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## HUMAN BURIALS AND FUNERAL RITES OF THE LINEAR POTTERY CULTURE FROM THE TERRITORY OF POLAND

### ABSTRACT

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Human burials of the Linear Pottery culture in Poland are not common. The recent discovery in Modlniczka of the first – and thus far the only – LBK cemetery in Poland was therefore a significant one. Presently, there are only 17 other known sites with burials. Thirteen sites are in south-eastern Poland, four in Kuyavia, and one in the Odra River valley. In comparison with other burial sites in Central and Western Europe, the graves of the LBK in Poland do not provide many clues about the funerary customs of this culture. Their small number and the very limited proportion of preserved human remains make it impossible to perform many types of analyses. However, despite the small amount of evidence, we can observe general patterns, which are typical of the entire European LBK – in terms of both settlements and burials.

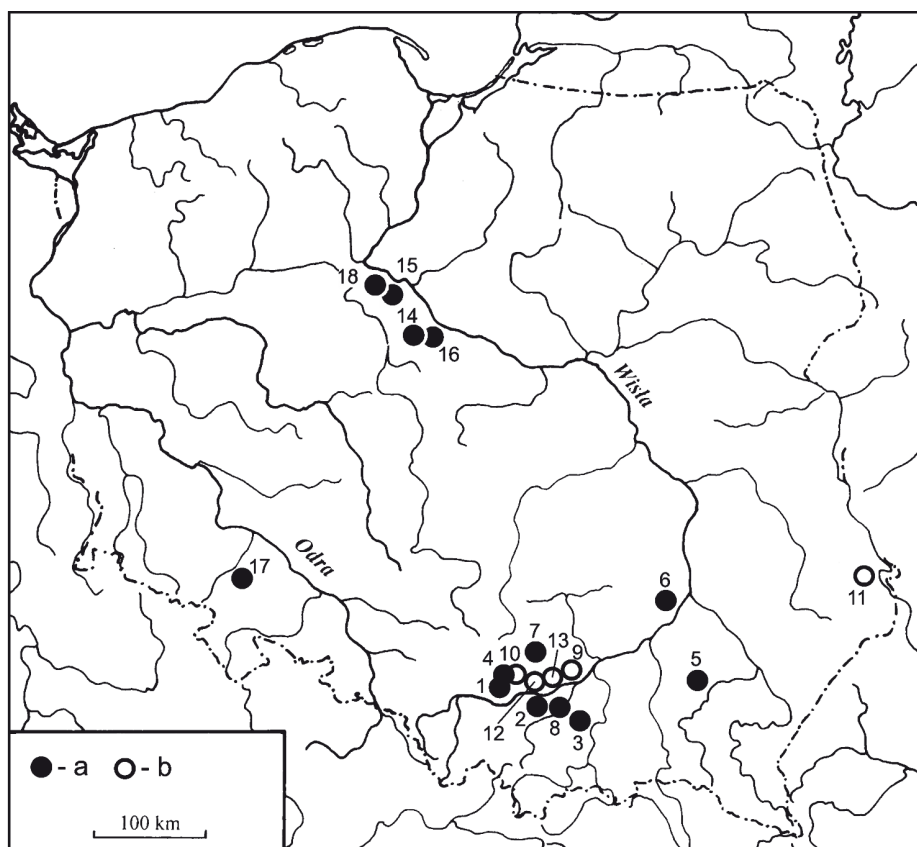
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## INTRODUCTION

Known burials of the Linear Pottery culture (LBK) in Poland are not common. In comparison with other burial sites in Central and Western Europe (about 100 funerary sites, including vast, separated, burial grounds), the graves of the LBK in Poland do not provide many clues about the funerary customs of this culture. Thirteen (including the cemetery at Modlniczka) are in south-eastern Poland, four in Kuyavia, and one in the Odra River valley (Czekał-Zastawny 2009a; 2009b; 2017; Czekał-Zastawny and Przybyła 2012). Despite the small amount of evidence, we can see that Polish finds are typical of the entire European LBK in every analysed element.



