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Aleksander Koško

## Concerning an unfinished discussion

### Summary

The article refers to the history of the assessment of the topogenesis of unequivocally exogenous pottery (“vessels with band comb decoration” [*npog*] – Jażdżewski 1936) recorded within the eastern Funnel Beaker Culture group in the 5<sup>th</sup>/4<sup>th</sup> – 4<sup>th</sup> millennium BC. In the cycle of hypotheses which have been formulated since 1981 (ie since the date the hypothesis placing *npog* within the Mątwy cultural component was put forward) the vessel forms of the said type have been genetically situated in the east European, Eneolithic – Subneolithic, cultural circle, with considerable differences regarding substantiation of such estimates. The author concentrates his attention on the hypothesis of Danuta Prinke, which concerns the possibility of interpreting the Central European beginnings of *npog* in the so far unrecognised form, “much older” – as compared to the eastern FBC group – “of a separate cultural entity”. The revival of the hypothesis was inspired by D. L. Gaskevich’s research into the emergence of the Impresso/Cardium circle round the Black Sea (6500-6000? BC), where the characteristic forms of “band comb decoration” diagnostic for *npog* were the earliest to appear.

## Vessels with band comb decoration in the Polish Lowland – an attempt at a chronologico-cultural verification

### Summary

The type of pottery referred to in the title has so far been found in the context of Funnel Beaker Culture (FBC) finds. On some sites, however, the cultural and chronological affiliation of the artefacts is more complex. Rather, it should be stated that FBC finds are the only ones that are always found in the context of pottery with band comb decoration. Next to the distinguishing decoration (with various arrangements of bands incised with a combed tool) the vessels are characterised by a distinctive body (with an admixture of crushed shells) and high uniformity of forms (flat-bottomed, simple, “sack-shaped” vessels with no handles).

The research into that type of vessels hitherto conducted has revealed a number of problematic issues. And thus, for example, one can come across two hypotheses about cultural affiliation of band comb pottery, claiming that /a/ it is connected with the development of FBC (conceptions of K. Jazdzewski, A. Koško and S. Kukawka); /b/ concurrence of FBC pottery and band comb ware on one and the same site could be purely accidental (conception of D. Prinke). Further divergences refer to the chronology of the ceramic phenomenon in question: /a/ acc. to A. Koško that type of vessels appeared in Kujawy ca 4500 BC and much later in other territories, while their disappearance took place during the late stages of the FBC development (ca 3000 BC); /b/ acc. to S. Kukawka their beginnings ought to be sought not later than 3900 BC and approximately at a similar moment over the whole territory of their intensive occurrence; their disappearance (at least locally) can be connected with the close of FBC (ca 2800 BC); /c/ acc. to D. Prinke band comb pottery could have appeared ca 5400 BC and consequently disappear prior to the beginning of FBC. Also, there are three different conceptions concerning the genesis of the phenomenon discussed: /a/ it is an archaeological effect of the westward migration from south-eastern Europe and transformational processes of the original Tripolye models in the cultures of the steppe and forest steppe of eastern Europe (conception of A. Koško); /b/ it is a result of interrelations of FBC population with the communities of the north-eastern European Subneolithic – a broadly understood Narva culture (conception of S. Kukawka); /c/ it is an effect of the westward migration of people from the shores of the Black Sea (similarly to the first proposal) but at a period much earlier than the growth of the Tripolye culture (conception of D. Prinke).

The present article shows the results of studies on the cultural and chronological verification of vessels with band comb decoration in the Polish Lowland. The collected radiocarbon dates confirm that band comb pottery should be linked with FBC. Thus its co-existence on one site with FBC artefacts cannot be seen as an accidental phenomenon. The questions remain, however, of whether that type of vessels in the Polish Lowland could have emerged before the beginning of FBC and whether it could be connected with an archaeological cultural phenomenon other than FBC? Assuming that it is a foreign element, ie that it is not a cultural innovation developed within FBC, such a hypothesis seems plausible. For the time being, however, there is no direct evidence; no band comb pottery have been found so far outside the FBC artefacts context and we cannot date it to a period older than that context. In view of the information provided it seems that D. Prinke’s conception re its emergence ca 5400 BC can be rejected. Such an early beginning would mean production and use of this type of pottery for over 2500 years, and no relevant find has been registered for the early time section which lasted for almost 1500 years.

We should accept the hypothesis that even if band comb pottery did occur earlier than it has been presented (a giver’s perspective), the time bracket could not have been very long. Furthermore, potential givers would have to inhabit territories outside the ecumene of the Brześć Kujawski group/culture. Adaptation of the new type of pottery by FBC population happened at one time, mainly on the north-eastern border of the developing FBC ecumene. Faced with such a claim, we would have to search for the potential givers precisely in that area, north-east of Kujawy and around the Chełmno enclave of the Brześć-Kujawy group/culture settlement. Thus, if we wish to enquire who were and whence came the potential givers we have to base on the presented interpretation of source materials concerning the reception of band comb pottery by FBC population. And so we should respect the determinations about the beginnings of the phenomenon both in chronological (archaeological contexts of FBC artefacts and radiocarbon dates) and territorial terms. At the same time, in order to better understand the problem one would expect a deeper insight in other areas, outside Kujawy, Chełmno land and its vicinity.

