

The Lublin-Volhynian culture retouched blade daggers in light of usewear analysis of artefacts from burials at site 2 in Książnice, Poland

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The Lublin-Volhynian culture retouched blade daggers are unique forms of flint tools in the Eneolithic in Poland. They are most often found in male graves, around the chest or skull, as signs of prestige and high status of men possessing them. Anna Zakościelna also suggested that such kind of tools did not served utilitarian function. Contrary to prevailing opinion usewear analyses of retouched blade daggers from the Lublin-Volhynian culture burial ground site 2 in Książnice, Busko Zdrój district, showed that they bear intense and various traces of use.

KEY-WORDS: Lublin-Volhynian culture, Eneolithic, retouched blade daggers, usewear analyses, Książnice

INTRODUCTION

The Lublin-Volhynian culture retouched blade daggers are unique forms of flint tools in the Eneolithic in Poland. Their large size and the extreme precision evident in their manufacturing reflects on their function.

The majority of retouched blade daggers from well-defined archaeological context come from burial grounds. They typically occur as grave goods of adult men, very rarely of women (grave 1 from Gozdów, Hrubieszów district, Zakościelna and Prusicka-Końcon 2006). Due to the fact that they occur most often around chest or skull, and less frequently near the waist, it has been assumed that they were worn around the neck in life and deposited in the same way with the dead in their graves. This supports the assumption of their symbolic meaning as a visible sign of prestige.

The subject of the retouched blade daggers in the Lublin-Volhynian culture was discussed in detail by Anna Zakościelna (2008). In her text, the author

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presented the technology and raw material characteristics of the type of artefacts in question along with their find context and advanced the hypothesis that retouched blade daggers were 'signs of high status of men possessing them' (Zakościelna 2008: 542). Searching for the origins of such treatment of macro-lithic flint products, she presented numerous examples from the Balkan Peninsula and the Carpathian Basin, where within the Varna, the Tiszapolgar and the Bodrogkeresztur cultures, long blades were found in graves primarily of adult men (Zakościelna 2008: 542-543).

Theses presented in the aforementioned article were repeated in the monograph on the Lublin-Volhynian culture burial rites published two years later (Zakościelna 2010). Stressing that these blade daggers carried more than economic function, the author pointed out that, apart from retouched blades from grave VI on site 1C in Gródek nad Bugiem, Hrubieszów district, and from grave No. 1 on site 3 in Tyszowce, Tomaszów Lubelski district, the remaining 11 specimens did not bear any macroscopically perceptible traces of wear (Zakościelna 2010: 142).

An occasion to independently evaluate Zakościelna's thesis comes from use wear analysis research on flint artefacts from the Lublin-Volhynian culture burial ground site 2 in Książnice carried out by Bernadeta Kufel-Diakowska¹.

Site 2 in Książnice (Busko-Zdrój district, Świętokrzyskie Voivodeship) is located on top of a small hill (200.15 m above sea level) at the eastern end of Pińczów Hummock (AZP 95-67: 100). During systematic excavations carried out since 2001 a sepulchral-settlement complex dating from the Neolithic and the Early Bronze Age was discovered. One of its most important elements is the Lublin-Volhynian culture burial ground consisting of 17 graves which is, to date, the largest cemetery known for this culture (Wilk 2014).

The burial ground consists of two sepulchral fields located about a dozen metres apart. The 'eastern' field is divided into male and female parts, and it contains eight burials of the local elite members. The western field contains eight graves, which are poorer in grave goods, and mixed in terms of sex of the deceased. Among them is grave no. 17 discovered in 2014, perhaps playing the role of central burial within the entire cemetery. In addition, in the burial ground three completely destroyed graves were recorded, from which only individual vessels survived (Fig. 1).

¹ The usewear analysis was carried out in the Laboratory for Archaeological Conservation and Archaeometry in the Institute of Archaeology University of Wrocław, with the use of stereomicroscope Olympus SZX9 (up to 114×) and metallographic microscope Nikon ECLIPSE LV100 (50-500×).

