

Monika Bajka<sup>1</sup>, Marek Florek<sup>2</sup>

## ZŁOTA CULTURE GRAVE FROM KLECZANÓW, SANDOMIERZ DISTRICT, ŚWIĘTOKRZYSKIE VOIVODESHIP

### ABSTRACT

Bajka M., Florek M. 2020. Złota culture grave from Kleczanów, Sandomierz district, Świętokrzyskie Voivodeship. *Sprawozdania Archeologiczne* 72/2, 285-306.

In 2014, a niche grave linked with the Złota culture was accidentally discovered in Kleczanów (Sandomierz district, Świętokrzyskie Voivodeship). An approximately 25-year-old man was inhumed inside. He was crippled: one of his legs was shorter as a result of an improperly healed fracture. His body was subjected to magical rituals. For example, his skull was separated from the rest of the body and placed in a stone-lined cache. The grave inventory was composed of at least three vessels (a mug with a handle and two amphorae), two bone plaques (belt elements), a bone awl, and a flint arrowhead, as well as animal bones (a pig mandible, limb bones of the following animals: roe deer, medium-sized bird, and sheep or goat). A <sup>14</sup>C date obtained from a bone fragment allows us to date the grave to the beginning of the 3rd millennium BC.

Key words: Złota culture, grave, Eneolithic, Sandomierz Upland, Lesser Poland  
Received: 18.04.2020; Revised: 24.05.2020; Accepted: 31.08.2020

### 1. INTRODUCTION

In the beginning of January 2014, during earthworks carried out on a plot of land in Kleczanów, a skeletal grave was discovered. The owners of the parcel notified the Sandomierz delegation of the Voivodeship Office for Monument Protection in Kielce. On January 10,

<sup>1</sup> "Trzy epoki" Archaeological Services, Olbierzowice 8, 27-640 Klimontów, Poland; bajkamonik@wp.pl; <https://orcid.org/0000-0001-5731-3065>

<sup>2</sup> Institute of Archaeology, Maria Curie-Skłodowska University, Marii Curie-Skłodowskiej sq. 4, 20-031 Lublin, Poland; marek.florek@poczta.umcs.lublin.pl; <https://orcid.org/0000-0002-9917-710X>



Fig. 1. Kleczanów, site 8, Sandomierz district, Lesser Poland Voivodeship. Location of the site. Modified by M. Bajka

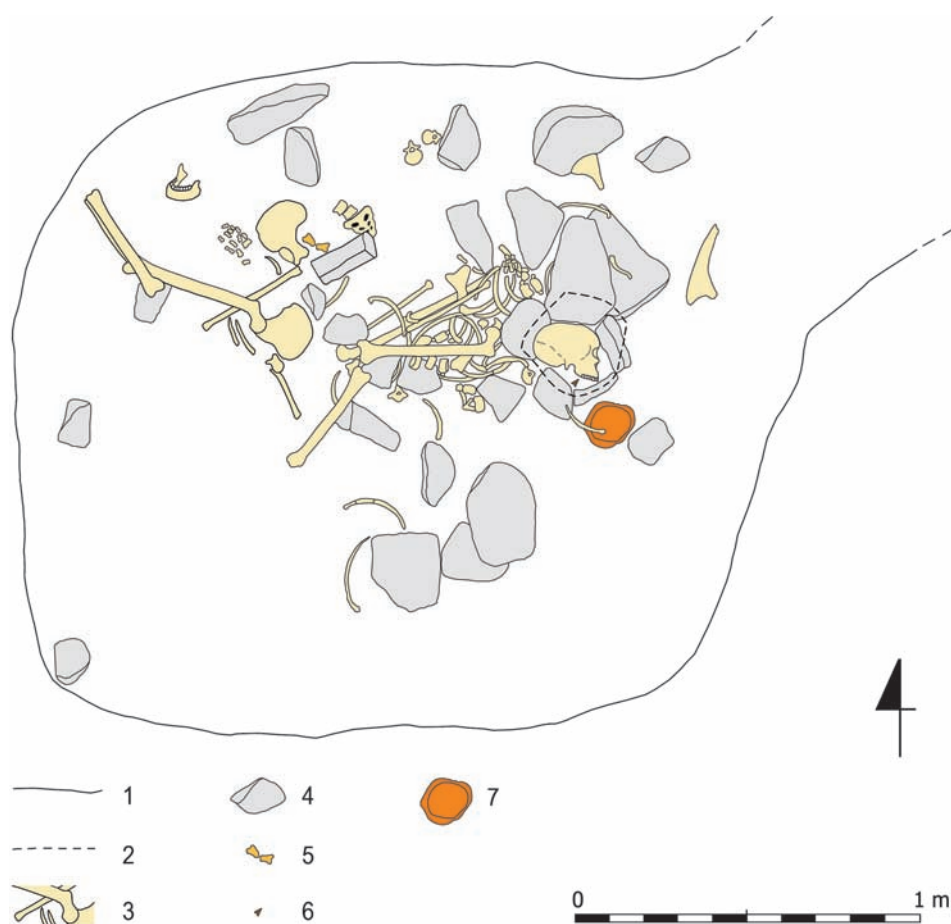
2014, Monika Bajka and Marek Florek conducted emergency research to prepare the documentation of the accidentally discovered feature and to secure the artefacts and bone remains deposited inside.

The discussed grave is located a dozen or so metres from another funerary feature, discovered in 1985 (also accidentally) and linked with the early (Central European) phase of the Corded Ware culture (Buko and Ścibor 1991). The site of the discovery of both graves, referred to as Kleczanów, site 8 (AZP 88-72/1), is a local elevation (approximately 253 m above sea level) in a vast hummock limited by the valley of the Opatówka river from the north and by the valley of the Dębianka stream from the south, located in the central part of the Sandomierz Upland (Fig. 1).

## 2. GRAVE

The grave was partially damaged during its serendipitous discovery prior to the start of the research, which makes it difficult to precisely determine its original structure. Mainly its north-eastern part (where, as we assume, the shaft leading to the niche containing the burial was located) was damaged. Nevertheless, it is very probable that it was a niche grave, composed of a vertical shaft (which was at least 1.5 m deep) and the burial chamber proper (a niche carved in the loess substratum), which were connected with a short, sloping corridor. The bottom of the niche was approximately 190-200 cm below the present ground level, and its original height probably exceeded 100 cm. On the level of the bottom,

the niche (burial chamber) had a nearly rectangular layout, with rounded corners (approximately 230 × 180 cm). The previously mentioned short, 80-cm-wide corridor led from its north-eastern part. At the bottom of the niche, in its central and eastern parts, there were a dozen or so flat plates of different sizes (made of local sandstone), forming an irregular paving. Single stones were located on the circumference of the niche, whereas the corridor leading to the shaft, and probably also the shaft itself, were filled with a greater number of such stones. The fill of the burial chamber was composed of loess from the collapsed ceiling with an admixture of dark-grey soil, probably brought by rains from the side of the corridor and shaft.