## New radiocarbon dating of settlement materials from the Trzciniec cultural circle in the river basin of the middle Warta

### Summary

During the rescue excavations conducted by the Poznań Prehistoric Society on the route of the A2 motorway constructed in the basin of the middle course of the Warta river a number of settlement sites of the Trzciniec cultural circle (TCC). One of them – the settlement in Janowice (Figs 1 and 2) – yielded a series of nine radiocarbon dates done with the AMS technique in the Poznań Radiocarbon Laboratory (Table 1).

Radiocarbon dates were determined for the organic material from fill-ins of five outbuildings (objects A25, A58, A64, A90, B22 – altogether eight dates: four for animal bones and four for the organic residues settled on walls of vessels) and from an animal bone from “the layer” (one date). Determinations from Janowice can be rated in IB category which groups dates made for short-lived material (bones, shells and grain) obtained from settlement objects with ascertained cultural identity (Czebreszuk, Szmyt 1998).

Typologic and stylistic analysis allowed to classify the materials from the settlement as assemblages of HT 1 type, representing an early Trzciniec horizon of the TCC development in the western regions of the Polish Lowland, dated to 1900-1650/1600 BC (Czebreszuk 1996; Makarowicz 1998:102-103; 2010).

The presented dates can be divided into three groups. Determinations 1 and 2, though obtained from “Trzciniec” objects, are obviously too early (redeposited animal bones from an earlier settlement phase in the first case, and the effect of contamination with older charcoal in the second?). Basing on the current knowledge of the systematics of changes of TCC structures in the western regions of the Polish Lowland (Koško 1979; Czebreszuk 1996; Makarowicz 1998), dates nos 3-6, obtained from bones discovered in the objects and “the layer”, can be accepted as reliable. With the same knowledge in mind, on the other hand, the last three determinations (nos 7-9) are too late.

Thus the results received are only partially consistent with the expected age of the dated materials determined on the basis of contrastive analysis. Only in the case of four dates obtained from animal bones for objects A25, A58, A90 and the material from “the layer”, radiocarbon determinations concurred with their predicted age. Following a well-substantiated in the literature of the subject formal periodisation of the development of the Lowland Late Neolithic and Early Bronze cultures, late (III) phase KI is dated to the end of the 3<sup>rd</sup> and the beginning of the 2<sup>nd</sup> millennium BC (2050-1800 BC – Czebreszuk 1996, Table 29; 2001, fig. 9); the early and classical Trzciniec horizon is dated to 1950/1900 – 1650/1600 BC (Makarowicz 1998, fig. 38). The radiocarbon determinations obtained from animal bones fit well into the given chronological bracket (except for a single bone from object B22, obviously too old and probably determining the age of another settlement episode). On the level of probability 1 sigma, after calibration, they are situated within the bracket that generally covers the three first centuries of the 2<sup>nd</sup> millennium BC (Table 1).

The remaining determinations acquired from the organic substance that coated the walls of the Trzciniec vessels are clearly too old (object A64 - Poz-9197) or too young (object A52 – Poz-9373, Poz-9380). In the case of object A25 they also contradict the date obtained for the bones retrieved from its fill-in. The causes and determinants of that divergence may vary. For the date older than expected (object A64) the reason could be the contamination effect with older charcoal (Walanus, Goslar 2004:15). The value of dates from object A25, however, which are younger than their expected age, are more difficult to account for. It could be assumed that too little organic substance was collected for dating, or else that fragments of the ceramic substrate were collected as well.

In order to make the dating of the Trzciniec settlement phase on Janowice 7/8 site more precise three dates from objects (Table 1, items 3-5) considered reliable were calibrated together (Poz - 9367, Poz - 9368, Poz - 9370). The result obtained on 1 sigma level (probability of 68.2%) points to a time bracket of one hundred and forty years, covering the section between 1880-1740 BC (Fig. 6).

The time bracket in which the Trzciniec settlement phase in Janowice should be situated and which was arrived at on the basis of a combined calibration of four reliable carbon dates is totally located on one of the flat sections of the calibration curve (1920/1880 – 1740 BC; Czebreszuk, Szmyt 2001; Rietzel-Fabian 2001). Therefore, the Janowice settlement could have well functioned at the beginning or at the close of that period. In this context archaeological knowledge which suggests its

beginnings in the 19<sup>th</sup> century BC rather than the 17<sup>th</sup> century (cf. Górski, Kadrow 2001) is of primary importance.

