HILLFORT AND FORTIFIED SETTLEMENT OF LUSATIAN CULTURE IN MASZKOWICE, VOIVODSHIP OF NOWY SĄCZ

AN ATTEMPT AT A MODEL RECONSTRUCTION OF SOCIAL AND CULTURAL RELATIONS

The Maszkowice site lies in the middle of a vast valley, or gathering ground of the river Dunajec, widened by an arm towards Kamienica, and the Łącka valley, formed by the stream Czarny Potok. The landscape is deprived of sharp contrasts, passing softly from mountains to valleys, with floor covered by mountainous fen soil. Physical and chemical characteristics of the valley and its mild climate provide very favourable conditions to agriculture.

The hillside around the basin of the Dunajec contains salt Miocene formations, folded under orogenetic pressure. Thanks to it, the middle Carpathian salt area has been washed out by a network of streams, feeding underground reservoirs. By the help of toponomastic data (M. Cabalska: 1971, fig. 1, p. 435) it has been possible to draw a map of localities, whose names derive from salt. It appeared that most of Lusatian sites had been localized near salt springs. At the foot of the Maszkowice settlement, the name of the village "Solnisko" confirms the population's interest in salt springs.

Excavations works conducted for long years in Maszkowice bring new data every year. Materials found in this settlement point come from untouched layers (fig. 1), they allow to investigate settlement forms of the Lusatian Culture in a long span of time, and the same of place.

In the compass of the Lusatian Culture settlement, which is the principal problem of the present work, two chronological levels have been distinguished.

Fragments of pottery with bossed ornaments, connected with an early phase of Lusatian Culture and found in 1963, near the north-western slope, have been ranged to an older period. The layer bearing the early-bossed phase of Lusatian Culture (fig. 2, 5, 6), is very dif-
Fig. 2. Maszkowice, Voivod, of Nowy Sącz, Ceramics: 1, 3 Otomani Culture, 2, 4 Pilina Culture, 5—6 Lusatian Culture

dicult to be noticed in the discussed site, as it has been destroyed by the following settlements and only a very scarce ceramic material marks its presence.

A younger settlement level falls to the Hallstatt period CD after J. Kostrzewski and to an early and middle La Tène (H. CD to LTC after Reinecke). It would therefore fit into the years 750 to 200 B.C. About the year 750 a circular shaped settlement may have been built,
Fig. 1. Maszkowice, Voivodship of Nowy Sącz. Plan of site with outlined ideal reconstruction of houses in the older and younger settlement phase.

1 — stone rampart in situ; 2 — stone rampart reconstructed on the basis of scattered stones; 3 — plaza with storage vessels; 4 — production area with fireholes; 5 — borders of ditches; 6 — houses of the younger phase disclosed during excavation work; 7 — houses of the younger phase — reconstruction of their situation; 8 — houses of the older phase disclosed during excavation work; 9 — houses of the older phase — reconstruction of their situation.

LEGEND:

4 N
which was transformed about 400 B.C. into a castrum encircled by a stone rampart.

The site lies in the last, the lowest and most strongly pushed into the valley of Dunajec, mountainous eminence (Fig. 1). It has a steep slope (M. Cabalska: 1964, p. 121) falling towards the valley at an inclination of nearly 45°. Its top softly inclined south, reaches a height of 52 m over the river's surface at its northern highest edge, falling down to 47 m near the southern slope. The rampart has been preserved on the northern side, behind it the slope becomes very steep, falling into a dry moat in the form of a narrow through-like depression. The remnants of the rampart are about 18 m long, reaching in places 1 m height. The plateau is vertically distinguished into two elements; flat top, the limit of which is contour —3, and the south-west facing slope. Its inclination is limited by contour —8, beyond which the western slope falls immediately rather abruptly.

The dimensions of the top plateau, measured along the longest axes are: NS 120 m — EW 70 m. Archaeological research has stated that not all the surface had been built over (M. Cabalska: 1963, p. 44). The circular shaped settlement covered a space of about 90 by 50 m. The inner sides of the house walls have been accepted as the base of measurement. The defence settlement's dimensions may be only approximately reckoned to about 95 m along the axis NS and 60 m along EW. Dwellings, forming the inner part of the encircled settlement, covered a surface of about 80 by 40 m, also the belt covered by the rampart fits into this range. The stone rampart have been preserved in situ only on the northern side; the cross section shows a width of 7 m. it ran around the dwellings 2.5 m. from their outside walls.

Investigations have stated that the culture layer has greatest thickness of strata along the plateau edges (M. Cabalska: 1966, pp. 382—384). This proves that dwellings were grouped on the outer borders of the settlement, with distinct hollows being traces of pits and fire-beds, which allowed to distinguish particular houses (M. Cabalska: 1970, pp. 93—94). Investigations disclosed 27 huts, ten along the northern edge (younger phase 1—8, older phase 1—2), ten along the eastern edge (younger phase 13—20, older phase 6—7), two by the southern border (Nos 5, 12) and five on the western slope (older phase 3—4, younger phase 9—11) (fig. 1). Houses near the northern border investigated in the years 1963—1967 are kept best (M. Cabalska 1968 A). House No. 12 (younger phase) is well kept, but a hut of the circular shaped settlement (No. 5) has been nearly entirely destroyed by soil cultivation. All the examined objects show advanced similarity
of building system and inside planning, they were rectangular, 6.5 m long, 4.5 to 5 m wide, touching each other by their long sides (M. Cabalska: 1968). Their entrance opened on to the majdan (yard). The construction rested on pillars which were probably joined by inserting the ends of horizontal wall beams into grooves in standing posts.

