

Anna Zakościelna¹

PREPARED/ABANDONED/SYMBOLIC? – A MONUMENTAL GRAVE OF THE FUNNEL BEAKER CULTURE FROM SITE 3 IN STRZESZKOWICE DUŻE, LUBLIN DISTRICT

ABSTRACT

Zakościelna A. 2022. Prepared/abandoned/symbolic? – a monumental grave of the Funnel Beaker culture from Site 3 in Strzeszkowice Duże, Lublin District. *Sprawozdania Archeologiczne* 74/1, 411-431.

Remains of a monumental structure linked with the Funnel Beaker culture were discovered in Strzeszkowice Duże (Lublin District, Poland) during a rescue excavation carried out prior to investment works (building expressway S19 from Lublin to Kraśnik). The structure did not contain any burial chamber or burial. In one of ditches forming the outline of the construction, there was a hoard of nine artefacts made of Świeciechów flint.

Keywords: Funnel Beaker culture, monumental structure, long flint blades, Świeciechów flint, hoard
Received: 13.01.2022; Revised: 31.01.2022; Accepted: 11.07.2022

INTRODUCTION

Site 3 in Strzeszkowice Duże (AZP – Polish Archaeological Record 79-80/7; φ 51°09'15.1" N; λ 22°24'27,0" E) – located in Niedrzwica Duża Commune, Lublin District – occupies the southern slope of the Ciemięga River valley (tributary of the Bystrzyca), in the eastern part of the Bełżyce Plateau (314.13) – mesoregion of the Lublin Upland (Solon *et al.* 2018, 170, 171).

¹ Institute of Archaeology Maria Curie-Skłodowska University; M.C. Skłodowska sq. 4, 20-031 Lublin; anna.zakoscielna@mail.umcs.pl; ORCID: 0000-0002-1487-0117

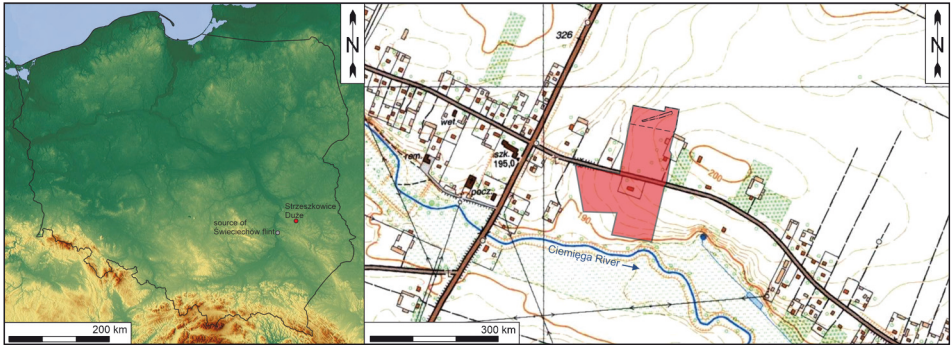


Fig. 1. Strzeszkowice Duże, Site 3. Location of the site on a map, scale 1:10 000.

Base maps: <https://maps-for-free.com> and <https://www.geoportal.gov.pl/>. Graphic design by P. Mączyński

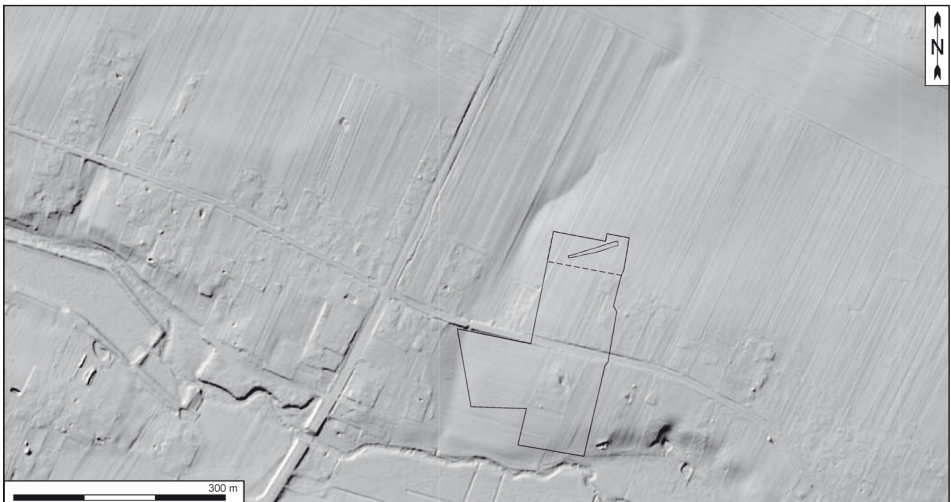


Fig. 2. Strzeszkowice Duże, Site 3. Digital model of the terrain with the marked monumental structure.

Source: <https://www.geoportal.gov.pl/>. Graphic design by P. Mączyński

The district road ‘Bełżyce-Krężnica Jara-Lublin’ (West – East) runs from the west to the east, more or less through the middle of the area of the site, the edges of which are delineated with the dispersion of the surface material (Figs 1; 2).

The rescue excavation – preceding the construction of expressway S19 ‘Lublin-Kraśnik’ and led by Józef Niedźwiedź – was carried out in autumn 2019, covering the area of 335.8 ares, which overlapped with the territory intended to be affected by earthmoving during the road construction. This work resulted in finding 667 artefacts – having different functions and cultural attributions – indicating several stages of use of the site (Fig. 3). The

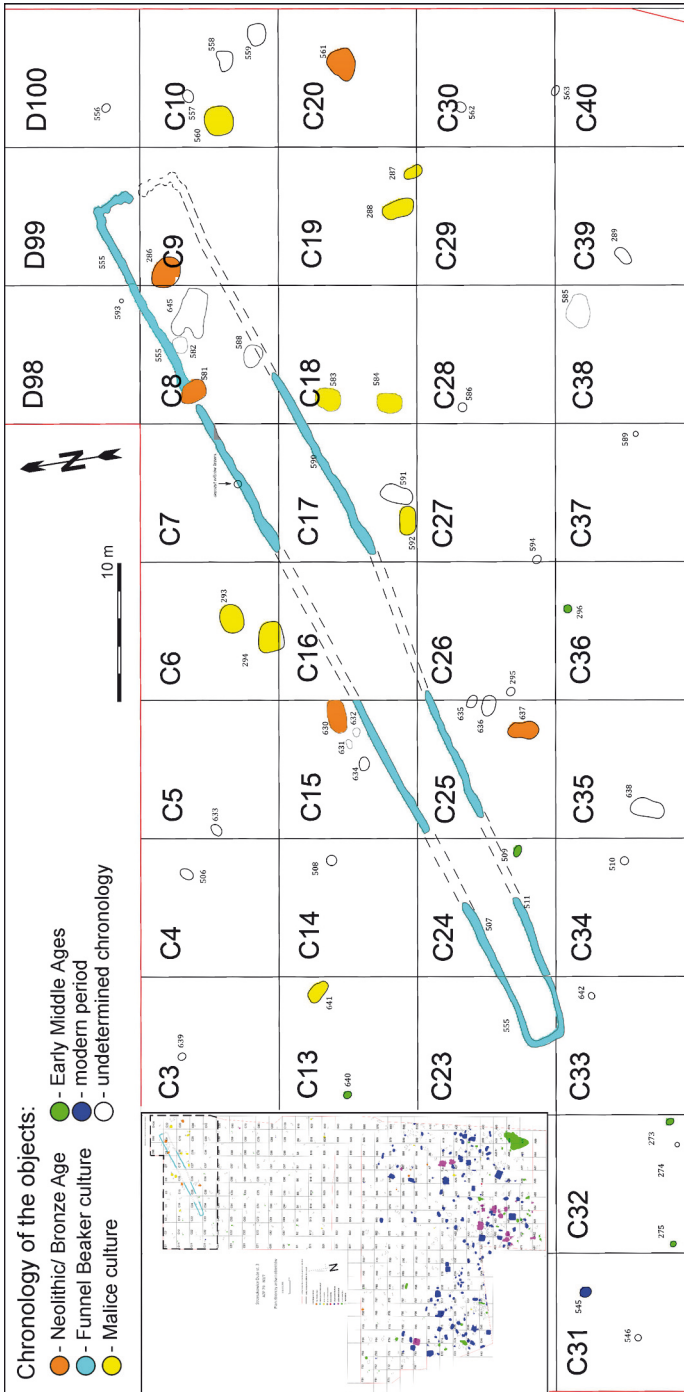


Fig. 3. Strzeszkowice Duże, site 3. Plan of the discovered features. After E. Niedźwiedz, J. Niedźwiedz 2020. Graphic design by P. Mączyński