Settlement of the Linear Pottery Culture and the Funnel Beaker Culture on site 1  
in Głuchowo, *wielkopolskie* voyvodship. *Part I. Cultural and chronological  
analysis of pottery*

Summary

The subject of the present paper is a presentation of the results of analysis of the settlement remains of Linear and Funnel Beaker cultures discovered on site 1 in Głuchowo. The site, with the Polish Archaeological Record (AZP) catalogue number AZP 53-26/133, was explored over the years 1999-2002 during the earth works preceding the construction of A2 motorway. The excavations covered an area of 1555 ares and 5263 objects from the Neolithic, the Bronze Age, the Iron Age and the early and late stages of the Middle Ages were registered (Skorupka 2005).

The material for the analyses presented below included immovable sources and pottery objects representing three cultural units: the Linear Pottery culture, the Late Band Pottery culture (post-Linear) and the Funnel Beaker culture.

The taxonomic and spatial analysis of the pottery and immovable objects allows to reconstruct the chronology of seven successive phases in the settlement of the region during the part of the Neolithic under study. In view of the information obtained, the oldest settlement linked with the Linear Pottery culture population seems to have been a penetration of an accidental nature in the eastern part of the site. The same area, not very extensive in size, was used by Late Band Pottery culture groups from phase I and later from phase III, without leaving behind more permanent traces of stable settlement. The next fourth settlement phase was connected with the appearance of population groups of the Funnel Beaker culture from phases II – IIIA. Again, they penetrated only the eastern region of the site. The scarcity of traces, only spot-recognised, indicates a short-term episode. The Funnel Beaker culture settlement from phase IIIB (radiocarbon dated to 3470-3370; cf. datings Poz - 16598 and Poz - 16600), covering a more extensive area in the eastern and western part of the site, is of a completely different nature. It was to some extent spatially continued, as found in the settlement remains from phases IIIC - IVA of the Funnel Beaker culture. The last of the stages analysed is marked by the Funnel Beaker Culture from phases IVB – V, again confined to the eastern zone of the site. The settlement of the site's area during the Neolithic was continued by the communities of the Globular Amphora culture (cf. M. Szmyt, this volume) and the Corded Ware culture (Czebreszuk, Szmyt 2011).



## The site of Linear Pottery Culture on site 2 in Wiktoryn, *kujawsko-pomorskie* voyvodship Summary

Site Wiktoryn 2 is located in the north-eastern part of the Kujawy Plain (Fig. 1). The excavation work conducted was due to the dangers caused by the construction of the A2 motorway. In effect an area of 118.45 ares was recognised and objects of Linear Pottery culture (LPC) and Funnel Beaker culture (FBC) were identified.

The LPC settlement remains include movable objects (pottery, flint products) and fairly well preserved remains of the cultural layer beneath which a handful of immovable objects were found: 1 hearth and 9 pits (Figs. 2 - 4).

LPC pottery was mainly registered in the border zone between sections A and B, where concentration no. 1 was isolated. Outside it LPC sources were less numerous, but two further source arrangements can be separated: in the northern part of section A (concentration no. 2) and in one part of section C (concentration no. 3). Altogether 1437 pottery fragments were registered of total weight of 24 503 grammes (Table 1). As much as 96.02 % of the collection were fragments of "kitchen" ware and fragments of thin-walled pottery are few and far between (Figs 5-7, Tables 2-3).

96 flint objects were found on the site as well. A flint assemblage (23 specimens – Table 4) which accompanied concentration no. 1 of LPC pottery, stood out. In all, specimens of Baltic erratic flint predominate in the assemblage (82 artefacts). One specimen made of Jurassic flint and two of chocolate flint were identified. In the case of 10 products the raw material could not be identified due to high overheating. Among artefacts registered in concentration no. 1 of the LPC pottery there was a distinct predominance of flake exploitation group (10 specimens) and blade exploitation group (4 specimens). Only four tools were identified (Fig. 8).

The site discussed presents an atypical – "sandy" – current in the LPC settlement from the region of Kujawy. It was known earlier from the discoveries on the sites Krzywosądz 3 – Dęby 10/29, Podgaj 32, Poczalkowo 30, Przybranówek 4, Chlewiska 132. The common feature of all these sites was the selection of settlement location. They were all situated in areas with sandy geological substrate. Also, in their immediate vicinity there predominated soils developed on a sandy substrate. Settlement forms are alike as well: small camps. The picture of pottery production is slightly more complex. Two basic groups can be isolated. The first includes Podgaj 32, Przybranówek 4, Poczalkowo 30 and Wiktoryn 2. The percentage of "kitchen" ware there is ca 97-100%. The second group so far contains only site Chlewiska 132 with the majority of the pottery (71%) being "table" ware. The pottery decoration on all sites bears features of LPC phase II in Kujawy. The picture of flint production is much more elaborate – next to typical "Mesolithic" forms there are numerous similarities with the flint working structure from "permanent" settlements.

An interpretation of finds analogous to those described above usually becomes a stimulus for analysing the connections between the LPC population and the Mesolithic communities. For example, one should bear in mind the discoveries of camps in the Lower Rhine basin which were registered in analogous (atypical – sandy) soil conditions.