**Fig. 2.** Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Layout of the niche bottom (depth c. 190-200 cm). Key: 1 – registered outline of the feature at the level of the bottom of the niche, 2 – outline of the sandstone that covered the skull, 3 – bones, 4 – stones, 5 – bone plaques, 6 – flint arrowhead, 7 – clay vessel. Illustrated by M. Bajka, M. Florek



Fig. 3. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture.  
View from above of the niche bottom. Photo by M. Florek



Fig. 4. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture.  
View of the niche bottom. Close-up of the skull surrounded with stones. Photo by M. Florek



Fig. 5. Kleczanów, site 8, Sandomierz district, Lesser Poland Voivodeship. Grave of the Złota culture. View of the niche bottom. Close-up of the cluster of bones. Photo by M. Florek

At the bottom of the niche, mainly in the part paved with the stone plates, there were scattered bones of an adult man (Figs. 2 and 3). His skull, resting on its side, was surrounded with stones forming a kind of an irregular box (cache) covered with a flat sandstone slab (Fig. 4). The mandible, however, was in the north-western part of the niche, over 100 cm from the skull. One of the femurs was placed on the ribs (Fig. 5), whereas the sternum was located between the pelvic bones. Next to the skull, inside the stone box, a heart-shaped flint arrowhead was discovered. On the outside of the container, to the south-east of it, there was a clay mug with one handle, crushed under the pressure of the earth from the collapsed ceiling. To the west of the skull, in an assemblage of ribs and vertebrae, there was a bone awl. Near the pelvic bones, between them and the sacral bone, which lay separately, two bone plaques with holes in them (probably belt elements) were found. At the entrance from the niche to the corridor, there was a pig mandible. Between the stones filling the corridor, fragments of two ornamented clay amphorae were discovered. Several small fragments of these amphorae, as well as a small piece of a polished tetrahedral axe made of flint, two flint flakes, fine animal bones, and snail shells were discovered in the fill of the niche (burial chamber).

### 3. ANTHROPOLOGICAL ANALYSIS OF THE HUMAN REMAINS

The analysis of the bone remains was performed by Wanda Kozak-Zychman, PhD, Assistant Professor at the Maria Curie-Skłodowska University in Lublin, and by Anna Szarlip, MA (Institute of Archaeology of the Maria Curie-Skłodowska University in Lublin; Kozak-Zychman and Szarlip 2014).

The skull is rather well preserved (with the mandible) and slightly deformed, especially the bones of the viscerocranium (Figs. 6 and 7). All the main cranial sutures are open.

The mandibular and maxillary (both maxillae) incisors ( $I_1$ ) and the left mandibular premolar  $P_2$  are missing, but their alveoli are unremodelled, which means that they were probably lost after death. Except the incisors and the maxillary and mandibular  $M_1$ , which have moderately worn crowns, all the teeth are only slightly worn. Linear enamel hypoplasia (developmental tooth disorder) was recorded on the maxillary (both maxillae) and mandibular incisors, canines, and first premolars.

The postcranial skeleton is incomplete. The following elements are preserved: the complete set of the cervical vertebrae (C), with bilaterally double foramina transversaria in C5 and C6 (congenital disorder); 11 nearly completely preserved thoracic vertebrae (Th) plus only the arch of Th8; complete set of the lumbar vertebrae (L); the manubrium and



Fig. 6. Kleczanów, site 8,  
Sandomierz district.  
Grave of the Złota culture.  
*En face* view of the skull.  
Photo by W. Kozak-Zychman



Fig. 7. Kleczanów, site 8,  
Sandomierz district.  
Grave of the Złota culture.  
Profile view of the skull.  
Photo by W. Kozak-Zychman



Fig. 8. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Clearly asymmetrical lengths of the femurs. Photo by W. Kozak-Zychman

the body of sternum (which is damaged in its lower part); 11 right ribs (lack of rib 12); complete set of left ribs; left and right clavicles, on which both acromial ends are slightly damaged, the sternal ends are not fully developed, and the attachments of the costoclavicular ligaments are visibly marked overload lesion); both scapulae; both complete humeri with preserved supratrochlear foramina; complete left radius; right radius with a slightly damaged lateral part of the head; both ulnae (the left one lacks the styloid process, and the diaphysis of the right one is slightly thickened in its inferior part); 4 right wrist bones: scaphoid, pisiform, trapezium, hamate; 4 left wrist bones: scaphoid, pisiform, capitate, hamate; complete sets of the right and left metacarpals; 15 hand phalanges; the sacrum, which is damaged near the apex (fresh, post-mortem fracture) not fully fused between S1 and S2, and has an unfused sacral canal starting with S3 (congenital disorder); both pelvic bones (in the right one, the upper part of the pubic symphysis is damaged, while the left one has a dent in the acetabulum and at the junction of the inferior pubic ramus with the ischial ramus); both femora (there is a clear asymmetry between their lengths, circumferences, and curvatures in the sagittal plane, although the last mentioned feature is not prominent in the left femur, on which a healed fracture is also visible); both patellae; right and left tibia; right and left fibula; 4 right tarsal bones: calcaneus, talus, navicular, cuboid; 5 left tarsal bones: calcaneus, talus, navicular, cuboid, and lateral cuneiform (showing signs of inflammation); complete set of left metatarsals (of which the 3<sup>rd</sup> metatarsal shows post-inflammatory signs near the proximal epiphysis, and the 1<sup>st</sup> metatarsal has an enlarged paracentral articular surface of the head on the plantar side, which is probably a degenerative change caused by the trauma of the left femur); 2<sup>nd</sup> right metatarsal; 4 foot phalanges (3 proximal and a middle one; Table 1).

**Table 1.** Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Measurements of the limb bones. Prepared by W. Kozak-Zychman

Measurements of the limb bones (asymmetry!)								
<i>Humerus</i>	L	R	<i>Radius</i>	L	R	<i>Ulna</i>	L	R
M-1	330	329	M-1	245	242!	M-1	-	265
M-7	63	65	M-3	41	40	M-3	35!	39
<i>Femur</i>	L	R	<i>Tibia</i>	L	R	<i>Fibula</i>	L	R
M-1	421!	460	M-1a	377	377	M-1	365?	367
M-2	418!	446	M-1	374	374	M-4a	38	34!
M-8	90!	85	M-10b	74	74			

**Table 2.** Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Reconstruction of the body height. Prepared by W. Kozak-Zychman

Body height (cm)	Method of reconstruction	Classification of body height (nos. according to R. Martin)
166,6	K. Pearson	medium height
171,3	M. Trotter i G. C. Gleser	tall

The remains described above belong to one person: an approximately 25-year-old male (*adultus*), who was 166-172 cm tall (Table 2). He had a moderately long, prominently domed skull with a narrow forehead, face and nose, with high orbital cavities. The deformation of the skull (visible asymmetry) might have occurred post-mortem, *e.g.* caused by the pressure of the earth, but the fact that the body was resting between stones and was covered with a sandstone slab contradicts this assumption. It is possible that the asymmetry is a result of undetermined pathological changes. The postcranial skeleton shows pathological changes whose original cause was the fracture of the left femoral diaphysis, which resulted in its considerable shortening (by approximately 5 cm; Fig. 8). The trauma to the femur, which made the man limp, caused secondary degenerative-overload changes in other elements of the skeleton, including the tarsal and metatarsal bones.