earliest one is associated with the Malice culture, to which 17 settlement features were attributed. Eight features were generally dated to the Neolithic/Bronze Age based on the technological features of fragmented, non-diagnostic pottery; the monumental structure – which at the stage of the surface survey had been documented as four ditch segments – was attributed to the Funnel Beaker culture. Four features were attributed to the Mierzanowice culture, and one to the Lusatian culture. The bulk of the discovered features (163) were associated with the early Middle Ages (9th-12th centuries AD); there were also settlement remains from the late Middle Ages and Modern Period (Niedźwiedź and Niedźwiedź 2020, 25, 80, 81).

MONUMENTAL STRUCTURE

The structure discussed in this paper is located near the northern and north-eastern edges of the researched area (φ 51°09'18.6" N; λ 22°24'1,25" E). In the excavation documentation, it is marked with number 555 (initially, the successively discovered parts of the ditch had been marked with numbers 507, 511, 555, 590). The feature is located on the eastern slope of an oval elevation having an all-round exposition and descending into a small hollow that enters the valley of the Ciemięga River (Figs 1; 2). The tomb was recorded as six shallow, segmented foundation ditches arranged in the form of a tall trapezoid oriented from the east to the west (with the deviation of c. 10° towards the southwest-northeast. In several places (*e.g.*, near the front of the construction, in the central part and by the narrow side) the outlines were not preserved or it was impossible to record them due to the exceptionally unfavourable conditions. The structure was 69 m long, its front (eastern) side was 7 m wide, whereas the narrow (western) part had a width of 3 m. In the – partially reconstructed – front side, there was a gap (c. 1.0-1.2 m wide) (Figs 3; 4). The highest part of the foundation ditch, which marked the ground floor of the construction, was recorded directly under the topsoil, at a depth of 26-28 cm by the front side – located near the top part of the elevation, 27-30 cm in the central part and 28-32 cm by the narrow side, on the slope of the elevation. The width of the ditch was 50-70 cm, its depth varied from 54-58 cm in the eastern part to 50-70 cm in the western section. Its profile was semi-oval or nearly rectangular. The ditch was filled with lixiviated, horizontally stratified loess having a light grey colour, which was alternately light grey and rusty in places (Fig. 4).

During the exploration, no post holes were found near the foundation ditch or inside the structure. Still, according to the archaeologist excavating the site, the exceptional drought affecting the region during the research considerably influenced the observation conditions, and even moistening the soil did not prove helpful (Niedźwiedź and Niedźwiedź 2020, 30). In one section of the southern ditch (feature 590), in its highest part, three medium-sized cobbles were discovered. The fill of the ditch lacked archaeological material – except one non-diagnostic pottery sherd and a cluster of nine Świeciechów flint blades

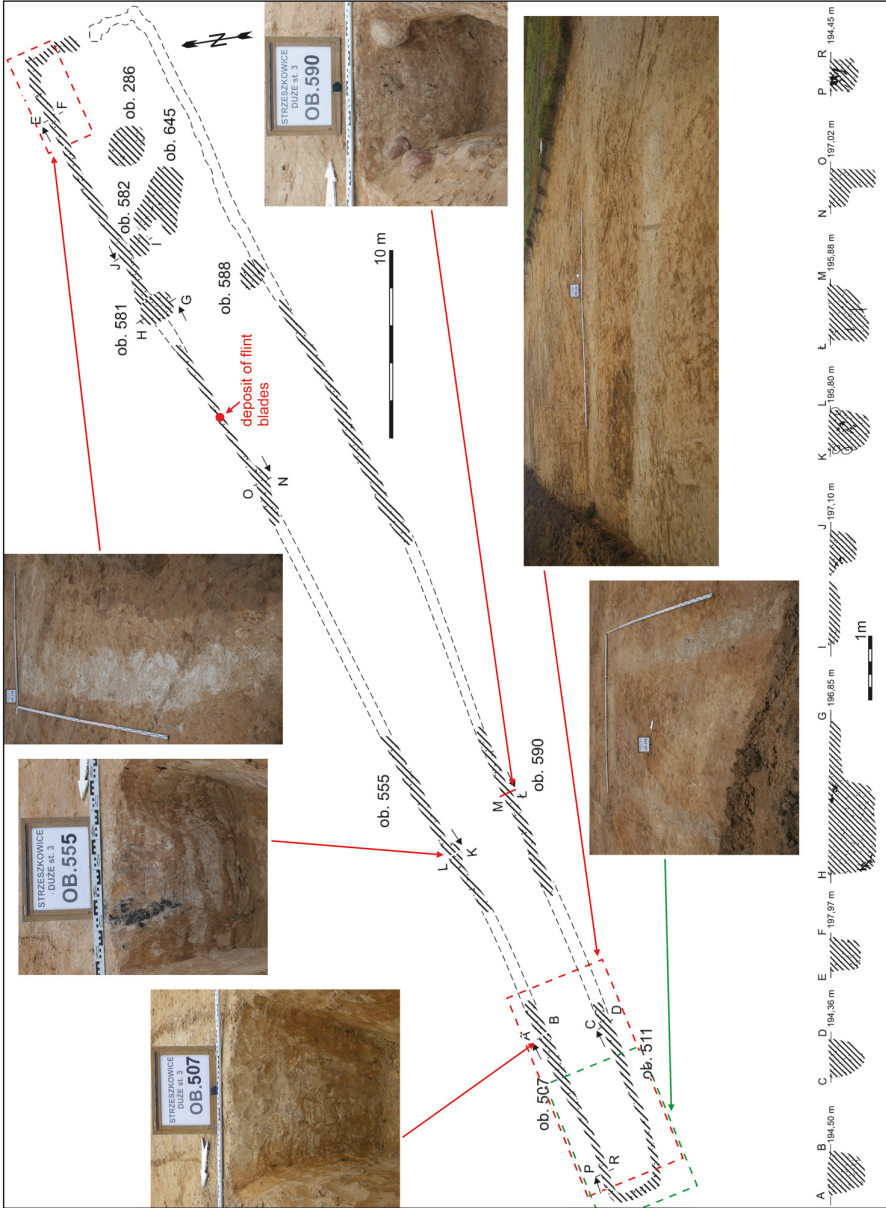


Fig. 4. Strzeszkowice Duże, site 3. Plan of the monumental structure. After E. Niedźwiedz, J. Niedźwiedz 2020. Graphic design by P. Mączyński

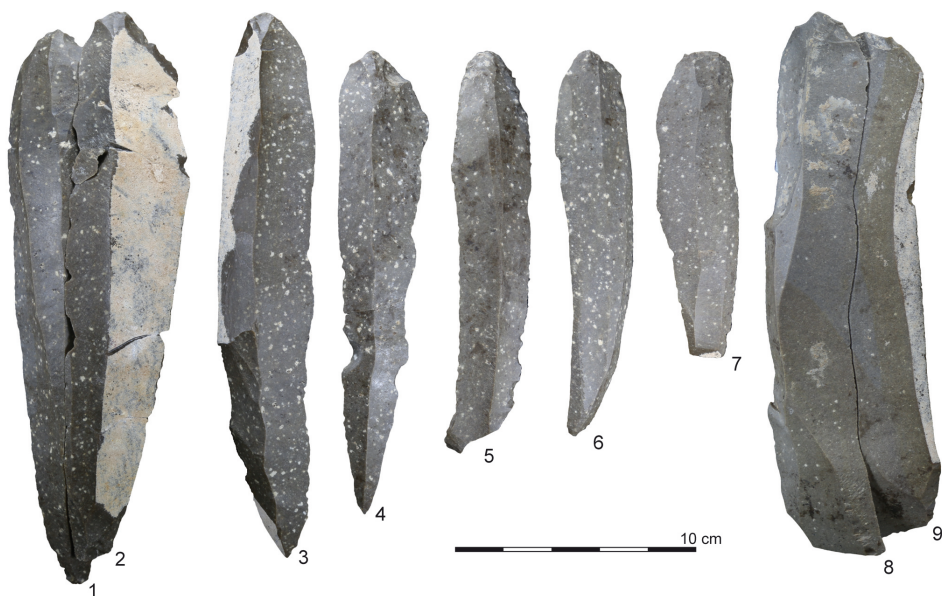


Fig. 5. Strzeszkowice Duże, site 3. Hoard of blades. Photo by T. Wiśniewski

artefacts discovered in the northern ditch, around 22 m from the north-eastern corner of the front side (Fig. 4).