**Fig. 1.** Sites with LBK burials in Poland: a – burials of the LBK, b – presence of burials probably attributed to the LBK. 1 – Aleksandrowice, 2 – Brzezie, 3 – Łoniowa, 4 – Modlniczka, 5 – Olchowa, 6 – Samborzec, 7 – Szczotkowice, 8 – Targowisko, 9 – Bejce, 10 – Giebułtów, 11 – Gródek, 12 – Igołomia-Zofipole, 13 – Złotniki, 14 – Brześć Kujawski, 15 – Ludwinowo, 16 – Miechowice, 17 – Stary Zamek, 18 – Kruszyn (Czekał-Zastawny 2009b)

Table 1. LBK burials from south-eastern Poland – list of source materials (Czekaj-Zastawny et al. 2009, Czekaj-Zastawny and Przybyła 2012)

Site	type of location	number of burials	burial nr	type of burial	orientation	grave goods	sex/age
Aleksandrowice 2	1 or 3	3	2540	skeletal?	NE-SW	0	?
			2541	skeletal?	W-E	0	?
			2542	skeletal?	NE-SW	fragm. of 2 vessels	?
Bejsce	?	1	pit 3	skeletal	N-S?	2 vessels	childe
			1528	skeletal?	N-S	fragm. of 2-3 vessels	?
			1543	skeletal?	N-S	fragm. of 3 vessels	?
Brzezie 17	3	3	1586	skeletal?	N-S	0	?
			I	skeletal	W-E	0	
			II	skeletal	W-E	0	
Giebułtów 1	1?	7	III	skeletal	W-E	0	
			IV	skeletal	W-E	1 bone tool	
			V	skeletal	W-E	0	
			VI	skeletal	W-E	frgm. of 1 vessel, 1 flint art.	
			VII	skeletal	W-E	0	Male
Gródek nad Bugiem 2	?	1	cremation	?	4 pottery fragm.	?	
Igołomia 1	?	1	skeletal	W-E	3 pottery fragm., 12 flint art., 1 obsidian art.	?	
Łoniewa 18	2	2	19	skeletal?	N-S	0	?
			23	skeletal?	N-S	1 vessel, deposit of flint artefacts	?
Modlniczka 2	1	39	1040	cremation	?	1 shoe-last tool, 1 flint art.	adult
			1061	cremation	?	5 shoe-last tools, 9 ptery fragm., 5 flint art.	adult
			1087	cremation	?	1 shoe-last tool, 2 flint art.	adultus/ maturus
			1109	cremation	?	2 shoe-last tools, 11 ptery fragm.	adult

Table 1.

Site	type of location	number of burials	burial nr	type of burial	orientation	grave goods	sex/age
Modniczka 2	1	39	1111	cremation	?	0	adult
			1145	cremation	?	1 shoe-last tool, 2 pottery fragm.	?
			1184	cremation	?	0	adult
			1205	cremation	?	0	Male; <i>maturus</i>
			1213	cremation	?	0	Male; <i>maturus</i>
			1218	cremation	?	1 shoe-last tool, 1 flint art.	adult
			1249	cremation	?	2 shoe-last tools, 1 flint art.	<i>infans</i>
			1253	cremation	?	1 shoe-last tool	?
			1354	cremation	?	1 shoe-last tool, 6 pottery fragm., 1 flint art.	adult
			1377	cremation	?	0	adult
			1378	cremation	?	0	adult
			1397	cremation	?	0	?
			1415	cremation	?		
			1423	cremation	?	2 shoe-last tools	<i>maturus</i>
			1477	cremation	?	0	?
			3860	cremation	?	2 shoe-last tools	?
			4619	cremation	?	3 shoe-last tools, 7 pottery fragm., 2 flint art.	?
4688	cremation	?	1 shoe-last tool, 4 pottery fragm., 4 flint art., 1 stone art.	Male; <i>maturus/ senilis</i>			
6072	cremation	?	0	?			
6973	cremation	?	0	?			
6074	cremation	?	0	adult			
6075	cremation	?	0	?			

