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SETTLEMENTS AND CEMETERIES AT ŻŁOTA
DISTRICT SANDOMIERZ, VOIVODSHIP KIELCE

One of the most important tasks undertaken by the Institute of the History of Material Culture (Polish Academy of Sciences), concerning the younger Stone Age in Poland is the examination of the well-known complex of archaeological sites at Złota, district Sandomierz. However, the problems connected with these archaeological sites are not confined to the younger Stone Age as besides remains of three Danubian cultures; the Funnel Beaker culture, the Globular Amphorae culture, the Cord Pottery culture the Złota culture and the Bell Beaker culture, traces of other cultures were also discovered there. These were traces of the Trzciniec culture from the II period of the Bronze Age, traces of a cemetery from the La Tène period as well as finds from the late period of the Roman influences and from the early Middle Ages.

The archaeological sites were concentrated in the fields of the Złota village situated on the edge of the Vistula valley to the south-west of Sandomierz. The Sandomierz plateau, cut by numerous ravines, slopes steeply to this broad valley, forming a 20—30 metres high Vistula bank. A rivulet called Polanówka cuts off from the plateau a long triangular hill and surrounds it closely from the west, south and the south-east in the Vistula valley. The hill is gradually narrowing towards the south-west and, in the loop of the Polanówka, it changes into a narrow rampart separated at its base by a short ravine open towards the west (fig. 1). The archaeological area covers chiefly the southern side of the hill and a part of the gentle slope on the other bank of the Polanówka. During the excavation-work the area was divided into various sites, named as the local fields the borders of which did not coincide with those of the settlements and cemeteries discovered there. A narrow rampart in the south-western part of the hill has been called the “Grodzisko I site” and the adjacent fields from the north and from the east — the “Grodzisko II site”. The south-eastern part of the
hill sloping below the Grodzisko I and II sites to the Vistula valley has been called “Podgrodzie”. The field most to the east has been called “Wawer” and that on the other bank of the Polanówka — “Gajowizna”.

The first information concerning the aeneolithic sites at Złota was provided by Z. Lenartowicz, an amateur-archaeologist, who already from the end of the last century was selling or presenting to Museums objects of the Złota culture taken from graves. ¹ In the twenties of this century, trial excavations carried out at Złota confirmed the richness and special importance of this place. ² Soon after, this area being imperiled, the State Archaeological Museum in Warsaw in co-operation with the State Council of Conservators of Archaeological Monuments started systematical excavations carried on first by R. Jakimowicz, the late director of the State Archaeological Museum and by Z. Szmit, and then by J. Zurowski in co-operation with several young archaeologists. The excavations were continued from 1926 to 1930 and covered about 1/3 of the area where traces of finds were ascertained. At the same time preliminary work for the publication of the material obtained was going on under the direction of J. Żurowski. His premature death and the outbreak of World War II interrupted these preparations. In the fifties, a new team of archaeologists under prof. Z. Podkowińska resumed the work on the neolithic materials from Złota, first in the State Archaeological Museum and now in the Institute of the History of Material Culture in Warsaw (Polish Academy of Sciences).

As a result of war-operations and of the evacuation of finds from Warsaw, the collection was severely devastated. The work had to be started from the beginning. In the years of 1956 and 1958 new excavations were carried out with a view to verify the observations of the first explorers and, if possible, to fill the gaps made by missing plans.

The information given in this article comprises data collected and partly described by J. Żurowski, as well as the results of present, still unfinished, excavations and of subsequent work in the Institute. ³

Severely devastated remains of a settlement, belonging to the Linear Pottery culture (Danubian I), the oldest in the Złota complex, were concentrated chiefly on the outskirts of the promontory of the upland, named “Grodzisko I”. Scanty fragments of this pottery were also discovered at several other places of this field. Only small fragments were found. Most of them were those of spherical or semi-spherical pots with flattened bottoms, some of them had a slightly marked neck. The only exception is a fragment of a pot with a cylindrical neck, distinctly separated from the belly. Fragments of dishes were scanty. Thick-walled pots were usually ornamented only with round knobs with a hollow in the middle or with oblong knobs incised and connected by lines made with nail of finger impressions. Finer vessels were ornamented with linear patterns with preponderance of angle motifs. Patterns consisting of 1—3 carved lines with an upper stripe of lines running parallelly to the edge were crossed by wide
Fig. 1. Złota, district of Sandomierz. Distribution of archaeological sites. (Drawn by M. Curylo)

