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KUĹ 1. A MESOLITHIC SITE FROM SOUTH-WEST BELORUSSIA

ABSTRAKT Stanowisko Kuĺ 1 zlokalizowane 5,1 km na zachód od wsi Sviatica, położone jest w dystrykcie Liachaviči, w regionie Brest (południowo-zachodnia Białoruś). Stanowisko o powierzchni 81 m^2 zostało przebadane w 2006 roku. Kolekcja archeologiczna liczyła 286 artefaktów krzemiennych. Rdzenie odłupkowe i wiórowe reprezentowane były przez formy jednopiętowe (2 fragmenty), dwupiętowe (3 fragmenty) a także takie o zmienionej orientacji. Zestaw narzędziowy zawierał różnorodne formy narzędzi m.in. rylce (12), drapacze (3), zgrzebło (1), półtylczaki (3), ciosła (3). Ostrze z retuszowaną podstawą jest jedynym zbrojnikiem w zestawieniu.

Na podstawie zastosowanej charakterystycznej technologii oraz morfologii form narzędzi możliwe jest przyporządkowanie zbioru artefaktów ze stanowiska Kuĺ 1 do kultury Kudlajevka.

Słowa kluczowe: mezolit, Białoruś, kultura Kudlajevka

ABSTRACT Kuĺ 1 settlement is located 5.1 km to the west of Sviatica village, Liachaviči District, Brest Region (southwestern Belorussia). An area of 81 m^2 was excavated at the site in 2006. The obtained archaeological assemblage

consists of 286 flint artifacts. Cores for blades and flakes are represented by single- (2 pieces), double- (3) and multiplatform (3) ones as well as four fragments. Tool-set contains various types of burins (12), end-scrapers (3), a scraper (1), truncated blades (3), adzes (3). A bladelet with truncated base is the only microlith in the assemblage.

It is possible to attribute the assemblage to Kudlaevka culture based on peculiarities of flintworking technology and morphology of tools.

Keywords: Mesolithic, Mesolithic of Belorussia, Kudlaevka culture

Introduction.

The Kuĺ 1 site is located 5.1 km to the west of Sviacica village, Liachaviči District, Brest Region. It lies on the left bank of the Ščara River, to the west of the Oginski Canal. In its eastern part it consists of a sandy hillock 1.5 m high, measuring 80 x 40 m. The southeastern part of the hillock is damaged by a sandpit[1].

The site was discovered by Alena H. Kalechyc, Vadzim L. Lakiza, Mikhal M. Charniauski, Wiktor S. Obuchowski in the course of a field survey which preceded the reconstruction of the Oginski canal in 2006[2]. A test pit of 3 sq.m was excavated in spring. Then, in autumn an area of 78 sq.m was excavated under Kalechyc's direction. The deposited material was explored in arbitrary levels 20 cms thick. The soil was not sieved[3]. The archaeological finds have been deposited in a light yellow sand, underlying which was a light, pale yellowish-grey sand[4].

Within the excavated area the lithic artefacts were distributed unevenly, and their number varied from 1 to 17 pieces for one square. Spatial analysis shows a minor find concentration in the northern part of the area that covers 11 sq.m.

The aim of this article is to publish the lithic invetry found at the Kuĺ 1 site that is stored in Institute of History of the National Academy of Sciencies of Belarus.

Materials

The excavation yielded small collection that consisted of 286 flint artifacts: 16 of them were found in the test pit and 270 more in the main trench. Table 1 presents general technical and morphological structure of flint inventory.

[1] Калечиц 2006, 3, 7.

[2] Калечиц, Лакиза, Чернявский, Обуховский 2006.

[3] Калечиц 2006, 7.

[4] Калечиц, Лакиза, Чернявский, Обуховский 2006: 8; Калечиц 2006, 13.