Two separate settlement phases in the discussed settlement have been distinguished after the first season of research. The fact of the stone construction of the rampart resting upon the dwelling layer, determines the chronology of both elements. So the houses lying under the rampart belong probably to an older phase. Buildings placed at a distance of 2.5—3 m from the inner face of the rampart, persisting in situ, belong to the younger phase. Ceramics material enclosed in the badly mixed, shallow lying culture layer could be scarcely chronologically determined. Vessels known from settlements displayed only a weak variety of forms. The changes in shape of vessels and the style of ornaments was hardly reflected in cooking pots. Untouched levels of huts of both phases, lying separately, have been disclosed in research seasons 1974 and 1975 on the western slope, which allowed to connect pottery with corresponding periods of the site being inhabited. Here follows a detailed description of the particular phase of settlement.

THE OLDER PHASE

It covered a space of about 95 m NS and 60 m EW, keeping to a circular form, with houses making a kind of continued enclosure, with closed periphery. Buildings have been defined from all sides, thanks to which the proposed reconstruction will be based on documented layers (M. Cabalska: 1968 A; 1972: 1975). On a small part of the northern side a row of pillars strengthening the back wall of dwellings has been traced. Something similar was disclosed on the north-western side in 1963. This allowed to assume that the outer wall, common for all buildings, had been strengthened by a row of pillars that formed a kind of palisade enclosure (M. Cabalska: 1968 a). The long walls may have been common for buildings touching each other. The settlement limited the number of houses to fit inside the enclosed space. Excavation works indicated that towards the middle of the settlement, the culture layer dwindled down to a very thin cover (M. Cabalska: 1969). Pits contained either dug in vessels or fire-beds on the bottom. The central open space was not built over and have served to production and to keeping supplies. No entrance into
the open space has till now been discerned, but the space arrangement suggests its place on the southern side.

Out of the total number of 27 houses — seven had belonged to the older phase (as mentioned above), with Nos 1—2 disclosed by the northern edge; two — Nos 6—7 — by the eastern edge; two — Nos 3—4 — by the western edge and one — No. 5 on the southern side. The eastern edge of the plateau had been rebuilt in the younger phase, which caused the houses of the older phase to survive only by halves. On the southern and western slopes soil cultivation completely destroyed the huts.

The best preserved hut No. 1, by the northern slope was approximately 5 m wide and 6 m long at a depth of 40 cm (M. Cabalska: 1975). The lower panshaped parts of buildings dug into the earth, had deep firebed pits. A big firebed lay in the middle of the hut. Coal-black earth, mixed with animals bones, charcoal and lots of pottery rubble, filled the pit. Besides the middle firebed, another smaller one lay in the corner. In hut No. 2 a second firebed with 70 cm diameter had stone lining with a diameter of 50 cm. In two cases the construction of walls was possible to determine, owing to the traces of four pillars with corner ones distinctly thicker than the rest, carrying thus the weight of construction. In the middle of the wall a post situated just opposite of the bigger firebed may have held the roof, using perhaps a system of transom bar resting on forked posts-supports.

Husbandry buildings of this phase are difficult to characterize. Some pits of the open space held older material, concentrated chiefly in those with firebeds. Most of the pits did not contain pottery material, allowing to range them explicitly to the older phase.

After the investigation of ceramic material found in huts of the older phase, we can present a general characteristic of forms of vessels (M. Cabalska: 1970a; 1975). They are mostly biconical specimens, differentiated in respect to size and to the shape of the belly. Biconical forms with cylindrical necks, ornamented by stuck-on bosses and furrows along the back, have been distinguished. Big biconical vessels with strongly everted and smeared lower part, are numerous. The bend is mostly well marked and ornamented by furrows. Pots are very carefully finished and perfectly fired. Biconical vases with short cylindrical necks, deserve attention. Some specimens have tape-like handles at the base of their neck and fit into middle and small classes (Plate I. 1; 3—4, 6, 8, 11, 16).

Egg-shaped vessels are a second basic type, they fit into big and middle classes and serve for cooking (Plate II: 1—12). They are made
Plate I. Maszkowice, Voivod. of Nowy Sącz. Vessels of older settlement phase
Plate II. Maszkowice, Voivod. of Nowy Sącz. Egg-shaped vessels of older settlement phase
in clay with thick-grain admixture, providing rough surface. Their openings are middle-size: 18—23 cm, about the same size as flat discs used to covering the pots. The discs are 1.5 to 2.5 cm thick, next to them also quite thin plates were found, intended certainly for serving meals.

Two variations of bowls were frequent in the noticed objects: a globular type with rim turned inside and a biconical one with everted collar (Plate I: 5, 7, 14). Among a big number of small, thin-walled fragments it was possible to note small bowls, dippers, mugs and little biconical vessels (Plate: I: 10, 13—15).