The space encircled with the ditch did not yield any burial pits or burials attributed to the Funnel Beaker culture. There were no features or movable material of this archaeological culture near the structure or elsewhere in the researched area (Fig. 3). Opposite to the entrance, around 4 m from the front side of the monumental structure, there was a vast, shallow pit (feature No. 286, dimensions: 174 × 185 × 20 cm), whose fill contained one flint artefact. A similar, deeper pit (No. 581) – disturbing the northern ditch – was located 14 m from the north-eastern corner. It also contained a single flint artefact. Both features were broadly dated to the Neolithic. Near the front side of the structure, there were three other features lacking cultural materials and whose cultural and chronological attribution remains unknown (Nos. 582, 645, 588). Feature 582 was slightly disturbed by the ditch, thus it must come from some earlier time. Still, it is impossible to determine with precision the relation between feature No. 588 and the ditch (it was impossible to record the outline of the latter in this place) (Figs 3, 4).

Near the monumental structure, there were recorded five settlement features – containing single flint artefacts as well as single pottery sherds and generally dated to the Neolithic/Bronze Age – and nine features associated with the Malice culture. They were clustered near the front side of the structure, to the south of the southern ditch (Nos. 287, 288, 560, 583, 584, 592), two were located just by the northern ditch, more or less in its

middle (293, 294) and another one (641) was found not much more than 11 metres north of the tail. The monumental structure did not disrupt any of the features attributed to this culture (Fig. 3).

As mentioned before, in the fill of the northern ditch – located around 22 m from the north-eastern corner – there was a cluster of nine macrolithic blade forms made of Świeciechów flint, which were without any doubt artefacts made by Funnel Beaker people (Fig. 5). Originally, they might have been kept in some sort of a container or wrapped in cloth. On the surfaces of most of them, there were dark brown, irregular spots having different sizes, which possibly had been caused by the decomposition of such a container/wrapping (Samples of the residue for identification test were taken in the Analytical Laboratory of the Department of Chemistry, Maria Curie-Skłodowska University in Lublin).

COMPOSITION OF THE FLINT ARTEFACTS

1. Blade, trapezoidal in cross-section, with the slightly damaged tip, broken post excavation. Flat butt, with multiple negative scars, faceted; negative scars left by platform edge trimming; moderately prominent bulb, almost invisible in the blade profile, with a scar and vast chipping; parallel lateral edges gradually converging into the pointed tip; several series of minute chipping; in the distal part of the left edge, there is regular single-series retouch on the dorsal surface; in the proximal part of the right edge, there is a retouched notch (?) on the ventral surface; bent in the mesial part; dimensions: 230 × 44 × 15 mm; metric category: 96 (Dzieduszycka-Machnikowa and Lech 1976, 31-33, 162); bend height: 14; weight: 155.6 g (Fig. 6: 1).

2. Blade, lengthwise cortical on one side, triangular/trapezoidal in cross-section, having a fragment bearing scars left by the trimming the core apex; broken four times post excavation; chipped in the places of the fractures. Gabled butt with multiple negative scars; abraded butt edge; negative scars left by platform edge trimming; moderately prominent bulb, partly removed – the right edge of the proximal part is formed with flat alternating denticulated retouch; parallel lateral edges gradually converging into the pointed tip; strongly bent in the mesial part; dimensions: 226 × 47 × 10 mm; metric category: 105; bend height: 22 mm, weight 102.0 g (Fig. 6: 2).

3. Blade showing part of the preparation of the crest, partly lengthwise cortical, triangular in cross-section. Gabled butt bearing two negative scars; abraded butt edge; negative scars left by platform edge trimming; lip below the butt; moderately prominent bulb with no visible cone; parallel lateral edges, gradually converging into the pointed tip; on the ventral surface of the right edge, there is segmental abrupt edge retouch and flat conchoidal retouch; dihedral burin, formed on the tip with three or four blows, three of which are flat and thin down the ventral surface of the tip; bent in the mesial part; dimensions: 227 × 38 × 14 mm; metric category: 86; bend height: 17 mm; weight: 112.6 g (Fig. 7: 1).

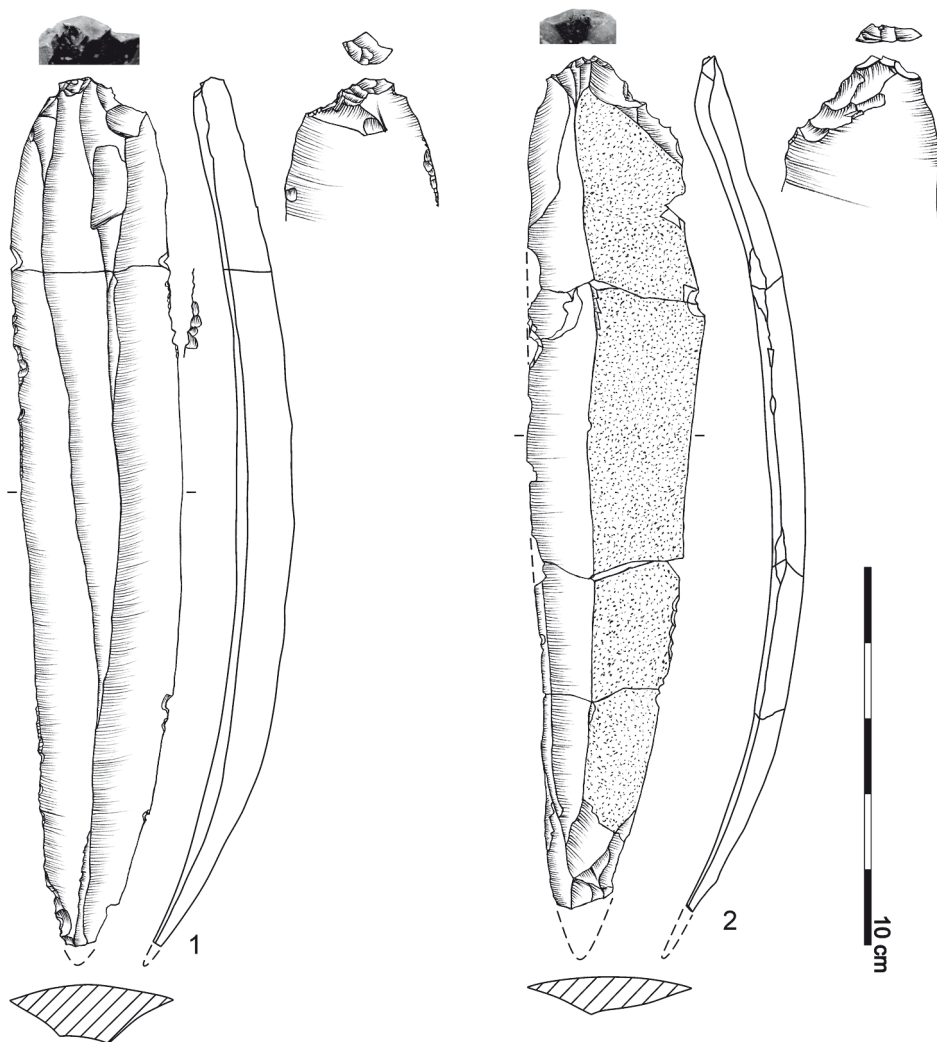


Fig. 6. Strzeszkowice Duże, site 3. Blades from the hoard.
 Drawings by J. Libera. Photos by T. Wiśniewski. Graphic design by P. Mączyński