Modliczka 2	1	39	6077	cremation	?	0	?
			6078	cremation	?	0	?
			6128	cremation	?	0	adult
			6129	cremation	?	0	adult
			6130	cremation	?	0	?
			6131	cremation	?	0	?
			6132	cremation	?	0	?
			6133	cremation	?	0	?
			6189	cremation	?	1 shoe-last tool	?
			7422	cremation	?	1 pottery fragm.	adult
			7427	cremation	?	35 pottery fragm.	adultus
			7447	cremation	?	0	?
			7496	cremation	?	1 shoe-last tool, 3 pottery fragm.	Male; <i>adultus/maturus</i>
Olchowa 20	2	1	1	skeletal?	N-S	3 vessels	?
			41	skeletal	NW-SE	3 pottery fragm.	<i>Infans I/II</i>
			42	skeletal	W-E	1 pottery fragm.	Female; <i>maturus</i>
Samborzec 1	2	5	60	skeletal	N-S	1 vessel with powdered ocher, 2 bone tools	Female; <i>maturus</i>
			71	skeletal	N-S	1 vessel	<i>Infans I</i>
			208	skeletal	W-E	1 shell bead necklace, 1 limestone bead necklace, powdered ocher	Female; <i>adultus</i>
Szczotkowice 1	?	1	1	skeletal	?	2 vessels, 36 limestone beads, 3 beads made of <i>Spondylus gaedoperus</i> shell, 1 cylindrical ceramic artifact, 1 fragm. of animal bone ( <i>Bos taurus</i> )	ca. 60 years
			1	skeletal?	?	0	?
Targowisko 12/13	2	1	1	skeletal	NW-SE	0	?
			2	skeletal	N-S	0	?
Złotniki 1	2	3	2	skeletal	NW-SE	0	?
			3	skeletal	NW-SE	0	?

In common with the settlements, the graves of the Linear Pottery culture from Poland fit with the general model of the funeral rite of the LBK. This is visible in all elements of the funerary rite, such as the context, the location, the construction of the grave, and the grave goods. They have local characteristics (*e.g.* the absence of certain categories of artefacts), but the elements common to the whole LBK milieu prevail (orientation of grave pits, positioning of the dead in the grave pit, main grave goods, *etc.*).

There are 17 other known sites with burials. In the area of south-eastern Poland as many as 13 of them were discovered (Fig. 1; Table 1; Czekaj-Zastawny *et al.* 2009): Aleksandrowice (3 burials), Brzezcie 17 (4 burials), Łoniowa (1 burial), Olchowa (1 burial), Samborzec (5 burials), Szczotkowice (1 burial), Modlnica 5 (2 burials), and Targowisko 12/13 (1 burial), (Czekaj-Zastawny 2000; 2008; 2009b; 2014; Valde-Nowak 2008; Mitura and Zych 1999; Kulczycka-Leciejewiczowa 2008; Krauss 1964; Czerniak *et al.* 2006). Graves identified as probably belonging to the LBK came from: Giebułtów (7 burials, Złotniki (3 burials), Bejsce (1 burial), Igołomia-Zofipole (1 burial) and Gródek on the Bug River (cremation burial), (Dzieduszycka 1959; 1964; Sulimirski 1938; Gajewski 1960; Kempisty 1962). In Śląsk, so far, only one site of this type has been encountered – in Stary Zamek (however, considering the recent results of dating, there are doubts regarding the association of these graves with the LBK; Kulczycka-Leciejewiczowa 1988). From the area of the Polish Lowland, within the region of Kujawy, 4 sites have revealed graves, all of which were located in the close vicinity of houses: Brześć Kujawski, Ludwinowo 7, Miechowice, and Kruszyn (Grygiel 2004; Czerniak and Kabaciński 2004; Pyzel 2019).

## THE FIRST LBK CEMETERY IN POLAND

Burials are an integral part of many settlements. The identification of the first cemetery of the LBK in Poland – at site 2 in Modlniczka, Kraków area – was the most important discovery of recent years (Czekaj-Zastawny and Przybyła 2012, 31-62).

This cemetery was established in a low, waterlogged part of a valley, and hence within a zone atypical for LBK settlement. Within the excavated area, 39 cremation burials were encountered, covering around 7000 square meters (Fig. 2). They did not create compact clusters, although minor aggregations are perceptible. All the burials are in pits (Fig. 3, Fig. 4) of various shapes (circular, oval, or rectangular), and all have smaller hollows at the bottom, where the remains of funeral pyres were deposited. The fact that the remains of the pyre were moved is testified to by fragmentarily preserved elements of the inventory – both vessels and stone items, among which amphibolite shoe-last tools strongly prevailed (Fig. 5). Only in two graves did the grave goods consist exclusively of pottery. Most commonly, grave goods included an adze and pottery. All the graves are single burials. Out of the 39 discovered burials, the sex of the deceased was determined in 6 cases (1 female and 5 males). Fourteen of the individuals were identified as adults, and one as a child. The

