



Unusual Neolithic Macro Plate Complex from Viyka I (Middle Trans-Urals)

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Abstract. The paper analyzes the original complex of large nuclei and plates produced from the unusual for the Middle Urals mineral raw material – white siliceous rock. The plates up to 12.3 cm long and 1.6–4.5 cm wide have mostly irregular facets and uneven side edges. The plates are distinguished by their thickness reached up to 1.6 cm. In general, the large-plate complex of Viyka I related to the Neolithic of the Middle Urals characterized by plates of 1.8–2.5 cm wide composed of light gray siliceous rock.

Keywords: Middle Urals · Master's workplace · Macro plate complex · Mineral raw materials

1 Introduction

The Viyka I site is located 7.5 km east of Borodinka village (Krasnouralsk district, Sverdlovsk region) at the confluence of Viya River into Salda River (on the right bank of Viya River and the left bank of Salda River). It is situated on the estuary promontory of the first floodplain terrace up to 7 m high. The area does not exceed 500 m². In 1978, the reconnaissance excavations were carried out on the site. The excavation area of 15 m² obtained cultural remains of the Mesolithic, Neolithic and Early Iron Age. They occurred immediately under the turf in a layer of light gray sandy loam of 40 cm thick. The mainland is dense brown clay with a large admixture of small stones. A large complex of finds (2127 items) testifies to the multiple settlements of this cape in different archaeological periods. Only 208 stone products, including one trapeze, relate to the Mesolithic era. The Neolithic is presented by ceramics ornamented with a drawn and receding stick and comb, as well as arrowheads, scrapers, and flakes. Most of the collection consists of materials of the Itkul culture of the Early Iron Age: numerous fragments of ceramic vessels and single stone artifacts – triangular arrowheads and flakes (Serikov 1979).

2 Materials and Methods

The materials of research are presented with a micro-plate complex of Neolithic, made of white siliceous rocks. A technical - typological method was used for its research. The application of this method has shown that this section of the site was the workplace of a Neolithic master.

3 Results and Discussion

Among the Neolithic products, the macro plate complex produced of white siliceous rock is of great interest. It should be noted that products from these raw materials are not aware of any Neolithic site of the Middle Urals.

There are 2 nuclei in the collection. The first nucleus 8.7 cm high and 8.6 cm wide is produced from a 4 cm thick white rock tile (Fig. 1, 1). In a plan, it is triangular. The lateral planes are covered with a primary crust. It related to the frontal bilateral type. The chipping of plates was produced from two opposite sides. The 9 × 4 cm impact pad is smooth; the refinement is only in adjacent areas to the chipping fronts. Negatives from chipped plates are 1.1–1.4 cm wide.

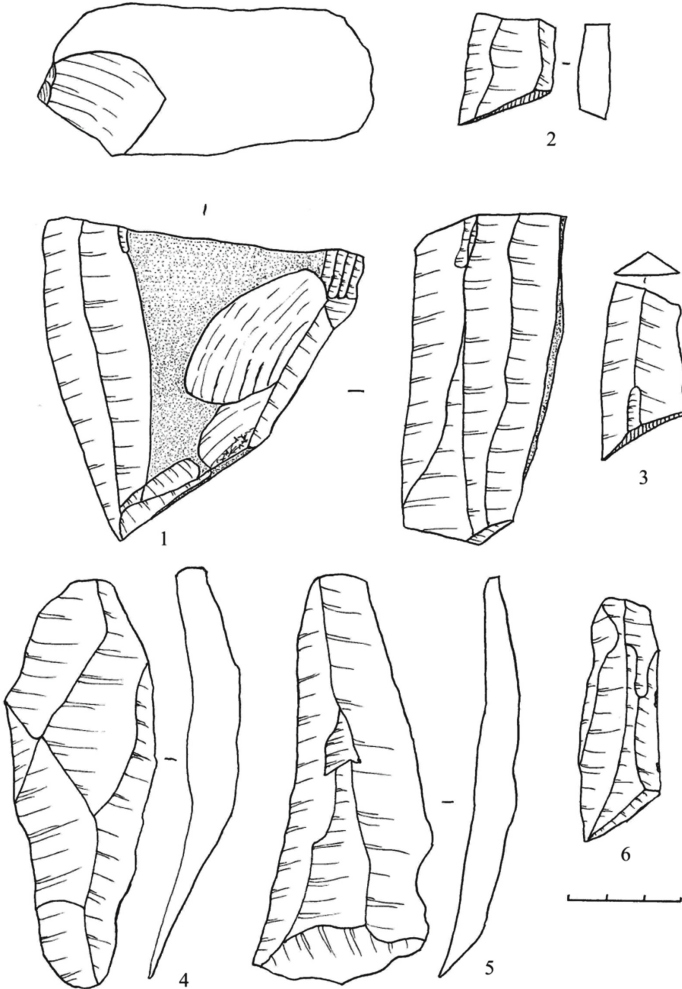


Fig. 1. Viyka I. Stone products (1 – nucleus; 2–6 – knife-shaped plates)

