BEYOND URNFIELDS

New Perspectives on Late Bronze Age – Early Iron Age Funerary Practices in Northwest Europe

Edited by
Helene Agerskov Rose, Lisbeth Christensen
and Arjan Louwen

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https://doi.org/10.2369/9783869354439.18-dziegielewski

SCHRIFTEN DES MUSEUMS FÜR ARCHÄOLOGIE SCHLOSS GOTTORF

Ergänzungsreihe

Band 16

Herausgegeben vom Museum für Archäologie
durch Ralf Bleile
und dem Zentrum für Baltische und Skandinavische Archäologie
in der Stiftung Schleswig-Holsteinische Landesmuseen
Schloss Gottorf
durch Dieter Quast
in Kooperation mit dem Museum Sønderjylland – Archäologie
vertreten durch Lennart S. Madsen

https://doi.org/10.2369/9783869354439.18-dziegielewski

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Papers presented at the online session
'A community of ancestors: the urnfield phenomenon in northern Europe' at the 27th European Association of Archaeologists (EAA) Annual Meeting, Kiel 2021
and
the online symposium
'The URNFIELD tradition of the North',
Haderslev 2022

Ludwig

https://doi.org/10.2369/9783869354439.18-dziegielewski

Bibliographical data of the German National Library: The German National Library catalogues this publication in the German National Bibliography; detailed bibliographical information is available online under https://portal.dnb.de.

Bibliografische Information der Deutschen Nationalbibliothek: Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über https://portal.dnb.de abrufbar.

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Copy-editing: Gundula Lidke, ZBSA, SSHLM, Schloss Gottorf, Schleswig
Layout, typesetting and image editing: Cornelia Lux-Kannenberg, SSHLM, Schloss Gottorf, Schleswig

2023 Centre for Baltic and Scandinavian Archaeology (ZBSA) in the Foundation of the Schleswig-Holstein State Museums (SSHLM), Schloss Gottorf, Schleswig, Germany.

Print and distribution:
© 2023 Verlag Ludwig
Holtenauer Straße 141
24118 Kiel
Tel.: 0431-85464
Fax: 0431-8058305
info@verlag-ludwig.de
www.verlag-ludwig.de

ISSN 2364-4689
ISBN 978-3-86935-443-9

Printed on acid-free and age-resistant paper
Printed in Germany









https://doi.org/10.2369/9783869354439.18-dziegielewski

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Urnfields in their own way: The Late Bronze Age on the southern Baltic coast (middle and eastern Pomerania)

Karol Dzięgielewski

Keywords: Late Bronze Age, Pomerania, barrows, pastoralism, bronze networks

Abstract: The traditionally perceived vision of the Late Bronze Age in Pomerania (northern Poland) emphasised the affinity of this region to other lands occupied by the Lusatian culture, an entity understood then as a self-conscious macrostructure. There was, for example, an attempt to downplay differences in the forms of material culture, such as bronze items. This had an unambiguous historical and political dimension (e.g. similarities to the Nordic Bronze Age were considered in such categories). More recent studies on socio-economic relations in Pomerania at the turn of the Bronze Age to the Early Iron Age indicate that the differences of the region in relation to the lowland areas of Greater Poland or Silesia went far beyond a greater or lesser affinity between the forms of material culture. Pomeranian communities differed from typical agrarian Lusatian (Urnfield) groups primarily in their more extensive and mobile type of economy and a model of social organisation that was adapted to it. Specific burial rites or ways of manifesting status, visible in hoarding rituals, were just a derivative of these differences. The coastal location of the region played a key role, favouring the maintenance of a network of contacts facing west and north, but not south, as in the case of the interior communities. Moreover, it allowed access to a unique local raw material: amber. The 'rediscovery' of this resource in the Late Bronze Age and the resulting supra-regional consequences helped to reinforce the uniqueness of the communities along the Baltic coasts in the Urnfield world.

Introduction

It has long been accepted that the Urnfield cultures of the central European Late Bronze Age, the Lusatian culture (LC) included, relied on mixed farming, although not without regional differences (see e.g. Harding 2000; De Hingh 2000; Przybyła 2017; Urban 2019; Korczyńska et al. 2019; Gocman 2021). Complex cereal farming, with newcomer crops such as millet, is one of the hallmarks of the Late Bronze Age (1300–750 BC) in this part of the continent, along with cremation and an egalitarian, monogamous social structure (Harding 2000; Przybyła 2013). The prevalent opinion is that 'the entire Urnfield culture in Europe is unequivocally linked to very stable settlement structures based on stationary livelihood models (horticulture and grain farming + animal husbandry)' (Kaczmarek 2017, 273).

Although the evidence for this view is inconclusive, the model itself is generally accepted for all parts of western Poland, including Pomerania, i.e. the southern Baltic coast (Gedl 1975, map 2; Kaczmarek 2017, fig. 20). In terms of terminology, since the mid-20th century, archaeological sources

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from the Late Bronze Age were being distinguished there as the 'West-Pomeranian' and 'East-Pomeranian (Kashubian)' groups of the LC (Kostrzewski 1958; Gedl 1975). These regional variations of the LC were also collectively coined 'the Coastal Lusatian culture' by Dąbrowski (1980). As with other regional LC groups, it was understood then as a self-conscious macrostructure, with its own peculiarities in dress and pottery decoration (Gedl 1990), and even its own 'armed forces' (Fogel 1979). Its differences from the southern LC groups were perceived mainly as regional 'ethnographical' traits; a local variant of more or less similar Lusatian societies. Although the degree of unification of Pomerania with the Lusatian south is a fact in some aspects of the culture (mostly in pottery forms; see Kostrzewski 1958; Dąbrowski 1980, 44; Uciechowska-Gawron 2007), there are mainly historiographical reasons for these similarities being underlined in the literature. As a result of pre-Second-World-War Polish-German disputes over the ethnos of Bronze Age communities, attempts were made to downplay the similarities of Pomerania to the north (the Nordic Circle), and the attachment to the 'Lusatian' milieu was brought to the fore (e.g. Kostrzewski 1958; cf. Bukowski 1998, 190; Szczurek/Kaczmarek 2022, 163–164).