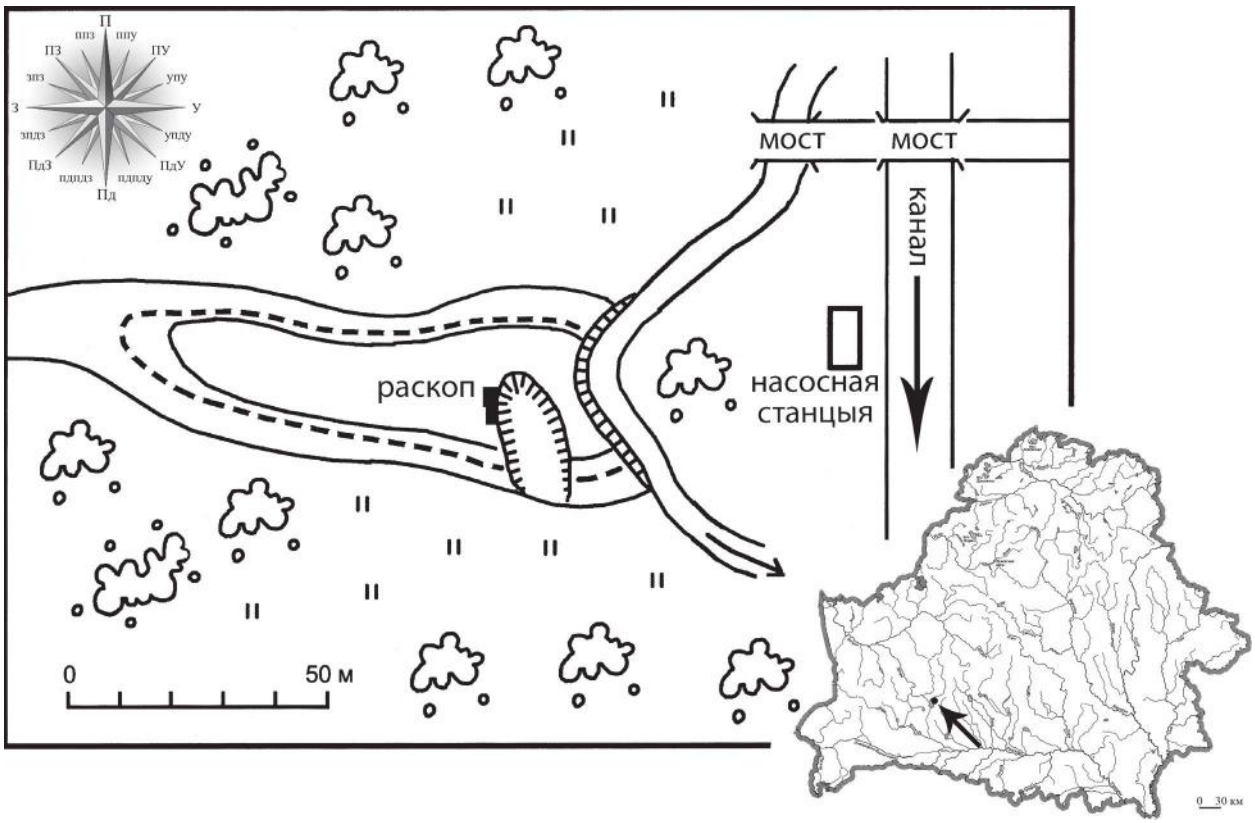

Fig. 1. The Kuĺ 1 site location. Калечыц, Чарняўскі, Лакіза, Абухоўскі 2007

Cores

There were 12 cores and their fragments found (4.2 % of the whole assemblage), including seven complete pieces. They can be classified into three types according to the number of platforms: single-platform cores, double-platform cores, and cores with changed orientation.

Single-platform cores – 2 specimens:

– single-platform microblade core with separated striking surfaces, prepared sides and unprepared back (Fig. 2:2). Platform overhang was not reduced. Trapezoid platform measuring 1.0 × 1.5 cm was prepared by a single frontal removal. Flaking angle is 85º. Length: 2.6 cm; width: 1.3 cm; thickness: 1.4 cm;

– single-platform core for blades and flakes (Fig. 2:1). It consists of two refitted pieces: exhausted blade core and core fragment. Length: 3.9 cm; width: 1.4; thickness: 5.5 cm; flaking angle is almost 85º.

The flaking surface is on a narrow face of a tabular flint concretion, completely covered with aeolized natural surface. The narrowest and elongated side of the concretion, measuring 1.5 × 5.0 cm and askew, was used as a striking platform. The platform had not been rejuvenated during flaking.

Exploitation of the core had probably been started with some removals on the lateral side of the concretion. There could be some reasons for them: a) narrowing of the flaking surface of the future core; b) increase an angle between the lateral side and platform aimed to flatten the latter; c) flattening of the lateral side. Another lateral side of the core remained unprepared.

Negatives on the core frontal surface give evidences of at least four blade detachments. Unsuccessful blow to a point distant from platform edge resulted in splitting off fragment measured 3.6 × 1.3 × 1.5 cm. Two more blades were detached from the core, and then its flaking was stopped. Platform overhang was not reduced during the core exploitation.

Double-platform cores – 3 specimens:

– opposite platform core for blades and flakes with complete back and lateral preparation (Fig. 2:4). Platform overhang was not reduced. The first platform is sub-square, 1.0 cm wide and 1.0 cm thick. It was prepared by single frontal removal. The second is sub-triangular, 0.9 wide and 1.3 thick. It is faceted and was prepared by some lateral removal. Flaking angles are 75° and 90°. Length: 4.0 cm; width: 1.4 cm; thickness: 2.0 cm. Use retouch on the core's back probably indicates that it was used as a tool later on;

– opposite platform core for blades and flakes with complete preparation of lateral faces and unprepared back (Fig. 2:5). Platform overhang was

not reduced. The first platform is sub-rectangular, 2.2 wide and 1.4 cm thick. It was prepared by two elongated lateral removals. The second one is trapezoid, 2.7 wide and 2.1 thick. It was prepared by series of frontal and back removals. Flaking angles are 80° and close to 90°. Length: 3.6 cm; width: 3.0 cm; thickness: 2.2 cm; flaking surface width: 3.0 cm;

– opposite platform blade core (Fig. 2:3). Platform overhang was not reduced. It is impossible to ascertain platform preparation character and to measure flaking angle because of level of exhausting. Length: 3.7 cm; width: 2.8 cm; thickness: 1.2 cm.