4. Blade with negative scars on the dorsal surface, triangular cross-section, broken post excavation. Gabled butt bearing multiple negative scars, faceted; negative scars left by platform edge trimming; lip below the butt; moderately prominent bulb without visible cone; not very regular lateral edges converging into the pointed tip; in the distal part, on both edges, there are two notches – located almost opposite to each other – formed with abrupt retouch; on the tip, there is a simple burin formed with two blows on the right edge;

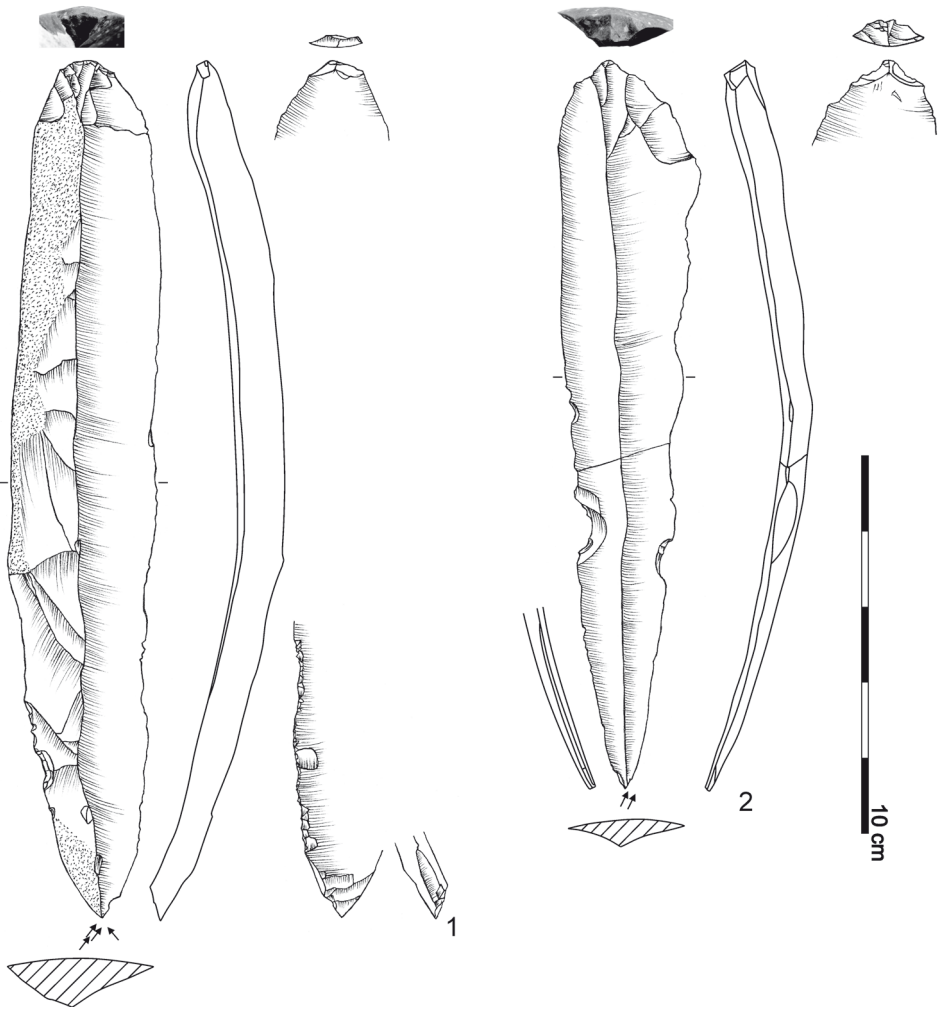


Fig. 7. Strzeszkowice Duże, site 3. Blades from the hoard.
 Drawings by J. Libera. Photos by T. Wiśniewski. Graphic design by P. Mączyński

micro-retouch on the left edge; considerable bend in the mesial portion; dimensions: 193 × 38 × 10 mm; metric category: 85; bend height: 19 mm; weight 50.0 g (Fig. 7: 2).

5. Retouched blade with a triangular/trapezoidal cross-section; not very regular conchoidal retouch in the proximal part covering up to $\frac{1}{3}$ of the length; in the remaining parts, there is minute alternating edge retouch; on the ventral surface of the right side, there is flat, double-series retouch in the mesial part; edge butt, abraded; negative scars left by

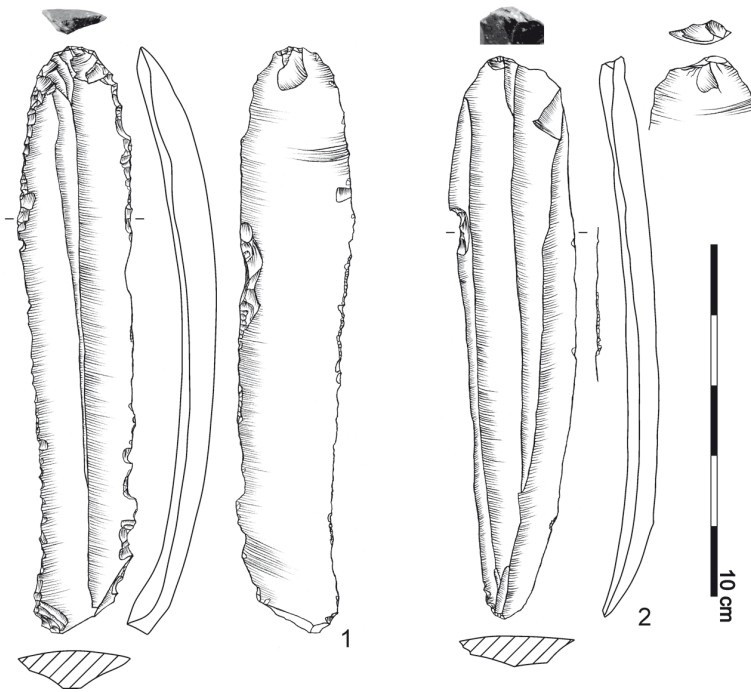


Fig. 8. Strzeszkowice Duże, site 3. Blades from the hoard.
 Drawings by J. Libera. Photos by T. Wiśniewski. Graphic design by P. Mączyński

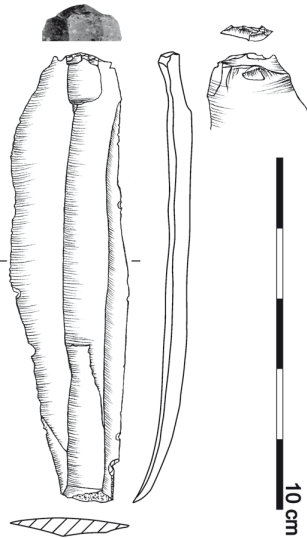


Fig. 9. Strzeszkowice Duże, site 3. Blade from the hoard.
 Drawing by J. Libera. Photo by T. Wiśniewski. Graphic design by P. Mączyński