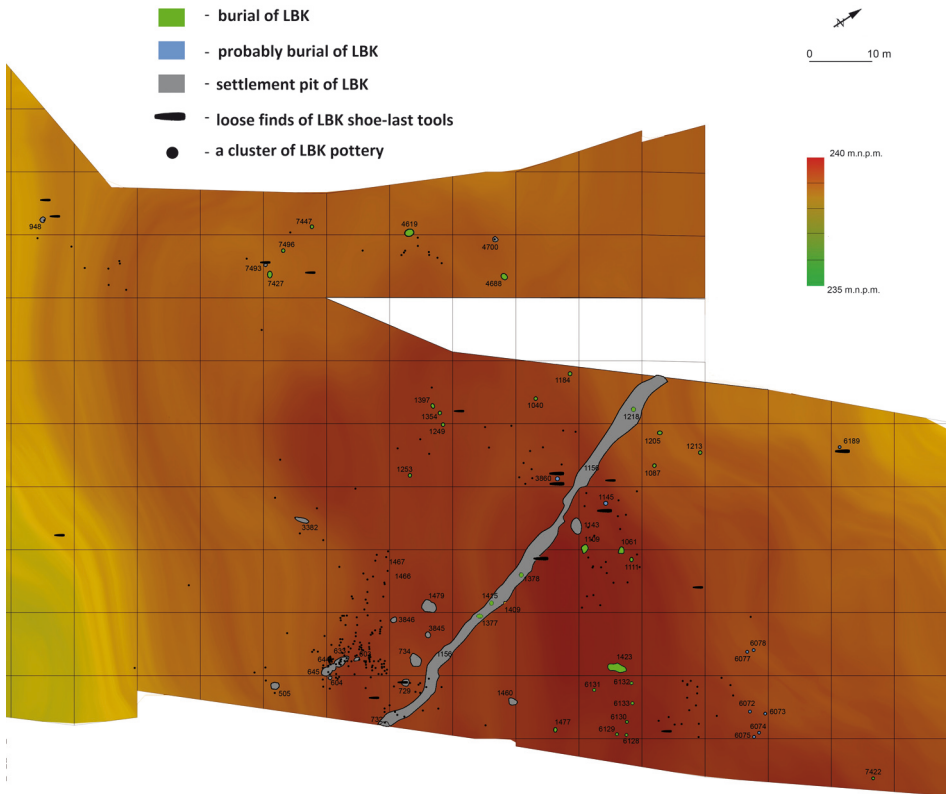


Fig. 2. Modniczka – plan of the cemetery (Czekaj-Zastawny and Przybyła 2012)



Fig. 3. Modniczka – cremation burial – feat. No. 1184 (Czekaj-Zastawny and Przybyła 2012)





Fig. 4. Modlniczka – cremation burial – feat. No. 1024 (Czekał-Zastawny and Przybyła 2012)

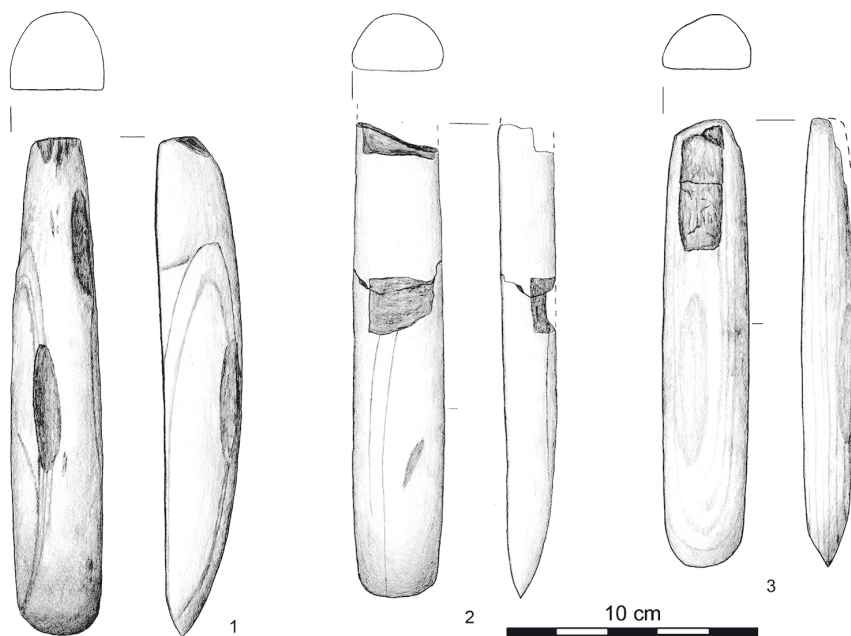


Fig. 5. Modlniczka – examples of shoe-last tools from cremation burials (Czekał-Zastawny and Przybyła 2012)