Focusing on similarities among the Lusatian culture complex, resulting in the abandonment of the older, detailed divisions of regional 'Lusatian groups' (*sensu* Gedl 1975) seems to be an ongoing trend in Polish archaeological research (cf. Dąbrowski 1980; 2009; Kaczmarek 2017). However, one has to underline some differences and treat the western and central-to-eastern part of the Polish Baltic coast separately. Both areas represent parts of historical Pomerania between the Noteć river valley (the Toruń-Eberswalde *Urstromtal*) and the Baltic Sea. However, in the Late Bronze Age, the western part, the areas of the lower Odra/Oder river basin and the Szczecin Plain, to a greater extent reproduced the central European model of the Urnfield culture (cf. Ślusarska 2022; this volume), with some exceptions, such as, for instance, the use of barrows in the funeral rite (e.g. Kaczmarek 2015). The dynamics of the spread of the Urnfield phenomenon (or at least cremation) support the idea of a consistent movement from the west. At the onset of the Late Bronze Age (in the Warzenko phase,[1] dated to Montelius' Periods III and III/IV), the first cremation burials appeared in the morainic ridge of middle and eastern Pomerania (hereafter 'ME Pomerania'), heading from the direction of western Pomerania (via the lower Odra/Oder river) and bringing elements of the early-Lusatian knobbed pottery style. In subsequent phases (the Siemirowice phase, dated to Periods IV and IV/V, and the Władysławowo phase, dated to Periods V and VI [HaC]), the phenomenon reached the eastern Pomeranian fringe: the Bay of Gdańsk coast (cf. Kostrzewski 1958; Gedl 1990; Bukowski 1998; Dzięgielewski 2017). However, what I want to show here is that the cultural model east of the lower Parsęta and upper Drawa rivers – that is, in ME Pomerania (Fig. 1) – even in its younger stages differs greatly from the general Urnfield pattern.

There are other reasons to expect that this region may naturally deviate from the 'canonical' Lusatian culture. These may include its very geographical position – the mostly bare and infertile lakeland bordered by the coastal lowland and the Baltic Sea to the north and east, and by the almost impassable wetland valley of the Noteć river to the south. Moreover, in the Early Iron Age, a new phenomenon appeared right here: the Pomeranian culture (PC), widely known for its face urns and many other peculiarities unknown to the Early Iron Age Lusatian culture elsewhere (Kwapiński 1999; Kneisel 2012; Dzięgielewski 2017; Niedziółka 2018a). There is no reason to think that this new cultural model was completely foreign to the southern Baltic coast. On the contrary, we can trace the roots of most cultural features of the PC back to the Late Bronze Age, to the Urnfield period.

1 The chronology and periodisation used here follow the schemes by J. T. Podgórski (1992), adopted by the author (Dzięgielewski 2017, 299–300 fig. 2).

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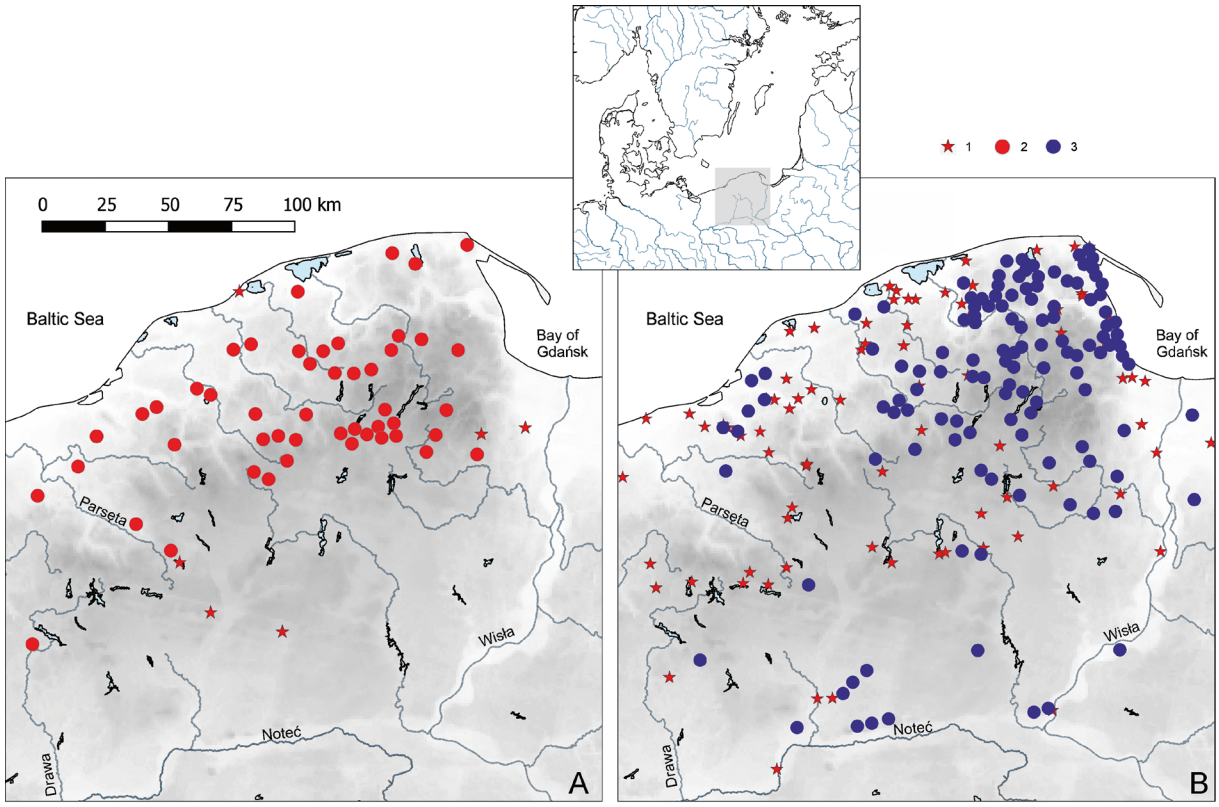


Fig. 1. Middle and eastern Pomerania in the developed Late Bronze Age. A: Period IV to early V; B: younger Period V and VI/HaC. 1: Hoards; 2: Barrow cemeteries of the Siemirowice phase (including alleged sites); 3: Flat and barrow cemeteries of the Władysławowo phase (graphics K. Dzięgielewski).

The purpose of this chapter is to point out the economic and social specificity of the coastal communities of the Late Bronze Age that can support evidence for the fundamental differences between them and the 'core' Lusatian regions in the hinterland (Silesia, Greater Poland, central Poland). These variations go deeper than just 'ethnographic' differences in dress or pottery style.

Social organisation in Late Bronze Age ME Pomerania

For the younger part of the Late Bronze Age onwards, i.e. Period IV (Phase Siemirowice; Dzięgielewski 2017, 300 fig. 2), we are able to look more closely at aspects of culture beyond the mere distribution of single dated graves and artefacts. At least, we have a considerable number of graves and necropolises at our disposal to tell us something about the society behind them.