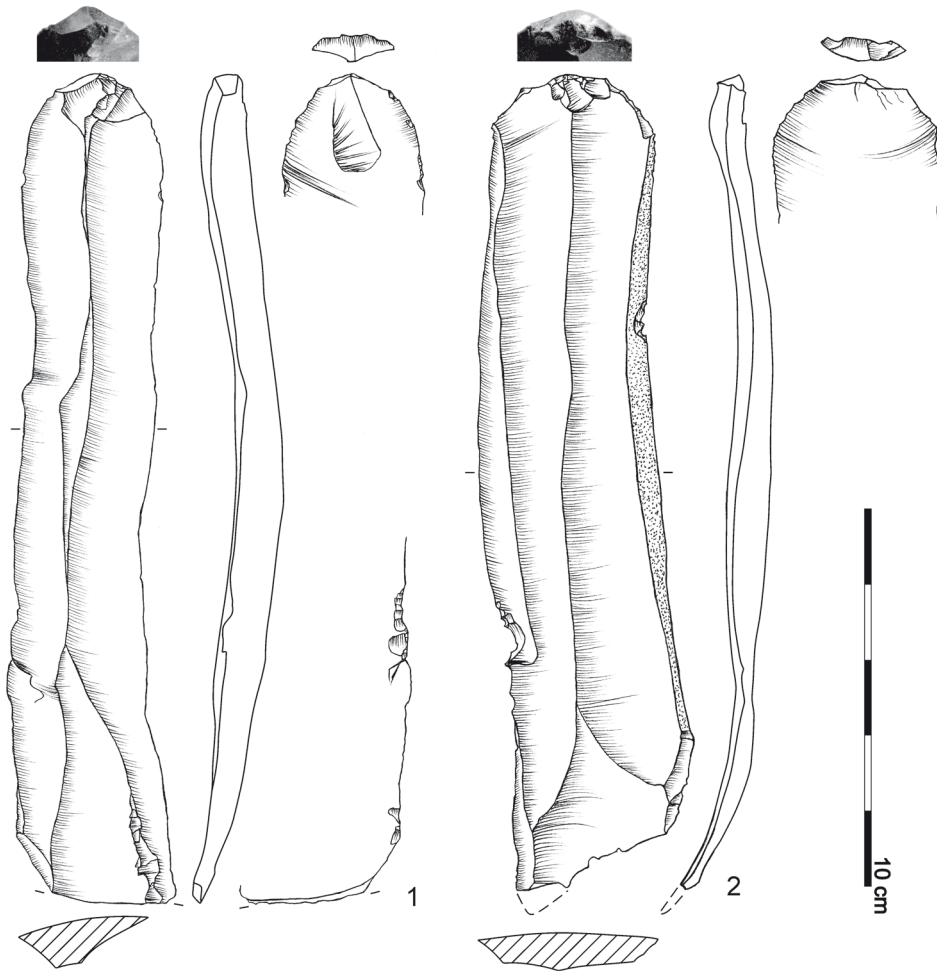


Fig. 10. Strzeszkowice Duże, site 3. Blades from the hoard.
 Drawings by J. Libera. Photos by T. Wiśniewski. Graphic design by P. Mączyński

platform edge trimming; moderately prominent bulb with a scar and considerable chipping; parallel lateral edges, natural surface tip, diagonal to the axis; the edges of the tip, especially the lower edge, are rounded and slightly glossed; bent in the mesial part; dimensions: 167 × 33 × 12 mm; metric category: 75; bend height: 15 mm; weight 58.9 g (Fig. 8: 1).

6. Blade with negative scars on the dorsal surface and a polygonal cross-section. Butt bearing multiple negative scars, faceted, with negative scars left by platform edge trimming; moderately prominent bulb with a scar and chipping; parallel lateral edges gradually converging into the pointed tip, whose dorsal surface is covered with minute retouch; minute

retouch on the ventral surface, in the central part of the right edge; in the proximal part, on the left edge, there is a notch formed with semi-flat retouch; bend near the tip; dimensions: 160 × 34 × 9 mm; metric category 75; bend height 10 mm; weight 52.7 g (Fig. 8: 2).

7. Blade with negative scars on the dorsal surface and a trapezoidal/polygonal cross-section. Gabled butt bearing two negative scars, faceted; negative scars left by platform edge trimming, moderately prominent bulb with scars and chipping; parallel lateral edges, linear tip, perpendicular to the axis, with vestigial traces of cortex; very minute retouch and a notch on the right edge, near the tip; bend near the tip; dimensions: 128 × 33 × 6 mm; metric category 74; bend height 8 mm; weight 26.1 g (Fig. 9).

8. Blade with negative scars on the dorsal surface with a triangular/trapezoidal cross-section. Gabled butt bearing two negative scars, abraded butt edge, negative scars left by platform edge trimming; lip below the butt; moderately prominent bulb with a scar and vast chipping; parallel, not very regular lateral edges; flat segmented retouch on the ventral surface of the right edge; tip perpendicular to the axis, broken; opposing negative scar – in the distal part – formed during the preparation of the core apex; mesial bend; dimensions: 220 × 39 × 13 mm; metric category: 86; bend height: 12 mm; weight: 111.2 g; can be refitted with blade No. 5 (Fig. 10: 1).

9. Blade, lengthwise cortical on one side with a polygonal cross-section. Gabled butt with multiple negative scars, abraded butt edge, negative scars left by platform edge trimming; lip below the butt; distinctly arched bulb with a slight scar; parallel lateral edges; the left edge is chipped in the distal part; the right is slightly glossed, especially on its ventral surface; opposing negative scar in the distal part formed during the preparation of the core apex; linear tip, diagonal to the axis, slightly broken; distal bend; dimensions: 216 × 48 × 10 mm; metric category: 105; bend height: 11 mm; weight: 116.2 g; can be refitted with blade No. 4 (Fig. 10: 2).

TECHNOLOGICAL AND MORPHOLOGICAL ANALYSIS

Besides the chipped fractures of two specimens- which resulted from careless exploitation – the blades are preserved in a very good condition and are not covered with patina.

All the blades were made of Świeciechów flint. Macroscopic features of this raw material allow us to select two artefact groups. The first set is composed of seven specimens (Fig. 5: 1-7) made of dark grey flint, which is saturated to a considerable degree with white-grey dots and spots whose diameters vary from 0.5 to 3 mm (but those reaching the upper limit are very rare). The intense spotting makes the flint surfaces somewhat abrasive. Two specimens included in this group have partly preserved, very thin and soft cortex. The other set consists of two artefacts made of grey flint covered with a modest number of white-grey spots whose diameters vary from 0.5 to 1 mm; the cortex preserved on one of these blades is also very thin and soft (Fig. 5: 8-9).

The surfaces of all the artefacts are also covered with the previously-mentioned dark brown, irregular spots of unknown origin. Their number is relatively small on the specimens included in the first group and considerable on both artefacts from the second set (Fig. 5).

The above-presented division – due to the macroscopic features of the raw material used – also has a bearing on the morphologies of the artefacts. Most of the blades included in the first group are very regular, with lateral edges generally parallel to each other (and to ridges between negative scars), that gradually converge into pointed tips. Particular specimens have their mass somewhat evenly distributed. The most massive ones (Figs 6: 1; 7: 1) are the thickest in the medial portion, which indicates that the flaking surface was considerably convex. The next two most bulky artefacts are the thickest in the proximal portion, becoming gradually thinner towards the distal end (Figs 6: 2; 7: 2). The mass of the retouched blade is similarly distributed, but the oblique distal portion – which removed some part of the natural surface of the core apex – is relatively thick (Fig. 8: 1). All the blades are bent in the profile. Six specimens are incurved in the mesial part, and the heights of the curvature vary from 14 to 22 mm. In the remaining three, the bends occur in the apical section and their heights range from 8 to 11 mm (Table 1).

The dorsal surfaces of five specimens included in this group completely lack cortex (with the exception of the shortest blade, which has its vestigial remains on the tip) and have between two and four negative scars left by blades previously detached from the core. The remaining two specimens have one side covered with lengthwise thin and smooth cortex. The percussion ripples on the ventral surfaces are clearly visible only in the butt-conoid parts and faintly on the curved tips. They do not occur on other parts of the artefacts. The cross-sections of the blades are triangular (two specimens), trapezoidal (one specimen), triangular-trapezoidal (two specimens) and trapezoidal-polygonal (two specimens). Two blades from this set can be refitted (Figs 5: 1, 2; 6: 1, 2).

The morphologies of the two refitting blades included in the second raw material group (Figs 5: 8, 9; 10: 1, 2) are considerably different from the rest. Although their edges are parallel, they are not very regular, whereas the tips are linear, perpendicular to the axis. Their morphologies are not the same, despite the fact that the blades can be refitted. The specimen with cortex preserved virtually along the entire length of the right side (Fig. 10: 2) is the thickest in the proximal and mesial parts, curved in the middle and having the polygonal cross-section. The mass of the other blade – having only negative scars on its dorsal surface – is cumulated in its mesial part. It is also bent in the middle. The cross-section of this artefact is triangular-trapezoidal (Fig. 10: 1).