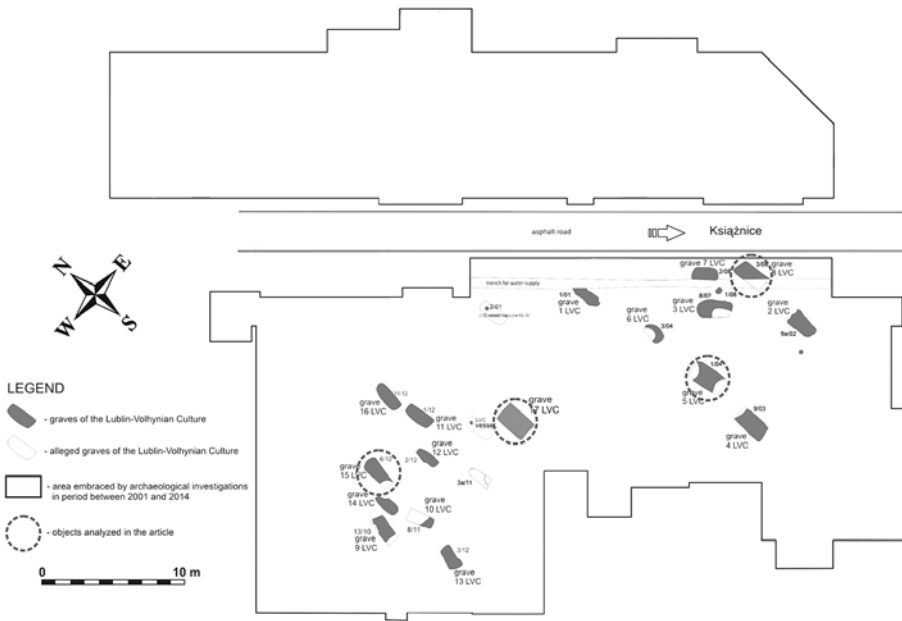


Fig. 1. Layout of graves at the Lublin-Volhynian Culture cemetery at site 2 in Książnice, Busko-Zdrój district. Drawing: S. Wilk.

GRAVES DESCRIPTION

Grave 5 (feature 1/04) discovered in August 2004, in plan view had a form similar to a rectangular pit measuring 240 x 120 cm, oriented along the NS line. The north part of the pit was damaged by feature 5/04. At a depth of 50 cm a completely preserved skeleton of a man (*senilis*) approximately 60 years old (Wilk 2006) was found, arranged in contracted position on the right side with the skull at the south end of the grave pit. The grave assemblage consisted of three pottery vessels located in front of the skull and behind it a copper axe, 16 flint products, of which 11 were deposited in two clusters near the left pelvic plate. The retouched blade (Ks/k/15/1/04) was located on ribs of the upper part of the chest, under the left arm (Wilk 2006; Fig. 2a).

Grave 8 (feature 3/08) discovered in August 2008, in plan view had the form of an elongated rectangle oriented along the NS line, measuring 177 x 105 cm. The south part of the pit was damaged by a water pipe trench. At the depth of 55-60 cm the nearly complete skeleton of a woman (*adultus*) was found, arranged in contracted position on the left side and on the back with the skull at the south end of the grave pit and lower limbs bent at an angle of approximately 90°. The grave assemblage

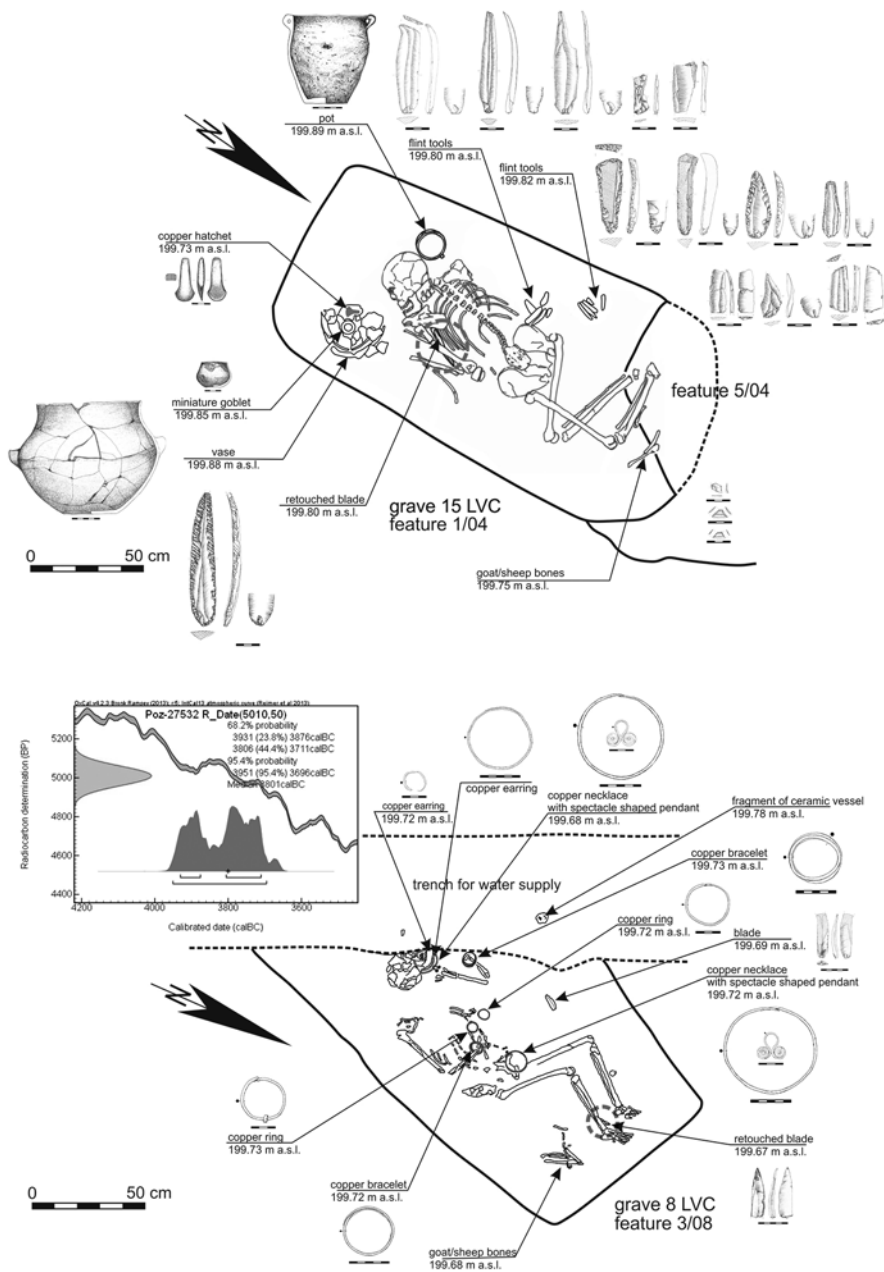


Fig. 2. Książnice, Busko-Zdrój district. A – Grave No. 5, plan with grave goods, B – Grave No. 8, plan with grave goods. Drawing: S. Wilk.

