to be quite common throughout the Late Bronze Age of the Central European and North European areas. It is noteworthy that such buttons have often been found together with tutuli, ribbed collars, and others parts of a costume set involving such components. A rich grave found in Western Poland, at Banie, pow. Gryfino (formerly Bahn, Kr. Greifenhagen in Pomerania) included, along with an elaborate collection of women's ornaments, 24 looped buttons (Hommerberg, 1946: 74–78, Bild 75–76).

- 11. *Disc* with raised rim (pinhead). In the centre of the disc is a ring of 20 small pellets, encircling a roughly broken-out irregular perforation. The grey-green patina is somewhat rougher than the bracelets. The pin shaft is broken out and missing. Diam. disc 3.9 cm (DB 1307).
- "Washer". Fragment of thin disc of bronze, diam. 3.4 cm, edges fairly sharp; central perforation with burr (DB 2683).

FIND NO. 26. DROUWEN, *GEMEENTE* BORGER, DRENTHE (figs 6a–e)

Hoard or grave deposit at edge of tumulus. The Drouwen find is one of the richest Bronze Age finds ever encountered in the Netherlands; its importance is enhanced by its association with a large urnfield, the potfull of bronzes of the Drouwenerveld hoard, and various other bronze finds in the neighbourhood, including rare imports from the North European area (Butler, 1986: 133–168, with previous references). Remarkably, the Drouwen 1939 find has never been fully published with all descriptive details: a lack which can be made good as far as possible here.

Map reference: Sheet 12G, c. 249.25/552.75 (=Borger Sectie G. No. 1916, in 1939 owned by L. Dries)

Contains: cast bronze bowl, spectacle fibula, omega bracelets, double-wire bracelets and rings, bronze buttons, jet beads, drawing aid (possible compass).

Circumstances of find: the hoard was found on 5 December 1939 (thus competing with the traditional 5 December Sinterklaas festivities) during the emergency excavation of part of an urnfield (fig. 6) just west of the hamlet of Drouwen. A field with heath cover on wind-blown sand had recently been ploughed for the first time, and urns had been found; this led to the emergency winter excavation. During the stripping of the plough-soil, under the supervision of the BAI draughtsman L. Postema, fragments of some of the bronzes were found; these had evidently been scattered by the plough. The

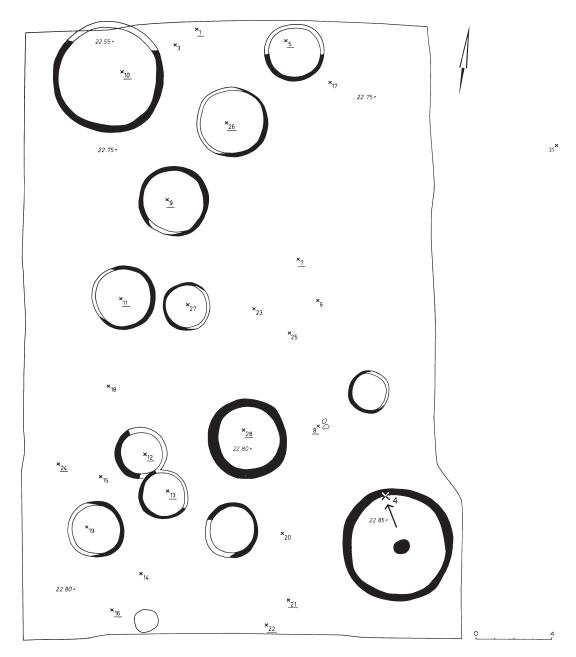


Fig. 5. Major part of the excavation plan of the Drouwen urnfield (1939) (After: Kooi, 1979: fig. 87. X 4: findspot of the Drouwen hoard of 1939) (drawing GIA).

rest of the bronzes were then excavated by Van Giffen and his then assistant (and later professor) H. Brunsting. The soil in which the objects lay was dark and 'poorly legible', and as the bronzes had to be taken up in failing light toward the end of the day, conditions for observation were poor. Fragments of cremated bone were not observed in association with the bronzes, and Brunsting (typescript 1970, in possession of the authors) insists that they would have been observed had they been present. Nor were traces of a ring-ditch ob-

servable at the level of the bronzes; it was only after excavation to a lower level, where ditch fillings showed up against light-coloured sand, that it was established that the bronzes must have been directly above or in the upper filling of a comparatively large ring-ditch, about 5.5 m in diameter, on its north side. In the centre of this enclosure was only an un-urned cremation deposit; the bone fragments are now lost. Van Giffen, in his summary accounts of the discovery, took the view that the bronzes had been ploughed out of the grave.

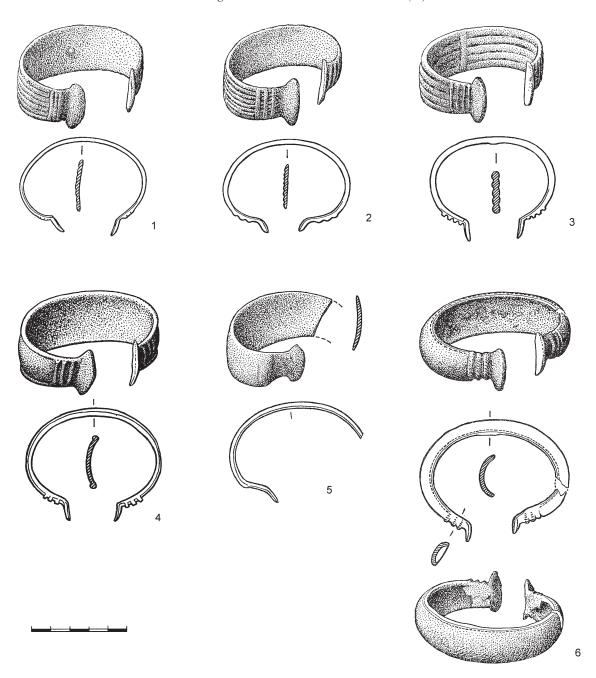


Fig. 6a. Find No. 26. A. 1-3. North Dutch omega bracelets; 4-6. Everted palette bracelets from the 1939 hoard of Drouwen, *gemeente* Borger, Drenthe (see also figs 6b-e) (drawings GIA).

Brunsting, who had lifted many of the bronzes himself, maintains that in view of the direction of the ploughing and his observations in the soil only a few of the pieces had been plough-disturbed, and that most of the material must have been in situ in the upper part of the ditch filling. In his view, the hoard was a deposit in the ditch made in connection with the burial. A connection between hoard and burial is thus assumed by both observers, although there is perhaps a third possibility not excluded by the observed circumstances,

namely that the hoard was a subsequent deposit in the ring-ditch. *Collection:* Museum Assen, Inv.Nos 1939/XII.4a–s *Documentation: Museumverslag* 1939: 30, sub 89; III *Dagboek*

1939; *Nieuwsblad van het Noorden*, 10 February 1941.

References: Van Giffen, 1944: 486–7, afb. 45; Byvanck, 1942/46: 200; Jacob-Friesen, 1956: 134–135, Abb. 16 and note 16; De Laet & Glasbergen, 1959: 148; Baudou, 1960: 69–71; Butler, 1965: 167, 173, 175, 182–185, fig. 1–2, 13–14, Pl. I–II; Butler, 1969: 120–123,

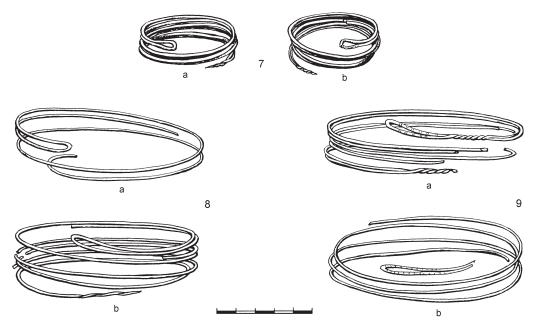


Fig. 6b. Find No. 26. B. 7-9. Wire ornaments from the 1939 hoard of Drouwen, *gemeente* Borger, Drenthe (see also figs 6a, c-e) (drawings GIA).

fig. 52; 1979: 128–131, figs 85–86; Höckmann, 1976: 133, Abb. 2:2; Butler, 1979: 196–202, fig. 2:1; Sprockhoff & Höckmann, 1979: 115–6, Taf. 322, Kat. 430; Butler, 1986: 154–157, figs 20–22; Kooi, 1979: 90–93, figs 87–88; Verlaeckt, 1995: 149–155; Verlaeckt, 2001: 565–566; Essink, 1996: 78, No. 116.

Description of the objects:

- 1-6: Six omega bracelets, no two of which are alike. All have cast ribs, but the ribbing differs from piece to piece. In cross-section they vary from flat to C-shaped. Some at least are evidently *cire-perdue* castings.
- Bracelet, omega, North Dutch. Very slightly flattened. Six longitudinal ribs; three transverse ribs adjacent to each terminal.
 The cross-section is nearly flat. There is a single pellet on the inside surface. Dimensions: diam. 6.7 cm; maximum width 2.4 cm, narrowing to 1.4 cm; the pointed-oval terminals have a length of 2.3 cm. Inv.No. 1939/XII.4G (DB 1276).
- Bracelet, omega, North Dutch. Eight longitudinal ribs; three transverse ribs adjacent to each terminal. The cross-section is flat. Dimensions: diam. 6.7 cm; maximum width 2.1 cm, narrowing to 1.6 cm; the pointed-oval terminals have a length of 2.5 cm. Inv.No. 1939/XII.4H (DB 1277).
- 3. *Bracelet*, omega, North Dutch. Five longitudinal ribs; four transverse ribs adjacent to each terminal. The inside surface also has five ribs; there is a single transverse rib. Patina: light green encrustation, but partly lustrous dark bronze colour. Finely preserved. Dimensions: diam. 6.6 cm; maximum width of the body 2.2 cm, narrowing to 1.6 cm; the pointed-oval terminals have a length of 2.4 cm. Inv.No. 1939/XII.4I (DB 1278).

- 4. Bracelet, omega. The cross-section is a flattened C with raised edges. There are three transverse ribs adjacent to each terminal. Dimensions: diam. 7.2 cm; maximum width of body 2.7 cm, narrowing to 1.6 cm; the pointed-oval terminals have a length of 2.5 cm. Patina: outside partly glossy dark green, partly light green sandy, inside mottled green sandy. Finely preserved. Inv. No. 1939/XII.4J (DB 1279).
- Bracelet, omega. The cross-section is a flattened C. There is a broad transverse rib close to the surviving terminal. Dimensions: diam. 7.2 cm; maximum width of body 2.5 cm, narrowing to 1.3 cm; the pointed-oval terminal has a length of 1.9 cm. Inv.No. 1939/XII.4K (DB 1280).
- 6. Bracelet, omega. The body is oval, with C-shaped section, and semi-hollow. Everted pointed-oval terminals, adjacent to which a bundle of three transverse ribs (cf. 4.). The body is edged with pointillé. The interior of the body is partly hollow-cast; there are some rough protuberances and punch marks on the inside. Patina: blackish, glossy. Dimensions: diam. 7.9 cm; maximum width of body 2.3 cm, narrowing to 1.5 cm; the pointed-oval terminals have a length of 2.3 cm. Inv.No. 1939/XII.4L (DB 1281).
 - *Note*: the bracelets are not solid but of varied cross-section: flat or flattish (1.–3.); slightly hollowed (5.–6.); C-sectioned or slightly hollowed with edge ribs (4.).
- Two identical *double-wire bracelets*. Rings of round-sectioned wire bent double; coiled; and the ends twisted together. Inv. No.1939/XII.4C (DB 1272).
- 8–9. Four double-wire spiral bracelets. Originals now lost (see drawings). These larger specimens are presumably intended as

bracelets. Inv.Nos 1939/XII.4D-F (DB 1273-5)

10. Cast bronze bowl with projecting loops (restored from fragments). Rounded bottom, with central boss surrounded by two ribs; two zones with incised decoration, separated by ribs with nicking. Strong carination; short, nearly cylindrical neck offset with ribs; two trapezoidal slotted handles projecting from rim. The curvilinear incised patterns are embellished with pointillé. The inner motif is a five-pointed star, the points of which are prolonged as S-shaped figures. Diameter (as restored) 19.9; rim diameter 16.6; height with handles 9.5; height without handles 8.35 cm. Conservation treatment and restoration by J. Ypey (ROB, Amersfoort). Inv.No. 1939/XII.4A (DB 1270). Discussion and parallels:

In introducing their catalogue of the cast bronze bowls of Scandinavia and North Germany, Sprockhoff & Höckmann (1979) choose to abandon the customary description of these objects as "hanging bowls" or "hanging vessels", finding the evidence for their function inadequate. They may well be right. Their catalogue comprises 436 cast bronze bowls (*gegossenen Bronzebecken*) from Denmark, Sweden, Germany, Poland, Norway, France, Switzerland and the Netherlands. The Drouwen bowl is a "Zweizonenbecken mit Rippentrennung", No. 430 on Taf. 322 in this catalogue.

Verlaeckt, 1995: 149-155, studied for his thesis, among

others, 394 "hanging vessels" from Denmark, Sweden, Germany and "others". In his article of 2001 (565–579) Verlaeckt divides the motifs on these "hanging vessels" into 11 groups (Verlaeckt, 2001: 572–573, figs 5-1 and 5-2). The motifs are divided by horizontal ribbing. The Drouwen "hanging vessel" has his motifs 2 and 5A. Motif 2 is attested on 55 "hanging vessels" from Denmark (Zealand, Funen, Jutland) and 56 from abroad (Germany, Sweden, "other": see his table 5 on 580–582). Motif 5A is attested on 2 examples from Denmark (Zealand and Jutland) and 13 from abroad (Germany, Sweden and "other", Verlaeckt, 2001: 580–582, table 5).