The mentioned forms find numerous analogies in ceramics of cemeteries from the Silesia-Little Poland group. Considering the material excavated from graves, far more susceptible to fashion and style, they can be classed to a Late Hallstatt period.

YOUNGER SETTLEMENT PHASE

On the destroyed layer of the circular shaped settlement a new stone rampart was built, encircling a space hardly smaller than the one surrounding the former settlement. Some transformations of the top plateau had been simultaneously accomplished, fitting its shape to the newly built hillfort (M. Cabalska: 1968, 1975). The slopes had been purposefully undercut to obtain more steep inclinations. This caused a partial destruction of houses of the older phase kept near the eastern edge (Nos 6—7) and nearly total ruin of buildings near the southern border (No. 5). On this side, along the valley of Dunajec, the natural depression separating the massive of the hill from its southern lower peak, has been considerably deepened (fig. 1). Most striking changes are visible from the northern side. The flat top plain, perfectly fit to the building of a castrum, has been separated by a circular dry moat. The space system indicates, that similarly as was the case in the older phase — the entrance must have again been placed in the south.

A thus prepared territory was a good base for building a hillfort encircled by a stone rampart (M. Cabalska: 1964, fig. 2). The rampart followed the line of the former circular plan. Its basis was about 7 m wide, it can therefore be surmised that its height did not exceed 4—5 m. Great flat stones covered both its faces, with small river stones filling in the core of it. All the stones used to building the rampart were big river stones quantities of which are to be found on the shores of the Dunajec. The strength of the construction was founded only
on mountainous clay, very well fit to a sound joining of stones and still used in that countryside to the building of granaries, stables and pigsties.

The rampart has been preserved only in a small space on the northern side (fig. 1 : 1). Near the eastern slope we noticed only a vast dispersion of rubble (fig. 1 : 2), covering the huts of the circular shaped settlement. Very scarce traces of the rampart have been observed on the western side, where considerable lowering of the surface caused heaviest destruction of the culture layer.

In 1967 both faces of the rampart were uncovered (M. Cabalska: 1968, 1968a). The exterior face made of big stones has been discerned at a depth of 80 cm. The interior face was lying over a ploughed field, which certainly deteriorated the stone construction. However, a few very big rock stones marked a line sufficiently straight to allow the stating of its range.

20 discerned huts determine buildings of the younger phase. Buildings of this phase are in general better kept. A row of four houses touching each other (Nos 2—5) near the northern slope, were investigated in 1965 and 1967 (M. Cabalska: 1975). A fortunate circumstance allowed at the same time to state their distance from the face of the rampart, which was 2.5 m. The whole area covered by the fort buildings and rampart together, shows a dimension of about 95 m along the axis NS and about 60 m along the axis EW. The size of the yard not being built over was approximately: 35 m in the EW axis and 55 m in NS.

Huts of the younger phase (M. Cabalska: 1968) had rectangular forms, 6.5 m long and 4.5 wide. We may very carefully reckon their number to have jointly been over 40. Their long walls stood touching each other. We may doubt on the contrary, whether particular houses could have had common walls. They all had entrances from the yard. A characteristic thing is the presence of two big firebed pits inside the huts, placed nearly identically in all of them. One of them lay near the northern wall deep into the dwelling space — the other close to the entrance. This circumstance could indicate that each hut may have housed two distinct generations, each having a firebed of its own. It should however, not be excluded that we have planigraphically seized the longlasting use of the mentioned objects, with successive huts standing in the same places. Cross section of the buildings indicates that they were hollowed into the ground, reaching an average depth of 60 to 90 cm. The construction elements of walls have been preserved only fragmentarily. We may accept a post construction for all the investigated objects. Certain more favourable circumstances
allow to assume the construction of horizontal beams' ends inserted into grooves in standing post for the walls. In two cases have we observed the remains of two posts in the middle of two short walls facing each other. They were probably connected with the roof construction, resting on the transom-bar, supported by two forked post-s supports. It can be assumed that the huts were covered by saddle roofs.

The inside yard remained free of buildings. In all dugouts a more shallow culture layer was observed beyond the belt of dwelling objects (M. Cabalska: 1969, 1970a, fig. 2). Pits had various diameters from 2 to 3 m. One, eliptically shaped pit, displayed four small hollows along its edge, which could only be traces of posts that had stood in them. It is not excluded that this may have been a husbandry building with plaited walls. All the remaining ones had either firebeds or some big storage vessel. Firebed pits contained daub, charcoal and quantities of pottery rubble, mostly that of bowls, Middle-size or small mug-like vessels and little bowls with graphit covered surface, richly ornamented, have been found (M. Cabalska: 1970a, fig. 3a). In one of the pits we found a hand-moulded mug with handles, betraying Puchowska Culture, in another a hand-moulded bulgy vessel of La Tène character with facettted edge (Plate VIII: 1, 2).