#### 4. ANIMAL REMAINS

The animal bones were identified by Zbigniew Boratyński, PhD, Assistant Professor at the Department of Animal Anatomy (Faculty of Veterinary Medicine at the University of Life Sciences in Lublin).

At the bottom of the pit, near the skull of the buried man (to the east of it), there was a pig mandible. The teeth had been intentionally removed, *e.g.* by breaking off whole por-



tions (with tooth sockets) from the inner side (Fig. 9). The fill of the grave pit (its lower part) contained:

- a small fragment of the left tibial diaphysis (with the proximal epiphysis) and a single metatarsal of a roe deer.

- a diaphyseal fragment (probably of a radius), as well as a humeral fragment, a single metatarsal bone, a damaged calcaneus, and a single middle phalanx belonging to a small ruminant: goat or sheep.

- a fragment of a long bone (part of the diaphysis) belonging to an unspecified jackdaw- or crow-sized bird.

Among the postcranial bones of the man, there were at least 42 shells of snails belonging to the species *Capaea vindobonensis* (Fig. 10).



Fig. 9. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Pig mandible. Photo by M. Florek



Fig. 10. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Shells of snails belonging to the species *Capaea vindobonensis* from the fill of the grave. Photo by M. Florek

## 5. INVENTORY

### 5.1. Vessels

1. Mug (Fig. 11). S-shaped and with a band-shaped handle whose upper base is located slightly below the edge of the brim, whereas its lower base is on the level of the broadest part of the belly. The edge of the rim is rounded, with two moulded (flat and vertical) nodules on the level of the upper edge of the handle. The mug is ornamented with cord and stamp impressions. Below the edge of the brim, there is a horizontal band, which is composed of three lines made of cord impressions; between the belly and the neck of the vessel, there is a similar decorative band made of two parallel cord impressions. Between



Fig. 11. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture.  
Vessel: mug. Illustrated by M. Bajka, photos by M. Florek

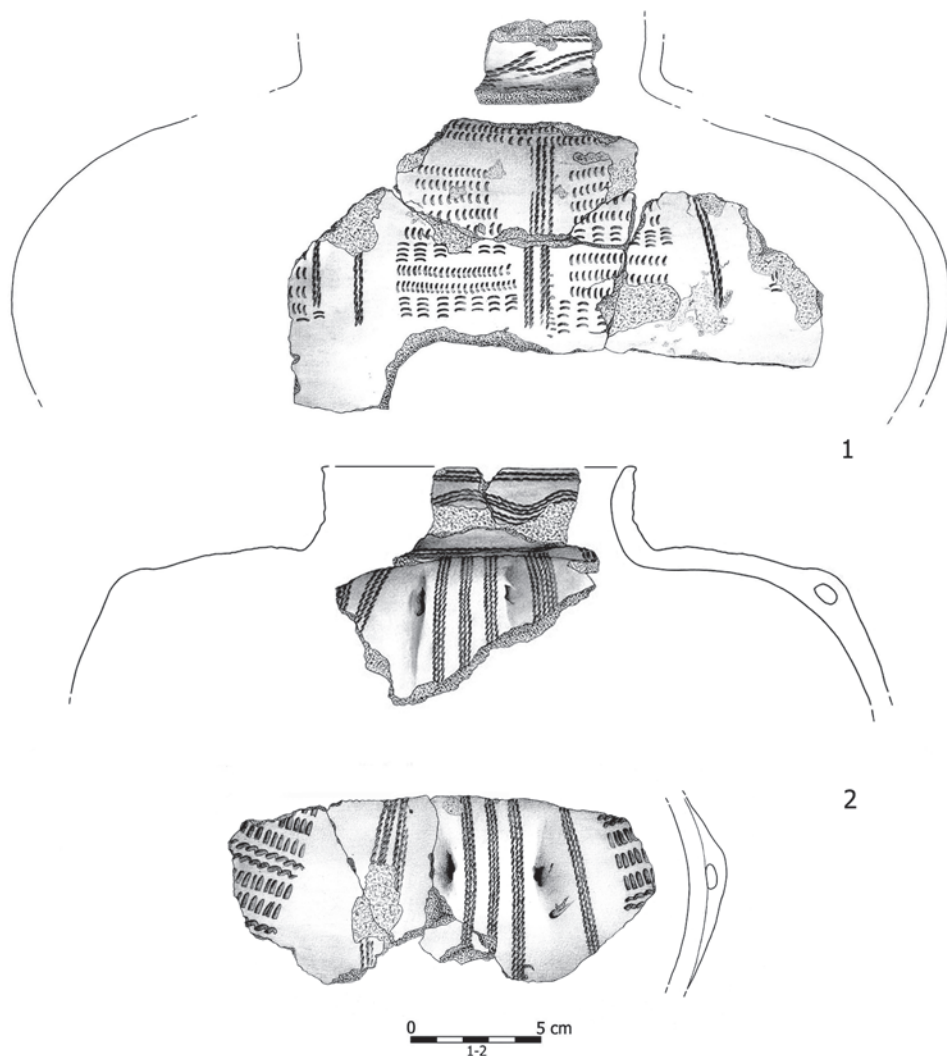


Fig. 12. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Fragments of vessels (1 – amphora I, 2 – amphora II). Illustrated by M. Bajka

them, there is a wavy band composed of five linear cord impressions. On the belly, slightly above its broadest part, there is a horizontal row of stamp impressions. The handle is ornamented with two vertical bands of double cord impressions and a row of stamp impressions between them. The surfaces are of various colours (from grey to brown terracotta to almost black); tricoloured fractures. The mug is made of clay with an admixture of finely crushed stone and sand, slightly baked. Dimensions: height – 143 mm; brim diameter – 149 mm; belly diameter – 146 mm; bottom diameter – 62 mm; wall thickness – 5-5.5 mm.

### Other vessels are preserved in fragments

2. Amphora I (Fig. 12: 1). Fragment of the belly of a large, bulging amphora, probably having 4 handles (not preserved) on the level of the widest part of the belly (their existence is indicated by the thickened walls of the vessel) and a short, almost vertical neck. The amphora is ornamented with cord and stamp impressions. In the upper part of the belly, there are two horizontal rows of arched stamp impressions, from which depart pairs of vertical lines of cord impressions. Between them, there are wide, vertical bands made of horizontal and vertical rows of arched stamp impressions. On the preserved fragments of the neck, there is an ornament in the form of a double wavy line and a double horizontal line made of cord impressions. The surfaces are brown grey and polished; tricoloured fractures. The amphora is made of clay with an admixture of sand and finely crushed stone, slightly baked. Dimensions: brim diameter – c. 150 mm; belly diameter – c. 320 mm; wall thickness – 6-8 mm.