and long transversal dashes (fig. 2 a, b). The pottery with linear ornament from Złota belongs to the late phase of this culture and shows features similar to those of the linear pottery of Slovakia. Over 67 per cent. of all ornamented fragments are of the Železov type. However, no traces of incrustation or of painting were noticed.
A few small fragments of the Bükk Pottery culture found at Zlota (fig. 2, c) should be linked with settlement of the late Linear Pottery culture, and perhaps also with the next, Stroke-ornamented Ware culture. These small fragments were ornamented with many parallel lines. Traces of obsidian were also found there. A fragment of a straight-walled pot, ornamented with broken lines (probably meander pattern) can be also connected with these cultures. This fragment bears resemblance to the older forms of the Tiša culture. The finding at one archaeological site of the elements of three cultures, the common occurrence of which is, according to B. Novotny, 4 typical of Slovakia, gives evidence of close contacts between the oldest settlers at Zlota and the inhabitants of that country.

The next phase of settlement at Zlota is represented by the younger Stroke-ornamented Pottery culture (Danubian II). Traces of a settlement of this culture were discovered on the “Grodzisko I” field. They were chiefly concentrated in the most distant part of the promontory, the remaining were dispersed over the whole “Grodzisko I” site. Another concentration of the remains of this culture was discovered at the Wawer site. The stroke-ornamented pottery was found there in several pits, first of all in four single graves of this culture, each containing a skeleton in a contracted position. These graves were already briefly described by J. Żurowski. 5 The grave-furniture (fig. 3) of each consisted of “a pot with a stroke ornament of angles” and a dish. In two cases dishes had hollow feet. Other dishes were low with notched edges. One of the graves contained moreover a “barrel-like vessel with knobs under the slightly everted, notched rim and, at the largest portion of the belly”. “An asymmetrical polished celt and a small polished wedge of fine-grained sandstone” were also found in the graves.

The third phase of settlement is connected with the Painted Ware culture (Danubian II?). Remains of this culture, more numerous than those of both preceding ones, were discovered at the “Grodzisko I and II” sites and, in a smaller number, at the “Wawer” and the “Podgrodzie” sites. On the area examined so far, it was observed that traces of settlement occurred more frequently as approaching the “Grodzisko I” site, which must have been difficult of access, due to its situation between then swampy valleys of the Vistula and the Polanówka. The south-western part of this site is surrounded by ditches cut at several places by narrow passages. The ditches connect and cross one another and that shows that these fortifications must have been rebuilt and improved several times. Their cross-section is mostly triangular in shape. In their filling the painted pottery preponderated and J. Żurowski linked these fortifications with this culture. However, they must have been built after the establishment of the settlement, as several pits with the painted pottery were damaged by them. A part of the ditches, with wide bottom, contrasting with the rest, are undoubtedly dating from the early Middle Ages. The name “Grodzisko” (Earthwork),
as the local population still call this portion of the hill, dates from the same period.

Many shallow pits, shallow hearths and five graves were discovered at the “Grodzisko I and II” sites. Excavations carried out there between the two World Wars did not reveal distinct traces of dwellings. In J. Żurowski’s opinion the people lived there in subterraneous huts. In 1956 two hearths, close one
another, with numerous pottery fragments, remains of acupola-like oven and a small pit containing, among others, lumps of moulded clay with impressions of sticks and remains of a polished surface with traces of white paint were discovered there. These are probably the remnants of a house of a light wattle and daub construction. 6

Among five discovered graves 7 only two, single and richly furnished ones, were in a good state of preservation (fig. 5). As regards the remaining, two double ones contained badly damaged skeletons, in one no skeleton was found. The dead were lying in a slightly contracted position, on their left side, with their heads to the east, or on their right side with their heads to the south-east. The grave-furniture consisted of 1—15 pots, often put one into another, of a great deal of ornaments made of fossil shells, of copper ornaments (fig. 6), flint implements and animal bones. In double graves, containing chiefly remains of juvenile individuals, only a few pots were found.

In the course of the work on the materials of the Painted Ware culture, which is in process, J. Żurowski’s observations on the local flint industry has been confirmed. He was of the opinion that the flint industry was rich, while there was an almost complete absence of manufactures of other stones.

Upper-Astarian wax-chocolate flint was mostly used as raw material for the manufacture of implements; it occurs on the north-eastern slope of the Świętokrzyskie Mountains. Burins, flint knives with the partly or completely notched edges and blade scrapers were most commonly used implements. Small knives with partly blunt backs and with distinct traces of gloss may have served as sickle blades. Flint burins, atler axes and bone awls were also numerous.