The second nucleus is larger than the first and also produced from white siliceous rock tiles 12 cm long and 8.8 cm wide. The thickness of the tile is uneven and reaches 5.4 cm. The one plane of the tiles is covered with almost complete removal of the primary cover; on the second plane, only corners are beaten. Only from the beaten side of the tile chipped a thin plate chip of 6.5 cm long. The finds of the whole nucleus of a large size in the Urals are very rare.

In 1940, P. A. Dmitriev at Tolstik cape (Iset Lake, Sverdlovsk region) discovered a nucleus of 25.5 cm high in the plane of cleavage. It is produced from tiles of light gray siliceous shale up to 27.1 cm long and 8 cm wide. From the butt of the tile, two full cleavages were produced (equal to the length of the nucleus). The nucleus is stored in the funds of the State Historical Museum in Moscow (Serikov 2007).

In 2003, consisting of the treasure on Shaitan Lake (Sverdlovsk region), we discovered a nucleus of 16.7 cm high related to the frontal three lateral two-site types. One impact pad is straight and 5.5×3.3 cm; the second one – beveled and 6×5 cm. From impact pads, by means, a counter chipping light gray weakly siliceous plates of 1.8–3.2 cm had been removed (average 2.3–2.5 cm) (Serikov 2010).

Also, from the treasure discovered in 2008 during the building of a dacha on the Miass suburban area of the Chelyabinsk region, there is a nucleus of $10 \times 6 \times 4$ cm (Mosin and Zaitsev 2012).

In this complex, a transverse cleavage from the nucleus of $6.1 \times 4.3 \times 1.4$ cm was preserved. It doesn't fit any of the nuclei; therefore, the two nuclei discovered at the site were not the only ones. The transverse cleavage has a sub-triangular shape with smoothed corners (Fig. 2, 8). On one side of the transverse cleavage 2.6 cm wide, on the side edge there are three negatives from the chipped plates – two negatives partially and one completely. Some areas of the back of the chip are retouched from the back.

The only ribbed plate in the collection is noticeably curved in profile (Fig. 2, 4). It is glued together from two fragments – a section of 3.9 cm long and a distal end of 5.9 cm long. The proximal end with a shock tubercle is absent. The preserved part of the plate is 9 cm long, 2.7 cm wide and 1.1 cm thick. The cutting of the plate to pieces was produced intentionally.

There are three other deliberately dissected plates in the collection. The largest plate 12.3 cm long is glued together from two fragments (Fig. 2, 3). The plate length exceeds the height of the two nuclei from the complex. Therefore, in this complex, there was at least one more nucleus. The plate is noticeably curved, 2.6 cm wide and 1.1 cm thick. The distal end is corrected with scraper retouching. On the one edge, retouching from the back formed a shallow notch.

The second plate is also curved and glued from section 4.8 cm long and a distal end 6 cm long (Fig. 2, 2). The plate is 1.3 cm thick and 1.9–3.2 cm wide. Partially, there is a primary crust on the plate.

From the third plate, the lower part 6.5 cm long, 2.6 cm wide, and 0.5 cm thick has been preserved. It is glued from the section and distal cut-off end.

Three of the most massive plates in the collection are of interest. One of them has chipped off a proximal end with a shock tubercle. The preserved part is 9.8 cm long, 3.5 cm wide and 1.2 cm thick (Fig. 2, 1).