Storage vessels were dug into pits of a diameter around 2 m. They can be divided into two types: 1) big, bulgy-egg-shaped pots with roughed surface of the lower part, 45 cm high (Plate II: 1, 3) 2) thick-walled, bulgy-pear-shaped, very big vessels, made by hand, with black, metallically shining surface. Four bulbous handles trimmed their lower part. Their opening, about 40 cm diameter, was finished by a 3—3.5 cm thick, slantlying formed edge, cut down along its basis and the protuberating rim. Big pottery fragments indicate that these vessels may have had 65—85 cm heigh (Plate VI: 1—7).

Presenting a general characteristic of ceramics in the younger phase is no easy matter, although it proved possible to stratigraphically distinguish the older huts from the younger ones. The explicit continuity of ceramics forms, renders distinguishing the two phases impossible. There appeared in the younger phase vessels straying from the general background of Lusatian Culture and having a distinct stamp of La Tène style. Some of them can be connected with the Puchowska Culture, others refer to a Celtic environment (Plate VIII: 1—3).

The younger settlement phase is characterized by forms, similar to those that had appeared in the huts of circularshaped settlement. Biconical vessels of diverse sizes with cylindrical neck, much everted and besmeared lower part are repeated here, provided with handles.
Numerous are vessels with short cylindrical neck bulbous protuberating middle (Plate IV: 5) and tape-like handle placed at the base of neck. Vessels with large opening and besmeared lower part of the belly are characteristic of the final phase D of the Hallstatt period (B. Szydłowska: 1974). A new form may be the one presenting biconical specimens with weakly marked bend of the belly, its lower part egg-shaped and with wide sometimes slightly funnel-shaped neck (Plate V: 1). They are big, thin-walled items of compact well fired substance, grey in fracture, and containing large quantity of sharp-grained admixture. A new trend, aiming at more slender forms of vessels, reversely pear-shaped with high marked bend, may be noted. They often have a thickened, partly faceted rim. The much crushed settlement material offer little chance of tracing the changing forms. Nevertheless globular-baggy and yet slender vessels with high placed bends became the typical form in that period. Ever more distinct become thickened rims of the opening in the form of lip-like edges (Plate III: 3, 14, 17, 18).

In the group of egg-shaped vessels used for cooking, two tendencies seem to be outstanding. The vessels are in barrel-like form, with large opening and distinctly thickened rim. The everted neck is smooth and its joining with the belly is marked by a hatched small roller of clay. In the lower roughened part are handles and little knots, sometimes three times pierced.

Traditional forms are repeated among bowls, most numerous are sharp-profiled specimens with everted collar (Plate V: 9, 12). Deep, semi-globular bowls characteristic of Bell Covered Grave complexes are numerous (Plate V: 3, 4, 7, 8). All specimens are made in clay with large quantity of coarse-grained admixture and deprived of smooth surface. It has proved more difficult to state distinct differences within small vessels. Small bowls, dippers and little biconical vessels are made in carefully moulded mass, black in the fracture (Plate IV: 2, 4, 11—13, 15), (A. Kietlińska 58). Their general share in the material of both phases in equal, rather scarce in comparison with the rest. Biconical dippers, with beautifully ornamented, metallic, graphite covered surface are frequent in the younger phase. A new form are semiglobular small bowls (Plate IV: 11), with roll-shaped handle, thick-walled, seeming to be kneaded out of a lump of clay. Their form refers to eared dippers Puchowska type (Plate VIII: 3). Several fragments of bulging pear-shaped mugs, with narrowed spout and roll shaped ear placed on the back — have been found IV; 1, 6, 8). They had thickened rims and sometimes a waisted ear. They were made in clay with coarse admixture, their touch is sharp and their surface
Plate III. Maszkowice, Voivod. of Nowy Sącz. Segments of vessels from the level of house of the younger settlement phase
Plate IV. Maszkowice, Voivod. of Nowy Sącz. Vessels of the younger settlement phase
Plate V. Maszkowice, Voivod. of Nowy Sącz. Bowls and egg-shaped vessels of the younger settlement phase
Plate VI. Maszkowice, Voivod. of Nowy Sącz. Fragments of storage pits together with a reconstruction of Puchowska type pots.
a yellow-orange colour. In the layers of huts, as well as in the work-
shop-pits there occurs, together with this material, also quite different
pottery, (Plates VI—VII) with general, La Tène features (P. Drda: 1974).
A certain quantity of the specimens may be referred to Puchowska
Culture (K. Pieta: 1966—1970), the rest would fit into the frames of
a La Tène style (B. Benadik: 1967). A separate plate (Plate III: 1—18)
presents ceramics fragments gathered in the layers of a younger hut
(No. 9), discovered near the western slope. In this part of the site it
was possible to distinguish in 1975 both belts of the culture layer, con-
ected with huts of the older and the younger phase. They occur
separately and there is hardly any risk of the relic material getting
mixed. Late La Tène and bulging barrel-like vessels appeared in the
layers together with deep pots of Puchowska type (K. Pieta: 1970)
(Plate III: 1—2, 4, 13, 15—16). Also a big bulging egg-shaped storage
vessel has been found, it had a much thickened and roof-wise turned
down rim (Plate III: 1, 3, 5). All this gives a certain insight into the
quantitative relations of both kinds of pottery.