The most striking feature of local cemeteries, shared with many northern counterparts (e.g. Thrane 1990), is that they are not 'urn fields' but are actually 'mound fields'. What should be underlined is that these are not old cemeteries of the Tumulus era with just added urned burials; most of them are cemeteries that were newly established in the Late Bronze Age. The barrows are usually not monumental, only reaching sizes of up to several metres in diameter and up to 1.5 metres in height. Frequently, the mounds were set in linear or group arrangements (Fig. 2). They are dominant but not exclusive types of burials. Some flat urn burials, which are the 'less effort' form of grave, as well as burials dug into the older mounds (even into the megalithic tombs of the Neolithic age) are also present. However, if we exclude western Pomerania (from the Drawa river westwards), we can barely discern flat, long-used urnfields from Periods III, IV, and early V. There are, of course, graves between

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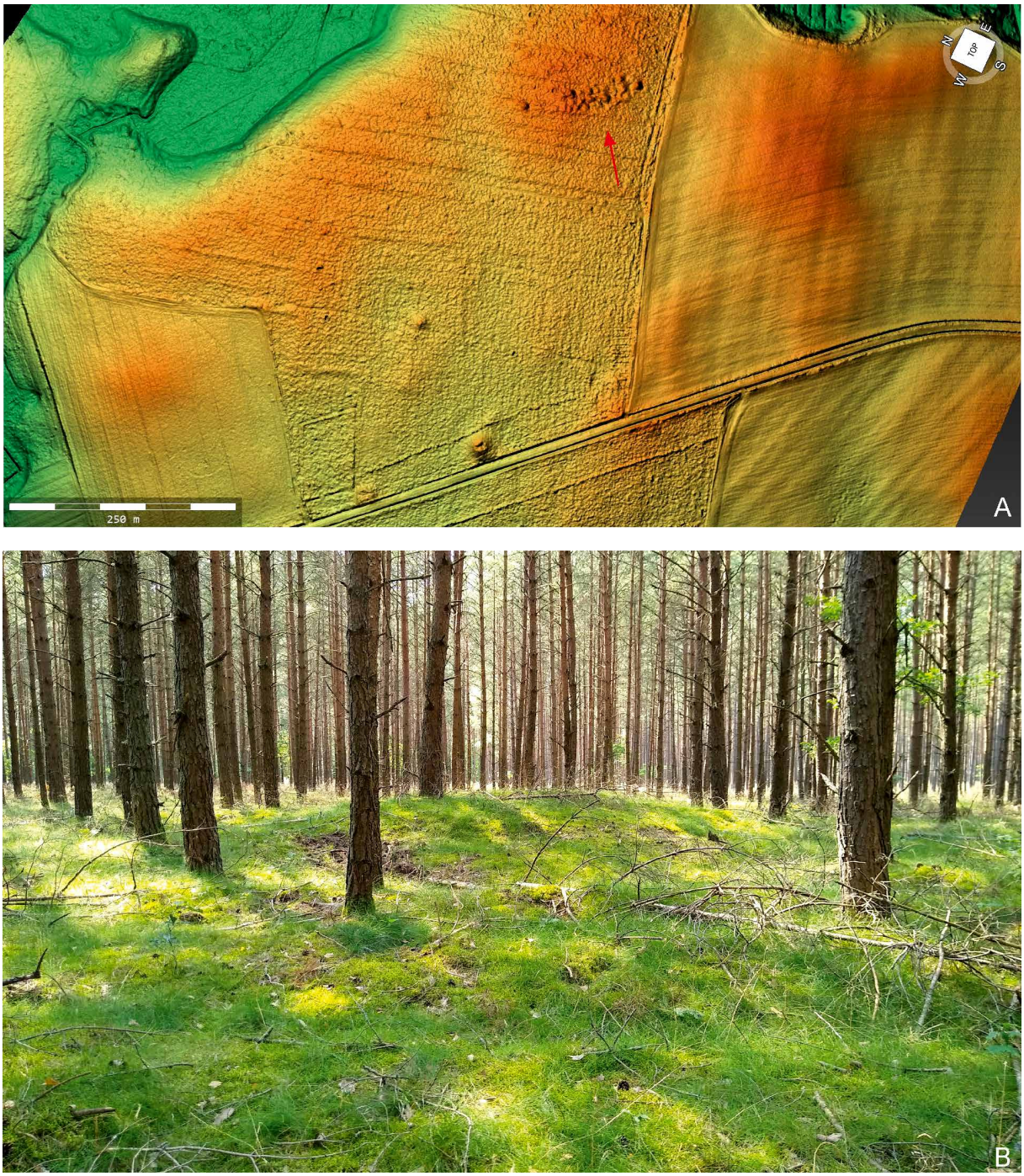


Fig. 2. Cetyń (Kołczygłówki), Bytów District. Barrow cemetery partially excavated in the pre-Second-World-War period (see Kostrzewski *1958, 279;* Podgórski *1992, fig. 1:3). A: LiDAR data elaboration (© planlauf/TERRAIN); B: Photo of one of the barrows of the southeast group by T. Wiktorzak (graphics T. Wiktorzak, K. Dzięgielewski).*

mounds, but 'pure' flat cemeteries are rare (e.g. Skrzypek 1975; for more examples from the border of western Pomerania, see Kostrzewski 1958; Cieśliński/Kasprzak 2020). Let us have a closer look at one of the better-recognised examples of east Pomeranian barrow cemeteries.

The Siemirowice necropolis (Lębork District) consists of more than 100 burial mounds with stone constructions, the heart of which are usually large stone heaps or cists made of slabs with numerous urned and unurned cinerary burials inside (Szymańska 1977; Janiak 2014). The advantage of barrow

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or stone cist constructions as an archaeological source is that they probably represent family clusters (such an interpretation is usually simply assumed, e.g. Łuka 1971, 85; Kneisel 2012, 337–360; 2018, 188; Janiak 2014, 229; Dzięgielewski 2017, 317; Ślusarska 2020, 199; more in-depth discussion in Malinowski 1969, 110–115; Hensel 1988, 401–405; Adamik 2012, 99–100). Looking at the sex and age structure of the deceased in Siemirowice, one can see that most of these constructions consist of burials of an adult woman and children (nine out of 16 barrows excavated), or an adult man with several women and children (four out of 16 barrows). There is only one out of 16 barrows examined that contained the remains of two men. In another article, I have considered this evidence of polygyny or serial monogamy (Dzięgielewski 2017, 316–321). Since we are dealing here with cremated individuals, the meaning of the revealed structure must not be an accurate reflection of the past society. One of the problems with the use of these data is the accuracy of sex determinations (cf. Ślusarska 2020).[2] What is supportive for this particular proposition is the fact that, in Siemirowice, in most graves with one or two children, the adult person was a woman (Szymańska 1977), which seems to be in line with the general observation on the close relationship between mothers and their (younger) children and with the fact that, in prehistory, child mortality was correlated with the mortality of women (e.g. Rebay-Salisbury 2016). Another problem is more general and concerns the possibility of accepting multiple burials as directly representing social structure. One can argue that age-sex ratios in such graves may well represent social ties other than those of a nuclear family.[3] Even if one assumes that the reasons for burial in a common cist or barrow were other than belonging to a conjugal family, it does not explain the scarcity of individuals of a certain sex (in this case males) in the entire cemetery, as the sex ratio in the model community should be close to natural (1.05 at birth or 1.00 at the age of first reproduction; Chamberlain 2006, 18–19). In Siemirowice, this ratio was closer to 0.4 (males/females).[4] Of course, we know many prehistoric cemeteries in which the sex ratio deviates from the natural one for reasons unknown to us. Therefore, the above hypothesis should only be considered as one possible explanation. However, if we agree that this picture may reflect a polygamous matrimonial model, then we should expect that other burial places would show a deficiency of women. We may point to some such examples (Grabowo Parchowskie, Bytów District; Lachowicz 1968; Rożnowski 1968), although, due to the state of anthropological investigations, they are very few. Probably, these would be cemeteries (e.g. Grabowo) that lay deeper in the moraine land, are poorer in metals and prestige goods and have a prevalence of flat ('low effort') burials.