3. Amphora II (Fig. 12: 2). Fragments of an amphora having a short, vertical neck with a brim and a bulging belly, with 4 broad, flat handles. It is ornamented with cord and stamp impressions. The neck is adorned with a wavy band composed of five linear cord impressions between two horizontal bands (the upper one, made of two or three linear cord impressions, is located just below the brim edge, whereas the lower one, made of two linear cord impressions, is between the neck and the belly of the vessel). The handles are ornamented with three vertical bands composed of three parallel lines that are made with cord impressions. On the belly, there are vertical bands made of three, five, or six linear cord impressions, between which there are wide, vertical bands composed of alternating double horizontal lines of rectangular stamp and cord impressions. The surfaces have various colours (grey and dark-grey tending towards grey-black). The fracture is monochromatic. The vessel is made of clay with an admixture of finely and moderately crushed stone and with a slight addition of sand; quite well baked. Brim diameter – c. 120 mm; belly diameter – c. 220-230 mm; wall thickness – 6-8 mm.

The vessels discovered in the grave are homogeneous in their styles and the technique used in their production. The mug and the fragmentarily preserved amphorae are made of clay with an admixture of crushed stone and sand. The colours of their external and internal surfaces are similar. Amphora II represents a slightly different production technique (the admixture of sand is relatively small; the vessel was also more thoroughly baked). All the vessels are ornamented with combinations of cord and stamp impressions (the latter are either rectangular or arched) arranged in vertical, horizontal, or wavy bands.

## 5.2. Flint artefacts

1. A triangular arrowhead with a slightly notched, arched base; edges retouched from both sides; tip broken off; made of chocolate flint (Fig. 13: 4); dimensions: 26 × 14 × 4 mm.

2. Blade from the edge of a polished tetrahedral axe made of Świeciechów flint (Fig. 13: 5); dimensions: 41 × 13.5 × 4.5 mm.

3. Two flint flakes (chips) made of Świeciechów flint (Fig. 13: 6-7).

Only the triangular flint arrowhead, discovered near the skull, in the stone-lined cache covered with the sandstone slab, can be associated without any doubt with the burial. The tetrahedral axe fragment and the two Świeciechów flint chips, found in the fill of the niche, might have gotten there as a result of post-deposition processes.

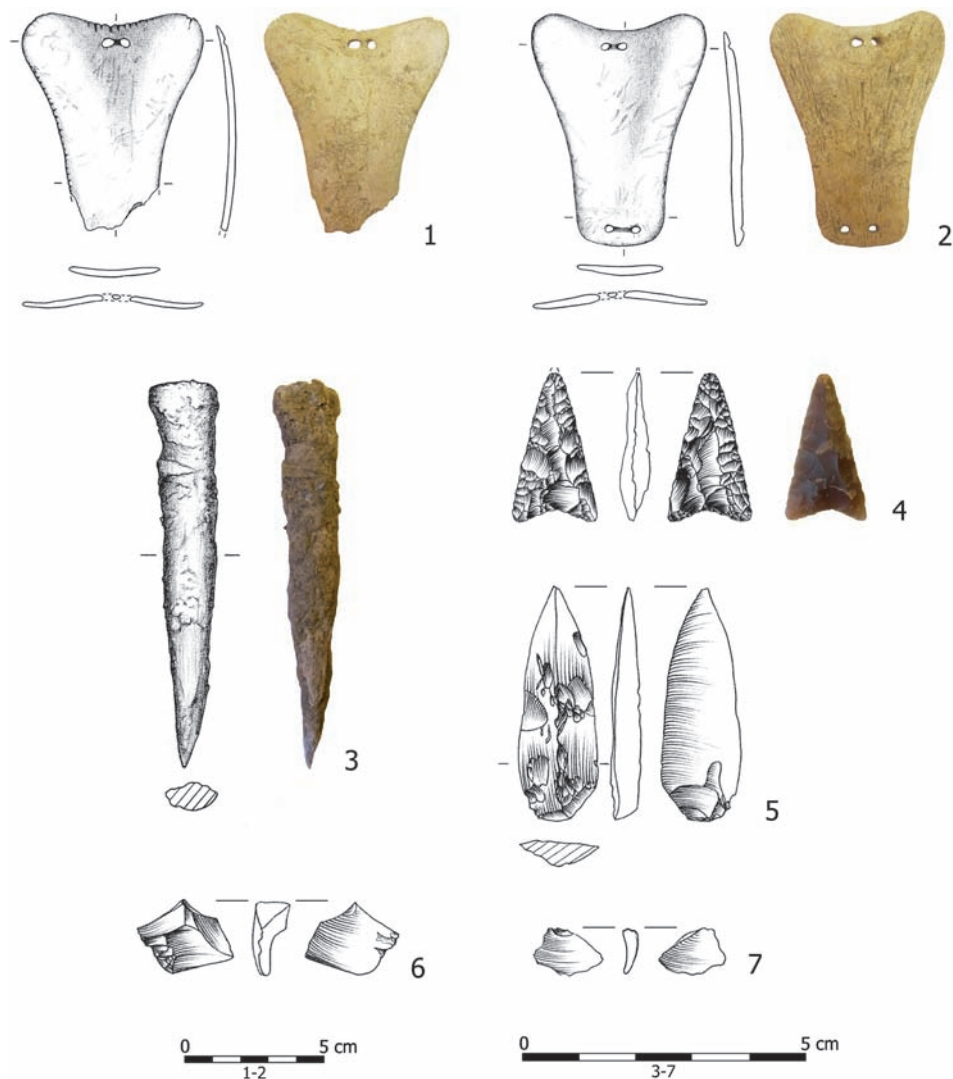


Fig. 13. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Bone artefacts (1-2 – flat plaques, 3 – awl) and flint artefacts (4 – arrowhead, 5 – blade from the edge of an axe, 6-7 – flakes). Illustrated by M. Bajka, photos by M. Florek

### 5.3. Bone artefacts

1. A flat bone plaque (Fig. 13: 2) having an almost trapezoidal shape (with rounded corners; the longer base and the legs are slightly concave; four small apertures: two near each base); dimensions: height – 82 mm; lengths of the bases – 61.5 and 31 mm; thickness – 3.2 mm; diameters of the apertures – 2.3-3 mm.

2. A flat bone plaque (Fig. 13: 1) having an almost trapezoidal shape; nearly identical to the abovedescribed artefact, but the edges of the longer base and one of the legs are ornamented with notches; the part adjacent to the shorter base is damaged; dimensions: (preserved) height – 78 mm; length of the base – 63.8 mm; thickness – 3.1 mm; diameters of the apertures – 3-4 mm.