The share of vessels Puchowska type (L. Jisl: 1968), first of all
big storage vessels, was more numerous in the pits scattered over the
yard than in the layer of huts.

The Puchowska type pottery (K. Pieta: 1966) can be generally
divided into: 1) semi-globular vessels with large opening and thickened
rim forming a kind of crease, ornamented below the rim with trian-
gular or lens-like hatches (Plate VII: 1—3, 7, 13); 2) middle-size, bulgy
barrel-like vessels with small opening and edge turned inside, or
sometimes quite straight (Plate VII: 6, 8, 9, 15); 3) deep, bucket-like,
middle size and small vessels, verging upon big, deep bowls. The edge
is thickened, often cut oblique inward, with strongly marked rim,
under which there appears a row of hatches or bundles of deep
vertical furrows, placed at intervals. Two vessels presented a semi-
lunar plastic roller, stuck on to the body (Plate VII: 5, 12, 14, 17);
4) bowls with thickened edge, turned outside (Plate III, 4, 6); (Plate
VII: 10, 18) and small mugs with ear and edge formed similarly as
had bulgy and semi-globular vessels; 5) storage vessels of various
forms and dimensions. They appeared in three variations: a) big bulgy
pear-shaped, thick-walled pots, with black, metallically shining sur-
faced, bottom diameter 30—40 cm, opening 40—45 cm. Rim 3—3.5 cm
thick, cut down roof-wise, walls 1.7—2.6 cm thick. Big fragments show
that they were 56—85 cm high. Some vessels of that type had big
bulb-like handles (Plate VII: 1—3); b) middle-size storage vessels,
about 45—60 cm high, bulging pear-shaped specimens, with thick edge
and funnel-shaped, turned out rim, ornamented by round running
Plate VII. Maszkowice, Voivod. of Nowy Sącz. Vessels of Puchowska Culture
furrow and triangular or lens-like impressions (Plate VI: 4); c) middle-size bulging egg-shaped vessels with thick edge slantingly cut, sometimes ornamented with furrows (Plate III: 1, 5, 15). All the above mentioned vessels had been free-hand moulded in clay, with admixture of thick-grained crushed stone. They were fired to obtain a yellow-orange colour, rough under the touch and where their initial surface has persisted it proves to be black and metallically shining.

Next to these vessels we find hand-moulded ceramics, made out of a smooth ceramics mass, related to that of the vessels thrown on wheel (K. Pieta: 1971). They are grey in fracture, with black or metal-black, smooth, shining surface. The few fragments found indicate the occurrence of two types: 1) bulgy pear-shaped vessels, with small opening and thickened everted rim (Plate VIII: 1—2); 2) slender, amphora-shaped vessels, with bulging belly and cylindrical, funnel-shaped, everted neck. One of the specimens of this type had big tape-like handles (K. Pieta 1971, fig. 3, 8), placed on the greatest protuberance of belly (Plate VIII: 4). In the layer of huts, as well as in pits there were found a total amount of 5 rim fragments of vessels made of clay with graphite admixture (I. Kappel: 1969 (Plate VIII: 5—8) and 5 whorls made out of fragments of graphite covered vessels (Plate VIII: 9—13).

The described ceramics has close analogies in the assemblages of Puchowska Culture (P. Čaplovič: 1970) and in Celtic ceramics thrown on wheel. A basic difference is, that all uncovered pottery in Maszkowice was hand moulded. These complexes date the settlement of the Maszkowice younger phase to a La Tène middle and late periods. Distinct proofs of Celtic influence on that settlement are, besides ceramics, iron artifacts.

During investigations a total of 93 iron objects have been discovered. After eliminating damaged fragments of contemporary implements, metallurgical research has been applied to 68 specimens (M. Cabalska, E. Nosek, A. Mazur: 1971). Among objects found in the area of the settlement the following kinds of products may be distinguished:

1) tools: axes, knives, scissors, awls, sickles,
2) weapons: fragments of two spearheads,
3) ornaments: bracelets, pins, armlets, necklaces, chain links,
4) undefined objects: rods, fragments of undistinguishable objects, sheets,
5) raw material: billet and its fragment, ball, plate, fragments of slag.
Plate VIII. Maszkowice, Voivod. of Nowy Sącz. Younger settlement phase: 1–4 hand-moulded vessels; segments of rims of vessels made in clay with graphitic admixture; 9–13 spinning whorls made out of graphitic vessels
The listed specimens may be divided into two groups. The first of them comprises products connected with Lusatian Culture, the second includes objects characteristic of an early and middle phase of the La Tène period, namely: billets, chain links, scissors.