What are the further consequences if we assume that from late Period III to early Period V middle and eastern Pomerania saw polygyny or serial monogamy as the accepted mating system? As we know from evolutionary biology and anthropology, one of the main conditions for human societies to step over the 'polygyny threshold' and make it an evolutionary stable strategy is the possibility of dividing fitness-related resources among numerous offspring without their depletion (Przybyła 2013; 2014, 172–175). This possibility is offered frequently in the economic systems of hunter-gatherer, horticultural, or pastoralist communities (Fortunato/Archetti 2010, 154). In this particular historical and environmental setting, the last of the mentioned modes of subsistence economy may be taken into account. In this context, it is also worth noting the well-known close link between pastoralism/mobile lifestyle and barrow construction (cf. Anthony 2007; Włodarczak 2011) and

2 Although one should keep in mind the limitations of the sex assessment of burned human bones, the sense and usefulness of sexing them is not generally challenged. Model studies on the cremated bones of individuals of known sex show 67–79 % correct classifications by means of conventional osteometric methods (Nikita 2021, 8; Hałuszko 2022, 157–160 tab. 8.2), which should allow us, with reservations, to build social-organisation hypotheses on this sort of data.

3 I would like to thank Arjan Louwen for pointing this out.

4 Among a group of 25 individuals, the expected value should be 13 men and 12 women according to the human sex ratio (1.05), while the observed figure is seven men and 18 women (0.38). There is statistical significance in this difference, although it is not very strong (chi-square test value = 3; $p = 0.08$).

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also the relationship between extensive forms of economy, such as cattle breeding, and the 'round mound'-form of monumentality in prehistoric northern Europe (Holst/Rasmussen 2013; Brozio et al. 2019).

Subsistence economy in Late Bronze Age ME Pomerania

There are substantial obstacles that prohibit the tracing of direct evidence for the pastoral mode of economy in the archaeological record, but a telling fact is that there are virtually no permanent settlements in ME Pomerania. Despite many rescue archaeology activities in Pomerania in recent years, we cannot name an example of a long-used settlement from Period III to early V that would consist of numerous storage facilities, permanent buildings, food procurement places, etc. (cf. Bukowski 1998, 194). Some recorded cases of short-lived settlements are, due to the state of preservation (or also because of their light construction), very modest in terms of archaeological, osteological and botanical sources (e.g. a settlement in Rębielcz, District Gdańsk, yielding less than 50 Bronze Age features and 122 fragments of pottery, of which only a part is connected with the Late Bronze Age phase of occupation; cf. Ostasz et al. 2011, 15–19). The scarcity of settlement structures results, of course, in a lack of direct osteological evidence for possible herding, since few settlements in ME Pomerania have yielded faunal assemblages. Unfortunately, funeral contexts in this area are also almost devoid of animal bones (cf. Abłamowicz/Kubiak 1999, map 1). Therefore, searching for indirect proof may prove useful.

Archaeobotany and palynology can provide direct proof of grain farming, although the former cannot help when there is a scarcity of cultural contexts (settlements) that could be sampled. However, the potential of pollen sources is significant, since the intensity of cereal pollen signals in the palynological record is negligible before 1000 BC in the discussed area (Ostoja-Zagórski 1989; Latałowa 1997; Dzięgielewski 2010, 177–178 fig. 3; Lamentowicz et al. 2019 [with the peak of cultivation a bit too early compared to archaeological evidence from the region]). With reference to the Warzenko and Siemirowice phases (1300–900 BC) in ME Pomerania, it is difficult to speak about a stable economy based on extensive agriculture and cereal cultivation, which are rarely confirmed in the palynological record or in the macroscopic botanical remains. This situation completely changes in the subsequent Władysławowo phase (after 900 BC; 2nd half of Period V – Period VI), which saw an extraordinary rise of permanent settlements across ME Pomerania. From this period on, a distinct trend can be seen in the economy of these areas toward the intensification of food production, with a still-important role for livestock, especially cattle and small ruminants. The availability of arable land combined with the intensification of agriculture was soon followed by a population growth after 900 BC. It is only from that period onwards that Pomeranian settlements resemble large, long-used habitation places, typical of an agricultural mode of economy, similar to those of the Lusatian culture in the areas south of Pomerania. These are smaller or larger settlement units with post buildings, storage pits (some containing huge amounts of grain) and food procurement areas, for example, in the form of clusters of hearths used for hot stone technology (boiling and cooking with heated stones), furnaces, and other structures (Dzięgielewski 2017, 303–304 fig. 4; see Fig. 3). Some of the excavated sites of this type were published in a satisfactory manner (see e.g. Fudziński/Ślusarska 2017; Dziechciarz 2018), but most of them are known from brief reports that only allow for general observations, in line with the picture presented here (e.g. Górska-Grabarczyk 2009; Koperkiewicz et al. 2009; Strobin/Molęda 2013; Żurawski 2014).

In the Władysławowo phase, a significant settlement expansion can be observed in the lowland belt of the Baltic coast, especially along the coast of the Bay of Gdańsk and the Pomeranian proglacial valleys (Grabowa, Reda-Łeba, lower Vistula or Noteć valley; cf. Fig. 1; Dzięgielewski 2017; 2018).