consisted of 10 copper wire ornaments deposited underneath the skull, on bones of both forearms, around the chest and on the pelvis; two pottery vessel fragments found within the water pipe trench, and two flint artefacts, one of which was found 30 cm to the east of the chest. The retouched blade (Ks/k/12/08) was found next to the individual's right foot in the north part of the pit (Wilk 2014; Fig. 2b).

Grave 15 (feature 6/12) discovered in August 2012, in plan view had the form of an elongated rectangle oriented along the NS line, measuring 164 x 133 cm. The south part of the pit was damaged by feature 5/12. At the depth of 40-50 cm the remains of a very poorly preserved skeleton lacking the skull were found, arranged in contracted position on the right side and with lower limbs to the north. The age and sex of this individual could not be determined. Within the grave pit four flint artefacts were found, including two retouched blades (Ks/k/30/12 and Ks/k/31/12) located next to each other, one around chest of the deceased, the other one around the pelvis (Fig. 3a).

Grave 17 (feature 1/14) discovered in August 2014, had the form of an elongated rectangle oriented along the NS line, measuring 234 x 152 cm. At the depth of 30-40 cm were found remains of an incomplete, poorly preserved skeleton, arranged in contracted position on the right side, with the skull at the south end of the grave pit and lower limbs to the north. As with Grave 15, the age and sex of this individual could not be determined. The grave assemblage consisted of three pottery vessels located in front of the face of the deceased, a copper earring discovered a few centimetres below the skeleton in chest area, and six flint artefacts, including one Las Stocki type truncated blade discovered around the pelvis, while the other artifacts were found in the southwestern part of the grave. The retouched blade (Ks/k/20/14) was deposited around the chest (Fig. 3b).

Among the six retouched blades recovered from these graves (nos. 5, 15, and 17), three can be initially classified as retouched blade daggers using Zakościelna's (2008) definition, i.e. in addition to large size and shaping by fluted retouch, they were found around chest or skull. Slight doubts arise over the original location of the larger retouched blade from grave 15. While it is true that this tool was found on the chest, its position at the moment of discovery could be a result of postdepositional processes, because it lay very close to the unpreserved pelvic plate (where it originally could have been stored in a bag, similar to the retouched blade Ks/k/31/12). The fifth retouched blade was found between the woman's feet (grave 8). However, rich grave goods accompanying women of high status prompted the authors to wonder whether the retouched blade found with the woman in grave 8 also was a sign of high prestige (as it was for men) or whether it may have been a utilitarian implement. The sixth artefact, which was not analysed, was found in grave 5. The dead was a man at age *senilis*. The retouched blade belonged to an assemblage of 10 flint artefacts, found around the right pelvic plate (Wilk 2006).