Forms of the first group appear within the range of the Hallstatt period and their mass occurrence falls to phase D. The second group includes few specimens, but their collection presents a first class scientific importance. Scissors fail to occur in Central Europe before the end of LT B, as well as links of chains, that were dress ornaments characteristic of the La Tène period. Billetes are the most frequently met form of raw material, appearing in mass towards the end of the Hallstatt and in the La Tène period. Metallurgical research, applied to the mentioned collection tended to establish a diagnosis of the technology and the structural and chemical characteristic of the assemblage. Close examination proved considerable dispersion of copper and nickel quantities (M. Cabalska: 1970) in the objects listed in group I as well as in those of group II. Some of the objects belonging to group I, such as bracelets, armlets and the axe, contained a large amount of copper: 0.38—0.44%, while all objects of group II have dispersion in the limits of 0.05—0.10%. Utmost results for the billet are: 0.03—0.10% Cu and 0.07—0.08%. As many as 40 specimens of the whole collection showed copper content increasing above the level of 0.01%. 18 objects showed nickel content above the limit of 0.01%. A prevailing majority of products was made of iron with very low content of phosphorus and increased content of copper and nickel. Taking into account the fact that no local ores contain these elements, we can state that the raw material used for production of these objects had been imported from Bohemia or South Germania.

GENERAL CONCLUSIONS

From all the above presented facts there emerges a detailed picture of Lusatian Culture settlement on the fort hill in Maszkowice. The presented material proves nearly one-thousand years of the activity of Lusatian Culture population in the Maszkowice site. Traces of an early Lusatian settlement wave, although only slightly legible in the excavation material, allow nevertheless to state the general direction of expansion, starting out from the territory of south-western Little Poland, situated over the higher course of the Vistula. Stratigraphic data, acquired during successive excavation seasons, rendered possible to recognize an older settlement level, existing here before the cir-
cular-shaped settlement began to be built. It is, unfortunately difficult to connect ceramics material with that level. It consists mostly of loose fragments, being parts of bossed vessels and biconical amphorae, characteristic of an older phase of that culture, dated to the period III and IV of the Early Bronze Age (fig. 2: 5, 6). On the basis of the dispersion of fragments and referring to analogous situations in other sites of the Dunajec valley (M. Cabalska: 1970, pp. 113—116), we can assume that we have to deal with a grouping its settlement in a most convenient spot among fertile fensoils, perfectly adapted to agriculture, as well as to animal breeding. It had been rather a vast, open settlement the spatial forms of which are impossible to be reconstructed now.

The rise of Lusatian Culture settlement in the Dunajec valley started with the beginning of the Hallstatt period. It has been proved by a big number of settlements, hoards, and cemeteries dated to that time. There was built in Maszkowice a circular shaped-settlement, lasting up to the turn of the Hallstatt and the early La Tène period. Successively at the beginning of the La Tène period, a fortified settlement surrounded by a stone rampart was built on the level of the former circular-shaped settlement. There is no distinct ceasura in the excavation material neither in pottery nor the forms of metal objects. The same forms in the range of ceramics, tools and ornaments are repeated.

At the turn of the Hallstatt and La Tène periods, basic changes in the spatial form of settlement took place which is visible in the appearance of vessels referring to Puchowska Culture. Ceramics material displaying that influence occurred in the hut layer (Plate III), as well as in the pits scattered over the yard (Plate VI—VIII). It has close analogies in the material of Puchowska Culture from the territory of Slovakia (P. Čaplovič: 1960, Pieta: 1972) and in Celtic pottery thrown on the wheel. Due to the influence of neighbouring Transcarpathian territories, held at that time by a Celtic population (Z. Woźniak: 1974, pp. 15—30), the younger settlement phase shows a different character in respect to pottery, as well as to its iron products. The basic core of material culture, namely ceramics and tools, connect this complex with Lusatian Culture. In contemporary defence settlements: Marcin-kowice and Podegrodzie, fragments of vessels in a distinct La Tène style (Woźniak: 1970) have been found, next to fragments of graphitic vessels, together with ornaments made also in a La Tène style. This indicates the possibility of an organized Lusatian Culture settlement existing here in the period of early and middle La Tène: LT B and LT C. There are no sound reasons to conclude that the younger phase
fortified settlement of Maszkowice was to owe its occurrence to the population of Puchowska Culture. We notice here exclusively a very early phase of the development of Puchowska Culture (Pieta: 1971, p. 333). In spite of many years of research, no turned or painted ceramics, no fibulae or Celtic coins have been found, and those are quite characteristics relics of Transcarpathian complexes of Puchowska Culture.

The total of our knowledge obtained owing to excavation research allows to reconstruct a specific model of social system for the settlement in Maszkowice (S. Tabaczyński, E. Pleszczyńska: 1974). We assume this model to be an aspect of material culture organically connected with the system of social-and-culture relations. The particular chronological phases of settlement should give a chance of determining changes in the framework of the existing model. We may therefore undertake an attempt at a reconstruction of the social, religious and economic systems connected with particular phases of Lusatian Culture settlement in the site of Maszkowice.

Accepting the fact that the Lusatian Culture population conformed to the rite of cremation burials, we may conclude that the people had confessed a religion connected with that rite. Its most general outlines would be the worship of an impersonal divinity (M. Cabalska: 1969 B), conceived as the Universe. From it derives the human soul closed in the body (M. Cabalska: 1972 A), whose terrestrial life is subordinated to the desire of a swiftest and best living through temporal life and after death joining god-the Universe due to cremation.