On figure 7 we present parallels for the Drouwen cast bowl: the best match (motif 2 and 5A) is the example (diam. 21.8 cm) from the Per. V peat-hoard from Finnerup (Døstrup s., Hindsted hd, Ålborg amt, Denmark; see Broholm, 1946: 232, M 186 and Sprockhoff & Höckmann, 1979: No. 127, Taf. 87). Another example is the Per. V cast bronze bowl (without handles) from Denmark (no further provenance): Sprockhoff & Höckmann, 1979: No. 278, Taf. 218. In Northern Germany those two motifs are found on the *Zweizonenbecken* cast bronze bowls from the Per. V hoards of Wesenberg (Kr. Neustrelitz; Sprockhoff & Höckmann, 1979: No. 379, Taf. 266), the grave find from Oerel (Kr. Bremervörde; *ibid.* No. 412, Taf. 309, without handles); Schadeleben (Kr. Aschersleben, Halle; *ibid.* No. 367, Taf. 282,

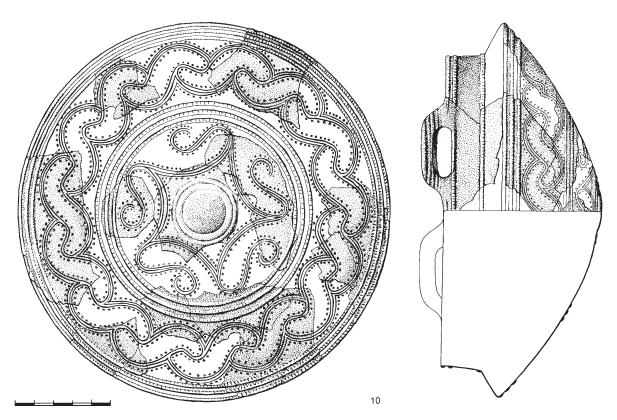


Fig. 6c. Find No. 26. C. 10. The cast bronze bowl from the 1939 hoard of Drouwen, *gemeente* Borger, Drenthe (see also figs 6a-b, d-e) (drawing GIA).

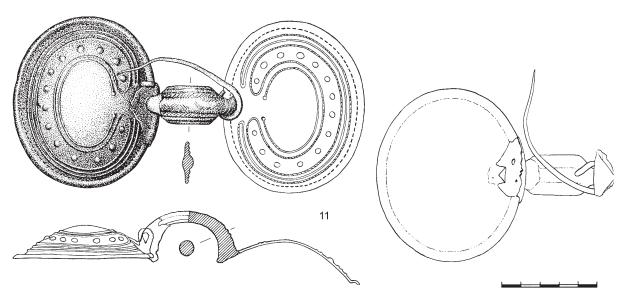


Fig. 6d. Find No. 26. D. 11. The spectacle fibula of Type Oerel from the 1939 hoard of Drouwen, *gemeente* Borger, Drenthe (see also figs 6a-c, e) (drawing GIA).

a *Dreizonenbecken*), Hamburg-Volksdorf (Hamburg-Harburg; *ibid*. No. 399, Taf. 299, a *Mehrzonenbecken*).

Dating: Per. V according to Sprockhoff & Höckmann, 1979: 118–120.

11. Spectacle fibula (found in three fragments) of Type Oerel (Laux, 1973: 48–50, Kat.Nr. 225-233): "Plattenfibel" with elongated ribbed bow, oval boss-separate plates (one broken off and missing) with C-shaped rib and ring of 14 small bosses. The pin is a separate piece, of simple wire, one end of which is curled round the bow. The bow has been rejoined to the surviving plate by a cast-on repair. Most of the ornamental ribs have diagonal punched nicking. Length (as restored) 18.9 cm. The plate measures 9.2x7.9 cm. Width of the bow 2.0 cm. Oval boss 9.0x8.6 cm with raised rim, hollow behind. Inv. No. 1939/XII.4B (DB 1271).

Discussion and parallels:

Characteristic for the spectacle *fibulae* of Type Oerel are their single or multiple C- or horse-shoe shaped wire ornamentation on the oval (or sometimes round) "eye-glasses". The C ornament is sometimes doubled, the two ends joining. The C motif can occur alone, but can also be accompanied by dot-and-circle or other wire motives such as zigzags, or other punched-in diagonal lines. The bridge joining the plates is rectangular to slightly trapeze-shaped, and is often decorated with all sorts of punched-in motives. With some of the Type Oerel *fibulae* the pin is still present, but mostly it is missing.

At present we have found in the literature 76 *fibulae* of Type Oerel (see Appendix C); no two are alike. Seven of these have a gold cover: two from Denmark, two from Sweden, three from Germany (Zimmermann, 1976: 7; Schmidt & Kuhlmann, 2007: 49). The greater number come from hoards, a few are

from graves; occasionally there are stray finds. The associated examples are socketed axes, winged axes, bracelets, neck rings, tutuli, spearheads, cast "hanging bowls", socketed knives, and daggers; thus including male and female attributes. *Fibulae* of Type Oerel occur in the lands around the Baltic: 15 in Denmark, 22 in South Sweden, 31 in North Germany. Also one "stray" in Hessen, three in Poland along the Oder, and the three from the Netherlands (Drouwen, Noordwijkerhout and Bonnerveen, see map 2 and fig. 8). The Bonnerveen fibula was accompanied by a chain of rings (two large, two small) and a piece of black or dark textile (not preserved).

Dating: the simpler Type Oerel *fibulae* are attributed to Northern Period IV; the more richly ornamented to Period V (Baudou, 1960: 75–76; Butler, 1965: 183; Laux, 1973: 50).

- Bronze ring, penannular, with 'jet'. Fragments of a ring, with an irregular collar at one point, an external rounded lug at another, minor irregular projections at other points. Inv.No. 1939/XII.4M (DB 1282).
- 13. Bronze *button*, looped, dome-shaped. W. 1.35; h. 0.5 cm. Bar loop 0.7 cm. Inv.No. 1939/XII.4N (DB 1283).
- 14. 'Compass'. Rod, partly of rectangular section with row of perforations, partly of round section. Dimensions: 1. 22 cm; weight 40 gr. Hemispherical depression in the end of the round-sectioned portion. An incomplete perforation contains the stump of a bronze peg. Previously illustrated as two separate objects, but later interpreted as a primitive 'compass' for tracing concentric circle patterns (Butler, 1979: 196–202, fig. 2:1). Inv.No. 1939/XII.4O+T (DB 1284).

Parallel: fragment of such a compass in the hoard of Jenišovice, Bohemia (Kytlicová, 1991: fig. 84:17). Kytlicová dates the Jenišovice hoard to *Stufe* IV-V.

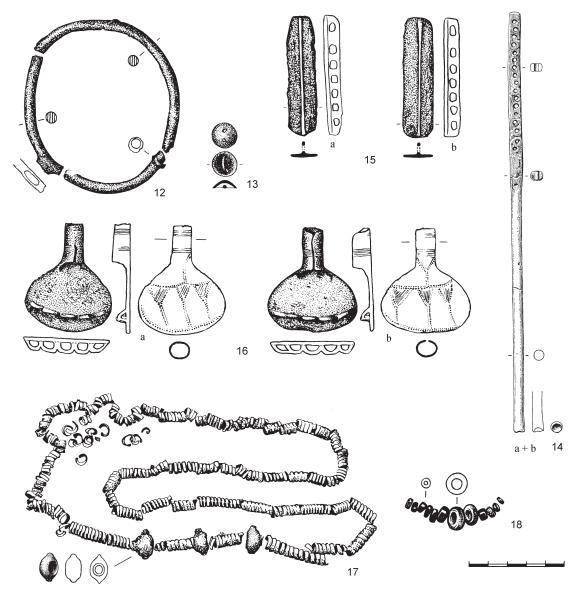


Fig. 6e. Find No. 26. E. Small objects from the 1939 hoard of Drouwen, *gemeente* Borger, Drenthe. 12. ring; 13. looped button; 14a-b. "compass"; 15a-b. pair of spacers; 16a-b. pair of "skate-key" spacers; 17. necklace of three bronze beads (winged, with large perforations) and spirally wound bronze ribbon beads; 18. two glass beads and 10 *jet beads* of sub-cylindrical form (see also figs 6a-d). (drawings GIA).

- 15. Pair bronze T-sectioned 'spacers'. T-sectioned oval spacers with seven somewhat irregular perforations. Dimensions: p1: 6.3x1.7; height 0.9 cm; thickness c. 2 mm; p2: 6.4x1.65; height 0.9 cm. Inv.No. 1939/XII.4P (DB 1285).
 Parallels: Germany: pair of oval spacers with five perforations in the hoard from Ostrhauderfehn, Kr. Leer (Jacob-Friesen,
 - Parallels: Germany: pair of oval spacers with five perforations in the hoard from Ostrhauderfehn, Kr. Leer (Jacob-Friesen, 1967: Taf. 168:3–4); in the Netherlands: example with six perforations from Smitjesland (Nijmegen-Lent, unpublished, collection: Bureau Archeologie en Monumenten Gemeente Nijmegen). These parallels are presented on fig. 9.
- 16. Pair 'skate-key' *spacers*, each consisting of a rounded-triangular plate, one face of which is smooth, with ornament, the reverse
- face having a row of five contiguous, more or less semicircular loops set in an arc; from the opposing corner is a cylindrical socket. The two pieces differ only in that the socket of one has a slit running its whole length, while the other is half slitted, half a complete cylinder. The sockets are also ornamented. The decoration is in *pointillé*, except for the filling of the triangles and encircling of the socket with incised lines. Dimensions: q1: 5.5, w. 4.7; tube 2.3x1.1 cm. q2: 1.5.8; w. 4.65; tube 2.2x1.0 cm. Inv.No. 1939/XII.4Q (DB 1286).
- Necklace of three bronze beads (winged, with large perforations) and spirally wound bronze ribbon beads. Inv.No. 1939/XII.4R (DB 1287).

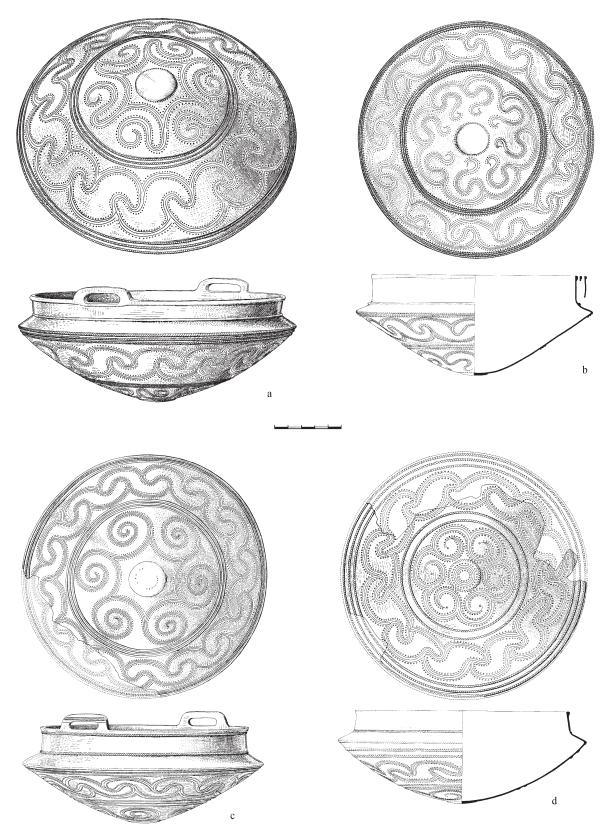


Fig. 7. Cast bronze bowls from Danish and German hoards (After: Sprockhoff & Höckmann, 1979. a. Finnerup, Denmark (Taf. 87); b. Denmark, no further provenance (Taf. 218); c. Wesenberg, Germany (Taf. 266); d. Oerel, Germany (Taf. 309).

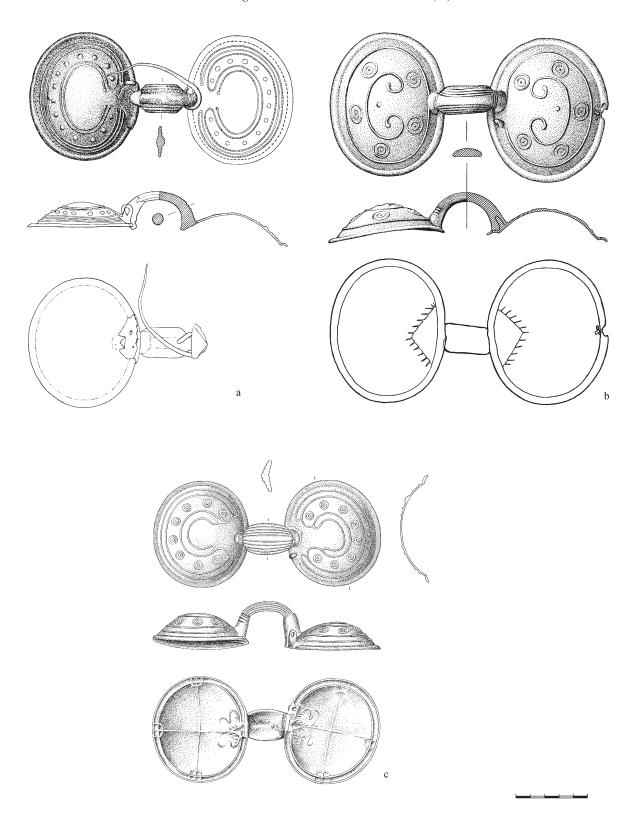


Fig. 8. The three bronze spectacle fibulae of Type Oerel from the Netherlands: a. Drouwen; b. Bonnerveen; c. Noordwijkerhout (drawings GIA).



Fig. 9. Other spacers, like the Drouwen 1939 examples, from the Netherlands and Germany; a + b. Ostrhauderfehn (after Jacob-Friesen, 1967: Taf. 168:3-4); c. Smitjesland (Nijmegen-Lent), Gelderland (drawing H. Steegstra, GIA).

18. Two *blue glass beads* (tyre shaped), (6x11 and 6.5x12 mm; perforations c. 5 mm), 10 *jet beads* of sub-cylindrical form. Inv.No. 1939/XII.4S (DB 1288).