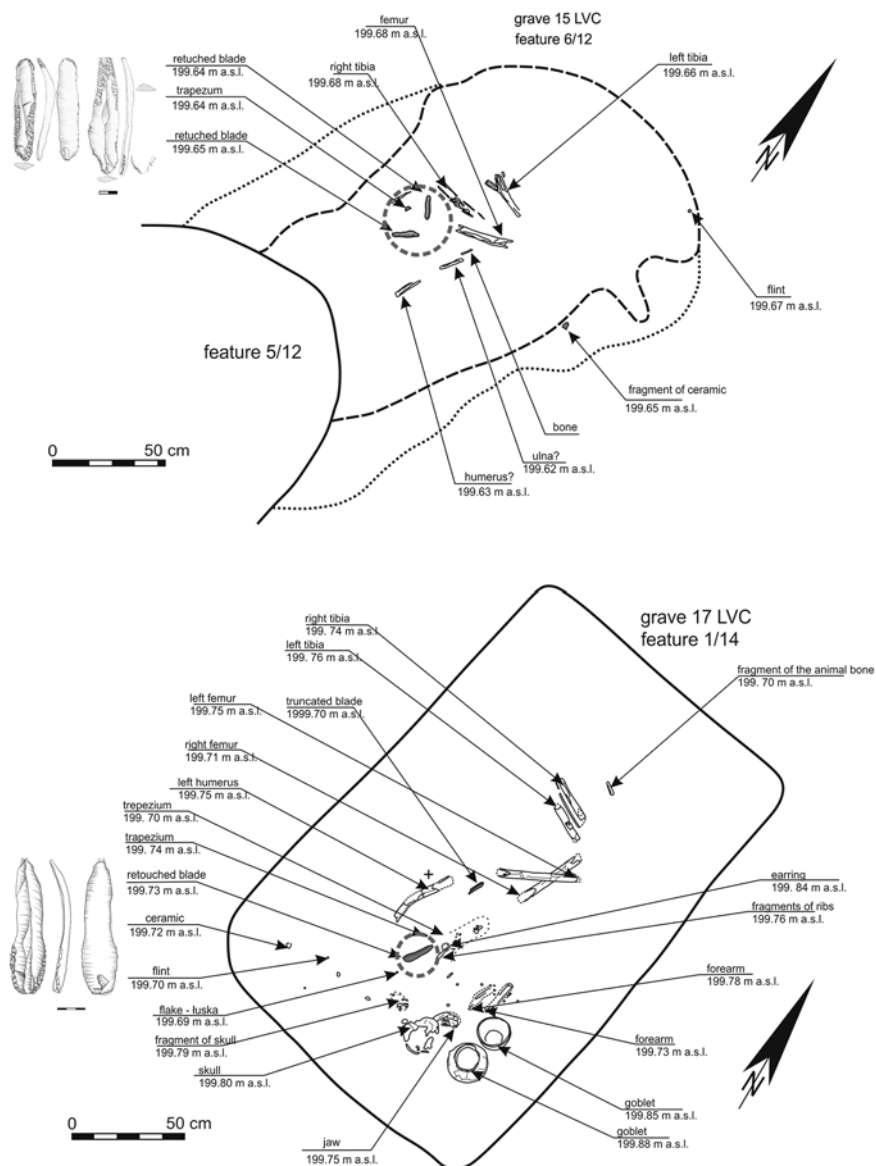


Fig. 3. Książnice, Busko-Zdrój district. A – Grave No. 15, plan with grave goods, B – Grave No.17, plan with grave goods. Drawing: S. Wilk.

ANALYSIS

Technological and raw material characteristic of artefacts

The description of the first artefact, the retouched blade from grave 5, was previously made by Zakościelna (Fig. 4). This is the bilateral convergent retouched blade (170 x 31 x 11 mm) with fluted retouch, from 2/3 of the length passing to irregular scalar retouch and partially fine edge retouch. The proximal part of the artifact was thinned by alternating retouch: fluted on the negative face and fine edge on the positive face. Ridges are gently smoothed and polished. The artefact, made of Volhynian flint (Zakościelna 2006), has a prepared flat butt, and 'spilled' bulb and chips are perceptible under the butt's edge. Both edges are gently bilaterally polished and the tip is slightly broken.

The artefact from grave 8 is a partial retouched blade made of chocolate flint with a perforator-shaped tip (85 x 22 x 9 mm), made from the distal part of a broken blade (Fig. 7.1). The right side is shaped to the half of its length by scalar retouch, the left side by semi-abrupt retouch, as is the tip of the artefact.

Two other artefacts come from grave 15; both of them are bilateral partial retouched blades but they differ in location of fluted retouch. The first one (128 x 32 x 8 mm), made of Volhynian flint, has the retouch on the distal part, and the butt portion was shaped as a blunt perforator by abrupt alternating retouch (Fig. 5). Its profile is slightly incurved and the tip is broken. The second specimen (113 x 23 x 9 mm), made of chocolate flint, shows fluted retouch along its proximal part and its tip is shaped as an end-scraper (Fig. 6). The artefact has prepared flat butt, clearly perceptible bulb and chips as well as a largely incurved profile.

The last of the artefacts was discovered in grave 17 (Fig. 7.2). This is the bilateral partial retouched blade (147 x 38 x 10 mm) was made of chocolate flint with semi-fluted retouch from 2/3 of the length of both edges. The artefact has prepared flat butt, 'spilled' bulb and chips as well as incurved profile. Its tip is slightly broken.

The results of the usewear analysis

Four of five analysed artefacts are very complex in terms of microwear traces preserved on their edges and surfaces. The retouched blade from grave 5 bears traces which can be associated with at least two stages of tool use. On the larger part of the left edge and on a fragment of the right edge of the retouched blade are perceptible traces of intensive use, most likely caused by scraping leather or plant (Fig. 4A-C); locally they resemble traces of wood scraping. The handle could have been mounted laterally (see Skakun 2008: Fig. 5), or located in the distal part - on the ridge traces transverse in relation to the axis of the blade are perceptible. Subsequently the location of hafting was changed, which partially removed the traces of use in the proximal part of the artifact, and the surface around the scar was dulled. The tip is heavily rounded, and