Although the blades representing the two raw material groups have different morphologies, their technological features are considerably similar. In their proximal parts, they all have traces of procedures performed on the platform (platform edge) prior to the detachment of the blades: faceting (Figs 6: 1; 7: 2; 8: 3; 9), abrading (Figs 6: 2; 7: 1; 8: 1; 10: 1, 2) and trimming it (all). In the front view, the butts are gabled, with two or multiple negative

Table 1. Strzeszkowice, site 3. Morphometric characteristics of blades from the hoard (M – mesial bend; D – distal bend)

No.	Débitage taxon	Length (mm)	Width	Thickness	Metric category	Height of the bend (mm)	Weight (grammes)	Cross-section	Remarks	Fig.
1	Blade with negative scars on the dorsal surface	230	44	15	96	14 – M	155.6	trapezoidal	Broken post excavation, refits with No. 2	Fig. 6: 1
2	Blade with one lengthwise cortical side	226	47	10	105	22 – M	102.0	triangular/ trapezoidal	Broken post excavation in four places, refits with No. 1	Fig. 6: 2
3	Secondary crested blade with one lengthwise cortical side	227	38	14	86	17 – M	112.6	triangular		Fig. 7: 1
4	Blade with negative scars on the dorsal surface	193	38	10	85	19 – M	50.0	triangular	Broken post excavation	Fig. 7: 2
5	Retouched blade with negative scars on the dorsal surface	167	33	12	75	15 – M	58.9	triangular/ trapezoidal		Fig. 8: 1
6	Blade with negative scars on the dorsal surface	160	34	9	75	10 – D	52.7	polygonal		Fig. 8: 2
7	Blade with negative scars on the dorsal surface	128	33	6	74	8 – D	26.1	trapezoidal/ polygonal		Fig. 9
8	Blade with negative scars on the dorsal surface	220	39	13	86	12 – M	111.2	triangular/ trapezoidal	Refits with No. 9	Fig. 10: 1
9	Blade with one lengthwise cortical side	216	48	10	105	11 – M	116.2	polygonal	Refits with No. 8	Fig. 10: 2
	minimum	128	33	6			26.1			
	maximum	230	48	15			155.6			
	average	196.33	39.33	11			87.2			
	standard deviation	36.94	5.79	2.78			41.9			
	total weight						785.3			

scars (seven specimens – Figs 6: 2; 7: 1-2; 8: 2; 9; 10: 1-2), one is an edge butt (Fig. 8: 1), whereas another was flat (Fig. 6: 1), although not for certain, since the right part of the butt is damaged (post-excavation damage?). There is micro-crushing on some of them, albeit there are no fractures. In most specimens, core-forming procedures preceding the detachment of the blades led to selecting the point of force application on the platform. The angles between the butt and the dorsal surface are c. 80° or more or less perpendicular. Eight blades have moderately prominent bulbs, in some cases almost invisible in the profile (Figs 6: 1; 7: 2; 8: 1; 9), usually with a scar and chipping (Figs 6: 1; 8: 1-2; 9; 10: 1) or only with the former (No. 9), whereas three specimens lack both features (Fig. 10: 2). One artefact has a short, distinctly arched bulb (Fig. 10: 2). Most of the artefacts have a lip below the butt.

The blades included in both raw material groups are macrolithic. Their lengths vary from 128 to 230 mm and widths from 33 to 48 mm, whereas their thickness ranges from 6 to 15 mm. They represent the following metric categories: 70 (three specimens), 80 (three specimens), 90 (one specimen) and 100 (two specimens). Only one artefact was included in class four (No. 7 – the shortest) and the remaining specimens belong to classes five and six – they are also relatively thin, which indicates that they were slender forms (Dzieduszycka-Machnikowa and Lech 1976, 31-33). The weights of particular specimens vary from 26.1 to 155.6 g. The whole collection weights 785.3 g (Table 1).

TECHNIQUE OF FLINT PRODUCTION

As mentioned before, the macroscopic features of the raw material used allow us to select two categories of the blades belonging to the discussed set. The technological style of the specimens included in the first group indicates that three of them (Figs 5: 1-3; 6: 1, 2; 7: 1) were detached from the same core having a convex platform and at least one prepared side. Still, they come from a relatively early stage of core exploitation. Two specimens were detached during the process of expanding the flaking surface to the sides: the fragmentary blade showing part of the preparation of the crest with preserved cortex (Figs 5: 3; 7: 1) and the blade with one lengthwise cortical side (Figs 5: 2; 6: 2), which refits with the blade whose dorsal surface is covered solely with negative scars (Figs 5: 1, 2; 6: 1, 2). It is still possible that the two next blades (Figs 5: 4, 6; 7: 2; 8: 2) were also detached from the same core, but at later stages of its exploitation, when it was considerably shorter. Still, it is impossible to verify the correctness of this assumption. Although the same raw material was used in the production of two other specimens (Figs 5: 5, 7; 8: 1; 9), they were detached from a different core (or cores), which is indicated by the differently shaped tip of the retouched blade and the vestigial traces of cortex on the shortest blade.

The two blades included in the second raw material group can be refitted, so they certainly come from one core (Figs 5: 8-9; 10: 1, 2).

All the blades from this collection have preserved distinct technological features that allow us to have a closer look at the methods of detaching them from the cores. These are two techniques, well documented in prehistoric materials, experimentally tested and comprehensively discussed in the archaeological literature: indirect percussion and lever pressure (e.g., Giria 1997, 68-75; Migal 2002, 264; 2006, 391-396; Pelegrin 2006, 39-47; 2012a, 17-21; Budziszewski and Gruźdź 2013, 167-169; Mączyński *et al.* 2019, 211-214). It is also possible that a variation of the latter – crutch pressure technique – was employed. It required tool makers to use some strength. They used a handle (crutch) pressed down with force or body weight (Balcer 1983, fig. 1: d; Migal 2002, 258; Manolakakis 2008, fig. 1; Pelegrin 2012b, fig. 18.8). During the Eneolithic, these methods – especially the lever pressure technique – were mastered. In some parts of Europe, they were used in order to produce long and very long blades, whereby the employment of the lever pressure method made it possible to detach specimens longer than 30 or even 40 cm (Manolakakis 2005, e.g., Pl. 95: 1-2; 106: 1-2; 108: 1). On the other hand, the indirect percussion technique would be used to produce less regular – in the terms of the outline of their lateral edges and mass distribution – blades reaching up to 30 cm in length (Migal 2003, 61; Pelegrin 2006, 42, fig. 2). Many archaeologists point out that certain technological features of specimens obtained with the use of the two methods are similar. This resemblance is caused by such factors as core shape (convex or flat flaking surface), manner of stabilising the core during the exploitation, point of force application on the platform (flat or convex – where meet two negative scars formed during core preparation), type of punch (antler, copper), type of lever end (made of antler or copper – Migal 2002, 258; 2006, 391-395; Pelegrin 2006, 39-47; 2012a, 18-20). Among long blades discovered across Europe, western Asia and the Middle East, the most numerous are artefacts detached with the use of lever pressure, where the end of the lever was made of antler or copper. Such blades were produced in workshops located close to the outcrops of raw materials having good quality and adequately large chunks (Pelegrin 2012a, *passim*).

Besides the length and regular character of blades, the most important marks of employing the lever pressure technique and linked with the preparation of the active part of the platform prior to detaching blades are: size and shape of the butt, presence or absence of a lip below the butt, size and shape of the percussion bulb, as well as micro-traces on the butt and bulb indicating the type of lever used. The butts of the blades from the hoard discovered in Strzeszkowice Duże 3 have traces indicating that they were detached by applying pressure to the core with a lever having an end made of deer antler – this fact is mainly indicated by the gabled butts that correspond to the delicate lips, whereas flat butts lack circular fractures or cracks in the shape of circle segments left by copper tips (harder than those made of antler) (Pelegrin 2012, figs. 18.18; 19.19). This fact corresponds to the conclusions and experiments of Witold Migal (2006, 391-396) and Jacques Pelegrin (2012a). The latter analysed a group of blades made of Świeciechów flint and attributed to the Funnel Beaker culture. Next, he experimentally reproduced them using different tech-

niques. As a result, he came to the conclusion that the micro-traces present on the butts of the macrolithic blades analysed by him and attributed to this culture are typical of the pressure technique with the use of an antler lever (Pelegrin 2012a, 23-26).