3. A bone awl (Fig. 13: 3); dimensions: 66.7 × 11 mm.

## 6. ANALYSIS

The three vessels are stylistically and technologically similar to materials yielded by cemeteries and single graves associated with the Złota culture from across the Sandomierz Upland. Mugs similar (in their forms and ornamentation techniques) to the one discovered in Kleczanów are, *e.g.*, the specimens from the Złota cemetery (Sandomierz district), sites “Grodzisko I” (graves 11 and 55; Krzak 1961, fig. 125: c; 1976, fig. 58: b) and “Nad Wawrem” (graves 83 and 296; Krzak 1970, figs. 82, 171), as well as those found in the so-called Little Market (Mały Rynek, site 1) in Sandomierz (Bajka *et al.* 2018, fig. 9: a), in a collective grave from Stary Garbów, Sandomierz district, site 3 (Bargieł and Florek 1990, figs. 2: 2, 3: 2), and in an unspecified locality near Sandomierz (Krzak 1976, fig. 58: c). The last specimen listed above, as well as the vessel from the “Nad Wawrem” cemetery (grave 83) and one of the mugs from Stary Garbów, have identical pairs of flat nodules that are stretched upwards, located on the edge of the brim, above the upper base of the handle. Similar nodules (from two to even a dozen or so), also appear on the edges of bowls associated with the Złota culture (Bargieł and Florek 1990, fig. 2: 1; Krzak 1970, fig. 104: a; 1976, figs. 48: e, 49: c-d, 50: a, 50: d). The two amphorae from Kleczanów find even more analogies. These are, *e.g.*, vessels discovered in graves 4, 10, and 37 from the “Nad Wawrem” cemetery (Krzak 1970: figs. 18: b, 36: e, 66: b), in graves 17, 27, 28, 30, 42, 54, and 56 from the “Grodzisko I” site (Krzak 1961, figs. 49: b, 66: c, 67: a, 70: a, 92: b, 120: b, 121: a, 127: c), in Złota, as well as in graves from Święcica, Sandomierz district, site 30 (Bajka and Sieradzka 2019, fig. 11: 6, fig. 12), and in Sandomierz, site 1 (Market and Little Market; Gąssowska 1962, fig. 2: a; Bajka *et al.* 2018, figs. 11, 12). The rich ornamentation of both amphorae from Kleczanów, which is a combination of horizontal, vertical, and wavy motifs (the last mentioned type appears only on the neck) composed of cord and stamp (2 types: rectangular and arched) impressions, deserves special attention.

The triangular arrowhead with a notched base was discovered near the skull of the inhumed man. It was made of chocolate flint. Flint arrowheads (as single or multiple specimens) have been discovered in many graves of the Złota culture (Krzak 1961), but such artefacts made of chocolate flint represent c. 2% of the totality (Borkowski 1987, 152). Additionally the shape of the arrowhead from the grave in Kleczanów is slightly different from the forms of typical triangular arrowheads of the Złota culture. Arrows, whose remains are flint arrowheads, are usually considered elements of grave inventories (grave gifts or artefacts used by the inhumed persons during their lives). Nevertheless, the arrowhead from Kleczanów was discovered in the stone-lined cache surrounding the skull of the buried male. Due to the size of this stone chest, it is very unlikely that the arrowhead was deposited there along with the arrow shaft. Thus, either the arrowhead alone was placed inside (which is unlikely), or the shaft was broken. Placing a broken arrow next to the separated skull might have been a certain type of a magical procedure. We cannot rule out the possibility that the arrowhead, perhaps with a fragment of the shaft, was lodged in the soft tissues of the buried man, being the cause of his death.

The two chips and the small fragment of the tetrahedral Świeciechów flint axe (all of them discovered in the fill of the burial chamber) may represent intentionally deposited artefacts, but this is only a conjecture. They also might have gotten there as a result of post-depositional processes.

The two trapezoidal bone plaques, which are nearly identical, were probably belt elements (which is corroborated by their location in the grave, near the pelvic bones). Thus, they should be interpreted as parts of the garment of the buried man, and not as grave goods in the strict sense. Bone plaques whose shapes are identical to those of the plates discovered in the grave from Kleczanów have been also found at two other cemeteries of the Złota culture: in grave 4 from the "Grodzisko I" necropolis in Złota (Krzak 1961, fig. 17: e) and in grave 6, site 23, from Sadowie, Opatów district (Pasterkiewicz 2017, fig. 3). Identical or similar bone plaques, interpreted as belt elements (buckles), have been found at several Eneolithic cemeteries associated with the broadly understood circle of the Corded Ware culture societies inhabiting, *e.g.*, the territories of Czechia, southern Germany, and Sambia (Moucha 1958, 67-73). In the Polish territories, two plaques having a similar shape, but having finely notched edges and interpreted as a pair of shoulder straps, were discovered in grave 427 (site 3), from Krusza Zamkowa, Inowrocław district, which is linked with the early horizon of the Corded Ware culture (Kośko 1992, 88, fig. 2: 2).

The inventory of the grave in Kleczanów also includes the aforementioned bone awl. Similar tools have been discovered, *e.g.*, in many graves of the Złota culture, as well as in funerary features linked with the Globular Amphora and Corded Ware cultures (Wiślański 1966, 42; Krzak 1976, 99-101; Bargieł *et al.* 2001, 251; Buko 1993, 313; Ścibior 1993, 319). Nevertheless, taking into account the fact that it was found among the ribcage bones, as well as the previously discussed assumption that certain magical procedures (broadly understood anti-vampire measures) were performed on the body of the buried

male, we cannot rule out the possibility that the discussed tool was used to ritually kill him for the second time.

The animal bones found in the fill of the grave niche should be linked with the burial in question. Animal remains have been recorded many times in Złota culture graves. They are single bones, fragments of carcasses, or even whole animals placed in such funerary features. They are most often interpreted as remains of deposited food products, possibly gifts for the buried persons or nutrition for the afterlife journey (*cf.* Krzak 1961, 141; Machnik 1979, 382; Bajka *et al.* 2018, 162). Although the presence of animal carcasses or their edible parts usually corroborates this assumption, in other cases it is not certain. In the grave from Kleczanów, near the skull, there was a pig mandible. Its teeth were intentionally broken off. Skulls of pigs, or only their jawbones, are among the most frequent types of animal remains discovered in graves associated with the Globular Amphora culture (Nosek 1967, 275). They have also been recorded in the funerary features of the Złota culture, *e.g.*, in Świącica, site 30 (Bajka and Sieradzka 2019, 263-264), and in Sandomierz, site 1 (Bajka *et al.* 2019, 140). In the grave from the so-called Little Market (Mały Rynek) in Sandomierz, a pig mandible was placed inside a deep bowl, which was one of vessels discovered in this feature (Bajka *et al.* 2019, 140). Remains of pigs, especially their skulls or mandibles, discovered in Globular Amphora graves are associated with special magical functions linked with funerary rites (Makowiecki and Makowiecka 2008, 378). This is probably how pig jawbones found in the funerary features of the Złota culture should be interpreted.