Comments:

- All the breaks observable on the bronzes are unpatinated, and therefore the result of the recent plough damage; the objects must have been intact when deposited;
- The objects are mostly of ornamental character, and appropriate to womens' costume: decorative fibula, bracelets, beads, a cast bronze bowl, spacer plates, a bronze button. Whether grave deposit or not, the hoard has a personal and female character, and seems to represent the property of a woman;
- The hoard contains rare and expensive import objects; among them two Scandinavian pieces: a cast

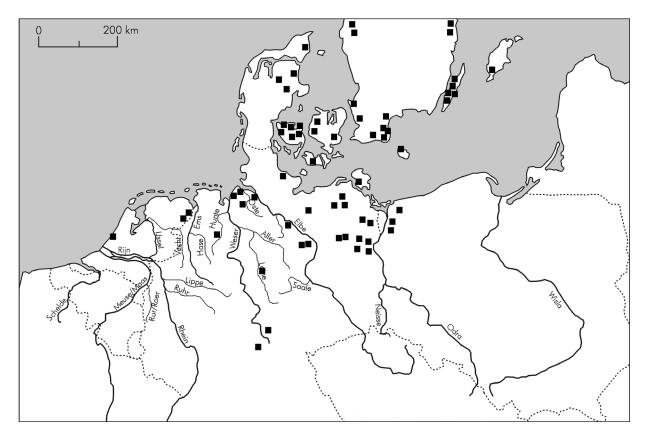
bronze bowl and a spectacle brooch, both which are quite unusual in this region. Besides these, there is a set of six (one of the bracelets was drawn twice to display different features) bronze bracelets made by *cire perdue* casting, each different and individually designed, as if specially made for their wearer, and other ornamental objects of rare and even unique character. The lady must therefore have been of exceptional wealth and prestige for this area.

FIND NO. 27. BRUGGELEN, *GEMEENTE* APELDOORN, GELDERLAND (fig. 10)

Hoard, found before 1940, on the Bruggelen estate, 5 km south of the centre of Apeldoorn. No further information available.

Map reference: Sheet 33B, c. 191/465.

Contains: one complete and three fragmented omega bracelets, a



Map 2. Distribution of spectacle fibulae of Type Oerel (see appendix C) (drawing H. Steegstra, GIA).

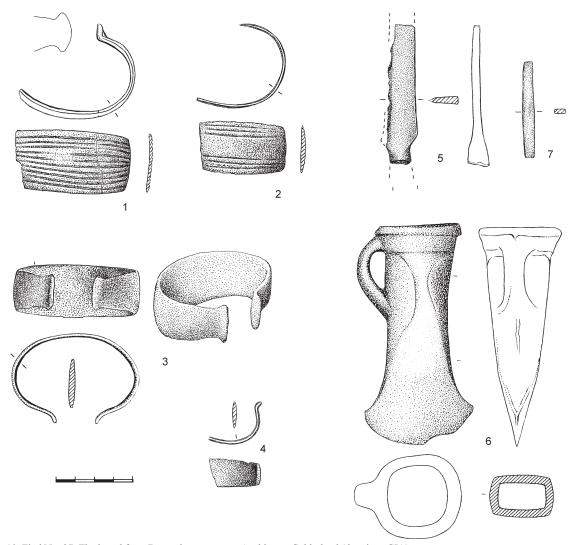


Fig. 10. Find No. 27. The hoard from Bruggelen, gemeente Apeldoorn, Gelderland (drawings GIA).

socketed axe, a single edged Urnfield HaB socketed knife and a small rod.

Patina: socketed axe: dark bronze; other objects: dark green, partly brownish. All with compatible patina.

Collection: Museum 't Valkhof, Inv.Nos GAS 1958-2/6-12; presented 7 February 1958 by S.H. Frederiks of Arnhem (as received from the collection of Ms Ooster).

Documentation: e-mail L. Swinkels (Museum 't Valkhof) to authors, 18 June 2007.

References: Butler, 1965: 175, 178 (20), fig. 11.

Dating: HaB3/Montelius V (Butler, 1965: 175) on the basis of the fragment of the socketed single-edged knife of Urnfield HaB type.

 Two joining fragments of a North Dutch omega bracelet of sheet bronze, oval in outline, slightly curved in section, with pointed-oval terminal; face lightly ribbed. Breaks recent. Inv. No. GAS 1958-2-8 (DB 31).

- Two joining fragments of similar *bracelet*, but with ends missing; ribbed at edges, but plain centre. Inv.No. GAS 1958-2-9 (DB 32).
- 3. *Bracelet* (6.7x4.7 cm; w. 2.7 cm) of sheet bronze, tapering outline with pointed-oval terminals (somewhat abraded); unornamented. Inv.No. GAS 1958-2-7 (DB 30).
- Bracelet fragments, similar to 3., but smaller; unornamented. Inv.No. GAS 1958-2-10 (DB 33)
- Fragment of socketed single-edged knife of 'Urnfield HaB' type.
 L. 7.4; w. 1.8 cm. Inv.No. GAS 1958-2-11 (DB 34).
- 6. Socketed axe Cat.No. 600. L. 11.6; w. 5.7 cm. Rounded-square flattened mouth with unusual rim flange. Inverted-conical, offset collar (mouth formula: 4.55x4.5;3.2x3.25 cm). Very large D-shaped band loop with pronounced) (outline (4.5x1.9/1.1/2.1 cm.). Body outline nearly parallel-sided, but with widely expanded blade tips. Elongated 'wings'; body cross-section at 'wings' is oval, below it is nearly rectangular. Cutting edge

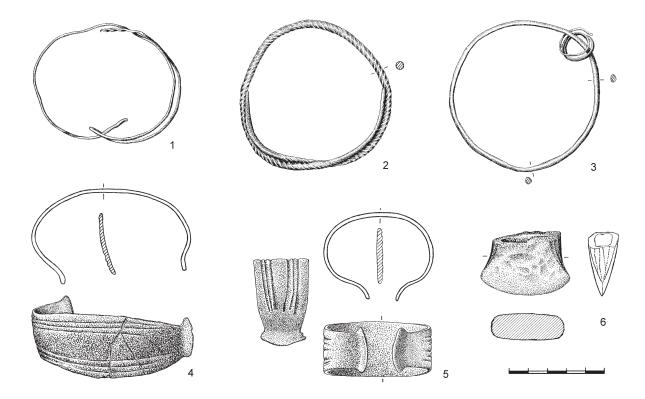


Fig. 11. Find No. 28. The hoard from Elsen, gemeente Markelo, Overijssel (drawings GIA).

sharp. Patina: dark bronze. Casting seams have been flattened, but not obliterated. Very well preserved. Inv.No. GAS 1958-2-6 (DB 29).

Note: The unusual collar of Cat.No. 600, with a flanged rim, is not matched on any other specimen in the Netherlands, but occurs in Western Germany on an 'unclassified' socketed axe from the HaB3 hoard of Ockstadt, Kr. Friedberg (Kibbert, 1984: No. 869; details of hoard *cf.* his p. 101 under Kat.Nr. 497-500 with further references). Somewhat similar rim flanges are known on a variety of socketed axes in North Britain (Schmidt & Burgess, 1981); indeed, Kibbert's example may well be British. But all these axes are otherwise quite different from Cat.No. 600. The same can be said for an example (a 'facetted' socketed axe) from the "Epellet Park" hoard of Yattendon, Berks. (Huth, 1997: Kat. Nr. GB 13, Taf. 28:6, with further references).

Small rod of rectangular section. Inv.No. GAS 1958-2-12. (DB 35).

FIND NO. 28. ELSEN, *GEMEENTE* MARKELO, OVERIJSSEL (figs 11 and 11a)

Contains a lock-ring, a twisted ring, a ring of thin wire of oval section, two omega bracelets, and Cat.No. 824 (the blade fragment of a socketed axe).

Patina: edelpatina (described as glossy green in Overijsselse Alma-

nak 1847, 255).

Collection: 1-5: Museum Enschede, Inv.Nos 386-387 and 400-401, presented to the museum around 1930 by Mr and Mrs Van Dam of Enschede, who had purchased the objects from the son of W.K. Loeff. 6: RMO Leiden, Inv.No. d1942/12.1

Note: In the Overijsselsche Almanak for 1847 (255) it is clearly stated that the objects are drawn in actual size. The subjects on fig. 11a (published in the Overijsselsche Almanak 1847) are in same order as on fig. 11 (the recent drawing), but on fig. 11a:1 a large ring is depicted; on fig. 11:3 the same large ring with a fragment of bronze wire of fig. 11a:3 is arrayed. We can only conclude that the ring shown on fig. 11a:3 is missing.

Circumstances of find: Found March 1846. "The objects lay, wound together, in an earthen bank which marks off a cultivated field, at a depth of 4 to 5 feet" (Pleyte, 1885: citing Overijsselsche Almanak 1847, 255). Verlinde (1980: 10) long curator of the Enschede museum, expressed doubts as to the accuracy of the reported find circumstances. He points out that the glossy green patina of the objects is not consistent with a bog find. Further, he suggests that the depth of the find indicates that it must have been earlier than, rather than contemporary with, the deposition: that it was more likely to have lain under than in a field boundary. The uniformity of the patina suggests, however, that we are dealing with an associated find; the discrepancies may be due to the 60-year interval between the find itself and its acquisition by the Enschede and Leiden museums.

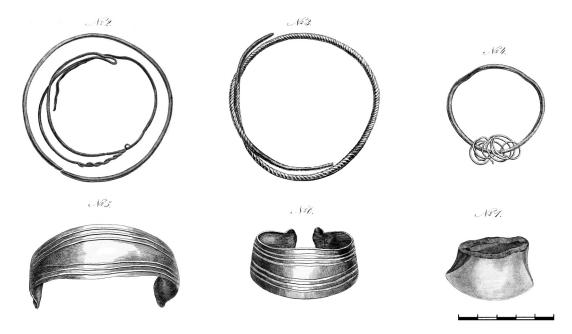


Fig. 11a. Anonymous drawings, from the Overijsselsche Almanak 1847, of the bronzes from Elsen.

Map reference: Sheet 28D, c. 233/499 Documentation: Museumverslag, 1942: 5;

References: Anonymus, 1847: 255–262, afb. 1–6; Pleyte, Twente, 1885: 22–2, Pl. XI:1-4; Butler, 1965: 179, fig. 12; Verlinde, 1980: 9–10, Depot V; Butler & Steegstra, 2003/04: 269, fig. 91E; Butler & Steegstra, 2005/06: 233–234, fig. 129.

Dating: Montelius V/Ha B3 (Butler, 1965: 175-176).

Description of the objects:

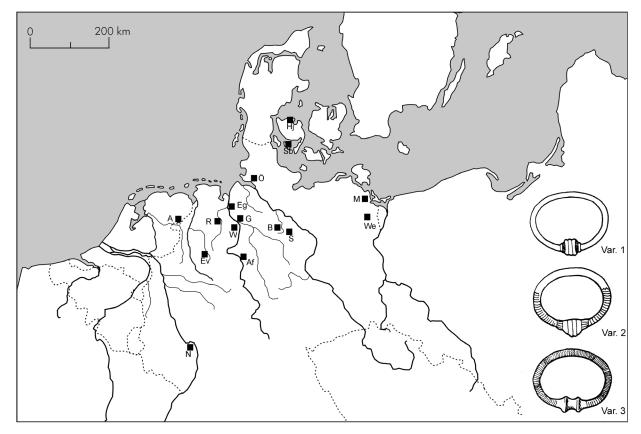
- 1. *Lock-ring* of thin doubled wire; ends twisted together. Thickness of wire 1.2-1.6 mm; Inv.No. 385 (DB 1886).
- Twisted ring (bracelet?), with non-twisted, pointed and sharpened terminal portions. Diam. 8; max thickness of wire 0.4 cm; Inv.No. 386 (DB 1031).
- Ring of thin wire of oval section, with meeting ends; on which
 is a small irregular coil of thinner wire. Diam. 8.1; th. 0.35x0.28
 cm. Coil: diam. 1.7, th. of wire 1 mm; Inv.No. 387 (DB 1032).
- North Dutch omega bracelet of oval broad band, tapering toward expanded, roughly pointed-oval everted terminals. The cross-section is slightly curved. Outer surface partly ornamented with groups of grooved lines. Diam. 8.3; w. 3.2 cm; Inv.No. 400 (DB 1033).
- North Dutch omega bracelet, like 4., but cross-section is flat. Diam. 5.8; w. 2.9 cm; Inv.No. 401, stolen c. 1970 according to Verlinde, 1980: 10 (DB 1034).
- Socketed axe (fragment), Cat.No. 824. Expanded blade, vertical hammer fluting on sides. Blade w. 4.8 cm. Museum: RMO Leiden, Inv.No. d 1942/12.1, ex collection W.K. Loeff (DB 1854).

2.2. The kidney bracelets

Definition: Kidney bracelets (*Nierenringe*) are annular bracelets, somewhat oval in shape, with a characteristic bulge in the middle, seemingly imitating the shape of a kidney on the inner side.

Following the example of Tackenberg (1971: 2, 4ff, *Karte* 43) we here confine our attention to the varieties of Bronze Age kidney rings held to be characteristic for Northwest Germany. These *Nierenringe* are not all too numerous, and there was considerable doubt as to whether there was justification for accepting the kidney rings as part of the evidence for the existence of an "Ems-Weser-Kreis". Admittedly, bronzes are scarce in that area; but a new and less complicated distribution map (map 3) does indeed suggest that the kidney bracelets of Tackenberg's *Variants* 1, 2 and 3, almost all found in the Weser area with a few ouliers in Southern Denmark and one (Niederolm) far to the south in Hessen, are a regional component of the metallurgical scene in the Northwest German area.

Six examples are from one single find, that from Rethwisch, Kr. Vechta (Laux, 2005: Taf. 52A). The bronzes were contained in a pottery vessel with concentric circle and furrow ornament, the origin of which is still unknown, but it is certainly not from Western Europe; it is likely to stem from somewhere east of the Elbe.



Map 3. Distribution of Northwest German kidney-shaped bracelets (*Nierenringe*) as classified by Tackenberg (1971), with additions, see Appendix B (drawing H. Steegstra, GIA).