The family should be accepted as the basic unit of the social system. The fact of finding two firebeds in all the huts of both phases allows to assume that families were composed of two generations each. As the settlement of the III—IV period of the Bronze Age has only fragmentarily been investigated, it would be difficult to determine the number of families having inhabited it. It can, however, be assumed that their rather big group may have formed a small tribe. The people were certainly interrelated and possessed the right of cremation after their death.

A distinct alteration of the model of life, well observable in excavation research, occurred in the early Hallstatt period. We can note the rise of a compact circular-shaped settlement of defensive character. The closely limited area offers the chance of a more exact stating of an approximate number of its inhabitants. An assumed space of 90 m by 55 m would hold 45 or 55 houses around the inside yard, by an average surface of 30 square metre to a single building. Such a calculation leads to establishing the number of inhabitants to an
amount of 250 to 300 persons. In respect to the preceding period, the number of inhabitants had rather decreased. This fact finds justification in the diminishing of defence settlements, generally observed at that time in Lusatian culture (A. Niesiolowska-Wędzka: 1974, pp. 101—103); they became smaller in the sense of their areas and the number of their population.

It is generally accepted that societies inhabiting then Central Europe had developed the ties of kinship (P. Léveque: 1973, pp. 70—80). All recorded by history peoples from these territories kept very distinct frames of compact kinship group. In the light of quite recent investigations appears an undeniable fact, that the earliest Greeks had started out of the Carpathian Basin. Kinship ties are confirmed for Greeks by records of the time of the Dorians migration (N. Hammon: 1973, p. 108), as well as for Illirians and Thracians (D. Mano-Zisi: 1973; M. Zanimovic: 1973), all of them contemporary to Lusatian Culture. The social framework, they brought along, was formed in their previous homeland, so-taking into account the convergence of time — we can accept for the Lusatian people a similar system of kinship ties based on family bounds. Homer's records confirm that the army of Greeks, while sieging the Trojan fortress, assumed an order according to kinship group, fraternities and tribes. Oral and written Greek tradition transmits relations about leaders descending from great family élite, with a famous hero being their ancestor. The memory of heroic deeds is kept in the tradition of a family and a kinship group. The more numerous and brave are the forefathers of a family — the higher is it recognized and respected. The moral and ethic of the religious system connected with cremation, puts special emphasis on individual courage, exacting personal bravery from its adherents and placing heroes very high in human esteem, claiming them worthy of highest respect and imitation.

We have therefore sound bases to accept that in the compass of kinship groups and tribes of Lusatian Culture there constantly evolved noble rivalry in tending to achieve great, heroic deeds, mostly martial ones, owing to which some families considered themselves better than others.

It seems that the circular-shaped settlement of Maszkowice had been inhabited by a group of closely related families. The economy of those people rested on farming and livestock breeding. Fields were most probably common property of a kinship group. From what was so far said it results that economic as well as religious reasons brought about the forming of family élite whose importance rested on the heroic deeds of its members, as well as on the riches they had managed
to accumulate. The awarness of possessing a power and position lead to distinguishing of few kinship groups, that considered themselves superior and were regarded as such in the general opinion. Famous heroes used to have very solemn cremation and the fame of their deeds was remembered by their contemporaries in narrations and songs (H. Wałkówka: 1975, pp. 66—81). The cremation rite prevailing all over the area of Lusatian Culture was marked out by a diversity of local ways of performing a cremation burial (M. Cabalska: 1967, pp. 48—55). The more or less solemn ceremony depended on the introduction of various new details, proper to local tradition. Specific customs referred to the choice of an appropriate place for the pyre and the way of preserving or destroying the funeral pile after cremation. The lack of any traces of cemetery in the neighbourhood of the Maszkowice settlement does not suggest the belief about its inhabitants not obeying the custom of burning the remains of their departed. It can rather be assumed that they had a specific custom of destroying and dispersing the pile after the rite. In other parts of Lusatian Culture area we find large cremation cemeteries, next to numerous tumuli commemorating heroic deeds of the dead buried in them.

The proposed model refers to peoples in which kinship group aristocracy had occupied a leading position. Those conditions may have given rise to a deep consciousness of group integrity as opposed to other people, a material expression of which is the specific form of the circular-shaped settlement with dense buildings, established in the older phase of Maszkowice. Its dimensions indicate limitation of the number of families that could have lived in its area. Archaeological data claim that the circular settlement had reached a high degree of development. Close standing buildings offered security and favoured an increase of the feeling of community. It is therefore a proof of kinship ties system becoming differentiated and aristocracy getting distinguished.