The rest of the bones discovered in the grave from Kleczanów are solely limb fragments: of a roe deer, a small domesticated ruminant animal (goat or sheep), and a bird (having, similarly to the pig mandible, minimal nutritional value). We can thus assume that they were not deposited in the grave in order to provide the buried male with food, at least not directly. Moreover, the fact that they are exclusively fragments of limbs makes us assume that they were deliberately selected. It is possible that placing them in the grave was linked with unspecified magical measures. Here, it is worth mentioning that in the Złota culture grave from Świącica, bones of bear paws were discovered (*cf.* Bajka and Sieradzka 2019, 260). Nevertheless, we cannot rule out the utilitarian character of the animal bones found in the grave from Kleczanów. They might have been partially processed materials that could be used for the production of tools, just like flint half-products deposited in graves (*cf.* Boroń 2019). It should be noted, however, that wild animal bones are found extremely rarely in graves of the Złota culture. The same applies to funerary features associated with the Globular Amphora culture. Single bones (also exclusively limb fragments) of a wisent and a deer were discovered, *e.g.*, in a grave from Malice (near Sandomierz; Nosek 1967, 193). On the other hand, in Strzelce (near Mogilno), in grave I, bones belonging to a roe deer and a deer were found, whereas grave II yielded deer bones (Nosek 1967, 96).

In the burial niche, over 40 shells of snails belonging to the species *Cepaea vindobonensis* were discovered. The shells of this and other gastropod species are more and more



frequently discovered in graves dated to the Eneolithic and Early Bronze Age, but it is believed that they got into the grave pits accidentally, in a relatively short time after they had been dug. Thus, the shells do not belong to the grave inventories, but they might be useful in the reconstruction of the ancient natural environment prevailing in the nearest vicinities of such graves or cemeteries (cf. Barga-Więcławska and Jedynak 2014, 284-314; Bajka and Sieradzka 2019, 264; Kurzawska 2019, 141-143). Snails, or only their shells, might have accidentally gotten into the burial niche of the grave from Kleczanów, probably before the collapse of the ceiling and before the shaft was filled with soil. Nevertheless, we should bear in mind that there are graves linked with the Złota culture that contained shells of snails and river mussels (swan mussels), or only mussel shells. For example, several dozen snail and mussel shells were discovered in the grave from Stary Garbów (Bargiel and Florek 1990, 78), whereas the grave from Sandomierz (Salve Regina Hill) contained several mussel shells (Buko 1993, 313). Although snail shells might have gotten into the grave fills without human involvement, this cannot be said about mussel shells; thus, they must have been intentionally deposited.

The fact that the discussed funerary feature is a niche grave with an incomplete stone pavement, along with the results of the inventory analysis indicate that it should be linked with the Złota culture. Niche graves, composed of a vertical shaft and a niche coming from it and containing one or more burials (these two elements are often connected with a short corridor) represent a common type of funerary feature discovered across the Sandomierz Upland and the Nida Basin (cf. Krzak 1973, 131; Włodarczak 2008, 566; 2014, 21-24; Wilk 2014). One person was buried in it: a man belonging to the *adultus* age group (c. 25 years old). The majority of funerary features associated with the Złota culture are collective graves (cf. Krzak 1961, 140; Machnik 1979, 380), but individual graves also occur often (e.g., Złota – Grodzisko I, graves 4, 54 – cf. Krzak 1961, 16-17, 118-119; Mydlów, grave 3 – cf. Bargiel 1990, 22; Złota 6 – objects 23, 25 – cf. Florek 2012, 68, 69). The anthropological analysis indicates that the man was crippled. His left leg was shorter by at least 5 cm (as a result of improper healing of the fractured bone), thus he must have limped. His skull was probably slightly deformed (asymmetrical), likely as a result of undetermined pathological changes.

The bones of the buried man were chaotically scattered on the bottom of the niche, not preserving their anatomical order. Such arrangements of skeletal remains occur very often in the graves of the Złota and Globular Amphora cultures (cf. Nosek 1967, 373). In the discussed grave, the head (skull) was evidently separated from the rest of the body (skeleton) and placed in a kind of irregular stone chest (cache) covered with a flat sandstone slab. An analogical situation occurred in grave 2 at the Złota culture site in Książnice, Busko-Zdrój district, where the discovered skull had also been separated from the rest of the skeleton and subjected to special procedures (Wilk 2006). In the grave from Kleczanów, the mandible was found in a different place, which indicates that the skull had been placed in the stone-lined cache after the decomposition of the soft tissues. This can be linked with three different situations: the inhumed remains were previously dismem-

bered; it was a secondary burial (the soft tissues underwent decomposition somewhere else and next the bones were placed in the burial chamber (Krzak 1961, 150-151; Wiślański 1979, 293-294); or, sometime after the inhumation, the grave was reopened in order to scatter the bones and to deposit the skull (without the mandible) in the cache and cover it with stones. The last possibility mentioned above is corroborated by the destruction (intentional or not) of the two amphorae included in the inventory. Their fragments were found in the corridor connecting the shaft with the niche (it is not very possible that they had been originally deposited there). We cannot rule out the possibility that the original arrangement of the remains was disrupted as a result of someone digging into the grave in order to rob valuable artefacts (grave gifts). Traces of the looting of niche graves of the Corded Ware culture by, probably, people of the Mierzanowice culture were discovered, *e.g.*, at the cemetery in Mydlów, Opatów district (Bargieł 1990, 22).

The chaotic arrangement of the bones in the grave, without preserving their anatomical order, might have been the result of various magical procedures to which bodies were subjected directly after death or some time afterwards (*cf.* Krzak 1961, 150-151). They are not always understood by us, but could possibly be all anti-vampire measures undertaken in order to prevent the return of the buried person to the world of the living (to read

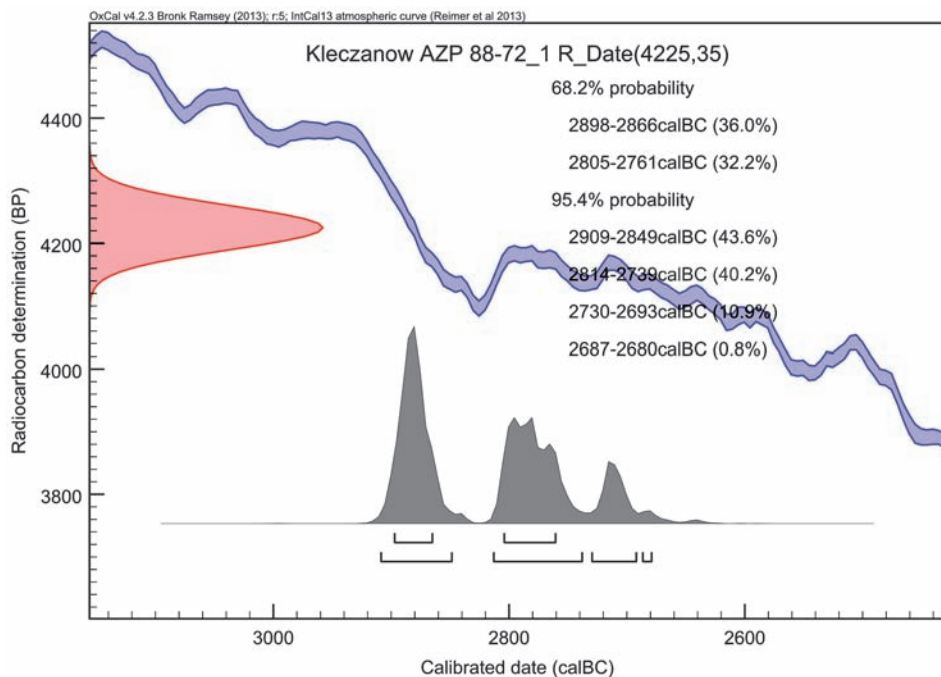


Fig. 14. Kleczanów, site 8, Sandomierz district. Grave of the Złota culture. Calibration of the radiocarbon dates