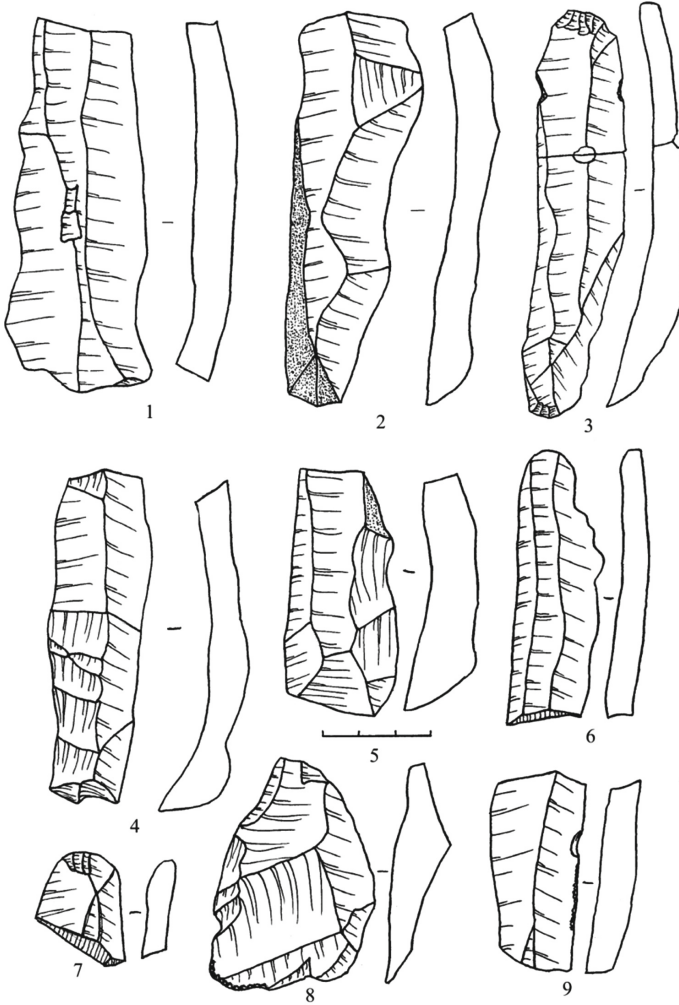


Fig. 2. Viyka I. Stone products (1–7, 9 – knife-shaped plates; 8 – transverse cleavage from the nucleus)

Two plates are whole and 10.8 cm long and 1.2 cm thick, but different widths. At the one plate both lateral edges convex, its width fluctuates from 1.7 to 3.7 cm (Fig. 1, 4). The second plate has expanding edges downwards resulted in 1.6–4.5 cm thick (Fig. 1, 5).

The main part of the plates has irregular facets and uneven side edges. The correct facet has a plate 6.5 cm long, 2.1 cm wide and 0.8 cm thick (Fig. 1, 6). The same facet has a plate with a cut off distal end. It is 7.5 cm long, 2.2 cm wide and 1.1 cm thick (Fig. 2, 6). The sections of the plates prepared for use also have the correct faceting. One section 5.4 cm long, 2.4 cm wide and 0.9 cm thick was treated with fine retouching

from the back (Fig. 2, 9). Two more sections 4.7 and 2.9 cm long are the same 2.3 cm wide and 0.7 and 0.8 cm thick, respectively (Fig. 1, 2, 3).

The remaining plates are presented by clasts. Among them there are two severed proximal ends 2.6 and 3 cm long, 1.8 and 2.3 cm wide, 0.6 and 0.8 cm thick (Fig. 2, 7); four severed distal ends long 3.2–3.8–4.7–6.4 cm, width 2.5–1.8–3.8–3.1 cm, thick 0.8–0.8–0.7–1.6 cm, respectively (Fig. 2, 5). On one of the severed ends preserved primary crust. Also, there is a plate with a severed proximal end 4.4 cm long, 1.5 cm wide and 0.7 cm thick.

The complex is ended with two chipped corners of the plates 0.7 and 1 cm long, as well as a flake 1.7 cm long.

4 Conclusions

The reconnaissance excavation revealed the part of the site (unfortunately, not completely), where “tochok” – the workplace of the master was situated.

In general, the large plate complex corresponds to the developed Neolithic of the Middle Trans-Urals characterized by a plate 1.8–2.5 cm wide produced from a light gray weakly siliceous rock. In a view of new sources of raw material at the same time, the large-plate technology has been developed. At the reference, Koksharovskiy hill and Yurynskoye Neolithic sites of the Middle Trans-Urals, the plates 1.8–2.5 cm wide prevail. A knife produced from a chalcedony plate 17.7 cm long and 3.7 cm wide was discovered on Yuryno IV site. The findings of large-size nuclei in the developed Neolithic are rare. Being a kind of “warehouses” of mineral raw materials, they were used fully for other purposes. Apparently, for this reason, there was complete recycling. Their presence in archaeological complexes is evidenced by preserved transverse chips and chipped impact sites of nuclei with a diameter of 5–7 cm (Serikov 2018).

This complex is highlighted by a large spread of plates in their width, thickness, and irregular shapes; and also mineral raw materials – white siliceous stone rock unknown on other Neolithic sites is.

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