A pair of Tackenberg's Var. 2 occurred in the hoard of Niederolm (or Nieder-Olm), Kr. Mainz-Bingen, Rheinland-Pfalz (Tackenberg, 1971: Taf. 14:4 and 5), with associations (two socketed axes, a pair of interlocked rings, plus a knobbed sickle, a pair of plain C-shaped bracelets, a socketed gouge) [Tackenberg, 1971: 159–160, Taf.14:1-9]) assigned by Kibbert (1984: Kat.Nr. 753; 216) to his phase Obernbeck/jüngere Urnenfelder/Northern Period V (chronology: see discussions by Kibbert, 1984: 159–162 with Notes 6 and 7; Laux, 2005: 1–7).

Closely related kidney bracelets have been listed and mapped by Tackenberg, 1971: 214–224, *Karte* 43, *Listen* 119-121. Most of the fifteen finds are in the Weser region. The Bronze Age *Nierenringe* seem to represent a modest regional group of bracelets, possibly all by the same hand. Only a few strayed to the north (Ölixdorf, near the Elbe mouth; Søby (Ærø) and Hjadstrup (Fyn) to the Danish islands; Niederolm much farther south, in Rheinland-Pfalz. The hoard from Rethwisch, Kr. Vechta (along the river Hunte; most recently Laux, 2005: 19 and Taf. 52), contained, along with other bronzes in an unusual pottery vessel,

no less then three pairs of these *Nierenring* bracelets. The Angelslo/Bargeroosterveld 1900 hoard is, thus, the westernmost known find-spot of the *Nierenring* bracelets (see map 3). In Appendix B, we present an updated list of finds with *Nierenringe*.

Dating: Hoards containing Nierenringe are from Schnega (Laux, 2005: Taf. 51B), Afferde (ibid., Taf. 51C) and Rethwisch (ibid., Taf. 52). Of special interest is the hoard from Rethwisch, Kr. Vechta: a small hoard, with an exotic pot and a dozen bronzes. Six of the bronzes are Nierenringe. These are actually three pairs of bracelets: a pair each of the three sorts distinguished by Tackenberg (1971: 214-216, Liste 119-121). The *Nierenringe* themselves are seemingly products of a northwest German workshop (cf. our distribution map 3), with only a few outliers to Denmark to the north and Hessen in the south. A loopless winged axe is of Central European origin or inspiration. But several objects in the hoard are of North European origin: a single-edged razor with s-shaped handle, a plate fibula of Laux's Type Dörmte, a possible fragment of a large plate fibula of Laux Type Oerel, a richly decorated collar fall in this category. In the estimation of Laux (2005: 3, 88–89) the Rethwisch hoard is closely datable; in his view it was deposited at the beginning of Northern Period V, but he adds that most of the contents are typical for North German Period IV, and only the gold-covered fragment of the spectacle fibula, the birds-head-handled razor, and possibly the loopless winged axe, one of the very few examples of his *Variante Rethwisch* (Laux, 2005: Taf. 4:37), are later. This would imply that *Nierenringe* of the Rethwisch hoard were circulating by the end of Northern Period IV

The Schnega hoard is dated by Laux (2005: 18) to a late phase of Period IV on basis of the looped midwinged axe. The hoard from Afferde is dated by Laux (2005: 59) to the transition Period IV/V on the basis of the penannular bracelets.

Conclusion: A new distribution map (map 3) utilizing the information of an earlier version by Tackenberg (1971: Karte 43), shows clearly that the Nierenringe are indeed predominantly a Northwest German type, with only a few outliers in Denmark and only one far to the south in Hessen. The pair of Nierenringe, resembling in general Tackenberg's Var. 2 from the Netherlands hoard of Angelslo, are the westernmost known examples of the type.

2.2.1. Nierenringe in the Netherlands

FIND NO. 29. Angelslo (Bargeroosterveld), *GEMEENTE* EMMEN, DRENTHE (hoard of 1900) (fig. 12)

Contains: a single pair of *Nierenring* bracelets (oval, with ribbed ornamental swelling); three fragments of one or more *bracelets* with midrib; a plain *palstave* with loop, of a West European type (Cat. No. 233); a fragment of a second palstave of the same type Cat.No. 234); a single-edged Central European "Urnfield" *knife* and a small rod or pin (lost, unrecorded and not drawn).

Circumstances of find: found together in a small tumulus, at a depth of c. 25 cm, by a now unknown person, under unknown circumstances.

Patina: glossy black.

Collection: Museum Assen, Inv.Nos 1900/III.30-35; purchased through the mediation of C.G.J.A. van Genderen Stort, then an active antiquary of Emmen, who acquired various bronzes from local farmers and mediated their sale to the Assen Museum.

Map reference: Sheet 18C, c. 261.4/533.6

Documentation: Museumverslag 1900, 16 and 20 (Nos 207–214); letter C.G.J.A. van Genderen Stort 5 March 1900: "bovenstaande 7 voorwerpen van brons zijn bij elkaar gevonden in een grafheuveltje in het Bargeroosterveld (in de nabijheid van Angelslo) ongeveer 25 cm onder den grond" [the above 7 objects of bronze were found together in a small tumulus in the Bargeroosterveld (in the neighbourhood of Angelslo) approximately 25 cm under the surface].

References: Butler, 1959: Nos 5-6, 139-140, fig. 6; Butler, 1960a: 205 ff, fig. 9; Butler, 1961: 101 ff, fig. 49; Butler, 1971: 2nd set, NL 16; Butler & Steegstra, 1997/98: 195–197, fig. 59 (palstaves only). Dating: according to Butler (1971: NL16:7) early in the Late Bronze Age in the Netherlands; parallel with Montelius IV in the Ems-Weser region on the basis of the bracelets and the Wilburton phase of the British Late Bronze Age (palstaves); Schmidt & Burgess (1981: 131) assess them to the British 'transitional' palstave group with parallels in the Penard and Wilburton group; O'Connor (1980): Find No. 195 assessed them as 'late' palstaves. Kibbert (1984) dates the Bargeroosterveld palstaves to his phase Obernbeck/jüngere Urnenfelder/Northern Period V (chronology: see discussions by Kibbert, 1984: 159–162 with Notes 6 and 7; Laux, 2005: 1–7).

Description of the objects:

- 1–2. Matched pair of kidney bracelets (*Nierenringe*), slightly oval in outline, with a bulge bearing punch impressions and bands of grooves. Inv.Nos 1900/III.34-35 (DB 1186-7).
- 3a-c. Three rather battered fragments, probably parts of one flatsectioned *bracelet* with a longitudinal thin midrib. The fragments do not join, but could be from the same object. Patina: glossy black. Original width of the three fragments c. 2-4 mm. Inv.No. 1900/III.32A (DB 1185).
- Palstave Cat.No. 233 with narrow blade. Flat septum; body of rectangular cross-section; low-placed side loop. Cutting edge sharp. Butt damaged. Present length 14.4 cm. Breaks patinated. Inv.No. 1900/III.31 (DB 1183).
- Fragment of *palstave* (Cat.No. 234), similar (as far as preserved) to 4. Patina: glossy black; breaks patinated. Inv.No. 1900/III.30 (DB 1182).
- Small tanged knife, with thickened backing plus one rib. Breaks patinated. Inv.No. 1900/III.32 (DB 1184).
- Rod. Lost, no drawing available. Inv.No. 1900/III.33 (DB 2225).

Parallels for the bracelets:

The three bracelets from Eversheide near Osnabrück, illustrated by Tackenberg (1971: 309, *Liste* 120, Taf. 40:3–5) are almost identical to the two examples from Bargeroosterveld, and are perhaps by the same hand. The Angelslo hoard of 1900 has, otherwise, no parallels in the Netherlands. The pair of kidney bracelets in the Angelslo hoard are the western-most examples of the type.

2.3. Penannular bracelets with slightly thickened terminals ("paws") in the Netherlands

Another, more heterogeneous, even scarcer group of penannular bracelets would consist of thinner solid cast bracelets with only slightly expanded everted ter-

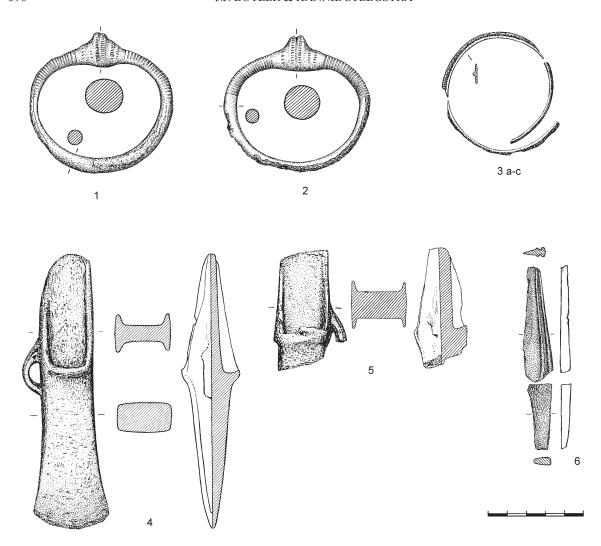


Fig. 12. Find No. 29. The Angelslo (Bargeroosterveld) hoard of 1900, gemeente Emmen, Drenthe. (drawings GIA).

minals ("paw terminals". German: *mit pfötchenförmige Enden*). The simplest examples in this group would include two bracelets from the Hijken hoard (fig. 4:5-6). A gold bracelet from the Hijkersmilde find (fig. 13:2, with *pointillé* edging), two pairs of partially ornamented bracelets from the Onstwedder Holte hoard (fig. 15:1-4); and three or more of the bracelets from the uncertain find of St. Maartenskliniek, Nijmegen (fig. 17) are also classifiable under this heading.

2.3.1. Hoards with bracelets with paw terminals in the Netherlands

FIND NO. 30. HIJKERSMILDE, GEMEENTE SMILDE, DRENTHE (fig. 13)

Contains: two gold bracelets (DB 1200-1201) Map reference: Sheet 12C, c. 225/550.5 Circumstances of find: Found at Nieuw Salwerd, under broekveen and darg, above which sphagnetum. Found by C., H., and J. Janssens (the sons of Hielke Janssens, farmer of Hijkersmilde, second house south of the Witte Wijk on the Drentsche Hoofdvaart [canal] [Gevonden te Nieuw Salwerd, onder het moerasveen, iets boven het zand, onder broekveen en darg, waarover nog sphagnetum].

Collection: Museum Assen, Inv.Nos 1921/V.2-2a, purchased from finders.

Documentation: Museumverslag 1921: 12, sub 15; Asser Courant, 25 May 1921. The Asser Courant added that "wooden remains of ancient constructions were found nearby" and that further investigation was then in progress. But nothing concerning either the wooden structures or any further investigation is to be found in the records of the Provincial Museum at Assen.

Determination of the metal: M.R. Mulder, chief assayer, and H. van der Zwaag, then assayer of the "kantoor van Waarborgen" (Assay office) at Leeuwarden.

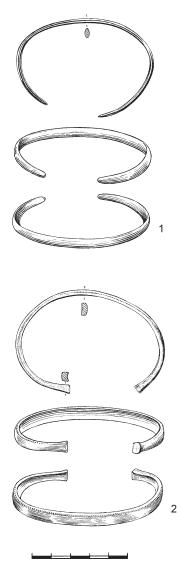


Fig. 13. Find No. 30. The gold bracelets from Hijkersmilde, *gemeente* Smilde, Drenthe: 1. no decoration; 2. with double row of *pointillé* (drawings GIA).

References: Butler & Van der Waals, 1961: 91–95, 98–99, fig. 42, Pl. XII–XIII); Sprockhoff, 1926: 71–86, Taf. 1-3; Abb. 1-3; Müller-Karpe, 1959: Taf. 118:38-39.

Description of the objects:

 Bracelet, asymmetrical penannular, with slightly expanded rectangluar terminals. Convex face, flattened sides, concave inside; outer angles each ornamented with double row of punch impressions, which have partly been polished away at the terminals. Rough casting surface preserved inside near the terminals; otherwise finely polished, with hammer marks preserved only on the terminals. Diam: 7.75; w. 0.69; th. 0.3 cm. Terminal plates 0.6x0.45 cm. Weight 40.144 gr. Composition of gold: c.

- 19.5 carats, *i.e.* (accuracy within 2%) Au c. 81%, Ag c. 16%, Cu c. 3%; S.G. 16.3. Inv. No. 1921/V.2 (DB 1200).
- Bracelet, asymmetrical penannular, of D-shaped cross-section, with thin rounded off-ends. Finely polished. Diam: 7.15; w. 0.55; th. 0.2 cm. Weight 21.367 gr. Composition of gold: c. 18.7 carats, i.e. (accuracy within 1%) Au c. 7%, Ag c. 12.5%, Cu. c. 9.5%; S.G. 16.0. Inv. No. 1921/V.2A (DB 1201).

Parallels: The larger of these bracelets seems not to belong to any well known group of gold bracelets. As far as its form is concerned, it might, however, be thought of as a copy in gold of a type of bronze bracelet known from some few examples in hoards of Montelius V widely scattered in North Germany (Sprockhoff, 1956(I): 208, No. 11, Taf 41:5). These bracelets have in common a more or less D-shaped cross-section, slightly thickened terminals, and, as ornament, groups of transverse lines near the terminals. One bracelet of this very type was found at Odoorn (museum Assen, Inventory no. 1863/1.13), 30 km to the southeast of Hijkersmilde. When compared with the illustrated examples of this type of bracelet, the Odoorn example actually stands closest to that from Hijkersmilde in form as well as in geographical propinquity. It is therefore specially interesting to see that the Odoorn bracelet has a feature not seen on the German ones, but present on the gold Hijkersmilde bracelet; namely a double row of *pointillé* along the outer edges.

In itself, *pointillé* is much too widespread a feature to be of dating value; but here we are referring to a special manner of its employment, that is as an edging along the angles. Single rows of punch-marks along the edges appear to be fairly common on a variety of bracelets over a wide area of North Germany, especially in Montelius V (*cf.* Sprockhoff, 1956(II): Taf. 40:5, 41:4, 43:4).