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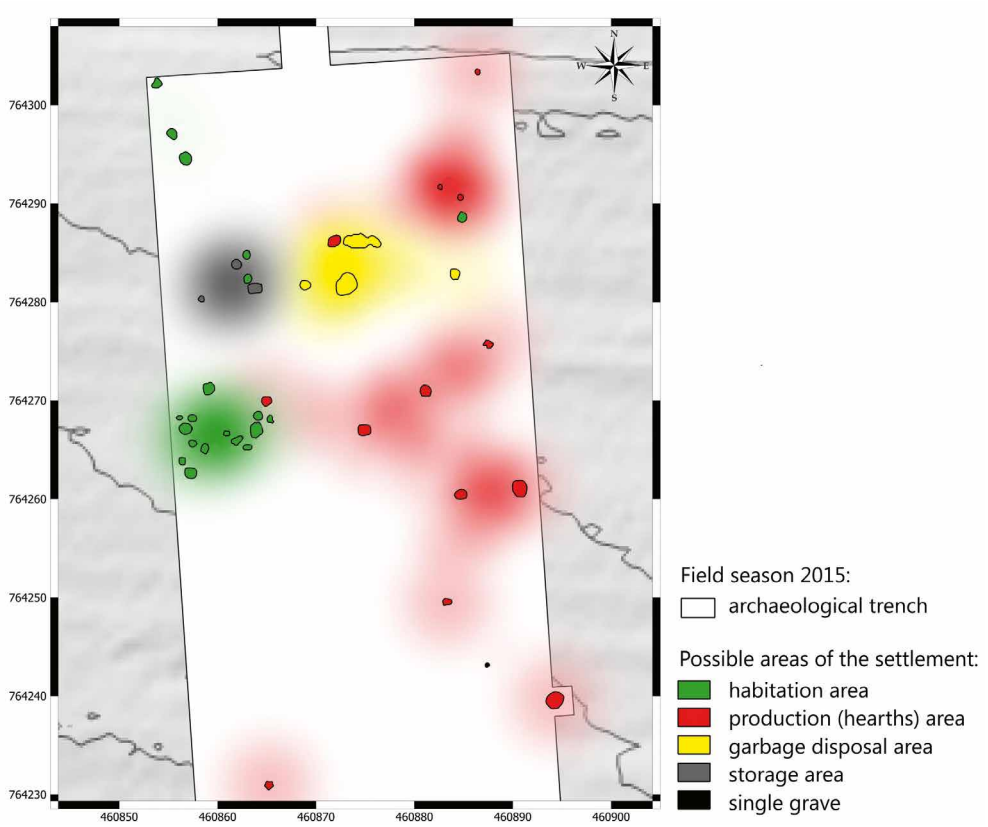


Fig. 3. Gnieżdżewo, site 4 (AZP 03-42/35), Puck District. The functional interpretation of the lay-out of a part of the Early Iron Age settlement (after Dziechciarz *2018; graphics P. Dziechciarz).*

The occupation of coastal areas and along the larger valleys opened up access to natural transport and communication routes that may have been used to intensify exchange contacts. But most important was the occupation of the coasts, which led to the 'rediscovery' of local amber. After the late Neolithic/Early Bronze Age episodes, there was probably a gap in the exploitation of amber on the southern Baltic coast. This is inferred from, among other things, the almost complete absence of settlement traces in the coastal zone during the Warzenko and Siemirowice phases (Dzięgielewski 2017, figs. 2–3). In contrast, from the Władysławowo phase onwards (i.e. after 900 BC) there are dense settlement complexes directly by the sea (Dzięgielewski 2017, fig. 3; examples of settlements and necropolises: Boege 1964; Andrzejowska 2004; Strobin/Molęda 2013; Dziechciarz 2018). We may also observe the rising evidence of an organised exchange of this raw material: from pits with amber deposits at some settlements (Wiącek 1979, 212: pit in Pruszcz Gdański with collected amber weighing 3.65 kg; Bukowski 2002, map IV) to concentrations of prestige goods along the presumed routes of exchange. At the same time, the demand for amber was increasing in the Early Hallstatt and Italian centres in the south (Kristiansen 1998; Tecco Hvala 2012 fig. 106; Chytráček et al. 2017). The intermediaries in this exchange were the then flourishing (especially in the HaC) Silesian-Greater Poland Lusatian groups with a strong Hallstatt culture influence, as well as the Moravian Horákov and Platěnice Hallstatt cultures (Chytráček et al. 2017, fig. 12; Dzięgielewski 2017; Michnik/Dzięgielewski 2022).

A quick survey of the set of Pomeranian agricultural tools also provides the same results with regard to the Late Bronze Age. The scarcity of (excavated) settlements from the Warzenko and Siemirowice phases seemingly prevents us from inferring a minor role of grain farming from the lack of tools, such as querns, grinders, or sickles. Querns, however, might have occurred in the stone con-

https://doi.org/10.2369/9783869354439.18-dziegielewski

structions of barrows. This phenomenon took place on a considerable scale indeed, but again only from the Władysławowo phase onwards. Symptomatically, in the west (e.g. in Mecklenburg-Western Pomerania, Germany) this phenomenon is already noticeable from Period III onwards (Janiak 2014, 212–215).

Similar remarks apply to bronze agricultural tools, especially sickles, and, to a lesser extent (because of their looser link with agricultural activity), to axes. Sickles are absent in ME Pomerania, not only from the (not numerous) settlements but also from hoards and single finds during Periods III and early V (cf. Gedl 1995; Bukowski 1998; Blajer 2001, maps 24–27). In the last phase of the Bronze Age (the Władysławowo phase), only one sickle type was encountered in this region, and this was a knobbed sickle of the Pomeranian type, according to Gedl's typology (*Knopfsicheln vom Pommerschen Typ*: Gedl 1995, 65–70, pl. 44B). This tool type is close to the Lusatian knobbed sickles; however, it is much smaller (always shorter than 10 cm) in which it resembles small Nordic sickles (Baudou 1960, 45). The larger Lusatian knobbed sickles are virtually absent here (Gedl 1995, pls. 42–43). The distribution of these harvesting tools in hoards is confined almost to the areas north of the Pomeranian morainic ridge, on the lower and more fertile patch of the coastal belt (Fig. 4). There are a handful of single finds of Pomeranian sickles as well (distributed almost similarly), but the entire collection from ME Pomerania is only under 40 items. Keeping in mind the usual inventories of the hoards deposited south of the Noteć river, in Greater Poland or Silesia (cf. Blajer 2001, 102–109), often with several dozen sickles in just one assemblage (e.g. Nowe Kramsko, Zielona Góra District, with 54 sickles preserved whole and 182 fragments; Orlicka-Jasnoch 2019), one has to realise the completely different cultural valourisation of this agricultural tool (or the cereal agriculture itself?) in the societies north of the Noteć river valley. This observation is corroborated by the fact that there are no pure hoards of agricultural tools in Pomerania; usually, small sickles or axes are just an addition to different categories of utensils.