entire cemetery was dated to the fully-developed Music Note phase and possibly to the beginnings of the *Želiezovce* phase of the LBK. It seems likely that the cemetery was associated with the settlement functioning on the nearby elevation (Modlnica, site 5).

## PATTERNS OF BURIALS LOCATION IN LBK

There are three basic models of the location of the graves (Jeunesse 1997, 43, 44): designated cemeteries (type 1), individual burials within a settlement (type 2), and small clusters of burials within or on the outskirts of a settlement (type 3). The sites from south-eastern Poland should be ascribed primarily to type 2. Besides the burial ground in Modlniczka, distinguishing sites belonging to types 1 and 3 involves certain difficulties. This mostly stems from the fact that a sufficient area around the burials has yet to be examined. With complete certainty, only the burial ground situated on the outskirts of the settlement in Brzezie 17 can be recognized as type 3. Other burials discovered in clusters can be associated with both type 1 and 3, although the existence of small clusters of graves next to settlements seems more likely. The category of burials located within settlements is represented by features from Olchowa, Łoniowa, Samborzec, Modlnica, and Targowisko 12/13 to name a few.

## BI-RITUAL OF BURIALS IN LBK

In the LBK, both inhumations and cremation burials are known. In some regions, both of the rites were followed equally often, but elsewhere the ratio of the two types of burials is different – *e.g.*, at the cemetery in Elsloo, cremations accounted for 42% of all burials, while in Nitra, cremation burials represented 10% of all interments, and in Vedrovice, not a single cremation was found among the total of 96 burials. Cemeteries containing the highest percentage of cremation burials are primarily located in central Germany (Arnstadt – 12 cremations and 10 inhumations; Wandersleben – 132 and 179, respectively), Bavaria (Stephansposching – 31 cremations and 10 inhumations; Aiterhofen – 69 and 159, respectively) and in the Netherlands (47 cremations and 66 inhumations in Elsloo). The burial ground in Modlniczka is unique in this respect, since the cremation burials amount here to 100% of all the graves. Hence, this undermines the opinion that the cremation rite is rare in the eastern range of the LBK (Jeunesse 1997). The closest to Modlniczka, and demonstrating a close similarity to it, is the burial ground in Kralice na Hané (Šmid 2012). There, cremation burials make up the second-highest percentage among the known cemeteries – 89.61%. The grave goods are also analogous to those from Modlniczka.

In Poland, no burial grounds containing both types of burials have been encountered. Moreover, besides the above-mentioned burial ground, the only known cremation burial,

in fact regarded as an alleged LBK burial, comes from Gródek on the Bug River. The remaining features are inhumations. There is also a group of burials with no skeletal remains, where either bones did not survive or else these features were cases of symbolic burials – as, for instance, within rectangular features inside tripartite houses (e.g., in Brzezie 17, Brzezie 40, Targowisko 12/13, 14/15). In each case, these features are contemporaneous with the house and always in the same part of it. In the infill of most of them, small artefacts are found in the backfill layer, and in a few, typical inventories of grave goods were discovered (especially in Łoniowa; Valde-Nowak 2008, 51-54). These examples come from sites where bones are extremely poorly preserved; thus, it is hard to assess whether these were actual or symbolic burials.