more about vampirism and anti-vampire procedures, *cf.* Dzieduszycki 2000; Żydok 2004). It is possible that the appearance of the inhumed man (limping, because one of his legs was shorter; probably deformed skull) resulted in him being considered dangerous after his death, hence the application of the mentioned measures.

## 7. CHRONOLOGY

The chronology of the grave is based on a  $^{14}\text{C}$  date obtained from a fragment of a long bone in the Poznań Radiocarbon Laboratory: Poz-121192 – 4225±35 BP. After calibration, for which the OxCal v. 4.2.3 program (Bronk Ramsey 2013) and IntCal13 calibration curve (Reimer *et al.* 2013) were used, there is a 94.5% probability that the age of the sample, and thus also of the grave, can be set between 2909 BC and 2680 BC (Fig. 14). This chronology is compatible with the absolute dating of other Złota culture sites located across the Sandomierz Upland (Włodarczak 2019, 192-193).

## 8. SUMMARY

The funerary feature from Kleczanów, discovered accidentally in 2014, represents a type of niche grave that is characteristic of sites from the Sandomierz Upland associated with the Złota and Corded Ware cultures. The inventory of the grave is typical of the Złota culture. It is dated from 2909 BC to 2680 BC. A 25-year-old male was buried inside. He was crippled: one leg was shorter than the other due to an improperly healed fracture. His body was subjected to various ritual measures (*e.g.*, his skull was separated from the rest of the body and deposited in a stone-lined cache). The grave inventory consisted of at least three vessels (one mug with a handle and two amphorae), two stone plaques (belt elements), a bone awl, a flint arrowhead, and animal remains (pig mandible, limb bones of a roe deer, a sheep or goat, and an unspecified bird). Snail shells were also found in the grave niche, but it is not certain whether they were intentionally deposited inside, or (as such discoveries are most often interpreted) they got there accidentally. There is a probability that someone entered the grave a relatively short time after the inhumation. This may explain the displacement of the bones and the damage sustained to two vessels. It is also possible that some elements of the grave inventory were taken away. We do not know if it was a single burial or part of a larger cemetery of the Złota culture. It is certain, however, that another person was buried a dozen metres away from the discussed funerary feature (also in a niche grave, but linked with the early phase of the Kraków-Sandomierz group of the Corded Ware culture). Along with the recently published graves from Sandomierz (Bajka *et al.* 2018) and Święcica (Bajka and Sieradzka 2019), the feature from Kleczanów considerably enriches the corpus of sources associated with the funerary rituals of the Złota culture across

the Sandomierz Upland and, owing to the acquisition of another absolute date (<sup>14</sup>C), the chronology of this archaeological culture. The fact that the two accidentally discovered graves, one associated with the Złota culture and the other one linked with the Corded Ware culture, are located in close proximity to one another indicates that they are part of a multicultural Neolithic necropolis. Exploring this site would provide us with new materials important for understanding the mutual relations between the Złota and Corded Ware cultures. Undertaking systematic research of the cemetery is advisable due to the fact that it is endangered by agricultural and construction activities.

*Translated by Piotr Moskala*

## References

- Bajka M. and Sieradzka E. 2019. The Złota culture grave from Świącica, site 30, Sandomierz district. *Sprawozdania Archeologiczne* 71, 243-271.
- Bajka M., Florek M., Kozak-Zychman W., Makowiecki D., Szmyt M. and Trzaska A. 2018. Grób ludności kultury złockiej z Sandomierza, stan. 1 (Mały Rynek), woj. świętokrzyskie. *Fontes Archaeologici Posnanienses* 52, 137-172.
- Barga-Więclawska J. A. and Jedynak A. 2014. The contribution of mollusc shells in the reconstruction of the natural environment and the human economy of the northern part of the Sandomierz Upland in the third millennium BC – the case study of site 63 in Krzczonowice (south-eastern Poland). *Sprawozdania Archeologiczne* 66, 285-314.
- Bargieł B. 1990. Badania wykopaliskowe na terenie Iwaniska w województwie tarnobrzescim. In J. Gurba (ed.), *Sprawozdania z badań terenowych Katedry Archeologii UMCS w 1990 roku*. Lublin: Wydawnictwo UMCS, 18-24.
- Bargieł B. and Florek M. 1990. Grób kultury złockiej w Starym Garbowie na stan. 3, woj. Tarnobrzeg. *Sprawozdania Archeologiczne* 41, 77-83.
- Bargieł B., Florek M. and Libera J. 2001. Groby ludności kultury ceramiki sznurowej i mierzanowickiej ze stanowiska 1 w Malicach Kościelnych, woj. świętokrzyskie. *Sprawozdania Archeologiczne* 53, 231-258.
- Borkowski W. 1987. Neolithic and Early Bronze Age heart-shaped arrow heads from the Little Poland Upland. In J. K. Kozłowski and S. K. Kozłowski (eds), *New in Stone Age archaeology (= Archaeologia Interregionalis 8)*. Warszawa, Kraków: Wydawnictwa Uniwersytetu Warszawskiego, 147-181.
- Boroń T. 2019. Wyroby krzemienne. In P. Włodarczyk (ed.), *Wilczyce, stanowisko 10. Norma i precedens w rytuale pogrzebowym małopolskiej kultury ceramiki sznurowej*. Kraków, Niepołomice, Pętkowice: Wydawnictwo i Pracownia Archeologiczna Profil-Archeo, 59-64.
- Bronk Ramsey C. 2013. OxCal. Version4.2.3 Oxford Radiocarbon Accelerator Unit Research Laboratory for Archeology. Oxford (<http://c14.arch.ox.ac.uk/oxcal>).