Cores with changed orientation – 2 specimens:

– core with singly changed orientation for blades and flakes, with complete preparation of lateral faces and back (Fig. 2:6). Platform overhang was not reduced. The primary platform is sub-rectangular, 1.4 cm wide and 1.8 cm thick. It was shaped by a series of small lateral removals. A negative of previous removal was used as a supplementary platform. The core is thermally damaged. The main platform has a flaking angle of almost 75°; the supplementary platform has a flaking angle of 70°. Length: 3.5 cm; width: 1.5 cm; thickness: 2.0 cm;

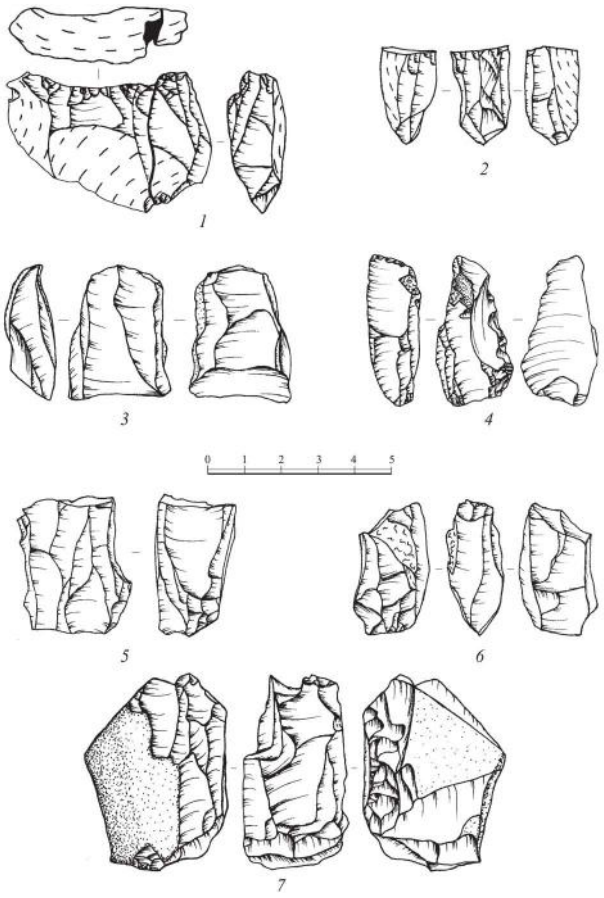

Fig. 2. Kuĺ 1: 1–7 – cores (1, 4 – drawing by A. Vashanau, 2, 3, 5–7 – drawing by W. Obuchowski)

– multiplatform core for blades and flakes (fig. 2:7). Aeolized natural surface covers its back and partially lateral faces. Length: 5.0 cm; width: 3.7 cm; thickness: 2.6 cm.

The assemblage also contains five core fragments.[5] Two of them are heavily burnt. They are commensurate with complete pieces. State of preservation does not allow classifying them.

Debitage

Blades – 59 specimens (Table 2; fig. 3:1-10, 4:1-3). The most of the blades are irregular. Their dimensions vary within the following ranges: length – 2.0-6.3 cm; width – 0.7-2.7 cm; thickness – 0.2-1.1 cm.

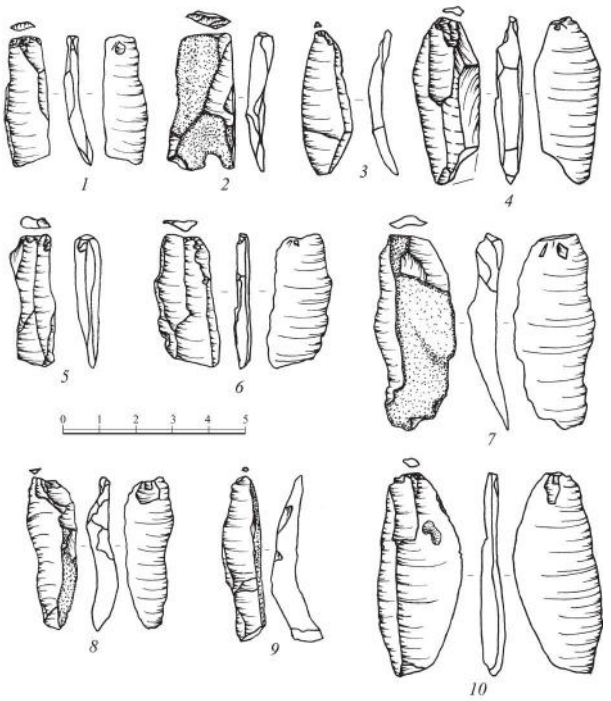

Fig. 3. Kuĺ 1: 1-10 – blades (drawing by A. Vashanau)

Flakes – 69 specimens (Table 2; Fig. 5:1-6). This group flakes, in which dorsal faces covered with cortex or aeolized natural surface for 50% or more, can be connected with the initial stages of core preparation and reduction. Flakes without cortex as well as flakes bearing cortex on no more than 50% of their dorsal faces are connected with stages of core exploitation and rejuvenation.

Metrics of complete flakes are as follows: length – 0.9-6.3 cm; width – 1.3-5.4 cm; thickness – 0.2-2.0 cm.

[5] One of them has been earlier described in the context of refitting the block above.

Table 1. General technical and morphological structure of flint inventory (I – cores and technically distinctive flakes related with core preparation, reduction, and rejuvenation, II – debitage, III – tools and characteristic tool production waste)