### CONSTRUCTION AND ORIENTATION OF THE GRAVE PIT IN THE LBK

All of the graves contained single burials. Inhumation pits are highly uniform: in most cases they are oval or sub-rectangular, and devoid of any trace of additional structures. This form of burial is the most typical at all European sites. In Aleksandrowice, two graves of rare construction were discovered. In both cases, the pit was either reinforced with a wooden structure or it was roofed (Fig. 6). In other LBK burials in Polish lands, no

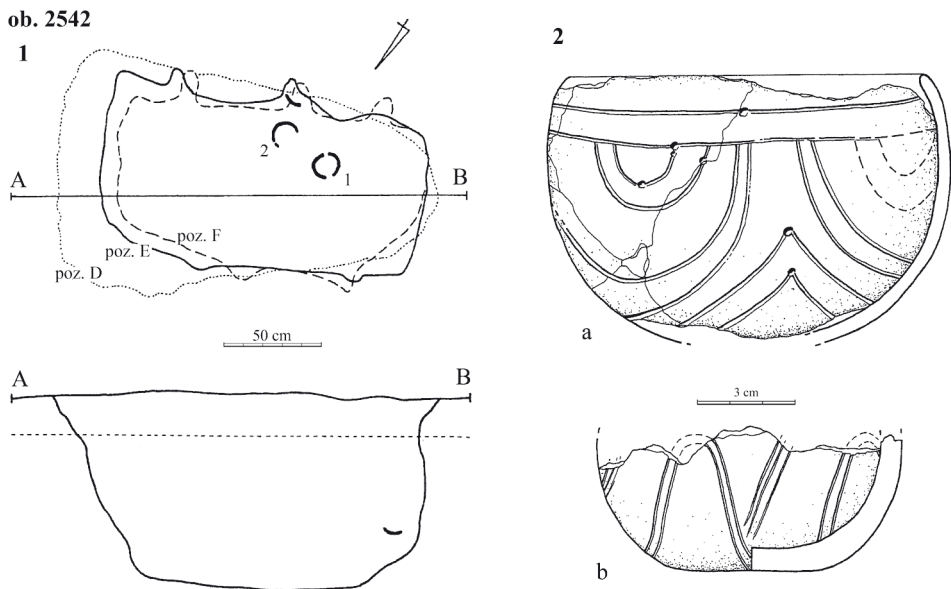


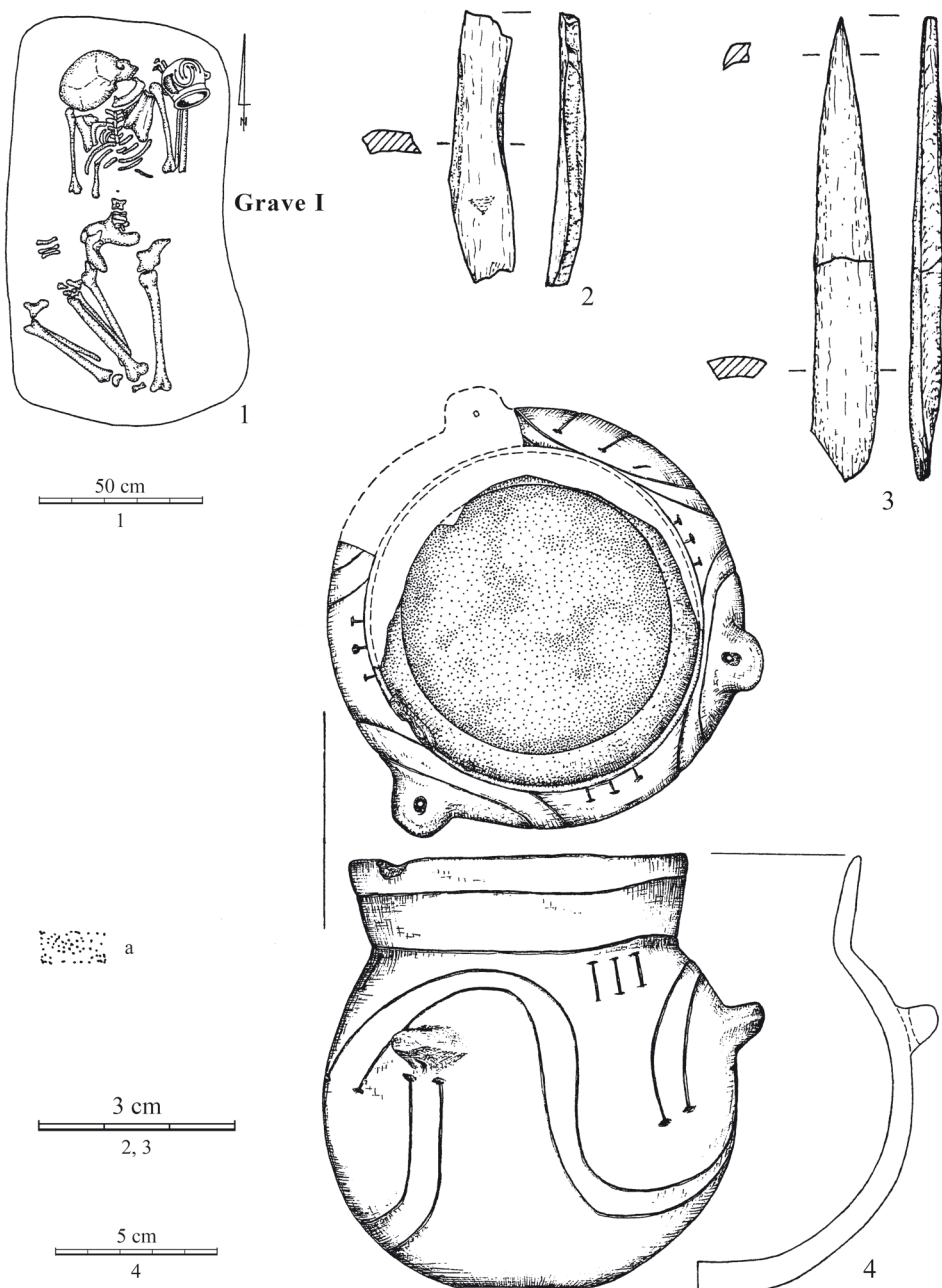
Fig. 6. Aleksandrowice – example grave (Czekał-Zastawny 2009b)