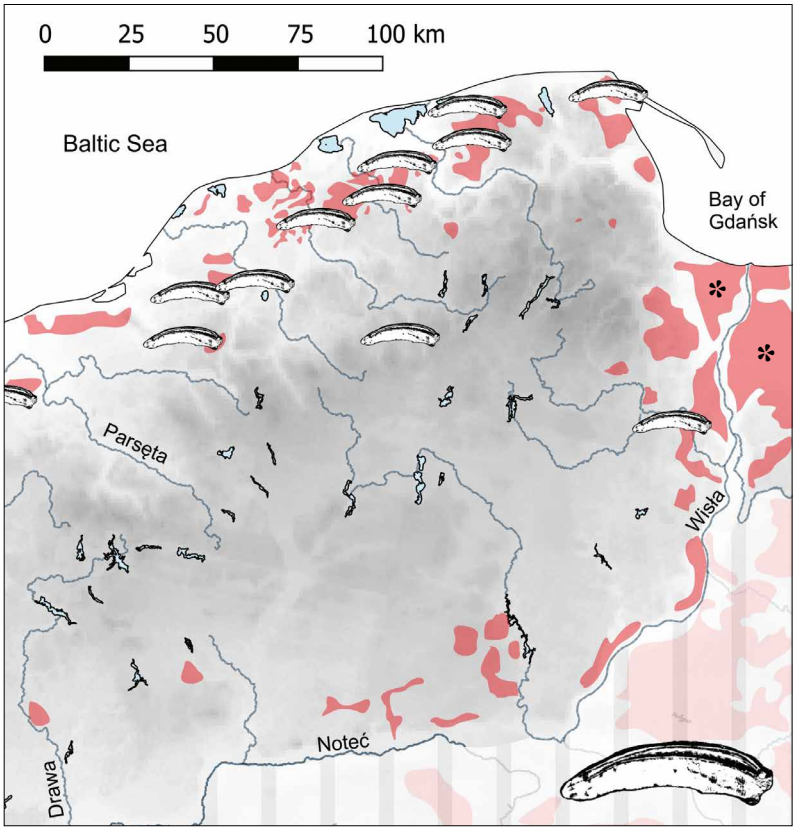


Fig. 4. Distribution of Pomeranian-type knobbed bronze sickles in hoards in middle and eastern Pomerania on the background of the distribution of the soils currently classified as the most fertile (most suitable for wheat cultivation – pale red; ✻ = not available in the past; soil data according to Niedziółka 2018b and the Institute of Soil Science and Plant Cultivation; graphics K. Dzięgielewski).

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As for socketed axes, we can see a clear evolution from larger forms derived from the south (Lusatian types) towards the shorter Kopaniewo type, which resembles the Nordic short *Tüllenbeile* (Kuśnierz 1998, 26, 59). These axes are the only genuine local type of axe, which clearly differs from the 'core' Lusatian culture areas with their great variety of local variants of socketed axes (Kuśnierz 1998). Small Kopaniewo axes are distributed, along with only a few finds of imported axes (of western European, north German, Silesian/Greater Poland, or eastern Baltic types), in a manner quite similar to the sickles.

On the other hand, the Lusatian culture hoards south of the Noteć river usually lacked one of the prominent elements present in Pomeranian hoards: the horse harness. The sets from ME Pomeranian hoards rarely include 'technical' elements of bridles, such as bits or cheek-pieces, but mostly consist of ornaments, such as sumptuous phalerae sets or jingle plates (Fig. 5). These characteristics are shared with other south Baltic communities (Lampe 1982; Bukowski 1998; Szczurek/Kaczmarek 2022 fig. 49).

Looking at the chronology of the occurrence of the two groups (horse-gear and agricultural tools) in hoards, one can observe a striking negative correlation. The former are mostly related to the older phase of hoard deposition (Period V = HaB2–HaB3a, i.e. the Siemirowice phase and the older stage of the Władysławowo phase).[5] In contrast, sickles are connected only to the Władysławowo phase



Fig. 5. Inventory of the Charzykowy hoard (mid-Period V) (after Rząska/Walenta 2017, 81).

5 A few exceptions to this rule occur in middle Pomerania, e.g. the Kaliska II horse harness/militaria hoard, which probably dates to the turn of HaB3/HaC (Szczurek/Kaczmarek 2022).

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(Period V/VI = HaB3b–HaC1), when most other indicators of a mobile way of life/pastoralism, e.g. the important role of the horse, barrows, polygyny-related structure of burials, or the low share of cultivars in pollen spectra, have already disappeared.

In this context, it is worth mentioning a unique find, one of the very few direct archaeozoological proofs for the use of animals in ritual and prestige signalling in the Late Bronze Age, Period V – the horse burial in one of the mounds at the barrow necropolis in Dolice (western Pomerania). The animal was cremated and buried whole in a pit located close to the main chamber of one of the largest and most complex barrows (no. VII), prior to the construction of its stone and earth core covering the wooden and stone chamber (Kaczmarek 2015, pl. 82–95; Osypińska 2015). This is another confirmation of the special role of horses among the Pomeranian Late Bronze Age societies. At the same time, it provides confirmation that the horse was treated like a human being at this time, which is typical of the era preceding the ontological turn of the early Iron Age, which led ultimately to the separation of the human and natural worlds (cf. Kveiborg 2020).

Connections to the south, north or west?

Classical dialectics in reconstructions of Pomeranian connections in the Late Bronze Age suggested the north (the Nordic Circle, Nordic Bronze Age, *die Südzone des Nordischen Kreises*) or the south (the Lusatian culture, *kultura łużycka*) as the main and decisive directions of contacts. This dichotomy was dependent on the sort of material culture used to trace connections: the stylistic provenance of bronzes (Sprockhoff 1931; 1956; Fogel 1988) or the pottery (Kostrzewski 1958). Recent reassessments of the 'import' status of hoard inventories have shown that most of them were made locally, regardless of the fact that their prototypes came from the lower Oder river basin in present-day northern Germany, Silesia, or Greater Poland. A re-assessment of import status was carried out by, for example, proving local production of some 'foreign' forms. For example, Bugaj's research on antennae swords (Bugaj 2005) has shown that most of the local forms of this type of full-hilted swords are made by casting grips on tanged blades (*Griffangelschwerter*), which were previously regarded as one of the most reliable types of Nordic imports (Sprockhoff 1956, map 1; Kostrzewski 1958, 148; Fogel 1988, 69; Bukowski 1998, 269, who also allowed for the possibility of their local production based on Nordic patterns). When complex grips were produced and cast locally, there is no reason to think that the not-so-sophisticated blades were imported. In the Gdańsk-Oliwa hoard, this is also supported by the fact that the chemical composition of the blade alloy is similar to the Cu-Sn-Pb-Sb (*Fahlerz*) alloys of the local ornaments from this assemblage (Fig. 6).

Tracing the local stylistics (the local production-distribution circles) of the other categories of bronzes produced similar outcomes (Dzięgielewski in prep.). As a result, a figure of just one tenth of almost 2,000 bronzes from Pomerania are now regarded as genuine imports. Among these actually imported goods, only a fraction came from the core of the Nordic Circle, the area which was indicated most frequently as a source of bronzes in Pomerania in older research (Fogel 1988). The most important direction of the bronze exchange turns out to be west. Most of the distribution maps of imported goods resemble the pattern recognised, e.g. for the Lenzersilge-Darsekau socketed axes (Fig. 7). The true Nordic imports are extremely rare, forming only up to 2 % of all bronze items in ME Pomerania (Dzięgielewski in prep.). For example, a few hanging vessels were found in just three deposits that also contain other imported goods (e.g. Witkowo, Kaliska I) but are not necessarily structured in the selected manner typical of the Nordic Bronze Age. This seems to testify that they were not deposited by individuals who were aware of the 'proper way' of their ritual use (cf. Heske 2012), or the purpose of deposition was different. Therefore, it can be assumed that a handful of highly elaborated bronze items found their way to ME Pomerania in a different role than in the 'core'