- Buko A. 1993. Wzgórze Salve Regina. In S. Tabaczyński (ed.), *Sandomierz. Badania 1969-1973*. 1. Warszawa: Instytut Archeologii i Etnologii PAN, 311-318.
- Buko A. and Ścibior J. 1991. Zespół grobowy starszej fazy kultury ceramiki sznurowej z Kleczanowa koło Sandomierza. *Sprawozdania Archeologiczne* 43, 115-126.
- Dzieduszycki W. 2000. Wiara w świat demonów. Potencjalne możliwości jej oddziaływania na zwyczaje funeralne w przeszłości. In J. Wrzesiński (ed.), *Czarownice. Funeralia Lednickie. Spotkanie 2*. Wrocław, Sobótka: Muzeum Ślęzańskie im. S. Dunajewskiego w Sobótce, 9-23.
- Florek M. 2012. Badania archeologiczne w Złotej koło Sandomierza w latach 2002-2004 i 2012. *Zeszyty Sandomierskie* 33, 66-68.
- Gąssowska E. 1962. Odkrycia grobów kultury ceramiki sznurowej w pow. Sandomierz. *Wiadomości Archeologiczne* 28, 88.
- Koško A. 1992. Z badań nad tzw. horyzontem starszoznurowym w rozwoju późnoneolitycznej kultury społeczeństw Kujaw. *Acta Universitatis Lodzianis. Folia Archaeologica* 16, 85-95.
- Kozak-Zychman W. and Szarlip A. 2014. *Szczątki kostne z pochówku kultury złockiej w miejscowości Kleczanów, gm. Obrazów, pow. sandomierski, woj. świętokrzyskie*. Unpublished manuscript. Lublin: Institute of Archaeology, Maria Curie-Skłodowska University in Lublin.
- Krzak Z. 1961. *Materiały do znajomości kultury złockiej*. Wrocław, Warszawa, Kraków: Instytut Historii Kultury Materialnej PAN.
- Krzak Z. 1970. *Cmentarzysko kultury złockiej „Nad Wawrem” w Złotej*. Wrocław, Warszawa, Kraków: Instytut Historii Kultury Materialnej PAN.
- Krzak Z. 1973. Zagadnienie kultury złockiej. In J. Kowalczyk (ed.), *Z badań nad neolitem i wczesną epoką brązu w Małopolsce*. Wrocław: Instytut Historii Kultur Materialnej Polskiej Akademii Nauk, 121-139.
- Krzak Z. 1976. *The Złota Culture*, Wrocław, Warszawa, Kraków, Gdańsk: Instytut Historii Kultury Materialnej PAN.
- Kurzawska A. 2019. Muszle ślimaków. In P. Włodarczak (ed.), *Wilczyce, stanowisko 10. Norma i precedens w rytuale pogrzebowym małopolskiej kultury ceramiki sznurowej*. Kraków, Niepołomice, Pękowo: Wydawnictwo i Pracownia Archeologiczna Profil-Archeo, 141-143.
- Machnik J. 1979. Krąg kulturowy ceramiki sznurowej. In W. Hensel and T. Wiślański (eds), *Prahistoria ziem polskich. 2. Neolit*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy im. Ossolińskich, Wydawnictwo Polskiej Akademii Nauk, 337-411.
- Makowiecki D. and Makowiecka M. 2008. Depozyt szczątków zwierzęcych z grobu ludności kultury amfor kulistych z Chodzieży, stan. 3. Nowe informacje. In J. Bednarczyk, J. Czebreszuk, P. Markarowicz and M. Szmyt (eds), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. Rocznicę urodzin*. Poznań: Wydawnictwo Poznańskie, 371-379.
- Moucha V. 1958. Příspěvek k časovému zařazení eneolitických pasových zápon. *Archeologické Rozhledy* 10, 62-77.
- Nosek S. 1967. *Kultura amfor kulistych w Polsce (= Prace Komisji Archeologicznej 8)*. Wrocław, Warszawa, Kraków: Polska Akademia Nauk. Oddział w Krakowie.

- Pasterkiewicz W. 2017. *Sprawozdanie z archeologicznych badań wykopaliskowych przeprowadzonych w 2016 roku na stanowisku nr 23 w Sadowiu, pow. opatowski.*, Unpublished manuscript: Sandomierz Delegation of the Regional Monuments Protection Office in Kielce. Kielce.
- Reimer P. J. et al. 2013. IntCal13 and marine13 radiocarbon age calibration curves 0-50,000 years cal BP. *Radiocarbon* 55, 1869-1887.
- Ściobor J. 1990. Badania na Wzgórzu Salve Regina w 1988 roku. In S. Tabaczyński (ed.), *Sandomierz. Badania 1969-1973*. 1. Warszawa: Instytut Archeologii i Etnologii PAN, 318-322.
- Wilk S. 2006. Grób niszowy (nr 2) kultury złockiej ze stan. 2 w Książnicach, pow. Busko Zdrój. *Śląskie Sprawozdania Archeologiczne* 48, 109-134.
- Wilk S. 2014. Comments on the origins of niche graves in the Złota cultura. *Baltic-Pontic Studies* 19, 157-188.
- Wiślański T. 1966. *Kultura amfor kulistych w Polsce północno-wschodniej*. Wrocław, Warszawa, Kraków: Zakład Narodowy Ossolińskich, Instytut Historii Kultury Materialnej PAN.
- Wiślański T. 1979. Dalszy rozwój ludów neolitycznych. Plemiona kultury amfor kulistych. In W. Hensel and T. Wiślański (eds), *Prahistoria ziem polskich. 2. Neolit*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy Ossolińskich. Wydawnictwo Polskiej Akademii Nauk, 260-299.
- Włodarczak P. 2008. Kultura złocka i problem genezy kultury ceramiki sznurowej w Małopolsce. In J. Bednarczyk, J. Czebreszuk, P. Makarowicz and M. Szymt (eds), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. Rocznicę urodzin*. Poznań: Wydawnictwo Poznańskie, 555-576.
- Włodarczak P. 2014. The traits of Early-Bronze Pontic cultures in the development of old upland Corded Ware (Małopolska groups) and Złota culture communities. *Baltic-Pontic Studies* 19, 7-52.
- Włodarczak P. 2019. Grób 15 z Wilczyce na tle środkowoeuropejskim: odmiennosc i reguła w rytuale pogrzebowym małopolskiej kultury ceramiki sznurowej/Grave 15 from Wilczyce against the Central European background: distinctness and rules in burial rites of the Corded Ware Culture in Lesser Poland. In P. Włodarczak (ed.), *Wilczyce, stanowisko 10. Norma i precedens w rytuale pogrzebowym małopolskiej kultury ceramiki sznurowej*. Kraków, Niepołomice, Pękowice: Instytut Archeologii i Etnologii PAN, Stowarzyszenie Archeologów Terenowych STATER, Wydawnictwo i Pracownia Archeologiczna Profil-Archeo, 169-208.
- Żydok P. 2004. Wczesnośredniowieczne pochówki antywampiryczne. In Z. Kobyliński (ed.), *Hereditatem cognoscere. Studia i szkice dedykowane Profesor Marii Miśkiewicz*. Warszawa: Państwowe Muzeum Archeologiczne, 38-66.