But the double row of longitudinal punch-marks is evidently much less common; among Sprockhoff's illustrations one sees it only on the golden *Eidring* belonging to the gold hoard of Grünewald, Kr. Neustettin (Sprockhoff, 1956(II): Taf. 39:7) and on a bronze bracelet (one of a pair) from the hoard of Ostrhauderfehn, Kr. Leer. (Sprockhoff, 1956(I): 209, No. 18, Abb. 53:1).

The Ostrhauderfehn bracelets are, according to Sprockhoff, unique in North Germany; they have, however, extremely close parallels in two pairs of bronze bracelets in a Dutch hoard from Onstwedder Holte in the province of Groningen (Butler, 1960: 117–118) which are unique in the Netherlands. It follows that the three pairs of bracelets in these two hoards (the find-places of which are in fact only 45 km apart, though on

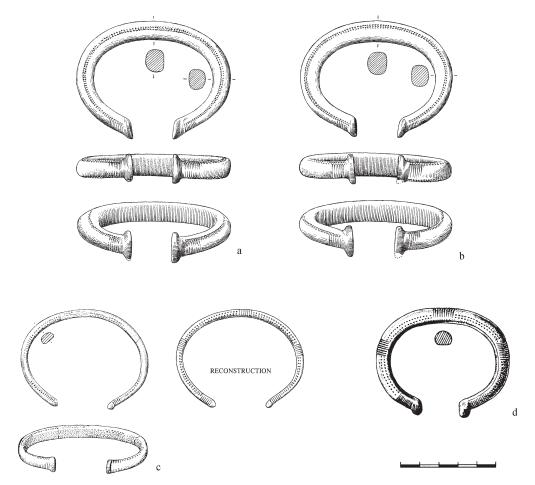


Fig. 14. Other bracelets with a double row of *pointillé* decoration from the Netherlands and Germany. a-b. from the hoard of Onstwedder Holte, Groningen; c. Odoorn (Drenthe); d. from the hoard of Ostrhauderfehn, Germany (a-c: drawings GIA; d. After: Jacob-Friesen, 1967: Taf. 168:5).

different sides of the modern border) represent (unless they be imports from some place unknown) a small local group, linked by the double *pointillé* row with the Odoorn and Hijkersmilde specimens (fig. 14).

The double *pointillé* row is not entirely confined to bracelets in our district; one finds it also on the back of a socketed single-edged knife, otherwise undecorated, of the characteristic Hallstatt B-Montelius V form, found near Aalten, Gelderland (RMO Leiden, Inventory No. e.1925/II.1). Knives of this type were imported to Northwest Germany and the Netherlands from the South German-Swiss Urnfield area, but were also presumably locally copied (*cf.* Sprockhoff, 1956(I): 104-106; (II): Taf. 13:1, *Karte* 14). The double punch row has thus a certain local currency here in Montelius V, which tends to confirm the dating of the Hijkersmilde bracelet to that period.

The second *bracelet* from Hijkersmilde is of an extremely simple form, and is lacking in features

which facilitate specific comparison. Here we must be content to note that there are similar rings present in Montelius V contexts, as with the simplest of the gold rings in the Barum hoard (Sprockhoff, 1956: 24, Taf. 1c) or the bronze examples in the hoards from Darsekau, Kr. Salswedel (Sprockhoff, 1956(II): Taf. 48:9) and Maribor (Marburg), Slovenia (Müller-Karpe, 1959: Taf. 118:38-39).

Dating: HaB3-Montelius V (on the basis of the local bronze analogies to the double-punch-ornamented piece).

FIND NO. 31. ONSTWEDDER HOLTE, GEMEENTE STADS-KANAAL, GRONINGEN (fig. 15)

Contains a pair of penannular bracelets, a pair of interlocked flat rings bearing hatched-triangle incised decoration and a socketed axe Cat.No. 619.

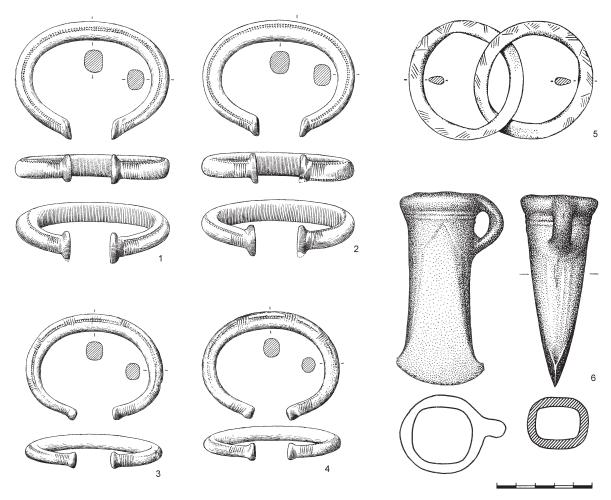


Fig. 15. Find No. 31. The hoard from Onstwedder Holte, gemeente Stadskanaal, Groningen (drawings GIA).

Patina all objects: black, with traces of grey-green, very well preserved. No casting seams visible.

Circumstances of find: Found c. 1894 in peat, at a depth of 1.80 m below the surface.

Map reference: Sheet 13A, c. 265/564.

Collection: Museum Groningen, 1895/I.1,1A-E; gift of H.J. Schönfeld of Winschoten.

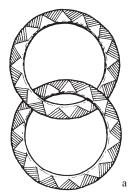
Documentation: Correspondence Schönfeld to museum, 27 Dec. 1894 and 31 Jan. 1895: "A purchaser of antiques showed me seven objects made of bronze or copper and found at Onstwedder Holte more or less 1.80m below the surface" ["een opkooper van oudheden vertoonde mij een zevental voorwerpen van brons of roodkoper vervaardigd en gevonden te Onstwedder Holte \pm 1.80 M beneden den beganen grond"]; Museumverslag 1895, 8, No. 2.

References: Butler, 1960b: 117–122, fig. 1; Jacob-Friesen, 1967: 261, Kat. 1737, Taf. 168:8-11; Tackenberg, 1971: 52–53; Essink & Hielkema, 1997/98: 298, No. 156; Butler & Steegstra, 2003/04: 215–216, 267–270 and figs 56 and 92A.

Dating: Montelius V/HaB3 (Butler, 1965: 175–176); Montelius V (Tackenberg, 1971: 52–53).

Description of the objects:

- Bracelet; w. 8.0; th. 1.0 cm; paws: 1.55x1 cm. Weight: 100 gr. Oval penannular outline; oval cross-section, slightly flattened inside. Thins slightly toward terminals, which expand into discs facing one another. Ornament: two lines of close-set punch impressions on each side; groups of parallel incised transverse lines on outer face adjacent to each terminal. Inv.No. 1895/I.1a (DB 1366)
- 2. *Bracelet* like 1.; w. 8.0; th. 1.05 cm; paws: 1.6x0.9 cm. Weight 104 gr. Inv.No. 1895/I.1b (DB 1367).
- 3. Bracelet; w. 7.2, th. 0.9 cm. Paws: 0.8x0.6 cm. Weight 45 gr. Oval penannular outline, thinning toward terminals, which expand into knobs or discs much less pronounced than those on bracelets (2.-3.). Ornament: a single longitudinal line of closeset punch impressions on each side; groups of parallel incised transverse lines not only adjacent to the terminals (as on 2.-3.), but at intervals on the body of the bracelet. Inv.No. 1895/I.1c (DB 1368).
- 4. *Bracelet* like 3.; w. 7.1; th. 0.9 cm. Paws: 0.85x0.6 cm. Weight: 49 gr. Inv.No. 1895/I.1d (DB 1369).





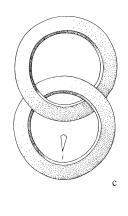


Fig. 16. Interlocked annular rings from hoards in Germany. a. Rheda (After: Spockhoff & Höckmann, 1979: Taf. 337:708); b. Ostrhauderfehn (After: Jacob-Friesen, 1967: Taf. 168:6); c. Niederolm (After: Richter, 1970: Taf. 92C).

Note: no casting seams visible on the bracelets.

- 5. Pair of rings, cast so as to interlock. Diam. 6.1 and 6.4 cm; th. 0.4 and 0.45 cm; w. 0.6 and 0.8 cm. Weight: 48 gr. Each ring is of flattened triangular cross-section, with the inner edges rounded off through wear. The faces are ornamented with diagonally hatched triangles, now partly obliterated by wear. The rings show particularly heavy wear at two opposed points. Inv. No. 1895/I.1e (DB 1370).
 - Parallels: pair of almost identical interlocked rings (see fig. 16) from the grave find of Rheda (Kr. Wiedenbrück), Westphalia (Hahne, 1915: 7–8, Band A: Taf. 1b-c; Sprockhoff, 1956[II]: Taf. 48:13; Butler, 1965: 184–185; Sprockhoff & Höckmann, 1979: Taf. 337:708); pair of plain interlocked rings from Ostrhauderfehn (Kr. Leer, Niedersachsen; see Jacob-Friesen, 1967: Taf. 168:6) and a pair of plain interlocked rings from Niederolm (Kr. Mainz-Bingen, Rheinland-Pfalz; see Tackenberg, 1971: Taf. 14:8; Richter, 1970: Taf. 92C).
- 6. Socketed axe Cat.No. 619. L. 10.2; w. 4.6 cm; weight: 297 gr. Subrectangular mouth (formula: 4.5x4.1; 3.1x3 cm). Heavy collar with bevelled rim; two neck ribs, from which depend faint raised mouldings. Heavy D-shaped side-loop (3.2x1 cm) springs from the collar. Body oval in cross-section, with faint vertical furrow-facets on the sides. Blade-tips are expanded, but blunted. Slight pouches. The crescentic cutting edge is sharp, but has use-marks; it is markedly asymmetrical. Parts of the surface of the axe were never polished smooth after the casting. Inv.No. 1895/I.1 (DB 1371).

Parallels: The penannular bracelets of the Onstwedder Holte hoard have good parallels in two hoards from the German side of the (modern) border:

a. The hoard from Ostrhauderfehn, Kr. Leer (Jacob-Friesen, 1967: Kat.Nr. 978:5; Taf. 168:5);

- b. The hoard of Afferde, Kr. Hameln-Pyrmont (Jacob-Friesen, 1967: Kat.Nr. 900, Taf. 172:1-7; Laux, 2005: 6, 58f, 80, Taf. 51C). It includes, *inter alia*:
- Two penannular bracelets with paw terminals;
- Two annular bracelets;
- A *Nierenring* ornamented in a style similar to the Var. 2 of Tackenberg;
- A socketed axe with plastic wings and a triangle below the neckribs (*cf.* Butler & Steegstra, 2003/04: Cat.Nos 695 Odoorn/Klijndijk [Dr], 703 from Velsen (Noord-Holland) and 704 from the possible hoard of Werkhoven, Utrecht (Butler & Steegstra, 2003/04: 257, 261);
- A plain socketed spearhead (Jacob-Friesen, 1967: 275, 340 [No. 900], Taf. 172:1).

The socketed axe has no close parallels in the Netherlands or North Germany. Laux (2005: 50, citing G. Jacob-Friesen, 1967) briefly mentions the Onstwedder Holte axe citing the illustrations of Jacob-Friesen, 1967: Taf. 168:8-11. The socketed axe in the Onstwedder Holte hoard is difficult to place typologically, but it is surely of Northwest German or Northeast Netherlands manufacture (*cf.* Laux, 2005: 50); Laux sees it as related to his *Variant* Dolldorf (his Kat.Nr. 209-218, Taf. 15 and *Karte* 42 (square symbols, with ten examples), only one of which is along the Aller-Leine line, the other find-spots are farther east.

Dating: The hoard from Afferde is dated by Laux (2005: 59) to the transition Period IV/V on basis of the penannular bracelets; by Sprockhoff, 1956 (7, 189) and Tackenberg, 1971 (36, 219) to Montelius V;

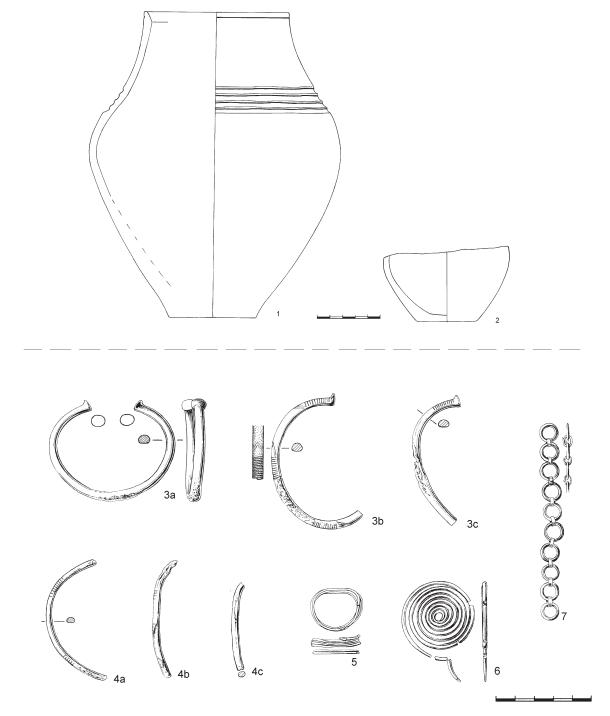


Fig. 17. Find No. 32. 1-2. urn and pottery cup; 3a-c. fragmented bracelets with "paws"; 4a-c. fragmented bracelets or rings; 5-6. fragments of spiral ornaments; 7. rings. All from the probable but unverifiable grave find, allegedly found during construction of the St. Maartenskliniek, *gemeente* Nijmegen, Gelderland (1-2: drawings H. Steegstra, GIA; 3-6: ROB Amersfoort). 1-2: scale 1:3; 3-6: scale 1:2.

the hoard from Rheda, with the almost identical interlocked rings, is dated by Sprockhoff and Höckmann (1979: 120, No. 414) to Per. V on the basis of the cast bronze bowl.

FIND NO. 32. ST. MAARTENSKLINIEK, GEMEENTE NIJMEGEN, GELDERLAND (fig. 17)

Presumable grave group, consisting of an urn, accessory vessel, several bronze bracelets, bronze wire, bronze wire spiral and a bronze

chain of 26 small rings.