Even though there is little "evidence" for relations between LPC and the Mesolithic populations, and the same holds true for the whole northern outskirts of early farming settlement, it still seems that the major factor which influenced the genesis of the described (atypical) trend in LPC settlement were contacts between the two communities.

## A zoomorphic vessel from Ludwinowo, site 7, *kujawsko-pomorskie* voyvodship Summary

A rather special find from the settlement of Late Band Pottery culture population in Ludwinowo, site 7 (Kujawy; Fig. 1), was a fragment of a zoomorphic vessel. A preliminary presentation of this rare artefact is the subject of the present short paper.

The preserved fragment is the neck, in its lower part unsymmetrically profiled and this very feature provides the basis for the suggested reconstruction (Figs 2-3). A vessel analogous in form (though with no decoration) and close dating-wise was published by R. Grygiel after his research in Brześć Kujawski, site 4 (an object interpreted as an “antler working workshop, cf. Grygiel 2008: 1859, fig. 1447:3). The Ludwinowo vessel carries plane decoration all over the front part of the neck and - probably - all way down the belly. The decoration was done in the “furrow-stitch” technique with a tool with a triangular (sharp) tip. In technological terms it can be described as made of body leaned with an admixture of medium- and coarse grained broken stone gt Vb in classification: Czerniak 1980).

The vessel was found in pit H 149 isolated within a small complex of clay pits. Next to the zoomorphic vessel the pottery collection discovered in pit H 149 contained 89 much fragmented sherds. It is therefore small and consequently difficult to date unequivocally. Its technological structure presented in Table 1 (detailed) and 2 (generalised) seems disturbed (an overestimated contribution of gt V), which is particularly visible when contrasted with the structure of the whole collection of the late Band Pottery culture from Ludwinowo (Table 2). Thus, correcting the technological structure of object H 149 against the characterisation of the whole collection, its dating can be suggested to phase IIb, or perhaps IIb-IIIa (cf. Czerniak 1980:30, Table 4). In absolute dates it would mean ca 4300 – 4200 cal. BC.

The analysis of the decorative style of the Ludwinowo vessel decidedly points to the pottery of epi-Rössen groups which functioned in the second half of the 5<sup>th</sup> millennium in the region encompassed by the Saale, the Elbe and the Rhine, and in particular to the Schwieberdingen culture, contemporary with the dating of the vessel to phase IIb (IIb/IIIa?) of Late Band Pottery Culture (cf. Glaser 1995; Spatz 1996).

So far, the question of the impact of west European post-Linear groups was mainly noticeable in the influences generally defined as “Rössen”, that is, definitely connected with the earlier stage of the Late Band Pottery Culture in the Lowland (Czerniak 1979; 2008). Certain possibilities of expanding the network of interregional relationships were suggested by pottery fragments known from the publication of Brześć Kujawski (Grygiel 1986, fig. 24; 2008: fig. 55: 1-2; 77: 3; 148:1) and more recently from neighbouring sites (Grygiel 2008: Osłonki 1 – fig. 409:3; 555:3; Miechowice 4 - fig. 873:1; 982:1): the pottery was dated to phase III of the Late Band Pottery Culture with decoration characteristic of Schussenried culture (cf. Czerniak 1994; numerous analogies: Lüning 1976; Lüning, Zürn 1977; Glaser 1995).

Against such background the vessel from Ludwinowo seems to fill the chronological gap between the early (Rössen) and late (Schussenried) examples of west European influences. In our opinion, however, the interpretation of these observations should be more comprehensive than just presenting the multifacetedness and continuity in the functioning of the relationship network. First of all, they could have been of quite a different character and this is the path the research to come should follow. The early (Rössen) relationships gave a unique trait to the regional (Lowland) culture as seen against “Lengyel-Polgar” groups of southern Poland. Younger ones (Schussenried), oriented south-west rather than westwards could be linked with the reception of Alpine copper in Kujawy and Greater Poland. The vessel from Ludwinowo appears to refer to the phenomena of the earlier stage.

## Early Neolithic flint assemblages from sites Kuczkowo 3 and Siniarzewo 1, *kujawsko-pomorskie* vojvodship

### Summary

The object of the paper is a presentation of flint material from two archaeological sites located in Kujawy, explored in the years 1994-1996 as part of rescue archaeological work conducted on the route of the transit gas pipeline from the Yamal Peninsula to western Europe. The sites are situated in the central part of black-earth Kujawy, on the northern side of the Bachorza valley (fig. 1).

Both sites – Kuczkowo 5 and Siniarzewo 1 – are multicultural settlements with plentiful Neolithic settlement registered. The sources connected with the Late Neolithic were already published (Koško 2000; Domańska, Kabaciński 2000), while publications concerning the older and middle Neolithic are in preparation.

The present article discusses the flint material from two settlement phases which were found on the sites, ie Linear Band Pottery Culture (LBPC) and Late Band Pottery Culture (Brześć Kujawski group of Lengyel Culture; LC; after Czerniak 1994). The basis for classification of flint material within particular development phases of LBPC and LC were the results of the pottery artefacts analysis.