Technical categories		Number of finds	% of the category	% of total find ammount
I	Single-platform cores	2	4,65	0,7
	Opposite-platform cores	3	6,98	1,05
	Cores with changed orientation	2	4,65	0,7
	Core fragments	5	11,63	1,75
	Crested blades and their fragments	14	32,56	4,9
	Blades with scars of previous crest	3	6,98	1,05
	Flakes of core striking surface rejuvenation	1	2,33	0,35
	Flakes of flaking angle correction	1	2,33	0,35
	Core platform preparation flakes	5	11,63	1,75
	Plunging blades and their fragments	7	16,28	2,45
	Total:	43	100	15,03
II	Blades and their fragments	59	27,83	20,63
	Flakes and their fragments	69	32,55	24,13
	Bipolar flakes	7	3,3	2,45
	Chips	57	26,89	19,93
	Flake shatters	5	2,36	1,75
	Unclassified debris	15	7,08	5,24
	Total:	212	100	74,13
III	Microliths	1	3,23	0,35
	End-scrapers and their fragments	3	9,68	1,05
	Scrapers	1	3,23	0,35
	Burins and their fragments	12	38,71	4,2
	Truncated blades	3	9,68	1,05
	Adzes	2	6,45	0,7
	Retouched blades and their fragments	1	3,23	0,35
	Retouched flakes and their fragments	5	16,13	1,75
	Burin spalls	3	9,68	0,7
	Total:	**31**	**100**	**10,84**
	Total:	**286**	**100**	**100**

Bipolar flakes – 7 specimens (Fig. 5:7). One of the bipolar flakes has a heavily crushed edge. It might have been occasionally (?) detached from a flint nodule that had been used as a hammerstone. The metrics of the bipolar flakes vary within the following ranges: length – 1.4-4.1 cm; width – 2.5-4.9 cm; thickness – 0.5-1.2 cm.

Chips – 57 specimens. This category includes all flakes the dimensions of which do not exceed 2.0 cm. Diameter of fifteen specimens are smaller than 1.0 cm. It should be noted that seven specimens have remains of cortex or aeolized natural surface on their dorsal faces.

Flake shatters – 5 specimens. Their dimensions are as follows: length – 0.9-2.2 cm; width – 1.3-2.1 cm; thickness – 0.1-0.6 cm.

Unclassified debris – 16 specimens, 11 of which are thermally damaged and heavily burnt.

Technologically distinctive flakes

This category contains 31 specimens (10.84% of the lithics' total number). It includes crested blades, blades with scars of previous crest, flakes of core striking surface rejuvenation, ridge flake of flaking angle correction, core platform preparation flakes, plunging blades.

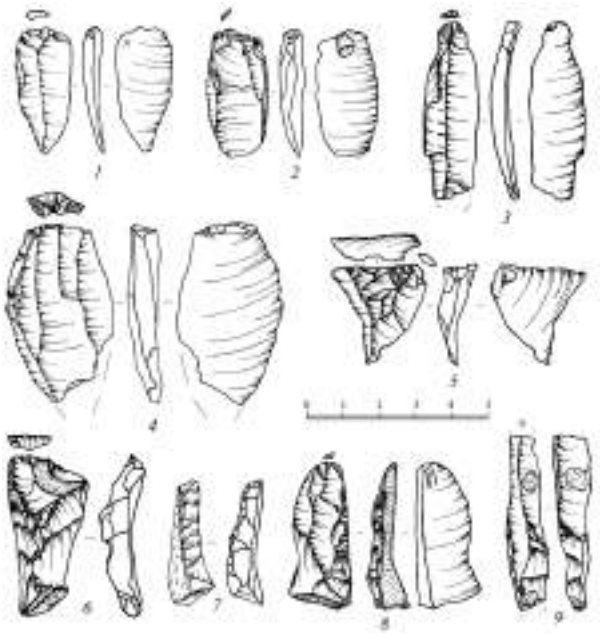

Fig. 4. Kuĺ 1: 1-3 – blades, 4 – flake of core striking surface rejuvenation, 5 – flake of flaking angle correction, 6-8 – crested blades, 9 – blade with scars of previous crest (drawing by A. Vashanau)

Crested blades – 14 specimens that can be divided into two types. The first one includes unilaterally crested blades. In this case, only one versant is prepared. The aeolized natural surface was a striking platform for preparation removals in most cases. Crest of only one artefact was prepared from the negative of previous removal. The assemblage contain eleven crested blades of this type, nine of them are complete, and two are fragments (Fig. 4:7, 8). Metrics of complete blades are as follows: length – 1.9-4.4 cm; width – 0.6-2.1 cm; thickness – 0.4-1.0 cm. Dimensions of fragmented pieces are 3.7 × 1.2 × 0.6 cm and 2.4 × 0.7 × 0.5 cm.

The second type includes bilaterally crested blades. They have both versants prepared. The assemblage contains three artefacts of such type: two complete pieces (measuring 2.9 × 1.2 × 0.6 cm and 4.4 × 2.1 × 1.0 cm) and one fragment (measuring 1.9 × 1.4 × 0.7 cm).

Blades with scars of previous crest – 3 specimens. They are represented by two complete blades (measuring 4.0 × 1.0 × 0.5 and 4.3 × 1.3 × 0.8) and one blade without proximal end (measuring 4.7 × 1.0 × 0.8 cm) (Fig. 4:9).

Flakes of core striking surface rejuvenation – 1 specimen.

A wide flake without cortex that removed a bigger part of core flaking surface is present among the finds (Fig. 4:4). Its dorsal face bears negatives of at least five previous blade removals.

The flake has wide faceted butt that was frontally prepared. Platform overhang was not reduced. Flaking angle is 75°. Find dimensions are 4.9 × 2.9 × 0.8 cm.

Flake of flaking angle correction – 1 specimen (Fig. 4:5). The flake was struck out from a lateral side of core. Remaining part of core platform is flat, prepared by a single frontal removal. Platform overhang was not reduced. Flaking angle is 86°. Find dimensions are 2.7 × 2.6 × 0.8 cm.