Circumstances of find: found at the foot of the Kwakkenberg-Kops Plateau close to the St. Maartenskliniek. No further information available. In museum Inventarisboek: "Afk. voet Kwakkenberg-Kops Plateau, bij de St. Maartenskliniek Nijmegen. De Nrs. 1955.10 t/m 17 tezamen gevonden".

Collection: Museum 't Valkhof, Nijmegen (formerly collection Kam), Inv.Nos 1.1955.10-17. (DB 1594-1602).

Map reference: Sheet 40D, c. 190.5/427.2

Patina: The bronze objects were cleaned and conserved in the laboratory of the "Rijksdienst voor Oudheidkundig Bodemonderzoek" in Amersfoort, after acquisition via the antique trade by the Museum Kam

Documentation: letter P.J. Modderman to Butler (not dated).

Description of the objects:

- 1. *Urn*, with calcinated bone fragments. The urn (diam. 20 cm; height 25 cm) is pear-shaped, and has 4 grooves on the shoulder; the rim is internally beveled. Inv.No. 1.1955.10 (DB 1592).
- Small pot. Diam. 10 cm; height 6.2 cm. Inv.No. 1.1955.11 (DB 1593)
- 3a–c. Slender, more or less D-sectioned *bracelets* with slightly everted terminals. 3a is without decoration; 3b and 3c have incised ornament. Inv.Nos 1.1955.12-13 (DB 1594-1596).
- 4a–c. similarly ornamented *bracelets*, but the terminals are missing. Inv.No 1.1955.14. (DB 1597, 1598 and 1599).
- 5. Bronze wire. Inv.No. 1.1955.15 (DB 1600).
- 6. Bronze spiral. Inv.No. 1.1955.16 (DB 1601).
- Bronze *chain* of 26 rings; ten rings are illustrated on the drawing. Inv.No. 1.1955.17 (DB 1602).

Parallels: In Western Germany hoards: Afferde, Kr. Hameln-Pyrmont (Laux, 2005: Taf. 51C:2, with Nierenring, socketed axe with plastic "wings" and plain spearhead); Haimbach, Kr. Fulda (Richter, 1970: Taf. 56:996-7, Taf. 94:4-5), rich hoard consisting of Typ Oerel spectacle *fibulae*, annular bracelets, penannular bracelets of D-section with incised decoration and everted terminals, penannular bracelet of D-section with paws and incised decoration, bracelets of a Central European type, pins, neck rings, sickles, a set of plain interlocked rings with small rings attached, a mould for a looped high-winged axe, a plain spearhead, a wheel-headed ornament. On the English side of the Channel, similar bracelets occur in the scrap-metal hoard of Minnis Bay, Birchington, Kent (O'Connor, 1980: fig. 61, No. 41-44. Parallels are also found in the French hoard from Dreuil (Somme; see Blanchet, 1984: 287, figs 159-160). This hoard is a scrap-metal hoard, rich in ornament fragments. These include palette bracelets (solid and half-hollow), with and without incised ornament.

Dating: The hoard from Afferde is dated by Laux (2005: 59) to the transition Period IV/V on basis of the penannular bracelets. The hoard from Haimbach is dated by Richter (1970: 153–154, Taf. 94-95) on the basis of its Steggruppenringe to Period IV, on the basis of its spectacle fibulae of Type Oerel to Period V; the hoard from Dreuil is dated to Bronze final III (Blanchet, 1984: 279) on the basis of its carps-tongue swords etc.

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Distribution map 1 (by HS) is on the basis of the automatic mapping facility provided by J. Kraak and J.T. Ubbink of the University of Groningen Computer Centre.

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4. REFERENCES

- ANER, E. & K. KERSTEN, 1973–1993. Die Funde der älteren Bronzezeit des nordischen Kreises in Dänemark, Schleswig-Holstein und Niedersachsen. Band I-XVIII. København, Nationalmuseum Neumünster, Wachholz.
- ANONYMUS, 1847. Voorwerpen van Brons. Overijsselsche Almanak voor Oudheid en Letteren 12, 255–262.
- ASCHEMEYER, H., 1966. Die Gräber der jüngeren Bronzezeit im westlichen Westfalen (Bodenaltertümer Westfalens IX). Münster, Aschendorff.
- BARTELHEIM, M., 1998. Studien zur böhmischen Aunjetitzer Kultur Chronologische und chorologische Untersuchungen (Universitätsforschungen zur prähistorischen Archäologie 46). Bonn, Habelt.
- BATH, F.C., 1953/55. Der bronzezeitliche Hortfund von Bargfeld. *Hammaburg* 4, 79–82.
- BAUDOU, E., 1960. *Die regionale und chronologische Einteilung der jüngeren Bronzezeit im Nordischen Kreis* (Studies in North European Archaeology 1). Stockholm, University of Stockholm.
- BLANCHET, J.-C., 1984. Les premiers métallurgistes en Picardie et dans le Nord de la France (Mémoires de la Société Préhistorique Française 17). Paris, Société Préhistorique Française.
- BROHOLM, H.C., 1943–1949. *Danmarks Bronzealder*, I–IV. København, Nyt Nordisk Forlag/Arnold Busck.
- BRUNN, W.A. VON, 1959. Bronzezeitliche Hortfunde. Teil I: Die Hortfunde der frühen Bronzezeit aus Sachsen-Anhalt, Sachsen, Thüringen. Berlin, Akademie Verlag.
- BUTLER, J.J., 1959. Vergeten schatvondsten uit de Bronstijd. In: J.E. Bogaers, W. Glasbergen, P. Glazema & H.T. Waterbolk (red.) *Honderd Eeuwen Nederland* (Antiquity and Survival II, no. 5–6). Den Haag, Luctor et Emergo, 125–142.
- BUTLER, J.J., 1960a. Drie Bronsdepots van Bargeroosterveld (Three Bronze Age hoards from Bargeroosterveld). *Nieuwe Drentse Volksalmanak* 78, 205–231.
- BUTLER, J.J., 1960b. Het Bronsdepot van Onstwedder Holte (The Late Bronze Age Hoard from Onstwedder Holte, province of Groningen in the Netherlands). *Groningse Volksalmanak* 160, 117–122.
- BUTLER, J.J., 1961. A Bronze Age concentration at Bargeroost-erveld. With some notes on the Axe Trade across Nothern Europe. *Palaeohistoria* 8, 101–126.
- BUTLER, J.J., 1965. Ook eens iets voor dames. Een bijzonder facet van de noordnederlandse bronsbewerking in de 8e eeuw v. Chr. (with English summary). *Nieuwe Drentse Volksalmanak* 83, 163–198.
- BUTLER, J.J., 1969/79. *Nederland in de Bronstijd*. (Fibula-Reeks 31) 2nd ed. 1979. Bussum, Fibula-Van Dishoeck.
- BUTLER, J.J., 1971. *Bronze Age grave groups and hoards of the Netherlands* (Inventaria Archaeologica: the Netherlands, 2nd, set: NL 11-16). Bonn, Habelt.

- BUTLER, J.J., 1979. A Late Bronze Age drawing instrument? *Palaeohistoria* 21, 195–203.
- BUTLER, J.J., 1986. Drouwen: end of a 'Nordic' rainbow? *Palaeohistoria* 28, 133–168.
- BUTLER, J.J., 1990. Bronze Age metal and amber in the Netherlands (I). *Palaeohistoria* 32, 47–110.
- BUTLER, J.J. & J.D. VAN DER WAALS, 1961. Three Late Bronze Age Gold Bracelets from the Netherlands. *Palaeohistoria* 8, 91–99.
- BUTLER, J.J., & HANNIE STEEGSTRA, 2003/04. Bronze Age metal and amber in the Netherlands (III:2): Catalogue of the socketed axes. Part B. *Palaeohistoria* 45/46, 197–300.
- BUTLER J.J., & HANNIE STEEGSTRA, 2005/06. Bronze Age metal and amber in the Netherlads (III:2): Catalogue of the socketed axes. Part C. *Palaeohistoria* 47/48, 207–240.
- BYVANCK, A.W., 1942/46. Voorgeschiedenis van Nederland. Leiden, Brill.
- COURTOIS, J.-Cl., 1960. L'Age du Bronze dans les Hautes-Alpes. Gallia Préhistoire 3, 47–108.
- EOGAN, G., 1983. *The hoards of the Irish later Bronze Age*. Dublin, University College.
- EOGAN, G., 1994. The Accomplished Art: Gold and gold-working in Britain and Ireland during the Bronze Age (c. 2300–650 BC). Oxford, Owbow Books.
- ESSINK, M., 1996. Katalogus van bronzen voorwerpen in Noord-Nederland. Doctoraalscriptie Pre- & Protohistorie, Vakgroep Archeologie, Rijksuniversiteit Groningen.
- ESSINK, M. & J.B. HIELKEMA, 1997/98. Rituele dispositie van bronzen voorwerpen in Noord-Nederland. *Palaeohistoria* 39/40, 277–321.
- FURMÁNEK, V., L. VELIAČIK & J. VLADÁR, 1991. Slovensko v dobe bronzovej [Die Slovakei in der Bronzezeit]. Bratislava, Veda.
- GERLOFF, S., 2007. Reinecke's ABC and the chronology of the British Bronze Age. In: C. Burgess, P. Topping & F. Lynch (eds), Beyond Stonehenge: essays on the Bronze Age in honour of Colin Burgess. Oxford, Oxbow books, 117–161.
- GIFFEN, A.E. VAN, 1935. Oudheidkundige aanteekeningen over Drentsche vondsten (II). Nieuwe Drentse Volksalmanak 69, 67–122.
- GIFFEN, A.E. VAN, 1944. Opgravingen in Drenthe tot 1941. In: J. Poortman (ed.), Drenthe, een handboek voor het kennen van het Drentsche leven in voorbije eeuwen (2nd edition). Meppel, Boom, 393–568.
- HAHNE, H., 1915. Vorzeitfunde aus Niedersachsen. Hannover, Gersbach.
- HÖCKMANN, O., 1976. Zu einem Bruchstück eines Nordischen gegossenen Bronzebeckens aus Corcelettes in der Schweiz. Archäologisches Korrespondenzblatt 6, 131–136.
- HOMMERBERG, S., 1946. *Hallstattidens relativa kronologi I. Hallstalt A och B.* Købnhavn, Lund.

- HUTH, C., 1997. Westeuropäische Horte der spätbronzezeit. Fundbild und Function (Regensburger Beiträge zur prähistorischen Archäologie 3). Bonn, Universitätsverlag/Regensburg, Habelt.
- IMPE, L. VAN, 1995/96. De schat van het konijn: het bronsdepot van Lutlommel-Konijnepijp (Gem. Lommel, prov. Limburg). Archeologie in Vlaanderen 5, 7–40.
- JACOB-FRIESEN, G., 1956. Zwei jungbronzezeitliche Hortfunde aus Niedersachen. In: P. Zylmann (ed.), Zur Ur- und Frühgeschichte Nordwestdeutschlands (Festschrift K.H. Jacob-Friesen). Hildesheim, Lax, 123–143.
- JACOB-FRIESEN, G., 1967. Bronzezeitliche Lanzenspitzen Norddeutschlands und Skandinaviens (Veröffentlichungen der urgeschichtlichen Sammlungen des Landesmuseums zu Hannover 17). Hildesheim, Lax.
- KERSTEN, K., 1939. Vorgeschichte des Kreises Steinburg. Neumunster, Wachholtz.
- KIBBERT, K., 1984. *Die Äxte und Beile im mittleren Westdeutschland II* (Prähistorische Bronzefunde IX:13). München, Beck.
- KIMMIG, W. & H. HELL, 1965. Schätze der Vorzeit: Funde aus Deutschland, Frankreich und der Schweiz. Stuttgart, Spectrum.
- KOOI, P.B., 1979. Pre-Roman Urnfields in the North of the Netherlands. Dissertatie Universiteit Groningen, handelseditie. Groningen, Wolters-Noordhoff/Bouma's Boekhuis BV.
- KUBACH, W., 1983. Bronzezeitliche Deponierungen im Nordhessischen sowie im Weser- und Leinebergland. Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 30, 113–159.
- KYTLOCOVÁ, O., 1991. *Die Bronzegefäße in Böhmen* (Prähistorische Bronzefunde II:12). Stuttgart, Steiner.
- KYTLICOVÁ, O., 2007. Jungbronzezeitliche Hortfunde in Böhmen (Prähistorische Bronzefunde 20:12). Stuttgart, Steiner.
- LAET, S.J. DE & W. GLASBERGEN, 1959. De voorgeschiedenis der Lage Landen. Groningen, Wolters.
- LANTING, J.N. & J. VAN DER PLICHT, 2001/02. De ¹⁴C-chronologie van de Nederlandse pre- en protohistorie. IV: bronstijd en vroege ijzertijd. *Palaeohistoria* 43/44, 117–262.
- LAUX, F., 1971. Die Bronzezeit in der Lüneburger Heide (Veröffentlichungen der urgeschichtlichen Sammlungen des Landesmuseums zu Hannover 18). Hildesheim, Lax.
- LAUX, F., 1973. Die Fibeln in Niedersachsen (Prähistorische Bronzefunde XIV:I). München, Beck.
- LAUX, F., 1976. Die Nadeln in Niedersachsen (Prähistorische Bronzefunde XIII:4). München, Beck.
- LAUX, F., 2005. Die Äxte und Beile in Niedersachsen II. Stuttgart, Steiner.
- MARIËN, M.E., 1953. *Ages des metaux Belgique* (Inventaria Archaeologica: Belgique, 1st set). Antwerpen, De Sikkel.
- MEGAW, J.V.S. & D.D.A. SIMPSON, 1981. Introduction to British Prehistory, from the arrival of Homo Sapiens to the Claudian invasion. Leicester, Leicester University Press.
- MONTELIUS, O., 1900. Chronologie der ältesten Bronzezeit in Norddeutschland und Skandinavien. Braunschweig, Vieweg.
- MONTELIUS, O., 1917. Minnen från vår forntid. Stockholm, Norstedt.