The technological characterisation of flint products bases on the premises of dynamic typology (Schild et al. 1975) adapted to the specificity of Neolithic materials (Domańska 1975; Domańska, Kabaciński 2000), while for the typological classification of flint tools a typological list developed for the description of Neolithic inventories from Kujawy and Wielkopolska (Kabaciński 2010) was used. The analysed inventories are presented in the form of a descriptive and tabular characterisation of the main features of products and groups of products within particular technological groups. The most significant products were illustrated (figs 2-13).

The archaeological sources discussed are connected with the two main periods in the development of Neolithic communities in the Polish Lowland. The first embraces the beginnings of settlement in the zone north of the Carpathian and Sudeten mountains by farming communities of LBPC. In terms of the Lowland systematics the flint material corresponds to phase II (Siniarzewo 1) and III (Siniarzewo 1 and Kuczkowo 5) in the LBPC development, general equivalents of the musica note phase and *Želiezovce/Šárka* phase (Czerniak 1994).

In technological, typological and raw material terms they can be ascribed to typical LBPC flint assemblages, though each reveals distinctive individual features (Kabaciński 2010). They include, for example, marginal significance of locally found erratic Baltic cretaceous flint on the Siniarzewo site in phase II, considerable diversification of raw material in both inventories during phase III, or the astonishingly high frequency of products connected with scaled technique in Siniarzewo phase III (almost 80%). Thus the inventories can be accepted as representative of the flint production of the early LBPC communities in the great valley zone of the Lowland. They undoubtedly reflect the amazingly unified and highly repeatable system of flint working, characteristic of the regions of Kujawy and Wielkopolska as well as the Chełmno land, the Lower Oder basin, Silesia and Małopolska (Lech 1982; Kabaciński 2010).

Both site 1 in Siniarzewo and – starting with phase III – Kuczkowo 5 constituted a characteristic fragment of a larger distribution network of imported flint raw material in the great valley zone of the Lowland. This is particularly noticeable in the case of chocolate flint distribution. Both sites are situated in zone I, ie in a belt several to less than twenty kilometres wide in the on-the-Vistula region of Kujawy where the chocolate flint was brought from the Holy Cross mountains in raw chunks and from where it was redistributed further west (Kabaciński 2010).

The second period related with the inventories analysed in the present article falls at a moment of stabilisation of the local cultural system, namely, phases II-III of the LC culture development. At that time flint production revealed a number of different traits that distinguished it from the LBPC flint working tradition. The most important ones include changes in flint working technology (different way of core preparation, high increase in the use of scaled technique), abandonment of mass import of southern Polish flint in favour of an intensive use of locally found erratic Baltic cretaceous flint (Domańska 1995; Kabaciński 2010). The inventories from Siniarzewo and Kuczkowo fit well into this picture. At the same time flint production of the younger LC development phases in the Lowland is evidently unlike the chronologically corresponding Lengyel-Polgar flint working (Balcer 1983), and the transformations that were taking place in the highland zone of southern Poland (a technological breakthrough) are very poorly legible despite clear evidence for the existence of contacts between the great valley zone of the Lowland and Małopolska (Czerniak 1980; Grygiel 2008; Kabaciński 2010).

## Globular Amphora Culture population settlement on site 1 in Głuchowo, *wielkopolskie voyvodship*

### Summary

Site 1 in Głuchowo was involved in the rescue excavation programme prior to the construction of A2 motorway. The work extended over the period of 1999-2002. The area of the exploration covered 1555 ares. Altogether, 5263 objects of considerable chronological span, from the Neolithic to the late Middle Ages, were registered.

Out of field, it was possible to separate, among others, Globular Amphora Culture materials (GAC), including 3 settlement objects (pits) and 49 pottery fragments. The settlement in question cannot be reliably linked with any other category of sources. This modest collection of GAC remains, however, takes on a special meaning, especially in the context of new discoveries made during the rescue excavations on A2 motorway outside Poznań.

Spatial correspondence of the location of the above mentioned GAC sources can be a significant sign of their homogeneity. The same is indicated by the analysis of features that are stylistically and technologically relevant. Another symptom is the correspondence of the vessel forms found in two different objects (D33 and D798). Generally, the two premises presented suggest that the GAC pottery collection from Głuchowo can be considered as fairly homogeneous.

The estimate of the chronology of the sources discussed can be based only on an analysis of pottery features referred to a group of GAC sites in Kujawy. This allows to place the Głuchowo collection within the phase IIb GAC time bracket in Kujawy, ie ca 3250-2800/2700 B.C. It must be borne in mind that due to the modest number of artefacts in the Głuchowo collection the results of the undertaken procedures is of limited reliability.

Both the modest size of the collection and the presence of at least 2-3 pits (with no traces of dwelling constructions) are a premise indicating the existence of a small transitory or seasonal settlement (camp) in the area. Thus, in term of size parameters, it would be basically consistent with determinations for Kujawy, where the size of camps reached 100-800 square metres, while the remains of their constructions dwindled to a few pits.