Core platform preparation flakes – 5 specimens (Fig. 6:6-10). This category includes flakes that removed core platform only partially (in contrast to core tablets). The artifacts have different kinds of dorsal face: completely covered with aeolized natural cortex (1 specimen; Fig. 6:6), flat (2 specimens; Fig. 6:7, 9), faceted (2 specimens; fig. 6:8, 10).

Length: 1.7-3.5 cm; width: 1.9-3.5 cm; thickness: 0.4–1.0 cm.

Plunging blades – 7 specimens. Five of them are complete (Fig. 6:2-5), and two more are distal parts of blades (Fig. 6:1). All artefacts have negatives of previous blade removals on their dorsal faces.

One artefact has negatives of previous blades knapped off from opposite platforms on its dorsal face (Fig. 6:5).

Metrics of complete pieces: length – 2.5-5.8 cm, width – 1.1-2.0 cm, thickness – 0.8-2.8 cm.

Dimensions of fragments: 4.0 × 1.1 × 1.2 cm and 6.2 × 1.7 × 1.2 cm.

Tools and characteristic tool production waste

This group consists of 30 artefacts, 28 of them are tools, and 3 are characteristic tool production waste.

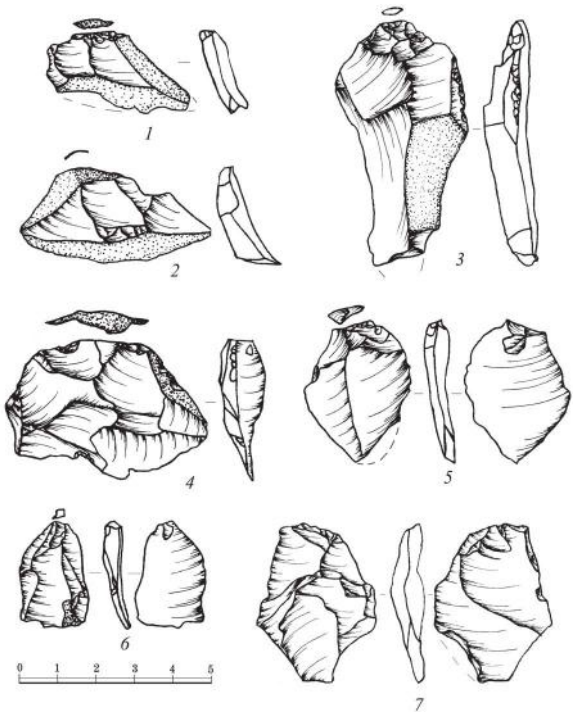

Fig. 5. Kuĺ 1: 1-6 – flakes, 7 – bipolar flake (drawing by A. Vashanau)

Microliths. The group of microliths is represented by a single item: a microblade with a retouched base (Fig. 7:1). The artefact consists of a quite regular blade knapped off single-platform core. Its base is shaped by fine ventral semi-abrupt retouch. The distal end of the item is broken. Length: 3.4 cm; width: 0.7; thickness: 0.2 cm.

Truncated blades – 3 specimens (Fig. 7:2-4). Blade with one crested versant, secondary blade struck off opposite-platform core, and distal part of blade were used as blanks for them. Two artefacts have truncations on distal ends shaped by fine dorsal abrupt retouch (Fig. 7:3, 4). The third one have truncation on the proximal end of a blank has shaped by fine abrupt retouch (Fig. 7:2). Angles of tilting of retouched edge about tool axis are 75-80º. Tool metrics are as follows: length – 2.2-5.2 cm; maximum width – 1.2-2.6 cm; maximum thickness: 0.5-0.7 cm.

End-scrapers and their fragments – 3 specimens. The first one is end-scraper on flake (Fig. 7:7). Its arcuate cutting edge is shaped by semi-abrupt medium-facet retouch on blank's distal end. The artefact measures 5.0 × 3.2 × 1.2 cm.

The second one is end-scraper on partially retouched flake (Fig. 7:6). Its skewed arcuate cutting edge is shaped by semi-abrupt medium-facet retouch on blank's distal end. The artefact measures 4.2 × 2.5 × 0.8 cm.

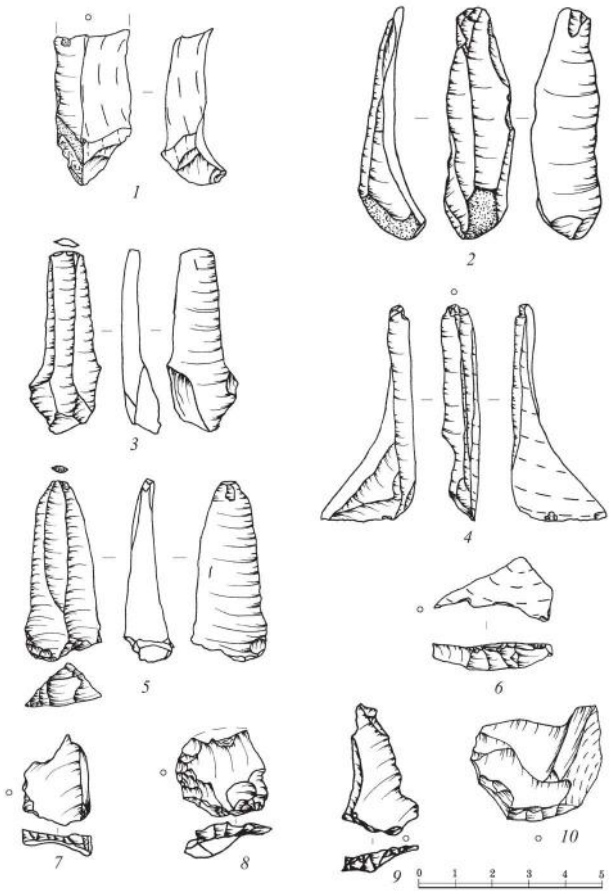

Fig. 6. Kuĺ 1: 1-5 – plunging blades, 6-10 – core platform preparation flakes (drawing by A. Vashanau)