No manner sufficient attention has been so far attached to changes of settlement forms in connection with social and economic alterations. Such a process is visible in objects, where in a single population group there occurred successive alterations in the form of an open settlement, putting on the character of a defensive one, strengthened initially in a primitive way, with a later building of a castrum surrounded by rampart securing considerable protection (A. Niesiołowska-Wędzka: 1974, pp. 144—154). This is a rather general process not everywhere, however, sufficiently documented as to be able to accept without hesitation that it indicates to interior integration of the group. Investigation carried out in Lubowice, Voivodship of Katowice (J. Chocho-
rowski: 1975) shows a similar process occurring in this site. Fortified settlements of Lusatian Culture did not, as a rule, have a well populated background. It was stated in Maszkowice, as well as in the mentioned Łubowice site. A review of the situation in the close neighbourhood of fortified sites allows to assume that they were rather independent settlement units, with a population dwelling there already for a long time. So the reasons of laying castra on the peripheries of settlement concentrations must have been manyfold (J. Chochorowski: 1975). Stressing the role of communication routes and commercial tracks explains nothing in this complicated structure. Profits obtained due to exchange trade are not necessarily higher owing to a settlement situated near the route. Attaining higher social status thanks to a surplus assured by farming and breeding or trade and exchange, does not sufficiently explain changes occurring in the form of settlement, such as the building of a castrum. In the big factographic material concerning Lusatian Culture we have examples of coexistence of open and fortified settlements. A perfect example is here the confrontation of practically simultaneous sites in Slovakia, where in Smolenice (M. Dušek: 1968) we have a castrum with stone rampart and in Seredi (J. Paulik: 1970) a non-defensive settlement.

These considerations suggest that the building of fortification was prompted not only by a substantial population and economic potential, but first and foremost by social and religious conditions arising within a given community. Mme S. Dušek drew attention to the rising of family aristocracy in such conditions devoting many valuable and interesting remarks to that problem (S. Dušek: 1973).

In the younger settlement phase the castrum was protected by a stone rampart. This would manifest the unity of purposes and complete integration of all members of the kinship group. Only those considered best had the right to live inside the enclosure. We notice diminution of the area and a decrease in the number of its inhabitants. The enclosure measures 40 by 60 m and can fit 30 to 40 houses. By fortifying the settlement they attained the feeling of closer bonds and a visible sign of their own importance and strength. Social and economic relations observed in these isolated strongholds, inhabited by aristocratic families, have close analogies in relations described in the Iliad. All, Troians fighting in the fortified castle, as well Greeks sieging the fortress — are cremated after their death. Only dishonourable deeds or giving oneself up to the enemy cause refusal of cremation burial. There are no slaves as a social class in these societies but lots of war captives, out of which, in conditions of state organisation
such a class of slaves will appear, deprived of the right to cremation burial.

Models of a castrum system, marking the isolation of a part of free people in an opposed system of opposition to the rest of population had existed since long years in the Carpathian Basin. The idea itself has its origin in Asia Minor and its beginnings can be referred to cultures, who had created settlements called tells. Along with the inflow of an Anatolian population there appear strongholds considered to be a specific trend of differentiation of populations within the kinship group. I am inclined to judge that the function to protect property was here of second class meaning. Danger threatening the property was a permanent state, which did not always and everywhere brought about the building of fortresses. A castrum gave a strong feeling of social bonds and of belonging to a determined group. The Greek term „aristocracy” includes the conception of best chosen individuals. In a selected kinship group there existed the natural tendency to limiting the number of members and a most painful punishment was the exclusion from a society. In the religious systems this was equal to a refusal of the right to cremation burial. Such rules displayed the tendency to limit the number of members of one kinship group down to the forming of a single royal family.

The general, here presented, model is not the only one, since kinship group aristocracies may be formed in many peoples, according to different conditions (B. Krüger: 1973), also among those that have not built strongholds. Detailed study of the problem has proved that building strongholds was no general custom in the whole territory occupied by the Lusatian Culture (A. Niesiółowska-Wędzka: 1974, fig. 1). The necessity to accept a model was the result of an internal development of individuals and peoples (S. Dusek: 1973). The general state of advancement is the condition of adaptation of models, to the point of their becoming the aim itself. If a certain model is recognized, the interior organisation assumes a direction which will finally resulted in its acceptance. The abundance of models and possibilities of accepting them does not determine their general diffusion, or the easy chance of their application.

The younger settlement phase of Maszkowice connected with the castrum, fell to very stormy years. It was the period of a great Celtic expansion from the west and the south, and the vast, ravaging Scythian assaults. The population of Lusatian Culture, having then achieved the stage of creating an organisation of stronghold aristocracy, happened to be on way of both those expansions. The fact itself may have been a sort of impending danger, accelerating the necessity of erecting
defence buildings to save the endangered property. It is, however, to be remembered that danger was spreading everywhere, while strongholds were built only a well determined, not very vast, area (A. Niesiolowska-Wędzka: 1974, pp. 11—158).

We do not know the reasons of the fall of the Maszkowice stronghold. It seems that the misfortune had occurred quite suddenly. The stone rampart preserved in a small segment, bears no traces of fire. Settlement layers connected with the houses of that phase do not either authorise the assumption that they had been destroyed by fire. We are, nevertheless obliged to believe that the inhabitants had been — this way or other — defeated. The accumulation of relics of Puchowska Culture evidences close connections with Kotins, considered rather generally to have been creators of that culture (Z. Woźniak: 1974, p. 28, 168). It is not excluded that the stronghold inhabitants found themselves dependent on Kotins. Every culture displays a certain class of behaviour and material results of its behaviour (S. Tabaczyński, E. Pleszczyńska: 1974, p. 89), transmitted socially by an individual or a group to other individuals or groups. The breakdown of such a system of behaviour leads to the decay of the culture, or to its death.

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