## Functional analysis of flint material from Funnel Beaker Culture and Globular Amphora Culture sites in the region of Toruń-Bydgoszcz Basin Summary

The functional analysis of objects from the sites of Funnel Beaker culture (FBC) and Globular Amphora culture (GAC) was carried out on the basis of microscopic observations of flint artefacts.

1813 flint artefacts discussed in the present paper were obtained from 51 archaeological sites located in the region of Kotlina Toruńsko-Bydgoska, situated on the outskirts of the Kujawy settlement centre. Part of the material came from excavations, part from trench surveys and the remaining ones from surface collections (Table 1). 838 artefacts were submitted to microscopic analysis, 125 of which revealed traces of use. A collective description of the materials in functional terms is shown in Table 1.

The analysed material (both FBC and GAC) unmistakably demonstrates a very intensive use of the tools, their recycling and multifunctionality. A repositioning of hafted harvesting implements was a frequent practice. Although no interdependence between the taxonomy and the tool function was observed, there was a relation between the tool type (or rather its edge) and the movement it performed. No evident relation between the function of the implement and the raw material used for its production was noticed; several kinds of flint materials were found in the analysed assemblages (Table 2).

Both retouched and non-retouched specimens were used, though the former predominated. Hafting traces were registered, though not very frequently. This mostly applied to tools used for plant processing (including crops).

In functional terms, the analysed materials were mainly used for plant working, though other activities – processing materials of animal origin – were also observed. This indicates a household character of the analysed assemblages, with no distinct specialisation. A group of harvesting knives – flint sickles - indicative of intensive farming activities, stands out among the tools used for plant processing. The traces are more numerous and more intensive in the case of FBC material, although drawing further reaching conclusions seems premature and would require an analysis of a bigger number of compact assemblages.

The contrastive analysis considered only the more numerous inventories with undisputed homogeneity from sites Tarkowo 24, 49 (GAC), Jezuicka Struga 17 (FBC) and Glinki 7 (FBC). FBC inventories contain more artefacts and more used specimens. Activities connected with plant and wood processing clearly prevail; hide working activities are less noticeable. There are also visible traces of activities connected with harvesting. Assemblages connected with GAC settlement - with fewer specimens – are represented by a small number of used tools. Wood working activities were carried out on the site. This was confirmed by the presence of implements with registered traces of use as well as by the presence of macrolithic tools and their remains.

Andrzej Kokowski

## An “unknown” megalithic grave from Kuźnica Żelichowska, *wielkopolskie voyvodship*

### Summary

During the search for information about excavations and discoveries in the area of Krajna Złotowska I reached for press publications and those of a memorial character. Among those I came across a text by Werner Pockrandt in a 1975 “Heimatbrief”, issue no 27, about a megalithic grave in Kuźnica Żelichowska, *wielkopolskie voyvodship*.

The discovery was made by stone hunters in 1927, ca 3 kilometers off the town, on the western side of the Duży Radzyń lake. After hewing the large monolith they found more stones and after their removal they hit upon a well preserved skeleton lying on its side in a markedly flexed position, with the face turned east. Next to the skeleton there were a few flint objects: two small axes, a slim chisel and three quern handstones.

The find was reported to W. Pockrandt from Trzcianka (Schönlanke), a well known regional expert and a journalist writing for “Schönlancker Zeitung” and “Kreisblatts für den Netzekreis”, who informed Prof. Carl Schulz from the local secondary school, an organizer of the Society for the Care of Monuments and Research in the Noteć region (“Gesellschaft für Heimatpflege und Heimatforschung in Netzekreises”). They further discovered that the stone slab over the skeleton was over two metres long and supported by five boulders which marked off the range of the funerary chamber. In their opinion the skeleton was lying on a two-metre long plank. The analysis of the description suggests that the site yielded a grave of the Globular Amphorae Culture. It supplements the catalogue of sites in northern Greater Poland.

The hero of the text is W. Pockrandt, born January 29, 1905, in Selchowhammer; since 1929 an associate of Prussia Museum, a curator of the cultural heritage of the Kreis of Elbląg (Kreisheimatpfleger). After the war he settled in Hannover and since 1960 he took up paleontology, with time winning an opinion of “a half-professional”. He was the causative force behind the establishment of “Arbeitskreis Paläontologie Hannover” in the Museum in Hannover (Landesmuseum Hannover). He carried out various studies and numerous forms of organisms discovered were named after him (eg *otolithus pockrandti*, *fasciculiporina pockrandti*, *onyhocella pockrandti*). He also published many of his discoveries and observations. He died on January 22, 1988, in Hannover.

The use of the word “unknown” in the title of the present text in parenthesis is meant to encourage a restoration of the memory of archaeological discoveries that unfortunately had no luck to be published in scholarly journals and only appeared in occasional brochures and the local daily press.