– 2 angle burins on breaks, including 1 complete specimen (Fig. 8:2) and 1 thermally damaged fragment (Fig. 8:1). The complete specimen (measuring 4.5 × 2.4 × 0.9 cm) is a simple single-faceted burin made of irregular blade. Dimensions of fragment are as follows: length – 2.2 cm; width – 1.3 cm; thickness – 0.8 cm.

– single-blow lengthwise burin (measuring 4.3 × 2.5 × 0.8 cm) on flake. Burin tip formed on blank's distal end by a single blow from cortical platform;

– 2 angle dihedral burins. The first one is a triple-faceted burin on flake, complete and measuring 2.9 × 3.1 × 1.1 cm (Fig. 8:4). The second one is a thermally damaged fragment (measuring 1.8×1.0×0.6 cm), with single-faceted tip;

– core-shaped angle dihedral burin (measuring 3.2 × 2.0 × 1.1 cm) (Fig. 8:5) made of heavily exhausted core;

– core-shaped double angle burin on retouched truncation (measuring 5.1 × 1.9 × 1.5 cm) (Fig. 8:6). Fragment of single-platform blade core was employed as a blank for the tool;

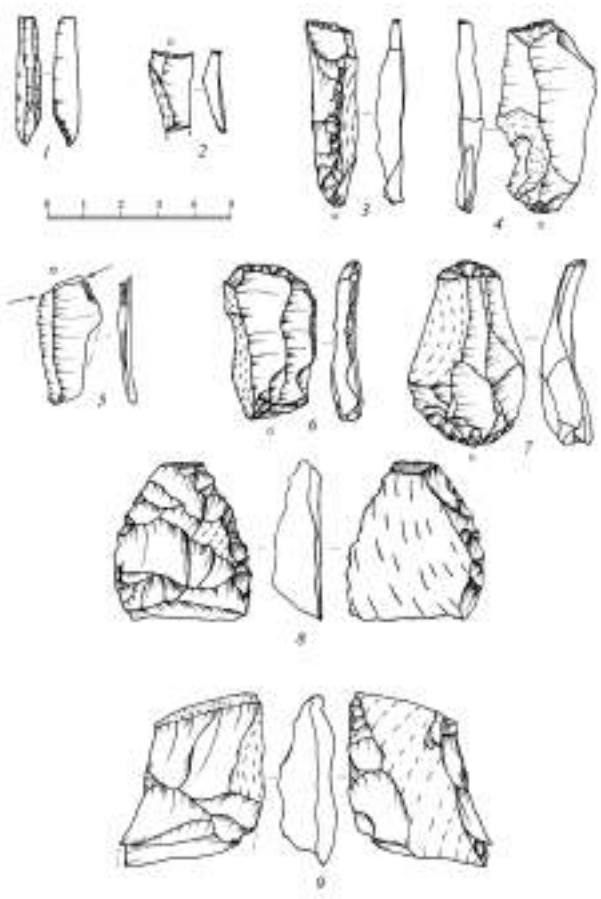

Fig. 7. Kuĺ 1: 1 – microlith, 2-4 – truncated blades, 5 – retouched blade, 6, 7 – end-scrapers, 8, 9 – adzes (1-4, 6-9 – drawing by W. Obuchowski, 5 – drawing by A. Vashanau)

The third specimen is a fragment of end-scraper. It is an arcuate cutting edge shaped by fine- and medium-facet retouch on blank's distal end.

Scrapers – 1 artefact. The tool has a longer retouched edge as distinct from end-scrapers, and is made of large secondary flake (Fig. 8:11). Its skewed arcuate cutting edge shaped by fine- and medium-facet retouch on blank's distal end. The artefact measures 4.7 × 4.4 × 1.3 cm.

Burins and their fragments – 12 specimens, five of them are fragments (two fragments have been refitted together). The assemblage contains some burin types:

– 3 angle burins on retouched truncation, including 2 complete specimens on large irregular blades (measuring 3.9 × 1.4 × 0.9 cm and 3.6 × 1.8 × 0.9 cm) (Fig. 8:7, 8) and a heavily burnt fragment (measuring 2.6 × 1.4 × 1.1 cm) (Fig. 8:9).

– combined burin on secondary flake: angle burin on truncation and angle burin on break (Fig. 8:10). It consists of two refitted heavily burnt pieces. The artefact measures 3.8×3.3×0.9 cm.