- MOUCHA, V., 2005. Hortfunde der frühen Bronzezeit in Böhmen.
 Praha, Arch. Institut der Akademie der Wissenschaft der Tschechischen Republik.
- MÜLLER, J.H. & J. REIMERS, 1893. Vor- und frühgeschichtliche Altertümer der Prov. Hannover. Hannover, Schultze.
- MÜLLER-KARPE, H., 1959. Beiträge zur Chronologie der Urnenfelderzeit nördlich und südlich der Alpen (Römisch-Germanische Forschungen 22). Berlin, De Gruyter.
- O'CONNOR, B., 1980. Cross-Channel relations in the later Bronze Age. Relations between Britain, North-Western France and the Low Countries during the Later Bronze Age and the Early Iron Age, with particular reference to the metalwork (BAR International Series 91). Oxford, BAR.
- PÁSZTHORY, K. 1985. Der bronzezeitliche Arm- und Beinschmuck in der Schweiz (Prähistorische Bronzefunde X:3). München. Beck.
- PETRESCU-DÎMBOVIȚA, M., 1998. Der Arm- und Beinschmuck in Rumaniën (Prähistorische Bronzefunde X:4). Stuttgart, Steiner
- PIESKER, H., 1958. *Untersuchungen zur älteren lüneburgischen Bronzezeit* (Veröffentlichung des nordwestdeutschen Verbandes für Altertumsforschung und der urgeschichtlichen Sammlungen des Landesmuseums Hannover). Lüneburg, s.n.
- PLEYTE, W., 1877–1902. Nederlandsche Oudheden van de vroegste tijden tot op Karel den Groote. I. Tekst. II. Platen (Friesland: 1877; Drenthe: 1882; Overijssel: 1885; Gelderland: 1889; Batavia: 1899; West-Friesland: 1902). Leiden, Brill.
- RAFTERY, B., 1961. The Derrinboy hoard. *Journal of the Royal Society of Antiquaries of Ireland* 91, 55–58.
- RICHTER, I., 1970. Der Arm- und Beinschmuck der Bronze- und Urnenfelderzeit in Hessen und Rheinhessen (Prähistorische Bronzefunde X:1). München, Beck.
- SCHMIDT, P.K. & W. NITSCHKE, 1980. Ein frühbronzezeitlicher "Fürstenhügel" bei Dieskau im Saalkreis. Vorbericht Ausgrabungen und Funde 25, 179–183.
- SCHMIDT, P.K. & C.B. BURGESS, 1981. *The axes of Scotland* and northern England (Prähistorische Bronzefunde IX:7). München, Beck.
- SCHMIDT, J.-P. & N. KUHLMAN, 2007. Neues aus der Jungbronzezeit. Archäologie in Deutschland 2007:3, 48–49.
- SCHOKNECHT, U., 1970. Die Hortfunde von Wendorf, Kreis Waren. *Bodendenkmalpflege in Mecklenburg*, Jahrbuch 1970, 231–239.
- SCHOKNECHT, U., 1974. Ein bronzezeitlicher Hortfund der Periode V von Murchin, Kreis Anklam. *Bodendenkmalpflege Mecklenburg*, Jahrbuch 1974, 145–172.
- SMITH, M.A., 1958. *Late Bronze Age Hoards in the British Muse-um* (Inventaria Archaeologica GB, 6th set, GB 35-41). London, British Museum.
- SMITH, M.A., 1959. Some Somerset hoards and their place in the Bronze Age of southern Britain. *Proceedings of the Prehistoric Society* 25, 144–187.

- SPROCKHOFF, E., 1926. Das Depotfund von Barum (Kr. Lüneburg). Praehistorische Zeitschrift 17, 71–86.
- SPROCKHOFF, E., 1931. *Die Germanischen Griffzungenschwerter*. Berlin/Leipzig, De Gruyter.
- SPROCKHOFF, E., 1932. Niedersächsische Depotfunde der jüngeren Bronzezeit (Veröffentlichungen der Urgeschichtlichen Sammlung des Provinzial-Museums zu Hannover 2). Hildesheim/Leizpig.
- SPROCKHOFF, E., 1937. *Jungbronzezeitliche Hortfunde Nord*deutschlands (Periode IV). Mainz, Römisch-Germanisches Zentralmuseum.
- SPROCKHOFF, E., 1941. Niedersachsens Bedeutung für die Bronzezeit Westeuropas. Zur Verankerung einer neuen Kulturprovinz. Bericht der Römisch-Germanischen Kommission 31, 1–138.
- SPROCKHOFF, E., 1952. Zur jüngeren Bronzezeit von Holstein, Offa 11, 118–133.
- SPROCKHOFF, E., 1956. *Jungbronzezeitliche Hortfunde der Südzone des nordischen Kreises (Periode V)* I-II (Römisch-Germanisches Zentralmuseum zu Mainz Katalog 16). Mainz.
- SPROCKHOFF, E. & O. HÖCKMANN, 1979. Die gegossenen Bronzebecken der jüngeren nordischen Bronzezeit (Kataloge vor- und frühgeschichlicher Altertümer 19). Mainz, Verlag des Römisch-Germanischen Zentralmuseums/Bonn, Habelt.
- TACKENBERG, K., 1971. Die jüngere Bronzezeit in Nordwestdeutschland, I. Die Bronzen (Veröffentlichungen der urgeschichtlichen Sammlungen des Landesmuseums zu Hannover 19). Hildesheim, Lax.

- TAYLOR, J.J., 1980. Bronze Age Goldwork of the British Isles. Cambridge, Cambridge University Press.
- THRANE, H., 1965. Hoards of the Danish Bronze Age (Mont. IV) (Inventaria Archaeologica Denmark DK1-DK4). Bonn, Habelt.
- TORBRÜGGE, W., 1959. *Die Bronzezeit in der Oberpfalz* (Materialhefte zur Bayerischen Vorgeschichte 13). Kallmünz/Opf, Lassleben.
- VERLAECKT, K., 1995. Sociale evolutie tijdens de metaaltijden in Denemarken. Analyse en interpretatie van "depotvondsten" als basis voor een modelvorming van de samenleving in de late bronstijd en de vroege ijzertijd (ca. 1000 BC-O) I-II. Dissertatie Universiteit Gent.
- VERLAECKT, K., 2001. The Other End of the Nordic Rainbow: typological and societal reflections on hanging vessels and beltboxes from Late Bronze Age Denmark. In: W.H. Metz, B.L. van Beek & H. Steegstra (eds), Patina. Essays presented to Jay Jordan Butler on the occasion of his 80th birthday. Groningen/ Amsterdam, private publishing.
- VERLINDE, A.D., 1980. Prehistorische depots uit het Enterveen en Elsener Broek in West Twente. 't Inschrien 12 (ROB Overdruk 135), 17–25.
- WADDELL, J., 2000. The Prehistoric Archaeology of Ireland. Bray, WordWell Ltd.
- ZIMMERMANN, H.W., 1976. Ein Hortfund mit goldblechbelegter Plattenfibel und Goldarmreif vom Eekhöltjen bei Flögeln (Niedersachsen). Germania 54 (I), 1–16.

APPENDIX A: LIST OF EVERTED PALETTE BRACELETS

FRANCE

Blanchet, 1984:

Fig. 154:102. Amiens le Plainseau (Somme), France. Plain, slight bulge, hollow.

Fig. 154:103. Amiens le Plainseau (Somme), France. Single transverse rib, hollow.

Fig. 159:5. Dreuil (Somme), France. 3 transverse ribs, C-section.

Fig. 159:9. Dreuil (Somme), France. Incised decoration, C-section.

Fig. 159:10. Dreuil (Somme), France. Incised decoration, C-section.

Fig. 159:14. Dreuil (Somme), France. Incised decoration, solid.

Fig. 162:65, 67-8. Marlers (Somme), France. Plain, round section, solid; plain, C- section; incised decoration, round section, solid.

Fig. 164:37. Juvincourt-Damary (Aisne), France. Incised decoration, solid.

Fig. 165:1-7. Lyzel Saint-Omer (Pas de Calais), France. Incised decoration, solid.

Courtois, 1960: ("grande palettes")

Fig. 48:1-2. Aresle-Longue à L'Épine (Hautes Alpes), France. Incised decoration, C-section.

UK

Smith, 1958:

GB 38(1): Shoebury (Essex), UK. Incised decoration, C-section.

Taylor, 1980:

Fig. 53b-e. Walderslade (Kent), UK. Gold bracelet, incised decoration, solid.

Eogan, 1994:

Fig. 8:1-8. Bexley Heath I (Kent), UK. Hoard with eight gold bracelets, plain, C-section.

Fig. 9-7. Bexley Heath II (Kent), UK. Gold bracelet, plain, C-section.

Fig. 11:4-5. Tilsbury (Wilts), UK. Gold, plain, C-section.

GERMANY

Aschemeyer, 1966:

Taf. 34:7. Merfeld (Westphalia), Germany. Incised decoration, D-section, solid.

Richter, 1970:

Taf. 58:1045. Bad Homburg (Hessen), Germany. C-section, ribbed-incised decoration.

Taf. 58:1046. "Wiesbaden" (Hessen), Germany. C-section, plain.Taf. 59:1049-1051. Rüdesheim-Eibingen (Hessen), Germany.C-section, elaborated incised. decoration.

Richter, 1970: ("grande palettes")

Taf. 59:1047. Ockstadt (Hessen), Germany. Hollow, incised decoration.

Taf. 59:1048. Gambach am Dünnwald (Hessen), Germany. Hollow, incised decoration, extra-large palettes fused to each other.

SWITZERLAND

Courtois, 1960:

Fig. 52:3. Chevroux (Vaud), Switzerland. Incised decoration, C-section.

Fig. 53:1-2. Corcelettes (Vaud), Switzerland. Incised decoration, C-section.

Kimmig & Hell, 1965:

Fig. 76 (upper). Auvernier (Neuchâtel), Switzerland. Incised decoration, C-section.

Pászthory, 1985: (incised [elaborate] decoration, C-section)
Taf. 78:932-3, 944-5; Taf. 79-81; Taf. 82:922-3, 992-7; Taf. 83:1000-10, 1013-15; Taf. 84-86, Taf. 87:1052-4; Taf. 90:1092-1102; Taf. 97-130:1417. Switzerland, around Lac Leman and Lac de Neuchâtel

Courtois, 1960: ("grande palettes")

Fig. 52:5. Mörigen (Bern), Switzerland. Incised decoration, C-section.

NETHERLANDS

Butler, 1965:

Fig. 1. Drouwen (Drenthe), Netherlands. Three examples with transverse ribs, horizontal ribbing, flat section; three examples with 1-3 transverse ribs, no horizontal ribbing and almost flat to C-section.

Fig. 9. Hijken (Drenthe), Netherlands. Three examples with transverse ribs: two with (spaced) horizontal ribbing, one bracelet without horizontal ribbing, one spaced horizontal ribbed fragment; all almost flat to C-section.

Fig. 11. Bruggelen (Gelderland), Netherlands. Two examples with (spaced) horizontal ribbing; two bracelets without horizontal ribbing. Flat section.

Fig. 12. Elsen (Overijssel), Netherlands. Two examples with spaced horizontal ribbing, flat section.

BELGIUM

Van Impe, 1995-6:

tion, 3 transverse ribs, solid.

Fig. 8: Lutlommel, Konijnepijp (Limburg), Belgium. Two examples (C-section), in hoard with socketed axes of Plainseau type.

Marien, 1953: ("grande palettes") B.1 "Port Arthur", Gent (East-Flanders), Belgium. Incised decoraB.2:2 "Trieu des Cannes", Jemeppe-sur-Sambre (Namur), Belgium. Incised decoration, extra-large palettes, fused to each other, solid.

B.3 "Camp-à-Cayaux", Spiennes (Hainaut), Belgium. Plain, one palette broken off and missing, solid.

APPENDIX B: LIST OF FINDS WITH *NIERENRINGE*

DENMARK

 HJADSTRUP, FYN (Danish island). *Nierenring* of Var. 1. In hoard including sword with narrow tang, fragment of a sword blade, arm spiral with triangular section, disc-shaped head of a pin, circular pendant with cross-shaped spokes.

References: Sprockhoff, 1931: Taf. 13:10-13; Sprockhoff, 1956 (I): 188; Tackenberg 1971: 309, *Liste* 119:6.

 SØBY, ÆRØ (Danish island). Two *Nierenringe* of Var. 1. In hoard, with cast bronze bowl, three penannular bracelets, one chisel, fragments of a fibula (of Laux' Typ Dörmte) and one tutulus.

References: Broholm, 1949: 198, M 66; Sprockhoff, 1956 (I): 188; Sprockhoff & Höckmann, 1979: 85, No. 252, Taf. 330:330, Taf. 332:451; Tackenberg, 1971: 309, Liste 119:7.

GERMANY

ÖLIXDORF, KR. STEINBURG, near the Elbe mouth.
 Nierenring of Var. 2. In hoard together with one Nierenring of Var. 3 and two socketed axes with side-arches.

References: Kersten, 1939: 100, Abb. 111b-e (according to Kersten, the rapier there illustrated does not belong to the Ölixdorf hoard); Sprockhoff, 1952: 118ff, Abb. 1); Tackenberg, 1971: 309, *Listen* 120:5 and 121:2.

MURCHIN, KR. ANKLAM. In hoard (found in 1969 after deep ploughing), with two complete *Nierenringe* and two fragments of *Nierenringe*, all four of Var. 1 (and with D-shaped cross-section); 27 socketed axes and eight fragments of socketed axes with face arches (and with zero to two neck ribs); three socketed chisels; one gouge; three spearheads; seven sickles; 11 bracelets of other types (some in fragments); five necklaces (mostly in fragments), three needles (mostly in fragments), 13 casting jets and fragments of ingots; all in museum Waren.

Reference: Schoknecht, 1974: 159, Abb. 8:50-53.

 BARGFELD, KR. UELZEN. In hoard, including a Lüneburg fibula and flat bronze bowl with lid. *Nierenring* of Var. 2.