similar structures have been recorded to date, and outside Poland there are very few of them – *e.g.*, in Mulhouse-Est in the Alsace region (two burials; Jeunesse 1997, 60, 61), in Sondershausen in Bavaria (two graves; Kahlke 1954, 66-68), and in Arnstadt in central Germany (one burial; Kahlke 1954, 66-68). The remains of the construction are perceptible in the form of traces of four vertical posts in a square plan on the inner side of the burial pit's margin, as well as traces of a few posts surrounding the pit (Jeunesse 1997, 60, 61). Placement of the posts on the western, southern and eastern sides is typical. These structures are interpreted as traces of "mortuary houses" with entrances on the north side. Feature 2541 from Aleksandrowice is analogous in this respect (Czekaj-Zastawny 2000; 2008). Traces of posts were recorded here as well, on each of the three aforementioned cardinal directions. Additionally, the direction of the burial pit axis is identical to the analogous features from outside Poland. The burial discussed here is most similar to grave 28 from Sondershausen (Kahlke 1954, 66-68).

Infills of the skeletal burials indicate that the grave pits were backfilled directly after the deposit of the deceased, with dirt from the immediate surroundings of the burial. It seems that no attention was paid to the orientation of the pits with the respect to the cardinal directions, as is also the case in burial grounds outside Poland, where no strict rules regulating this matter were observed. Within the entire range of the LBK, grave orientation is site-specific for each location. At the same time, all the burials are uniform when it comes to the position of the body of the dead: crouched on one side, upper limbs bent at the elbows and directed toward the face, lower limbs bent at the hip and knee joints, feet pulled-up to the pelvis. In seven cases, the deceased was laid on the right-hand side, and in four, on the left-hand side; choice of the side has no apparent connections to sex or age. At LBK grave sites outside Poland, the crouched position on the left-hand side dominates. However, there are sites known where this position does not prevail, as, for instance, at the cemetery in Rutzing in Upper Austria (10 out of 16 deceased were interred there on the right-hand side).

## GRAVE GOODS AND TREATMENT OF THE DECEASED IN LBK

In none of the graves were human remains deliberately destroyed or deprived of parts of the skeleton. In three of the graves, the dead were sprinkled with ochre. This practice was fairly common among LBK burials (Jeunesse 1997, 80). Ochre, sprinkled on or around the body, was most often applied on particular parts of the body and in its surroundings. This pigment most often occurs in the vicinity of the skull (as at objects 60 and 208 in Samborzec; Fig. 7). It is not unusual to encounter burials in which there are two concentrations of ochre: in the vicinity of the skull, and between the pelvis and knees (which is possibly the case in the grave in Szczotkowice).