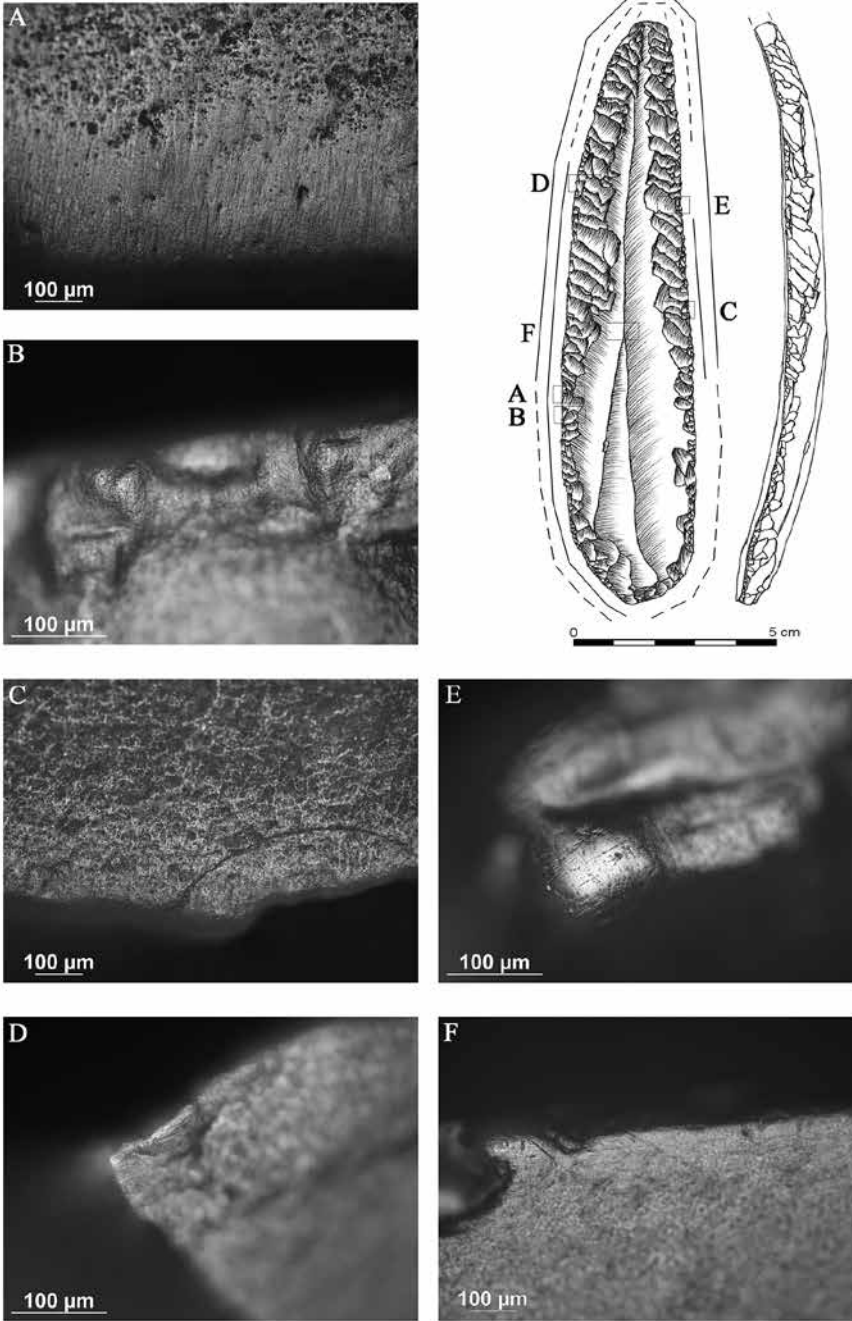


Fig. 4. Książnice, Busko-Zdrój district. Retouched blade from grave No. 5; A-C usewear traces; D-F traces probably from contact with a sheath. Drawing: M. Szeliga. Photo: B. Kufel-Diakowska.