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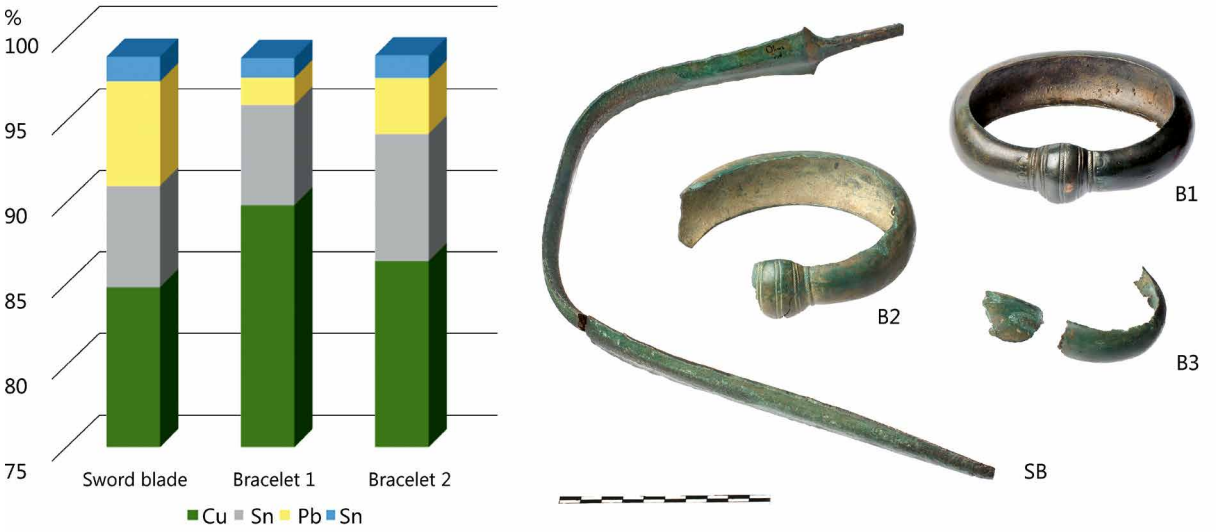


Fig. 6. General comparison of the chemical composition of artefacts from the Gdańsk-Oliwa hoard, according to the results of the XRF examination (analysis by M. Biborski; photo after Dzięgielewski *2017; graphics K. Dzięgielewski).*

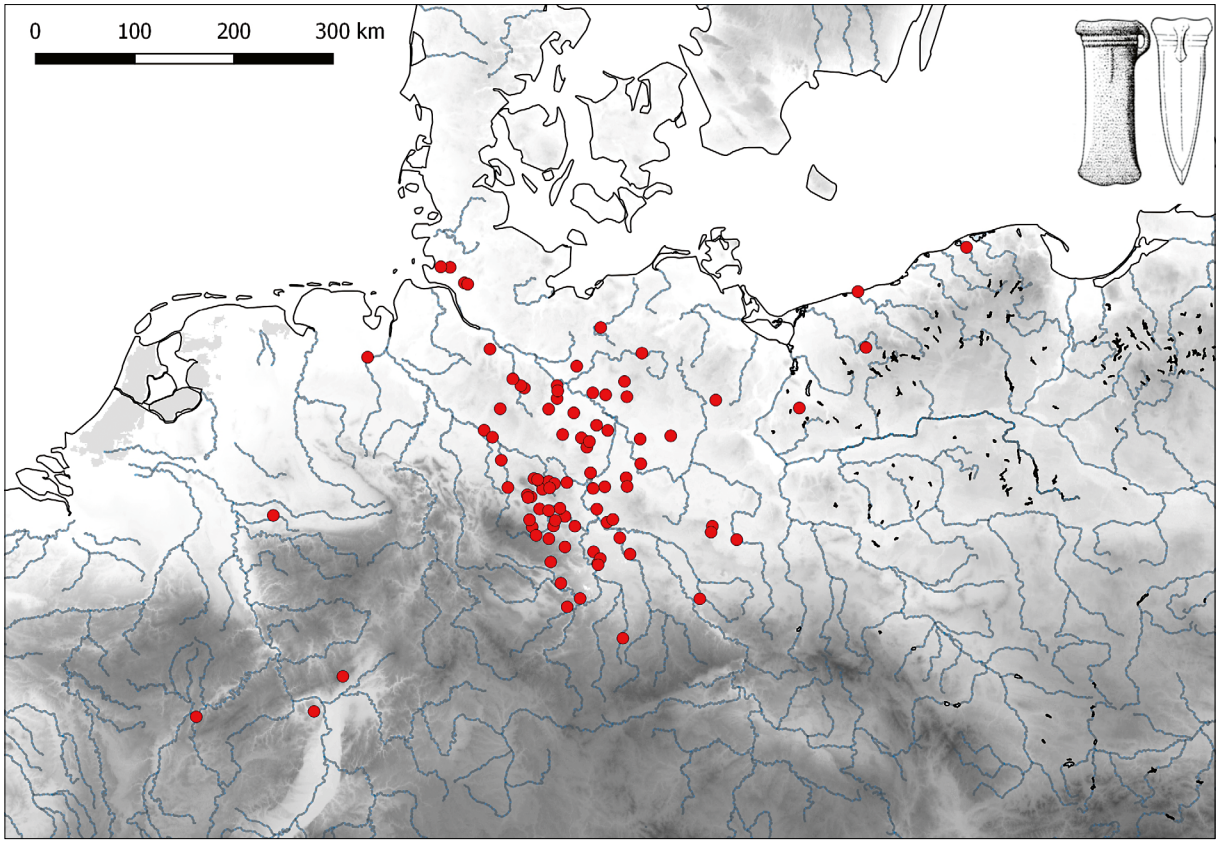


Fig. 7. Distribution chart of the Lenzersilge-Darsekau-type socketed axes (variants Klein Hesebeck, Offensen, Watenstedt, and Gross Sachau defined by Laux *2005; graphics K. Dzięgielewski).*

Nordic regions. Moreover, some stylistic details hint at their provenance being more in the southeast zone of the Nordic Circle (the mouth of the lower Odra/Oder river region included) and not the 'core' Danish region (Sprockhoff/Höckmann 1979, 24–26).