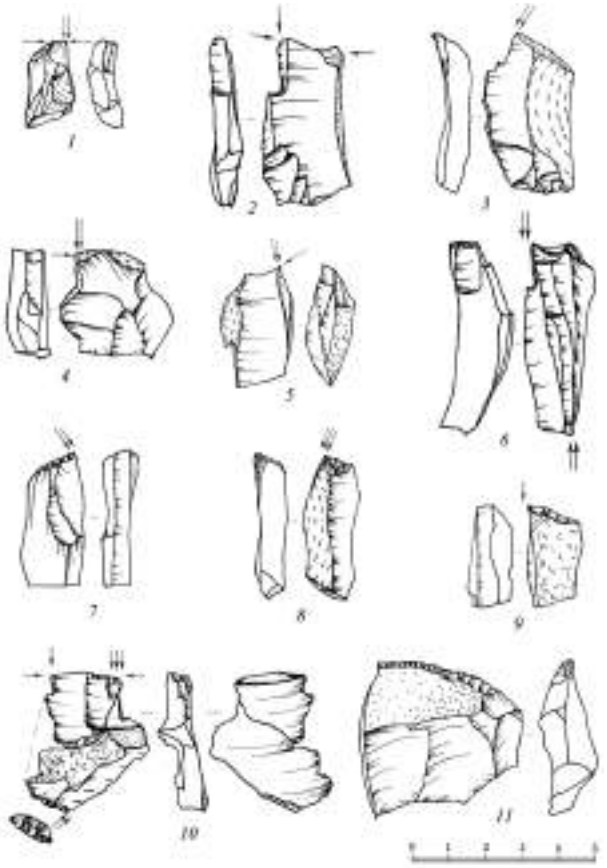

Fig. 8. Kuĺ 1: 1–10 – burins, 11 – scraper (1–9, 11 – drawing by W. Obuchowski, 10 – drawing by A. Vashanau)

Adzes – 2 specimens. Both artefacts made of small flat concretions. Frontal side of the first item is flattened by small removals, and its back is completely covered with aeolized natural surface (Fig. 7:8). Its lateral sides formed with semi-abrupt alternate retouch, the cutting edge is prepared by tranchet blow, and the butt is cortical. Length: 4.2 cm; width: 3.1 cm; thickness: 1.3 cm; butt width: 1.3 cm.

Frontal surface and back of the second item have remains of aeolized natural surface (Fig. 7:9). Its lateral sides shaped with semi-abrupt alternate retouch. The cutting edge is damaged. The butt has remains of cortical surface. Length: 4.6 cm; width: 3.6 cm; thickness: 1.5 cm; butt width: 2.8 cm.

Retouched blades – 1 specimen. The assemblage contains a fragment of a non-cortical blade with partial retouch along one edge (Fig. 7:5).

The artefact has no proximal end. It measures 3.4 × 1.7 × 0.2 cm.

Retouched flakes – 5 specimens, including 2 fragments. There 1 cortical, 2 secondary and 1 non-cortical pieces among complete ones. Their dimensions vary within the following ranges: length – 1.3-2.0 cm; width – 2.1-3.3 cm; thickness – 0.4-0.7 cm.

Burin spalls – 3 specimens. The pieces are characterized by triangular cross-section. Their dimensions vary within the following ranges: length – 2.7-4.1 cm; width – 0.4-0.6 cm; thickness – 0.6-0.9 cm.

Raw material

All flint artefacts found at the site are of Baltic cretaceous flint of dark-grey, yellowish or reddish colour. Artefacts are semi-translucent. Surface of negatives is smooth by touch. Flint mass may contain small dark-grey inclusions. Three types of cortex have been documented: a) cortex of light- and dark-grey colour and 0.1-0.2 cm thick; b) heavily smoothed and worn cortex of light-grey and reddish colour 0.1-0.15 cm thick; c) natural aeolized surface of yellowish and reddish colour 0.1-0.2 thick. Judging by texture, colour and nature of cortex it can be assumed that all discovered artifacts came from 4-5 flint concretions knapped on site.

Raw material economy of the Kuĺ 1 site was based on use of a local variant of Baltic cretaceous flint gathered from surface at outcrop locations and brought to the settlement site.

Judging by the size of flint the artefacts, concretions and their fragments of quite small size (the largest artefact has length of 6.3 cm). Nature of cortex and natural aeolized surface presented on some artefacts[6] can be evidence of the non-"mined" origin of the flint raw material.

Unfortunately, it is impossible to determine the exact extraction site now.

Assemblage technological characteristic

Flintworking technology. The material available allows one to conclude that two modes of core preparation were in use at the site. Careful initial core preparation is typical for the first one. A large amount of technologically distinctive pieces discovered at the site testify to that. They prepared one or both lateral sides and the crest at the first stage while core back and striking platform usually remained unprepared. Knapping off blanks followed striking off a crested blade. If necessary, they rejuvenated striking platform, usually by a single large or series of the small removals, frontal or lateral. Platform overhang has not been reduced in the course of core exploitation.

Adjustment to natural shape of concretion and its minimal shaping is typical for the second mode. In this case, they choose a narrower side as a striking surface. Core reduction started with knapping off natural crest blade. Striking platform and core lateral sides remained unprepared.

Flaking angle of 70-80° has been maintained in both modes.

In spite of the fact that flakes slightly outnumber blades, it is possible to state with confidence that blade blanks were the main goal of flintworking at the Kuĺ 1 site. The main type of core was a blade single-platform core. In the course of reduction, especially at the final stages, such cores might change into multiplatform ones.

Metrics as well as technological features of flakes, blades and cores testify that technique of direct percussion with hard or soft hammerstone was employed. It is not excluded that organic (antler, wooden) billet might be also used.

The small amount of bipolar flakes present among the finds does not allow us to assume the intentional employing of bipolar technique. Flakes with stigmata of such technique might be accidental.

Production of tools. The tools discovered at the site account for 10.14% of the whole lithic assemblage. Blades and flakes equally serve as tool blanks. Exhausted cores and technologically distinctive flakes are among other blank type.