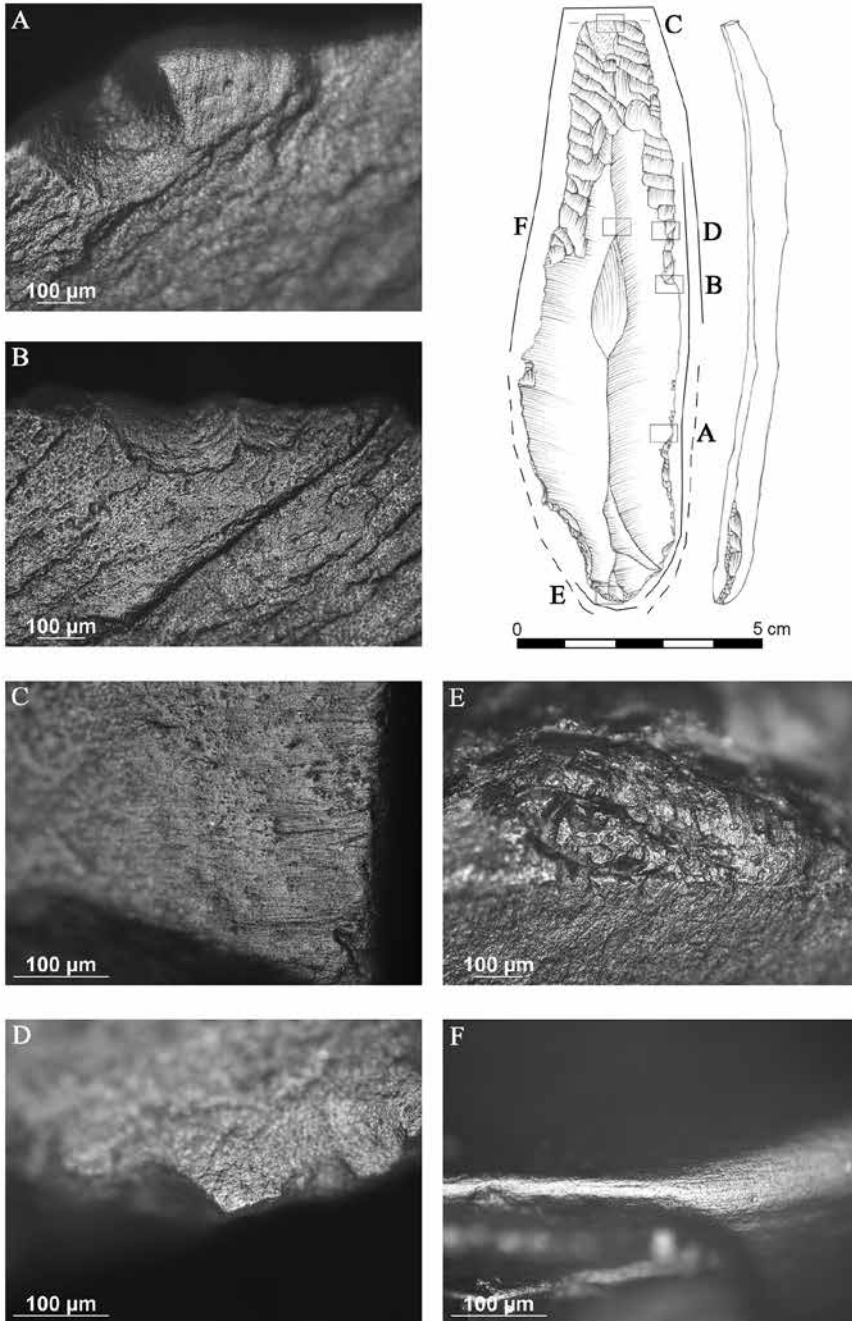


Fig. 5. Książnice, Busko-Zdrój district. Retouched blade from grave No. 15: A-B, E usewear traces; C-D, F traces probably from contact with a sheath. Drawing: J. Libera. Photo: B. Kufel-Diakowska.

on both edges of this part of the tool – but only on the very edges and retouch elevations – perceptible parallel, bright polish, intersected by dark scratches can be seen (Fig. 4.D-F) which could result from repeated pulling and putting the tool in and out of a leather sheath (see Beugnier and Plisson 2000: Fig. 12C-D).

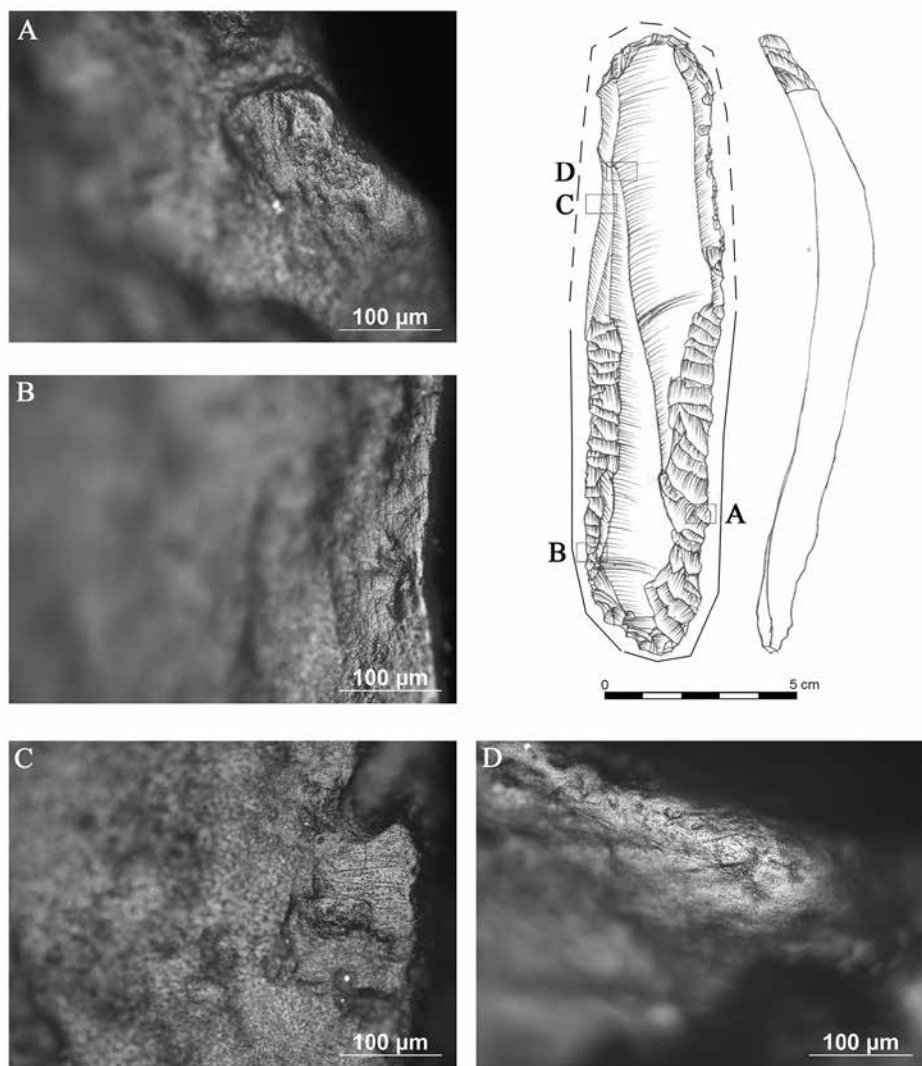


Fig. 6. Książnice, Busko-Zdrój district. Retouched blade from grave No. 15: A-B traces from contact with a sheath; C-D hafting traces? Drawing: J. Libera. Photo: B. Kufel-Diakowska.