On the basis of the present knowledge of pottery, prof. Z. Podkowińska
drew up a list of pots met most frequently. These are: small pear-shaped pots with a low neck (fig. 4a), slightly bigger ones with knobs on the belly (fig. 4b), big-bellied amphorae with handles near the edge (fig. 4d, e), rounded or oval dishes (bowls) of various sizes, with mostly deep mouth (fig. 4f, g, h), sometimes on a high hollow foot (fig. 4m, n), large amphorae of two kinds: with neck (fig. 4j) and without it (fig. 4i), and three kinds of wide-mouthed storage pots (fig. 4o, p, r). Mortar-like pots with an everted rim (fig. 4k) and small pots with rims perforated over the handles occurred rarely. A small pear-shaped lamp with four outlets for wicks and fragments of anthropomorphic vessels were also found there. The decoration is confined mainly to horn-like knobs on the rims of the dishes and of some pear-shaped pots. The everted rims of storage and mortar-like pots, of some dishes and of small amphorae bear impressions of fingers or of a small piece of wood. Sometimes on the bellies of the pots small knobs occur. An ornament consisting of round hollows, forming triangles or rhombs, usually occurs on small big-bellied amphorae. The painted ornamentation, after which the whole culture is named, was made with dense white paint, after the baking. It is difficult to establish, at present, which types of vessels were painted, as the paint very easy fell off. Most traces of painting remained on small pear-shaped pots, but they can also be noticed on deep bowls and on dishes with hollow feet. The bottoms and the inner walls of the pots were also painted. A chequer pattern with wide squares, emphasizing the tectonics of the pots, is most common. Within the squares, small patterns were frequently made in white or in the colour of the background. Patterns of triangles or rhombs are rarely met, sometimes they occur together with the chequer ones.

The economy of the population of the Painted Pottery culture was chiefly based on primitive agriculture and stock-breeding. Hunting and fishing were probably of a fairly great importance, as in the pits and in the rubbish of the ovens remains of fishes and pieces of tortoise shells were found and the axes were made of atler. The knowledge of weaving is attested by spindle-whorls and by impression of a textile on the bottom of one of the pots.

Traces of copper-smelting throw the interesting light on the occupations of the population. Besides copper ornaments found in two graves, several fragments of crucibles for copper-smelting were found in the pits (fig. 7). These traces as well as those discovered in the settlement of the Funnel Beaker culture at Gródek Nadbużny district Hrubieszów are the oldest evidence of the knowledge of smelting in our country.

The construction of the fortifications may be linked with developed stock-breeding as well as with the wish of defending the rich settlement which may have been a centre of distribution of copper manufactures.

The large amount of remains of the Painted Pottery culture agglomerated on a considerable area and the fact that the ditches were dug in a later phase of
settlement are the proof that the settlement at Złota lasted a long time. A great diversity of the local pottery is another evidence. Besides older pots, certain specimens, similar to those of the Baden culture, can be distinguished there.

Several pottery types from Złota, for instance the big-bellied amphorae with two handles at the rim, bear resemblance to the cultural groups represented in Slovakia and in the adjacent regions of Hungary, as for instance the Ludanice group, the Polgar and the Bodrogkeresztur cultures. These similarities together with the knowledge of copper smelting and manufactures give evidence of the fact that the population of the Painted Pottery culture at Złota, like the inhabitants of the preceding settlement of the Linear Pottery culture, maintained active contacts with their relatives from the southern slopes of the Carpathians. These contacts may have had a character of barter and, as a result, obsidian and copper were forwarded to the north, and wax-chocolate flint — to the south.¹¹

A chronologically related culture, a settlement of which was discovered at Złota, is the southern group of the Funnel Beaker culture. Several pits at the "Wawer" site belong to it. The pottery of this culture appears at the "Grodzisko I" site within its strong-hold, chiefly as an "admixture" of the contents of other cultures pits. The comparatively scanty pottery seems to be typical of the southern group of the Funnel Beaker culture.

Two groups of graves of the Bell Beaker culture were discovered among the settlements of the late Neolithic cultures at Złota. The information on one of these groups brought to view at the "Wawer" site was published by J. Żurowski.¹² The graves with contracted skeletons, contained unornamented pots with strap handles, dishes on four feet or without them, small stone protecting
slabs, a flint celt and bone ornaments: conical knobs and ornamented pendants as well as two plates of copper and elektron. The other graves at the “Grodzisko II” site were similarly furnished.