Burins (12 specimens) are the most representative and diversified group among morphological tools. This group includes angle burins on break, single-blow burins, dihedral burins and burins on truncation. Every specimen made of quite large blank.

End-scrapers and a scraper (4 specimens) represent the group of scraper tools. All of them are made of flakes and have arcuate working edges shaped with semi-abrupt retouch. All truncations (3 specimens) made of blade blanks with abrupt retouch.

Retouched flakes and blades (6 specimens) are of quite small size. All these tools have small section of one edge bearing abrupt or flat retouch. Most likely, the retouch has an accidental nature and has formed in the course of utilization of the artefacts.

Adzes (2 specimens) are among typical tools of Kudlaevka assemblages. These artefacts are made of small concretions and have lateral sides shaped with semi-abrupt retouch. It is possible to assume that cutting edges of the both tools are prepared with tranchet blows.

[6] 34,62% of artefacts (99 specimens) retain cortex.

Table II. Characteristics of blades from the Kuĺ 1 site

Blade characteristics			Number	Total
Fragmentation	Complete		36	59
	Proximal fragment		10	
	Medial fragment		5	
	Distal fragment		8	
Cortex	complete pieces	51–100%[7]	7	59
		11–50%	5	
		0–10%	24	
	fragments	with cortex	11	
		without cortex	12	
Direction of negatives	Single-platform		32	59
	Double-platform		7	
	Unidentified		20	

Table III. Characteristics of flakes from the Kuĺ 1 site

Flake characteristics			Number	Total
Fragmentation	Complete		45	69
	Fragments		24	
Cortex	complete pieces	51–100%[8]	6	69
		11–50%	6	
		0–10%	33	
	fragments	with cortex	13	
		without cortex	11	

Almost total absence of microliths is a peculiarity of Kuĺ 1 assemblage. The function of the site as well as imperfection of the methods of excavation (non-sieving of the soil) at the site can explain this fact. It is impossible to exclude possible "take-away" removal of microliths during the production process. The presence of a microblade core (Fig. 5:2) and total absence of microblades themselves can support this assumption.

The only microlith that was found is a microblade with a retouched base.

Flintworking technology and typological tool set from the Kuĺ 1 site correspond well with peculiarities of the Kudlaevka culture materials from the sites in Belorussian and Ukrainian Polesia as well as Lithuania.[9]

[7] 1 % of blade dorsal face.

[8] 1 % of flade dorsal face.

[9] Вашанаў 2015; Залізняк 2009; Кудрашоў 1997; Ostrauskas 2002.

The Kuĺ 1 site lithic assemblage in the context of the Kudlaevka culture antiquities from the Western Belorussia.

Only three sites with Kudlaevka culture artefacts were known until the beginning of the 2000s in Western Belorussia.[10]

Extension of studies as well as rethinking old collections make it possible to increase the number of sites with Kudlaevka materials.[11] Up to date the author knows more than 50 sites with Kudlaevka culture artefacts in Western Belorussia.

The nearest site whitch yielded Kudlaevka hunting weapon elements is the Kuĺ 2 site.[12] Archaeological collection from Dabryniova 1 located in the catchment of the River Ščara, some tens of kilometers to the northwest of the Kuĺ 1 site, contains a representative assemblage of Kudlaevka pieces.[13] Kudlaevka materials are also known among the materials from the sites of Motaĺ microregion in the catchment of the River Jasieĺda.[14]

Most of Kudlaevka materials recognized in the region came from mixed collections. Lithic inventory includes single- and double-platform cores for blades and flakes as well as cores with changed orientation.

Microliths are the most representative group of artefacts. Stawinoga points and lanceolate backed points are the most frequent among them. Komornica points, triangles and crescents are a bit less frequent but still constantly present. Tardenoisian points (Adryžyn, Kažan-Haradok 1, Motaĺ 1)[15] as well as regular and broad trapezes, including those of Luta type, are among sporadic finds.

Other categories of tools include typical double backed perforators[16], burins on truncation, dihedral and single-blow burins[17], various types of scraper tools, and adzes.

Materials from the Kuĺ 1 site correspond in general with the typological composition of assemblages typical for Kudlaevka culture sites of Western Belorussia. The microblade with a retouched base from the site under discussion has analogies among Kudlaevka materials the Motaĺ 1 site.[18]

Technological and typological homogeneity as well as sparsity of the Kuĺ 1 lithic inventory allows one to assume its one-time character resulting from short period of the site existence. In the author's opinion, the Kuĺ 1 site is the only known Kudlaevka culture site in Western Belorussia by now, that has no admixtures of other cultures' materials.

The absence of hunting weapon elements does not allow us to draw confident conclusions on the chronology of the site. However, absence of trapezes makes it possible to assume its pre-Atlantic age.

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[10] Кудрашоў 1997, 76-81; Kozłowski 1972.

[11] Вашанаў 2015; Obuchowski 2009.

[12] Калечыц, Чарняўскі, Лакіза, Абухоўскі 2007, 2002, мал.

[13] Kozłowski 1972; Obuchowski 2009, 113-114, tabl. XLVII, XLVIII.

[14] Вашанаў 2015.

[15] Вашанаў 2015; Obuchowski 2009, 163, tabl. XCVII, 3, 4.

[16] Вашанаў 2015; Obuchowski 2009, 164, tabl. XCVIII, 4.

[17] Obuchowski 2009, 164, 165, tabl. CLV, CLVI, 1, 2.

[18] Вашанаў 2015.

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