Similarly worn was one of retouched blades from grave 15, also made of Volhynian flint. The right edge of the tool was intensively used. Traces of working leather and/or plant materials are perceptible on 2/3 of the edge's length (Fig. 5A-B). At that time in its use history the handle could have been placed at the distal part, where the edge

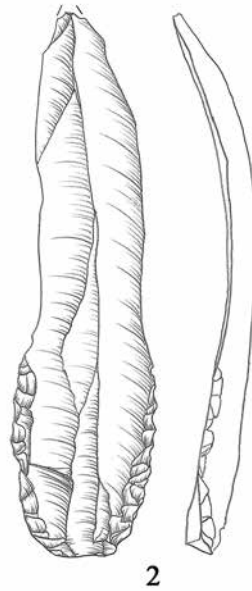
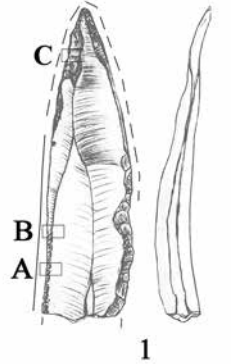
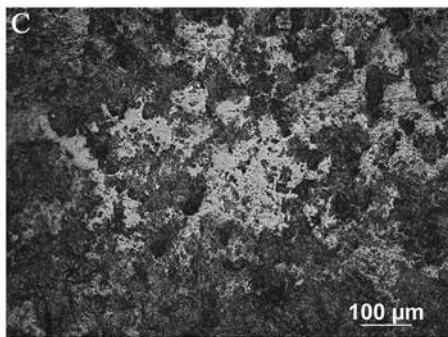
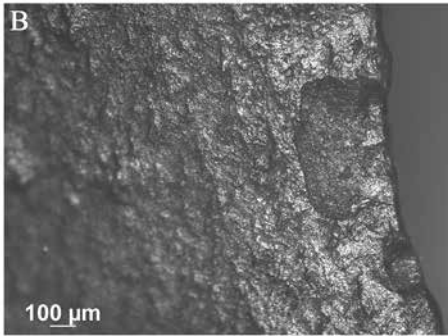
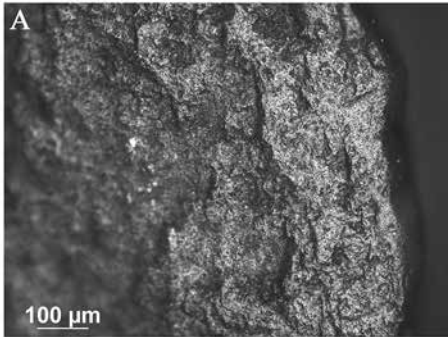


Fig. 7. Książnice, Busko-Zdrój district. 1 – retouched blade from grave No. 8: A-B usewear traces; C hafting traces? Drawing: S. Wilk. Photo: B. Kufel-Diakowska.; 2 – retouched blade from grave No. 17. Drawing: B. Kufel-Diakowska.

is chipped in many places, or at the left edge. The proximal part, shaped as a blunt perforator, bears traces of working hard mineral material (perhaps indicating fire production?; Fig. 5E; see Stapert and Johansen 1999: Figure 2). At some stage of the tool's use its proximal part was probably hafted, where the ridge is heavily rounded. In the distal part, on a fragment of the right edge and larger part of the left edge as well as on the ridge visible plant-like or leather-like polish was observed parallel to the tool axis (Fig. 5D, F), and the broken tip itself is heavily rounded (Fig. 5C). These traces could have been produced as a result of contact with organic sheath. It cannot be excluded that the left edge also had a utilitarian function because perpendicular and parallel traces indicative of working leather or plants were observed.

The second retouched blade from grave 15 is made on a largely incurved blade. Its tip, shaped as an end-scraper, bears no traces of use. On both edges parallel traces and polish indicate contact with leather or plant material (perhaps a sheath?; Fig. 6A-B). On the left edge both parallel and perpendicular striations occur, so it is difficult to identify which part could have been hafted (Fig. 6C). Most likely, the distal part was passive, because ridges in this area are heavily rounded and matte (Fig. 6D).

The microwear traces on the retouched blade discovered in grave 8 are not as distinct as observed on previously described three artefacts. The tip of this artifact, shaped as a perforator, bears no traces of use, and is only slightly rubbed. At this part of the tool there are bright spots of extensive distribution, although their origins are not clear (Fig. 7C). Traces of working soft materials were recorded on the left edge (Fig. 7A-B). A part of the right edge or the perforator-shaped distal part could have been hafted, because of the presence of the extensive bright spot. In addition, on small fragments of both edges, opposite each other, there are perceptible perpendicular traces and slight rounding.