## About “textiles” from an early Bronze Age cemetery on site 1 in Śmiardowo Krajeńskie, *wielkopolskie* voyvodship

### Summary

Three sand-covered artefacts (one retrieved with a lump of sand) from a cemetery in Śmiardowo Krajeńskie (site 1) were recently submitted to analysis (cf. Schäfer 1987; Suchorska-Rola, Rola 2004; Suchorska-Rola 2006: 124). They were elements of grave furnishings of a grave no 106 (Fig. 1). Four vessels and an amber bead were found close by.

The results of macro- and microscope analyses are of interest both to textile-experts and other specialists. The remains (traces) of a cord plaited into a braid (Figs 2, 3, 5; the cord 1.120-1.476 mm thick) with sticking remains of a thick fabric (linen weave 1/1, class IV) or a “simple” fabric (an article of clothing?) recognised on the pins have confirmed earlier observations concerning the skills of the makers and techno-aesthetic preferences of the clients not just at the beginnings of the Bronze Age (Łaszczewska 1966: 23ff; Chmielewski 2009: 233-237). The most significant is the observation about the use of pins as safety-pins of sorts (Fig. 4). Textile-wise, the thickness of strings impressed on the pins could constitute a premise (or even, in view of metric parameters and their discovery in one grave, a verifying element) suggesting their provenance from one “workshop”.

A fragment of a shaft (now 1 cm in diameter and 1.6 cm in length) with a mounted arrowhead is a stupendous discovery. A double bast wrapping (1.148 mm thick – originally it was broader) with traces of some gluing substance (?) – Figs 6, 7.

It seems that these are sufficient arguments against underestimating only partially preserved scraps of fabric, non-textile pieces, pseudomorphs and fabric impressions which – as Prof. Jerzy Maik wrote several decades ago – *are obviously an archaeological source on a par with pottery and metal objects*, a fact that is often forgotten.

An ancient grave from Żychlin,  
*łódzkie* voyvodship  
Summary

In 1943 during the earthworks in the market square in Żychlin a cist grave was discovered (Figs 1, 2). The rescue research was carried out by Elizabeth Schlicht, Ph.D. The grave was situated 10 – 15 cm below the earth surface. The walls were built of stone slabs 20-26 cm thick, sealed with small pebbles and clay. The burial chamber was covered with a big boulder. Scattered around the grave were field stones, clay pottery fragments, bone charcoal and clay. The stone cist of the grave, oriented along the N-S axis, had the following dimensions: 140 cm in length, 80-90 cm in width, and the height of the side walls was 54-75 cm. The lid of the cist had dimensions 165 x 297 cm and was 48 cm thick. The bottom of the grave was laid with flat stones. Entrance to the chamber was probably on the northern side (Figs 3, 4).

The furnishings consisted of 15 vessels in various states of preservation and 3 lids. They include 2 large cinerary urns, 1 big pot, 3 smaller vases, 4 bowls and 5 fragments of indeterminate vessels. Altogether 1603 pottery fragments were registered. All vessels were hand-modelled of clay with the admixture of breakstone. The surface of the vessels was smooth or polished, at times roughened in the lower part. They were light brown, dark grey and black in colour (figs 5-10). Among the numerous fragmented vessels a face urn handle with bored-through holes for hanging bronze ornaments was of particular interest. Most often these were rings with a single or double coil, 1.5 to 2 cm in diameter. In one of the urns a piece of bronze tweezers and a fragment of a double wire ring were found, as well as a fragment of a bone haft with a piece of bronze stuck in it. All objects were much damaged and were found in the remains of a funerary pyre, as evidenced by the remains of burnt bones fused to them. A very special artefact was a ferrule of bronze sheet with four holes in the corners holding small links (Fig. 11b).

Anthropological analysis of the burnt bone remains provided information about at least 20 individuals buried in the grave, including adult men, women and children.

The grave from Żychlin is a typical example of the type of objects built in the regions of Pomorze and Wielkopolska, dated to Hallstatt D.



Anna Wrzeńska

## Anthropological estimation of the cremation graves of Pomeranian Culture cemetery in Żychlin, *łódzkie* voyvodship

### Summary

The burnt bone remains came from the trenches unearthed in 1943 in the market square of Żychlin, *łódzkie* voyvodship. The material was found in the cremation cemetery from the early Iron Age and dated to the Pomeranian culture. It was kept in the collection of the Poznań Archaeological Museum. The analysis concerned materials that had been obtained from cinerary urns or grave pits after sieving the remains of the substrate and partial separation of the artefact material.

No less than 20 individuals were recognised, including at least five adult men, four women, at least seven children with one in its late childhood. There were also the remains of two teenagers or adults and at least two adults of indeterminate gender. Burnt animal bones were recognised in the material as well.

No big changes caused by diseases or bone injuries were observed in the bone material. In one case there were metabolic disorders brought about by vitamin and element deficiency in the organism and, among others, causing anaemia.

Inflammatory changes in the periodontium and a gumboil infection were registered in the chewing organs of one individual.