References: Bath, 1953/55: 55 ff, Taf. 31:4a-b; Tackenberg, 1971: 309: Liste 120:4.

RETHWISCH, KR. VECHTA, in the western part of Lower Saxony found in a sand pit. The find-spot is along the river Hunte. Contains three pairs of *Nierenring* bracelets (Var. 1, Var. 2 and Var. 3) in a hoard with a high winged axe; one razor (with S-shaped tang); one spectacle fibula of Laux' Type Dörmte (Laux, 1973: Taf. 41:222); one gold-leaf covered *Bügelplatte* of

a spectacle fibula of Laux' Type Oerel (Laux, 1973: Taf. 45:229; but there is no trace of this fibula and according to Sprockhoff, 1932: 52–54 and his Taf. 17 it is a *Bügelplattenfibel* of Per. V), fragments of a necklace, all found in an enigmatic pottery vessel

References: Sprockhoff, 1932: Taf. 12; Sprockhoff, 1941: Taf. 38:7; Laux, 2005: 19 and Taf. 52).

 EVERSHEIDE, NEAR OSNABRÜCK. Hoard? Grave? The three *Nierenringe* of Var. 2 from Eversheide near Osnabrück are almost identical to the two examples from Angelslo/ Bargeroosterveld, and are perhaps by the same hand.

Reference: Tackenberg, 1971: 309, Liste 120, Taf. 40:3-5.

GRASDORF, KR. VERDEN (= Ottersberg, Kr. Verden).
 Nierenring of Var. 1, found with looped palstave.

References: Sprockhoff, 1937: 9; Tackenberg, 1971: 309: Liste 119:3; Taf. 40:1.

EGGESTEDT, KR. BLUMENTHAL. One *Nierenring* of Var.
 1.

References: Sprockhoff, 1932: Taf. 18:C; Sprockhoff, 1937: Taf. 18:10; Sprockhoff, 1941: Taf. 38:5.

 WICKBRANZEN, KR. GRAFSCHAFT HOYA (20 km S of Bremen). Hoard? Grave? Stray find? Nierenring of Var. 1.

References: Müller & Reimers, 1893: Taf. 8:68; Tackenberg, 1971: Liste 119:2

NIEDER-OLM (or Niederolm), Kr. Mainz-Bingen, Rheinland-Pfalz. In hoard, acquired in 1884 by Museum Worms. Contains two socketed axes (one has plastic D-shaped wings and large angular loop with midrib; a *Lochsichel*; pair of *Nierenringe* (of Var. 2); pair of plain penannular bracelets; pair of plain interlocked rings.

Reference: Tackenberg, 1971: Liste 120:6 with inventory; 216, 237, 309; Taf. 14.

AFFERDE, Kr. HAMELN-PYRMONT. Small mixed hoard with a *Nierenring* of Var. 2, along with a paw bracelet (with related ornamentation); a penannular bracelet with incised decoration, a partly twisted penannular bracelet, an armring with ancient breaks; one socketed axe with plastic wings, biconical collar (with raised-triangular motif thereunder) and furrow ornament (of Var. Afferde according to Laux, 2005: 58, Taf. 45: lozenges); and a plain socketed spearhead.

References: Sprockhoff, 1941: 94–95, Abb. 77; Jacob-Friesen, 1967: Taf. 172:1-7; Tackenberg, 1971: 36, 219, Liste 12:7; Kubach, 1983: 148-149, Liste 2:14, Abb. 19; Laux, 2005: 58–59, Kat.Nr. 256.

 SCHNEGA, KR. LÜCHAU-DANNENBERG. Nierenring of Var. 1, in hoard with a looped mid/highwinged axe, fragment of a socketed axe with face arches and two neckribs, a leaf-shaped spearhead and a fragment of spearhead, one penannular bracelet and a partly twisted armring.

References: Sprockhoff, 1937: 19; Jacob-Friesen, 1967: Kat. 997, Taf. 128:13-27); Laux, 2005: Taf. 51B: 1-16); several tutuli (as Jacob-Friesen, 1967: Taf. 128:18, 21, 23); looped buttons in several varieties (as Jacob-Friesen, 1967: Taf. 128:26). The tutuli and the buttons in this hoard invite comparison with the Netherlands hoard of Drouwenerveld (Butler, 1984: 138, fig. 6).

WENDORF, KR. WAREN (Mecklenburg-Vorpommern). One Nierenring of C-section (of Var. 2) in hoard of 1860 (hoard II), with the lower part of a cast bronze hanging vessel, bracelets of other types, twisted and untwisted neck rings, three socketed axes of East-European type, one high-winged axe, five Plattenfibeln (four of them of Laux' type Oerel), fragment of tanged sword/dagger/knife?

Reference: Schoknecht, 1970: 231-239.

 (SEVERAL) EXAMPLES WITHOUT EXACT PROVEN-ANCE from the neighbourhood of Osnabrück mentioned by Sprockhoff (1941: Taf. 38:3 [of Var. 2]) and by Tackenberg (1971: 214 ff; assigned to his Var. 2).

NETHERLANDS

– ANGELSLO, (BARGEROOSTERVELD), GEMEENTE EM-MEN, DRENTHE (hoard of 1900). Contains: a single pair of *Nierenring* bracelets (oval, with ribbed ornamental swelling) of Var. 2; a plain palstave with loop, of a West European type (Cat. No. 233); a fragment of a second *palstave* of the same type Cat. No. 234); a single-edged Central European "Urnfield" *knife*; three fragments of one or more *bracelets* with midrib; and a small rod or pin (lost, unrecorded and undrawn).

Reference: Butler & Steegstra, 1998/99: 195–197, fig. 59 (palstaves only)

Possible *Nierenringe* (of Var. 2 but without ribbing) in Denmark (not on map 3):

- Hjortlund Sogn, Ribe Hd (Broholm, 1949: Pl. 31:13)
- Høje, Lunde Sogn, Sunds Hd (Broholm, 1949: 256, M 225a)

APPENDIX C: LIST OF FINDS WITH TYPE OEREL SPECTACLE FIBULAE

** = Gold covered

DENMARK

Broholm III (1946):

- Eilby Sogn, Skovby hd. (M. 46)
- Kjelleklintegaard, Ubby Sogn, Arts hd. (M. 113)
- Stade, Hemmeshøy Sogn, Slagelse hd. (M. 130)
- Kjertinge mark, Kjølstrup Sogn, Baarse hd. (2 examples) (M. 159)
- Fangel Torp, Fangel Sogn, Odense hd (M. 163)
- **Harridslev, Skovby Sogn, Skovby hd, Odense amt (M. 164)
- Lykkesholms Mose, Skæve Sogn, Dronninglund hd (M. 179)
- Pederstrup, Løvel Sogn, Nørlyng hd (M. 192)
- **Flemlose Sogn, Baag hd Odense (Broholm IV, 1949: Taf. 20:1)
- Hjortebjerg, Allinge Sogn, Bornholms Nørre (M. 216)

Baudou, 1960: Taf. XV, XVI

- Funder Sogn, Hids hd, Viborg amt (p. 329, XXIV E1)
- Vinding hd, Svendborg amt (p. 330, XXIV E4)

Thrane, 1965: DK 3:8

Midskov hd, Odense amt (=Broholm III, p. 189, M 38)

Jacob-Friesen, 1967:

 Femö, Maribo Amt. (I) No. 428; (II) (Taf. 171:12) (= Broholm III, M 143)

Zimmerman, 1976:

- Bogense-Vestergade, Odense amt (Taf. 7)

SWEDEN

Montelius, 1917:

- M 1339: Kinda hs, Ög.;
- M 1340: Karreby sn, Inlands Södra hd, Bohuslän;
- M 1341: Äpplerum in Repplinge sn, Öl. Hoard? Found while ploughing, close to three identical *fibulae*;
- M 1342: (fragment: one plate) Vegestorp, Bohuslän (=8). Hoard, found 3 ft deep in peat, existing of three "saws" (M. 1269), a spearhead, an awl, three complete Oerel *fibulae* and one fragment, four necklaces, two funnel-shaped belt-decorations and a casting jet; in the neighbourhood a second hoard was found with among other bronzes a cast bronze bowl;
- M 1343: Slimminge by o. sn, Vemmenhögs hd, Skåne. Hoard, with cast bronze bowl;
- M 1344: St. Dalby, Öl. Found 2 ft deep while digging trenches.
 Hoard with seven "saws" (M. 1271), two ear-rings, two Type

- Oerel *fibulae*, one funnel-shaped belt-decoration and a cast bronze bowl;
- M 1345: Öllöf i Grefvie sn, Bjäre hd, Skåne. Hoard, found 1
 ½ ft deep while ploughing, consisting of a funnel-shaped belt-decoration, a cast bronze bowl, a spiral bracelet, and a resin nugget;
- M 1346: Åketorp i Repplinge sn, Öl. Stray find;
- M 1347: Äleklinta, Alböke sn, Öl. Hoard? Found in peat with funnel-shaped belt decoration, next to a hanging bowl;
- M 1348: Grönhult, Skåne (= 10). Hoard. Found 15 cm deep in a field, together with a spearhead, two fragments of a sword blade, one razor (M 1108), one necklace (like M 1274), one Type Oerel *fibula*, two funnel-shaped belt decorations (M 1385, M 1389) and a cast bronze bowl (M 1395), fragments of a cast bronze bowl and other fragments, all of bronze;
- M 1349: Ingelstadts hd, Skåne. Found in a field, with burnt bones and charcoal, next to a spearhead and a socketed axe;
- M 1350: Stenbro i Silte sn G. (=17) (Götland). Hoard, found in a field, with seven "Wendelringe" (among them M 1296, M 1297), 15 single arm rings, one Type Oerel fibula, one cast bronze bowl (like M 1397);
- M 1351: Stenåsa sn, Öl. Maybe from cist grave! Fragment (part of fibula);
- M 1352: Ullstorps by o. sn, Ingelstads hd, Skåne. Hoard? found
 3 ft deep in a field, very close to a cast bronze bowl (M 1398)
 and a neck ring (M 1277);
- M 1353: Häradshammars sn, Östkinds hd, Ög. Hoard, found in a bog, together with a neck ring (M 1457).

Baudou, 1960: Taf. XV, XVI

- Västerås 3174, Västmanland (p. 330, XXIV E 3b)
- Stenbro Hort 149, (p. 330, XXIV E5) (see Montelius 1350)

Jacob-Friesen, 1967:

- Vegestorp, Bohuslän, Taf. 138:3. Hoard, see Montelius 1342
- Valleberga, Schonen (Taf. 145:3). Hoard with a socketed axe and a spearhead
- Grönhult, Schonen (Taf. 149:9). Hoard, see Montelius 1348

Zimmerman, 1976:

**Rönnebergs hd, Saxtorp Sogn, Landskrona SW (Taf. 5)

GERMANY

Sprockhoff, 1956 (II):

- Hakenberg, Kr. Osthavelland (Taf. 52:8)
- Lenzersilge, Kr. Westprignitz (Taf. 52:4), hoard
- Metschow, Kr. Demmin (Taf. 50:10)
- Steinbeck, Kr. Oberbarnim (Taf. 50:8), hoard

- Staffelde, Kr. Soldin (Taf. 49:10), hoard
- Liebnitzsee, Kr. Nieder-Barnim (Taf. 49:5), hoard

Jacob-Friesen, 1967:

Gambach, Kr. Friedberg (Hessen) (Taf. 155:4). Hoard with o.a. spearhead, high winged axe with loop, socketed knife, tanged knife, sickle, three interlocked rings (with small dangling rings), bracelet with one huge palette, small pennanular bracelet, and a pendant.

Schoknecht, 1970: p. 237, Abb. 190:31

– Wendorf 2, Kr. Waren (hoard with among other things one Nierenring [cf. Hundt, 1997: Taf. 25:8], one cast bronze bowl, one fragmented knife/dagger, numerous C-bracelets, necklaces, four socketed axes and four Type Oerel Plattenfibeln; cf. Hundt, 1997: Taf. 25:10, 13, 14, 16.

Richter, 1970:

 Haimbach, Haimberg, Kr. Fulda, Hessen (3 examples): Taf. 94:9-11

Laux 1973:

- Deinstedt, Kr. Bremervörde (Kat. 225)
- Franzenburg, Kr. Land Hadeln (Kat. 226). Stray find from potato field
- Oerel, Kr. Bremervörde (Kat. 227)
- Eversheide, Osnabrück (Kat. 228)
- Rosdorf, Kr. Göttingen (Kat. 230)
- Watenstedt, Kr. Helmstedt (Kat. 231)
- Watenstedt, Kr. Helmstedt (Kat. 232)
- **Emmendorf, Kr. Uelzen (Kat. 233)

Zimmerman, 1976:

- **Flögeln, Kr. Wesermunde (Abb. 1-2:1, Taf. 2:1a-b). Hoard.

Sprockhoff & Höckmann, 1979

- Biesenbrow, Kr. Angermünde, Bez. Frankfurt/Oder, (p. 95, No. 317)
- Katerbow, Kr. Neuruppin, Bez. Potsdam 2 stuks (p. 99, No. 337)
- Löwenberg 1, Kr. Oranienburg, Bez. Potsdam (p. 100, No. 343)
- Schwennenz, Gem. Grambow, Kr. Pasewalk (p. 105, No. 369)
- Pohnsdorf, Kr. Plön, Schleswig-Holstein (p. 113, No. 413)

Hundt, H.-J., 1997:

- Kr. Stargard (no further provenance) (Taf. 31:2)
- Parchim, Kr. Parchim (Taf. 31:3)
- Kratzeburg, Kr. Stargard (Taf. 31:4)

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**Götemitz, Lkr. Rügen (stray find)

POLAND

Sprockhoff & Höckmann, 1979:

- Schonebeck (now Dzwonowo, pow. Stargard Szczeciński): 93, No. 306
- Hökendorf (now Klêskowo, pow. Szczecin): 92, No. 303
- Karolinenhof (now Cieszyce, pow. Gryfice): 92, No. 304

NETHERLANDS

this paper:

- Drouwen (1939 hoard)
- Bonnerveen (hoard)
- Noordwijkerhout (stray find)