The artefact from grave 17 is almost completely preserved, with secondary chip-pings evident on its unretouched part (Fig. 7: 2). The retouched blade bears no traces of use or other marks indicating that it was hafted or was kept in a sheath. Fragments of retouched edges are slightly rounded. Perhaps the proximal part of the tool was wrapped in a soft material, e.g. leather straps .

Despite the small number of analysed artefacts there are perceptible differences in state of their preservation, which is related to the length of use and the circulation of tools. Two of five specimens, both made of Volhynian flint analysed (graves 5 and 15) show very extreme microwear traces on their edges and surfaces, resulting from prolonged or intense use. These are both traces of use, in this case working leather and/or plants, probably fire production, as well as traces of contact with organic sheaths. The latter one is difficult to separate from traces of use, but limited distribution of polish on similar tools is emphasized (van Gijn 2010: 145-148; Grużdź *et al.*, 2015: 125-128).

The retouched blades made of chocolate flint are damaged in different ways. The microwear traces on the specimen with an end-scraper tip (grave 15) indicate contact

with plant material or leather, possibly the result from use of the tool or from keeping it in a sheath. Another retouched blade discovered in man's grave 17 was probably made shortly before grave deposition, although we do not know with what intention. Regardless of whether it had a utilitarian or prestige role, it was very likely not made during the life of the man with whom the artefact was discovered, but after his death because it bears no traces of use, hafting or sheath. The artefact from woman's grave 8 differs from the others both in terms of form, as well as location in the grave. Differences are also perceptible in the manner of use of the tool and evidence for utilisation is not as obvious as in the case for other tools. This retouched blade could have served as the insert for a kind of general purpose tool.

Finally, it is worth noting that graves containing retouched blade daggers occurred in both in the eastern (the elite) part of sepulchral fields (grave 5), and in the central grave (17), between the eastern and the western (the poorer) part of sepulchral fields.

DISCUSSION

Of the five analysed flint artifacts, a techno-social definition of retouched blade daggers applies to only two: Ks/k/15/1/04 from grave 5 and Ks/k/20/14 from grave 17. The flint artifact from grave 12 (Ks/k/30/12), despite conforming to the technological definition of a retouched blade dagger, was not clearly associated enough with the burial to treat it in a similar way to artifacts from graves 5 and 17.

Results of the analysis of retouched blade daggers from Książnice provide an alternate perspective from which to approach the question of classification of wealth of graves containing these specimens. In the hierarchy of burial wealth in the Lublin-Volhynian culture retouched blade daggers appear both in rich and the richest graves, as well as in fairly rich and poor graves. Grave VI from site 1C in Gródek nad Bugiem scored 30 points (poor), grave I from site 3 in Tyszowce - 48 points (fairly rich), grave 4 from site Strzyżów - 26 - 75 points (rich), and grave 101 from site Grodzisko II in Złota as many as 336 points (the richest - off the scale; Zakościelna 2010: Table 47; therein also are the rules of evaluation and scoring). Grave 5 from Książnice was also included in the aforementioned hierarchy. It received 84 points and was listed as a class of very rich graves. Grave 17 would receive 39 points (poor).

If we accept that retouched blade daggers were symbols of a privileged social status of men who wore them, it is not necessarily the case that status was always expressed in a wealth of a grave. We can suppose that people who played important social roles in the Lublin-Volhynian culture may not have been assigned exclusively as either rich or poor representatives of the society.

CONCLUSIONS

Based on the usewear analysis we conclude that most of the retouched blades examined played utilitarian roles and were intensively used. The long-term use applies mainly to the retouched blade-daggers, especially those made from Volhynian flint. It should be noted that these artefacts likely were multi-purpose, so a specific function cannot be attributed to them. Similar artifacts, discovered in regions distant from sources of raw materials, are also heavily worn in many different ways (Beugnier and Plisson 2000). The presence of traces of an intense use of the retouched blades from Książnice, as well as traces of other activities which might be of more than utilitarian nature, indicates that the long-term circulation carried both an economic and a symbolic significance. It is also worth noting the manner of the retouched blades' use – according to Beugnier and Plisson (2000) reflecting male activities. Microwear traces indicate contact with only certain raw materials, such as plant or leather, and mineral in one case. By contrast, the tool made of chocolate flint found in a woman's grave does not belong to this group. It bears traces of use as a knife's insert, laterally or apically hafted. Similarly worn flint artefacts were deposited in women's graves discovered in a burial ground in Domaśław (Kufel-Diakowska *et al.*, 2016).

Finally, it is worth noting that graves containing retouched blade daggers occurred in both in the eastern (the elite) part of sepulchral fields (grave 5), and in the central grave (17), between the eastern and the western (the poorer) part of sepulchral fields.

Since only one of the graves (no. 8) has been radiocarbon dated at the present time we cannot address the chronological range and the duration of use of the sepulchral complex of the Lublin-Volhynian culture at Książnice. Whether these two graves containing the prestige flint artefacts are contemporary or whether they represent two different chronological phases of the burial ground remains an open question.

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