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Of course, this does not mean that the Pomeranian metalwork was completely genuine. Some real Nordic imports (e.g. plate fibulae) might be indicated here as prototypes for later local developments. The details of the process of assimilation of western patterns in metalwork can be illustrated by the example of kidney-shaped bracelets. These started to appear as western prototypes (a few specimens of the Thuringian type from the Witkowo and Kaliska I hoards; Sprockhoff 1956, 188; Kaczmarek et al. 2021, 90–92), then they were creatively elaborated in Pomerania (Schwennenz/Oder type, Kalisz Pomorski type, Rytel/Weichsel type, Gdańsk-Oliwa type), and they ended up as single Pomeranian imports in the far west, in Lower Saxony (Tackenberg 1971, 220). This example shows that Late Bronze Age Pomerania was a separate metallurgical province, developing a genuine local style and drawing inspiration mainly from the west (the southern zone of the Nordic Circle or even from the western end of 'the Nordic rainbow', to use Butler's [1986] metaphor). To a lesser extent, these inspirations were drawn from other directions (e.g. the Lusatian urnfields). There is much to suggest that sources of raw materials for bronze production were also to be sought in the west (Dzięgielewski 2017, 305). This is in contrast to the 'core' Lusatian areas, where both stylistic inspiration as well as raw materials were derived rather from the south (Blajer et al. 1998; Przybyła 2009; Kaczmarek 2012; Nowak et al. 2022).

The (short) life-span of urnfields

Although cremation was present in Pomerania from Period III without exception, the full-range Urnfield cultural model cannot be applied to local societies from such an early date (Dzięgielewski 2017). The typical traits of this model, such as large, long-used flat cemeteries, durable settlement structures (with settlements provided with storage facilities), a full range of cereal agriculture, a monogamous family structure, and a regional dress style, can be traced back in Pomerania only to the end of Period V (HaB3), from approximately 900 BC onwards. Among other changes, the above-mentioned general shift in settlement from the moraine ridge toward the lower, more fertile soils in the coastal belt was then observed (cf. Fig. 1; Bukowski 1998; Dzięgielewski 2017).

This was precisely the time and place in which bronze sickles started to appear in hoards and as single finds, along with the socketed axes of various types. Although the sickles were not as large (and useful?), and not as numerous as in the Lusatian south, they strongly support the thesis of the emergence of a new attitude towards the agricultural sphere. At the same time, there were noticeable direct signals of agriculture, such as storage pits, some full of charred grain (mostly barley; cf. Klichowska 1979; Dzięgielewski 2017; Fudziński/Ślusarska 2017), as well as an increased palynological signal of cultivated plants (Latałowa 1997; Dzięgielewski 2010). At the same time, the family models were probably adjusted to the agricultural norm of monogamy (Dzięgielewski 2017; cf. Przybyła 2013). Taxonomically, these changes are to be correlated with the newly founded, mostly flat cemeteries of the Władysławowo phase, that is, with the second half of Period V and the beginning of Period VI.

However, the period of dominance of these economic strategies and social models was short-lived in ME Pomerania; the first indications of a return to more mobile forms of socio-economic organisation were already emerging during the younger stage of the Władysławowo phase (during HaC). This found its full expression in the so-called 'classic phase of the Pomeranian culture' (the Karczemki phase), when the increasing role of ruminant husbandry, the horse and mobility started to re-appear, hand in hand with the polygamic mating system and a less stable settlement structure (Dzięgielewski 2016; 2017).

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The package of cultural characteristics typical for central European Urnfield cultures (stable settlement, intensive agriculture based on cereal cultivation, monogamous family structure, large, long-used cemeteries with flat burials, etc.) reached middle and especially eastern Pomerania very late, only at the end of the Bronze Age (900–800 BC). The old barrow cemeteries such as Siemirowice or Stężyca were abandoned then, although barrow construction was present in some isolated regions up to the end of the Early Iron Age (Janiak 2014).

There is no doubt that in some areas of culture, such as the organisation of settlement structures, that is, open settlements located around a large commonly-used cemetery (in the Władysławowo phase) or the pottery stylistics (in the Warzenko and Siemirowice phases), the communities of Late Bronze Age Pomerania were similar to groups occupying other regions of the Lusatian culture or, more broadly, the 'Urnfield world'.[6] However, in general they led a different way of life. A pronounced role of the horse, visible in the high valourisation of the horse harness in hoarding rituals, and the accompanying low valourisation of agricultural tools are in line with the weak signals of agriculture during most of the Late Bronze Age. In contrast to the south, the dominant subsistence strategy was probably the herding of cattle and small ruminants. The barrow-building Pomeranian societies of the time were mobile, and the change to a more settled way of life, which Scandinavia had seen at the turn of the Middle and Late Bronze Ages (Rasmussen 2018), took place much later here, at the Late Bronze Age/Early Iron Age transition. As it turned out, it was not an optimal and evolutionary stable strategy in this case, since there was soon a return (in the younger part of the Early Iron Age; HaD) to more mobile and loose forms of economic and social organisation (Dzięgielewski 2017; 2018; for different views see: Ślusarska 2017; Kneisel 2018).

The contacts of Pomerania with the north (and northwest) at the end of the Bronze Age were bilateral and based on mutually intertwined forms of exchange: the trade of raw materials necessary for the production of bronze, mainly prestige, items, the exchange of gifts in the form of finished objects, and matrimonial exchange, which was reflected, among other things, in the spread of the Lusatian pottery style in Scandinavia (Dąbrowski 1987; Kaliff 2001, 51; Dzięgielewski et al. 2010, 21). At that time, a kind of unification of the areas of the western and southern Baltic Sea coast took place in the general rules of bronze metallurgy and its consumption, while preserving local specificity. To a lesser extent, it touched on the field of ceramic production. Some aspects of spiritual culture and social ideology were also mutually understood (house urns being one of the best examples: Sabatini 2007; Kneisel 2016; Niedziółka 2018a), while others, for instance, a proper use of hanging vessels (Heske 2012), were probably not. During the Late Bronze Age, the most important direction of economic and cultural contacts of Pomerania was to the west. Contacts may have been maintained in part along the coast (by land or by sea). The basic objective of the exchange was raw bronze (in the form of ingots) and, to a lesser extent, finished products. Only during the HaC1 phase did a partial reorientation of the direction of contacts occur. The route from eastern Pomerania, in the knee region of the Noteć river, to the south (cf. Fig. 1), and along the meridian course of the Warta river, became active. Southern iron (initially in the form of finished products) was added to the repertoire of exchanged raw materials.

The cultural peculiarities of the Late Bronze Age east Pomeranian community outlined above, concerning deep layers of social organisation, economic foundations, and the orientation of contact networks, contributed to the appearance of the phenomenon of the Pomeranian culture, which found full expression in the younger part of the Early Iron Age.

6 For examples of the settlement model of the Urnfield culture with the central role of the long-used urnfield, see e.g. Gedl 1992; Van Beek/Louwen 2012.

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https://doi.org/10.2369/9783869354439.18-dziegielewski

This volume presents the results of an international network project on Late Bronze Age and Early Iron Age urnfields from northwest Europe.
Individual chapters present the archaeological material and its research history within a local, regional, or supra-regional context, demonstrating the wide range of nuances contained by the funerary phenomenon. The volume provides the first comprehensive overview of the urnfield funerary phenomenon in northwest Europe and forms the foundation for future research across national and disciplinary boundaries.
This volume successfully demonstrates that the inconspicuous urnfields of northwest Europe are not as anonymous as previously assumed but hold valuable information about life and death in the Late Bronze Age and Early Iron Age.

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