Vast cemeteries and a settlement, or settlements, connected with the Cord Pottery culture, the Złota culture and Globular Amphorae culture discovered at Złota, provided rich materials. One of the cemeteries is situated along the edge of the Vistula valley, from the outskirts of the “Grodzisko I” site to the “Wawer” site, the other is at the “Gajowizna” site, on the other bank of the Polanówka rivulet. The studies of the remains of this settlement are not yet published but the complex of the graves at the “Grodzisko II” site is described and the work on those of the Złota culture at the “Grodzisko I” site is just in print. 13

The examinations have shown that the materials of the Cord Pottery culture at Złota are not uniform. A part of them belongs to the Cracovian group of the Cord Pottery culture, their majority — to the Złota culture, several graves can be assigned, on the basis of their furniture, to the 1st period of the Bronze Age. The materials examined so far belong to the Złota culture group which is a local group joining elements of the Globular Amphorae culture and those of the older phase of the Cord Pottery culture with a small addition of the phase of the Radiating-patterned Ware culture, and the Funnel Beaker culture. Pit-graves with a stone pavement, lined or not lined with stones, and some catacomb-like graves were discovered in this cemetery. They contained 1—5 skeletons each, mostly in a contracted position. Their furniture consisted usually of richly ornamented pottery (amphorae, S-shaped or flower pot-like tumblers and dishes), of implements, weapons and adornments. Among the implements, flint celts, blade knives and scrapers, bone chisels and awls occurred most frequently. Among weapons flint arrow-points and stone axes were found. Amber beads and those made of shells, as well as pendants of animal teeth preponderated. Sometimes copper adornments were also found. The large
area of the cemetery, of which a considerable part is still unexplored, gives evidence of the numerous population who must have inhabited the settlement at Złota and its vicinity for a long time. The discovery of animal graves at the “Gajowizna” and the “Wawer” sites and of impressions of corn grains on some pots allow us to suppose that this population had the knowledge of developed stock-breeding and agriculture.

After a period of intensive settlement in the Younger Stone Age, remains of which, belonging to various cultures, are resting at Złota on one another and appear at several sites in the vicinity of this village, there was an interval in settlement. Only slight traces of the Trzciniec culture can be dated to the II period of the Bronze Age. It was not until the late Iron Age that intensive settlement appeared again. Only graves in which urns are covered by large pots turned bottom upwards, discovered at the “Grodzisko I” site can be assigned to the La Tène period. Beginning with the period of Roman influences, settlements were established again on the edge of the Vistula valley, at its foot, (the Podgrodzie site). The 1957 excavation showed that ditches surrounding a concavity on the slope of the hill, situated to the East of the “Grodzisko II” site, were probably connected with this settlement. Two narrow ditches and one wider ditch with a flat bottom probably surrounded an enclosure for cattle.

In the early Middle Ages the settlements appeared again in this area. A few semi-subterranean huts and some ditches with which the inhabitants of the “Grodzisko I” site protected their settlement should also be assigned to the early Middle Ages. In the neighbourhood of the “Grodzisko I” site we find several settlements and cemeteries from that time.
We can suppose that the study of the Zlota sites will provide a basis for the solution of several interesting problems connected with the younger Stone Age. We also hope to be able to throw a new light on many local cultures, too little known so far, and to elucidate the character of the contacts between the peoples of the Danubian cultures on the Sandomierz plateau and their distant neighbours on the other side of the Carpathians. It would enable us to examine the influence of these contacts on the formation of the local cultural groups, to solve the problem of the far-reaching trade-exchange of raw materials and to examine the way in which the smelting techniques and the metal-working came into common use. We hope that it will be possible to solve several problems connected with the formation of various groups of the Globular Amphorae and of the Cord Pottery cultures.

The establishment of the relative and absolute chronologies of the Zlota Neolithic cultures, whose remains rest there on one another, would be of a great significance.

Further excavations of the Zlota sites are just being planned. They will facilitate the solution of the above mentioned problems.

NOTES

1 K. Hadaczek, Neolityczne cmentarzysko we wsi Zlota, w Sandomierskim [A Neolithic Cemetery in the Village of Zlota], “Materiały Antropologiczno-Archeologiczne i Etnograficzne Akademii Umiejętności”, 1907, Vol. X, p. 3—10, plate X.


5 Żurowski, Pierwsze groby...
6 Podkowińska, Rauhut, Krzak, op. cit.
7 Żurowski, op. cit.; idem, Pierwsze groby ...II.
8 Podkowińska, Pierwsza charakterystyka...
9 A work on traces of copper-smelting, found in a settlement of the painted pottery culture at Zlota, in print.

11 Novotný, op. cit., p. 31, 32, 35.
12 Żurowski, Pierwsze groby...
13 Krzak, op. cit.; idem, Materiały do znajomości kultury złockiej [Contribution to Our Knowledge of the Zlota Culture], Wroclaw 1961.

15 Podkowińska, Sprawozdanie...