DISCUSSION

The feature discovered at Site 3 in Strzeszkowice Duże is a tomb of Niedźwiedź type, subtype A, defined by Seweryn Rzepecki, who has dedicated a separate paper to these constructions (Rzepecki 2011). According to him, the distinctive feature of such unchambered tombs was 'the presence of foundation ditches delineating the ground level (or only its part) of a monumental construction. Lack of 'large stone' structures is also an important diagnostic aspect' (Rzepecki 2011, 13). Such tombs were quite widespread across the territories occupied by the Funnel Beaker culture. They were built by the populations of all its territorial groups and – against all appearances – they were not the most popular in areas lacking the 'large stone' material (Rzepecki 2011, 82). In most cases, the foundation ditches of such constructions contained holes left by posts supporting their walls, and – possibly – roofs (as their existence is uncertain). There are also features where no such post holes were recorded, *e.g.*, in Lublin-Sławinek 2 (*e.g.*, Jastrzębski and Ślusarska 1985, 194, fig. 3) or Szczytna 6 (Król *et al.* 2014, 64, 65).

Monumental constructions of the Funnel Beaker culture that do not contain any bodies occur rarely, but not exceptionally seldom. Every new discovery of this type compels us to answer the question concerning the functions (Wierzbicki 2006) of such constructions, especially in cases when they lack burial chambers or burials. This is the case of Strzeszkowice Duże 3. It is difficult to consider features 286 or 645 – which are located opposite the entrance – as the remains of the burial pit. The former could not play this role due to its almost circular shape, whereas the latter – because of its orientation, which is inconsistent with the general layout of the construction (Figs 3, 4). The examination of the tomb itself, as well as of its near and far surroundings, did not result in finding movable materials – especially pottery – that could be considered as having been left by the builders. Besides the form of the construction, only the hoard of the macrolithic flint tools directly indicates that the structure should be linked with the Funnel Beaker culture.

The monumental construction is located on the western slope of an oval elevation having an all-round exposition and descending to a currently dry valley stretching towards the valley of the Ciemięga River, and at the same time on the area adjacent to the northern and eastern limits of the excavation trench. We cannot rule out the possibility that the discovered tomb marks the western boundary of a greater cemetery, which spreads east of it – on the top part of the elevation (Fig. 1). An attempt to verify this hypothesis with the use of LiDAR imaging gave a negative result (Fig. 2), which does not mean that it has provided us with a conclusive answer. In order to verify this, it would be necessary to conduct a geomagnetic survey, or at least a test excavation.

The simplest answer to the question concerning the function of the discussed construction is contained in the title, but – for obvious reasons – a question mark was used in it. We can imagine that the local Funnel Beaker community made a collective effort to build a monumental tomb, but – for unknown reasons – the people changed their mind regarding its intended function. We also cannot rule out the possibility that its function was symbolic.

The custom of depositing different flint hoards in the stone linings of monumental tombs is characteristic especially of the Łupawa group of the Funnel Beaker culture. The deposits were composed of both vessels and raw materials or flint artefacts (Jankowska 1975, 32; Weber 1983, 60, 61, Tables XV, XX). This phenomenon occurs very rarely across the territories of the south-eastern group of the Funnel Beaker culture. Among the several dozen previously researched megalithic graves, such hoards, including blades and blade tools, were discovered in Malice Kościelne and Pawłów (Bargieł and Florek 2005, 25, fig. 9; 2006a, 368; 2006b, 389, fig. 9). The necropolis in Malice Kościelne, Site 1 – where five hoards of blades deposited in the stone linings of both tombs discovered – is exceptional in this respect (Bargieł and Florek 2006a, 368, fig. 11; Libera and Zakościelna 2006, 163).

Deposits composed of flint artefacts – but not of vessels – must be linked with some general idea prevalent across the south-eastern group. There, aquatic hoards associated with the Funnel Beaker culture most often include flint artefacts, mainly long blades (Kaflińska 2004; Florek and Zakościelna 2003; Libera and Zakościelna 2010), whereas votive gifts composed of vessels (common for the eastern group) occur seldom (Bargieł and Kącki 1989).

The composition of the set found in the ditch forming the ground level of the monumental structure in Straszkwice Duże 3 should be treated as a reference to the tradition prevalent across the Polish Lowland, just as the occasional use of chocolate flint in non-economic activities or placing, usually single, granite stones among the limestone chunks used in the construction of burial chambers or tomb linings (also *e.g.*, in Pawłów, Karmanowice, graves 35 and 37 – J. Nogaj-Chachaj 1990, 13, or in Słonowice – oral information by K. Tunia). The presence of cobbles discovered at Straszkwice Duże 3, in one of the sections of the southern ditch (feature 590 – Fig. 4) is probably a form of relating to these traditions.

CONCLUSION

The construction discovered at the site of Straszkwice Duże 3 is another tomb linked with the settlement cluster of the Funnel Beaker culture from the western part of the Lublin Upland. At the same time, it is the only structure of this kind that did not have a funerary function and contained a deposit of flint artefacts. For this reason, it makes an interesting contribution to the study of the funerary rites prevalent in the south-eastern group of the Funnel Beaker culture.

Acknowledgements

I cordially thank Mrs. Ewa Niedźwiedz and Mr. Józef Niedźwiedz, who conducted the research at Site 3 in Strzeszkowice Duże, for making available to me the materials for the research and publication. I am grateful to Mr. Tadeusz Wiśniewski for taking the photographs of the flint blades and to Mr. Piotr Mączyński for the graphic design of the illustrations. I would also like to express my gratitude to Mr. Piotr Moskała for translating the article into English.

References

- Balcer B. 1983. *Wytwórczość narzędzi krzemiennych w neolicie ziem Polski*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy im. Ossolińskich, Wydawnictwo Polskiej Akademii Nauk.
- Bargiel B. and Florek M. 2005. Wyniki badań wykopaliskowych prowadzonych w latach 2001-2003 na cmentarzysku kultury pucharów lejkowatych w Pawłowie, stan. 3, pow. Sandomierz. *Archeologia Polski Środkowowschodniej* 7, 20-32.
- Bargiel B. and Florek M. 2006a. Cmentarzysko ludności kultury pucharów lejkowatych na stanowisku 1 w Malicach Kościelnych, pow. Opatów. In J. Libera and K. Tunia (eds), *Idea megalityczna w obrządku pogrzebowym kultury pucharów lejkowatych*. Lublin, Kraków: Instytut Archeologii i Etnologii PAN, Oddział w Krakowie, Instytut Archeologii UMCS w Lublinie, 361-383.
- Bargiel B. and Florek M. 2006b. Cmentarzysko w Pawłowie, pow. Sandomierz na tle innych podobnych stanowisk kultury pucharów lejkowatych. In J. Libera and K. Tunia (eds), *Idea megalityczna w obrządku pogrzebowym kultury pucharów lejkowatych*. Lublin, Kraków: Instytut Archeologii i Etnologii PAN, Oddział w Krakowie, Instytut Archeologii UMCS w Lublinie, 385-399.
- Bargiel B. and Kącki J. 1989. „Skarb” naczyń glinianych z Jakubowie Murowanych, woj. Lublin na tle innych znalezisk gromadnych. *Sprawozdania Archeologiczne* 40(1988), 57-62.
- Budziszewski J. and Grużdź W. 2013. O technikach i metodach krzemieniarskich. In M. M. Przybyła, A. Szczepanek and P. Włodarczak (eds), *Koszyce, stan. 3. Przemoc i rytuał u schyłku neolitu (= Ocalone Dziedzictwo Archeologiczne 4)*. Kraków, Pękowice: Stowarzyszenie Archeologów Terenowych „STATER”, Wydawnictwo i Pracownia Archeologiczna PROFIL-ARCHEO, 161-178.
- Dzieduszycka-Machnikowa A. and Lech J. 1976. *Neolityczne zespoły pracowniane z kopalni krzemienia w Sąsypowie*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy im. Ossolińskich, Wydawnictwo Polskiej Akademii Nauk.
- Florek M. and Zakościelna A. 2003. Depozyt wiórów krzemiennych z Krowiej Góry koło Sandomierza (stanowisko 14, gm. Łonów, woj. świętokrzyskie). *Wiadomości Archeologiczne* 56, 51-60.
- Giria E. Yu. 1997. *Tekhnologicheskij analiz kamennykh Industriy. Metodika mikr- i makroanaliza drevnikh orudij truda*. Sankt-Peterburg: Rossiyska Akademia Nauk, Institut istorii materialnoy kultury.
- Jankowska D. 1975. Cmentarzysko kultury pucharów lejkowatych w Łupawie. *Sprawozdania Archeologiczne* 27, 27-42.