Alicja Gałęzowska

## Unknown materials of Wielbark Culture found in Poznań Summary

A small collection of sepulchral finds of Wielbark culture were handed over to the Poznań Archaeological Museum in 1940: a cinerary urn with human remains, another vessel, five clasps, a buckle, two bracelets and two spindle whorls. To the Roman period artefacts a fragment of an amphora, from Pomeranian or late Lusatian culture, was added. The objects, carrying no information about the place of discovery, were found in a Poznań villa in the immediate neighbourhood of Winiary (Szeląg) site 13, with a Wielbark culture cemetery known since the 80s of the 19th century. Despite numerous attempts at explaining the origin of the finds no credible information was gained. The most probable place of their discovery seems to be the Szeląg cemetery, both in view of the immediate neighbourhood of the villa and the demolished area of the necropolis, and of a partial chronological similarity of the artefacts found in the house with materials unquestionably discovered on Winiary (Szeląg) site 13. The artefacts obtained by the Museum come from at least three cremation graves and one or two inhumation graves. They are mostly standard finds from B2 and B2/C1-C1a phases, with many analogies in Wielbark culture cemeteries in Pomerania and Greater Poland.

## From the history of archaeology in Toruń Summary

The article discusses a phase of the almost 150-years' long history of archaeology in Toruń and the Chełmno land (Culmerland) over three periods:

- I. The years 1853-1921 – founding and activity of the German scientific society Copernicus-Verein für Wissenschaft und Kunst zu Thorn (C-V) and the Polish Toruń Scientific Society (TNT) and the establishment of their respective museums: Town Museum and the TNT Museum.
- II. The years 1920-1939 – archaeology in Toruń under the Second Polish Republic
- III. The years 1939-1945 – archaeology in Toruń under the Third Reich

For many years the archaeological research in Toruń was conducted independently by two separate ethnic communities existing next to each other rather than together. The beginning of archaeology in Toruń was connected with the activities of two scientific societies: German – C-V and Polish – TNT.

The German society, set up in 1853, was the first to start. It was a civic initiative of a part of the German Toruń elite and C-V was the first scientific society founded in Western Prussia in the 19th century. The most vigorous activity of the Commission for the Studies of Antiquities fell in the years 1860-1867.

10 expeditions were organised to investigate sites in the city itself, its vicinity in Kujawy and the neighbouring Polish territories incorporated into the Russian Empire. After an interval of a few decades the excavations were taken up in 1895 by a historian Artur Semrau (1862-1940) who in 1917 published his work *Führer durch das Städtische Museum*.

Polish Scientific Society in Toruń (TNT) was set up in 1875 and until 1920 it was the only Polish scientific centre in Western Prussia. It was initiated by a landowner Zygmunt Działowski. He invited Godfryd Ossowski (1835-1897), a geologist and archaeologist from Volhynia, who carried out a series of excavations in Pomorze (Pomerania) and Chełmno land (Culmerland). The 1880 publication of *The Archaeological Map of Western Prussia (formerly Royal Prussia) with the bordering lands of the Grand Duchy of Poznań* in Paris was a considerable achievement. The legend in Polish and French was published one year later in Kraków. The Museum of the Toruń Scientific Society, whose collections were sorted out by Ossowski, opened in 1876. In 1877 he also set up the first inventory of the museum. Starting with 1879, the series "Prehistoric Monuments of Polish territories" published 4 brochures of his authorship focused on Royal Prussia (1879, 1881, 1885 and 1888), which constituted the first attempt at a synthetic presentation of the prehistory of the Gdańsk Pomerania and Chełmno land. In 1897, upon an invitation of the Anthropological Commission of the Polish Academy of Learning, Ossowski moved to Kraków.

After years of stagnation, in 1904 excavations and surface exploration work was taken up by Rev. Kazimierz Chmielecki (1880-1929); he also embarked on ordering and cataloguing the long-neglected archaeological collection. His work *Prehistoric Man in Western Prussia and a Guide to the TNT Collection* came out in 1909.

Following the First World War, under the Treaty of Versailles Toruń became part of Poland. The ethnic structure in the city changed. Thousands of Germans emigrated from Toruń after 1920, including representatives of the elites who formed the membership of C-V.

In 1930 the collections of the former Town Museum and the TNT Museum were fused. In 1931 archaeologist Tadeusz Waga, Ph.D. (1905-1934), started working in the new Prehistoric Department of the Municipal Museum, and in 1933 Jacek Delekta (1906-1940) became the custodian of the Department.

After the outbreak of the Second World War and the seizure of Toruń by German troops the city was incorporated into the Third Reich. Polish and Jewish inhabitants were subjected to a policy of displacement and extermination. Jacek Delekta, an archaeologist employed in the Museum, was murdered in the German concentration camp in Auschwitz in 1941. All exhibitions in the Museum were removed. With the eastern front approaching, artefacts were prepared for evacuation. Some of them were taken to Marburg, some, after the collapse of the front, reached only as far as Wyrzysko. The war brought considerable losses to the collections and their documentation. Over the years 1945-46 13 boxes with artefacts returned from Wyrzysko: they were in a sorry state. Only single artefacts were recovered from Marburg. The war ended the work and activity of C-V and German archaeology in Toruń.

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