**Fig. 7.** Samborzec. Grave I (feature 60): 1 – horizontal outline of grave pit with skeleton and grave inventory, 2 – bone tool fragment, 3 – bone tool, 4 – clay vessel with traces of ochre (a); (Czekaj-Zastawny 2009b)

Detailed anthropological analysis was done only for the skeletons from Samborzec (studies by E. Haduch). In total 2 women, 2 men, 2 children and 7 skeletons described as adult individuals were identified. The deceased were of good health, which makes it impossible to determine the cause of their death.

The artefacts found in the graves were those most common in LBK cemeteries. Regarding inhumations, these are mostly pottery vessels, and in cremation burials – stone shoe-last tools. Between 1 and 3 pottery vessels were laid in the graves. Grave goods were placed in the corner of the burial pits (Olchowa), most often close to the head of the deceased (in feature no. 60 from Samborzec, they were in the hands of the deceased lifted toward the head) or next to the outline of the pit, along its longer side (Aleksandrowice). Only in two cases were the vessels accompanied by other items (feature 60 from Samborzec, burial I from Szczotkowice). In three burials, the grave goods contained no vessels. Also found are ornaments, tools, pigments, animal bones, and a polishing slab.



Fig. 8. Szczotkowice – necklace made of *Spondylus gaederopus* shell beads and white marble (Czekaj-Zastawny 2017)

Ornaments are very frequently present in the LBK grave inventories, and they are extremely diverse. Beads are typical of this culture, and ones made of *Spondylus gaederopus* shell are particularly characteristic (Fig. 8). Various tools were found in three graves: in feature 60 from Samborzec – a bone awl, in the grave from Igołomia – a set of flint items, including two sickle insets, and in grave VII from Giebułtów – a tool made of deer antler. Only in one grave (feature 60 from Samborzec) was pigment (specifically, a container filled with powdered ochre) present among the grave goods.

Ochre and graphite are the most widespread pigments. They are found in lumps or powdered (Jeunesse 1997, 80). In most cases, ochre covered the deceased (*cf.* above). Analogously to feature 60 from Samborzec, powdered ochre stored in a container was found in graves 2 and 30 from Essenbach, to name just a few examples.

The feature from Łoniowa is in many ways one of the most interesting burials. Besides the unusual location (within the outline of a contemporaneous house) and traces of organic items, it was also exceptional when it comes to the flint inventory included among the grave goods.

The question of distinguishing inventories typical of female and male burials in the LBK funeral rite is difficult to address. Both men and women were treated similarly regardless of their age. One should rather speak about the categories of artefacts most commonly present in male or female burials, and not about their rigorous division (Jeunesse 1997). The majority of known burials contain “neutral” grave goods that do not indicate the gender of the interred. This is true in the case of inhumations from Poland, where none of the categories more associated with one or the other sex were found. In both the female and male graves, there were items present that are considered to be typical for either sex, *i.e.*, pottery vessels and beads.

This issue renders itself quite differently in the case of cremation burials. At the cemetery in Modlniczka, all the graves identified as male burials were equipped with at least one amphibolite adze (in an extreme case, 4 pieces – grave 1061). This is typical of cremation burial cemeteries, where shoe-last tools, flint artefacts, and pottery vessels or sherds are the most commonly found grave goods. Analyses carried out at the site in Aiterhofen (Nieszery 1995) indicate that, just as in Modlniczka, adzes were the most common elements of grave goods in male burials. Based on this, it is assumed that anthropologically unidentified graves equipped with adzes are male interments; likewise, the only discovered burial of a child was probably the grave of a boy.

## GENERAL CHRONOLOGY OF LBK BURIALS IN POLAND AREA

Chronology with respect to the phases of the LBK may be defined only in the case of graves equipped with decorated pottery, and in individual cases – on the basis of strati-



graphic relationships. Probably only one burial (feature 208 from Samborzec) may be dated to phase I – the Zofipole phase. Seven graves are dated to the Music Note phase (feature 2542 from Aleksandrowice, features from Brzezcie, features 60 and possibly 71 from Samborzec, grave I from Szczotkowice), and two to the Źeliezovce phase (from Łoniowa and Olchowa). The cemetery in Modlniczka is dated to the second half of the Music Note phase and the beginning of the Źeliezovce phase of the LBK (Czekaj-Zastawny 2009b).

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