- Jastrzębski S. and Ślusarska M. 1985. Grobowce kultury pucharów lejkowatych z Lublina-Sławinka i Miłocina-Kolonii, woj. lubelskie. *Wiadomości Archeologiczne* 47(1982), 191-229.
- Kaflińska M. 2004. Neolityczne depozyty gromadne na ziemiach polskich. *Materiały i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego* 27, 5-26.
- Król D., Rybicka M., Rogoziński J. and Sznajdrowska A. 2014. Obrządek pogrzebowy kultury pucharów lejkowatych w grupie południowo-wschodniej na przykładzie stanowisk w Skołoszowie 7 i Szczytnej 6. *Naukovì Studii* 7, 62-78.
- Libera J. and Zakościelna A. 2006. Inwentarze krzemienne w wyposażeniu grobów grupy południowo-wschodniej kultury pucharów lejkowatych. In J. Libera and K. Tunia (eds), *Idea megalityczna w obrządku pogrzebowym kultury pucharów lejkowatych*. Lublin, Kraków: Instytut Archeologii i Etnologii PAN, Oddział w Krakowie, Instytut Archeologii UMCS w Lublinie, 135-169.
- Libera J. and Zakościelna A. 2010. (Nie)znane depozyty długich wiórów krzemienych z Lubelszczyzny. In S. Czopek and S. Kadrow (ed.), *Mente et rutro. Studia Archaeologica Johanni Machnik viro doctissimo octogesimo vitae anno ab amicis, collegis et discipulis oblata*. Rzeszów: Instytut Archeologii Uniwersytetu Rzeszowskiego, Fundacja Rzeszowskiego Ośrodka Archeologicznego, 91-103.
- Manolakakis L. 2005. *Les industries litiques énéolithiques de Bulgarie* (= *Internationale Archäologie* 88). Rahden/Westf.: Verlag Marie Leidorf GmbH.
- Manolakakis L. 2008. Open-cast Flint mining, long blade production and long distance exchange: an example from Bulgaria. In P. Allard, F. Bostyn, F. Giligny and J. Lech (eds), *Flint mining in Prehistoric Europe. Interpreting the archaeological records* (= *British Archaeological Reports International Series* 1891). Oxford: BAR Publishing, 111-121.
- Mączyński P., Libera J., Polit B. and Zakościelna A. 2019. Hoard of long flint blades from the Wodzisław Hummock, Lesser Poland. *Sprawozdania Archeologiczne* 71, 197-218.
- Migal W. 2002. Zamysł technologiczny wióra krzemienego z Winiar, gm. Dwikozy. In B. Matraszek and S. Salaciński (eds), *Krzemień świeciechowski w pradziejach. Materiały z konferencji w Ryni 22-24. 05. 2000* (= *Studia nad gospodarką surowcami krzemienymi w pradziejach* 4). Warszawa: Wydawnictwo Naukowe Semper, 255-266.
- Migal W. 2003. Analiza technologiczna wiórów z Krowiej Góry k. Sandomierza. *Wiadomości Archeologiczne* 56(2002-2003), 60-62.
- Migal W. 2006. The macrolithic flint blades of the neolithic times in Poland. In J. Apel and K. Knutsson (eds), *Skilled Production and Social Reproduction. Aspects of Traditional Stone-Tool Technologies. Proceedings of a Symposium in Uppsala, August 20-24, 2003* (= *Societas Archaeologica Upsaliensis Stone Studies* 2). Uppsala: Societas Archaeologica Upsaliensis, 387-398.
- Niedźwiedz E. and Niedźwiedz J. 2020. *Strzeszkowice Duże stan. 3 (7 na obszarze AZP 79-80) gm. Niedrzewica Duża, powiat lubelski. Opracowanie wyników badań archeologicznych wykonanych na trasie budowy drogi ekspresowej s19 Lublin – Rzeszów, odcinek Lublin – koniec obwodnicy Kraśnika*. Zamość. Manuscript in the archives of the Provincial Conservator of Monuments in Lublin.
- Nogaj-Chachaj J. 1990. Czwartry sezon badań ementarzyska kultury pucharów lejkowatych w Karmanicach (stan. 35), gm. Wąwolnica, woj. lubelskie. In J. Gurba (ed.), *Sprawozdania z badań tere-*

nowych Katedry Archeologii UMCS w 1990 roku. Lublin: Uniwersytet Marii Curie-Skłodowskiej, Katedra Archeologii, 10-18.

- Pelegrin J. 2006. Long blade technology in the Old World: an experimental approach and some archaeological results. In J. Apel and K. Knutsson (eds), *Skilled Production and Social Reproduction. Aspects of Traditional Stone-Tool Technologies. Proceedings of a Symposium in Uppsala, August 20-24, 2003* (= *Societas Archaeologica Upsaliensis Stone Studies* 2). Uppsala: Societas Archaeologica Upsaliensis, 37-68.
- Pelegrin J. 2012a. Conférence inaugurale: grandes lames de l'Europe néolithique et alentour / Large blades from Neolithic Europe and abroad. In J-C. Marquet and Ch. Verjux (eds), *L'Europe, déjà, à la fin des temps préhistoriques. Des grandes lames en silex dans toute l'Europe. Actes de la table-ronde internationale, Tours, Septembre 2007* (= *Supplément à la Revue archéologique du centre de la France* 38). Tours: Fédération pour l'édition de la Revue archéologique du Centre de la France, 15-43.
- Pelegrin J. 2012b. New Experimental Observations for the Characterization of Pressure Blade Production Techniques. In P. M. Desrosiers (ed.), *The Emergence of Pressure Blade Making: From Origin to Modern Experimentation*. Quebec: Springer, 465-500.
- Rzepecki S. 2011. *U źródeł megalityzmu w kulturze pucharów lejkowatych* (= *Spatium Archaeologicum* 3). Łódź: Instytut Archeologii Uniwersytetu Łódzkiego, Fundacja Uniwersytetu Łódzkiego.
- Solon J., Borzyszkowski J., Bidłasik M., Richling A., Badora K., Balon J., Brzezińska-Wójcik T., Chabudziński Ł., Dobrowolski R., Grzegorzczak I., Jodłowski M., Kistowski M., Kot R., Kraż P., Lechnio J., Macias A., Majchrowska A., Malinowska E., Migoń P., Myga-Piątek U., Nita J., Papińska E., Rodzik J., Strzyż M., Terpilowski S. and Ziąja W. 2018. Physico-geographical mesoregions of Poland: Verification and adjustment of boundaries on the basis of contemporary spatial data. *Geographia Polonica* 91, 143-170.
- Weber 1983. *Studia nad obrzędkiem pogrzebowym grupy łupawskiej kultury pucharów lejkowatych*. Poznań: Wydawnictwo Naukowe UAM.
- Wierzbicki J. 2006. Megalithy kultury pucharów lejkowatych – czy tylko grobowce? In J. Libera and K. Tunia (eds), *Idea megalityczna w obrzędzie pogrzebowym kultury pucharów lejkowatych*. Lublin, Kraków: Instytut Archeologii i Etnologii PAN, Oddział w Krakowie, Instytut Archeologii UMCS w Lublinie, 87-99.

