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The Kayukovsky culture of the Early Neolithic period in the context of human diffusion on the territory of the North of the Western Siberia

Since the Neolithic Age at the turn of VII century BC hundreds of settlements were appearing in the North of the West Siberian Plain, the number of these settlements increased later and not decreased till the Middle Ages. During the Eoholocene forest zone was developed within this territory that was typical for north-west of Asia, i.e. Western Siberia. This landscape and biocoenosis has not changed up to the present moment. (Text002)

The most part of the West Siberian Plain taiga zone, the land between 58° и 65° north latitude, is an administrative division of Khanty-Mansiisk autonomous district, Yugra. Its territory is 535 000 sq.m. Up to the present day about 6000 archaeological sites were discovered at this region. They were settlements, households, hunting facilities, places of worship, dated since the Late Paleolithic Age.

In the territory of Yugra there are more archaeological sites that on the neighbour districts which have similar landscape and climate conditions. For example, to the west in the Komi Republic and Perm district there is a taiga zone of the North-East part of Europe, its total area of 576000 sq., where archaeological sites have been discovering for more than 100 years, there are 2455 archaeological sites. To the west in the Yamal-Nenets Autonomous District there is the zone of north taiga and tundra of the Far North of the Western Siberia, its area is 750000 sq. and there are 550 sites. The north taiga zones of the Western Siberia were densely populated in ancient times, especially the earlier periods; it is a unique trait of the region. However, this phenomenon is not investigated.

About 3000 sites among all archaeological sites in Yugra are settlements of the Neolithic and the Bronze Ages, from 7th millennium BC till 2nd millennium BC. The most part of the sites were dated within this particular chronological diapason. Interestingly there are few sites of the Mesolithic and the Palaeolithic periods[[1]](#footnote-1). An average about 1500 settlements can be dated from the Neolithic period, since 7 millennium BC till 4 millennium BC, an average that means about 350-400 sites per a millennium. The precise radiocarbon determination was obtained for approximately 15 sites (about 1%). The rest were dated with the comparative typology method. Take into consideration the tendency of increasing the number of settlements from the earlier periods to the later periods, we expect, that there were from 100 to 200 settlements within the Early Neolithic period from 7 millennium BC till 6 millennium BC.

Our statistical calculation based not only upon speculative data, but also other. It takes several decades to obtain radiocarbon determination even of the Neolithic sites based exclusively on probes materials. It is noteworthy that the north taiga territory is underinvestigated, about 100 new archaeological sites are discovered there every year.

Nevertheless, it seems to us that it would be wrong to investigate and imagine the Neolithic period of West North Plain based exclusively on several but well-dated sites, not considering the statistical data, because the precise number and precise dating may be unknown in the foreseeable future.

Considerable number of the settlements appeared in the territory from the early Neolithic period was possible unless there were substantial food resources and its regular supply. That made it possible to appear considerably large human group, which was stable during long time that was not typical for the north longitudes of Eurasia and the North America.

At the moment about 4 out of all sites (minimum 100) of early Neolithic period are conclusively the sites of **Kayukovsky** culture. (Fig. 003) Kayukovo 2 is a primary site, **Kayukovsky** culture was recognized on the basis of this site excavation. Briefly, this culture is characterized with settlements consist of 5-6 regularly planned houses, the pottery vessels with flat bottom and specific shape. We will tell more on that later. The pottery similar with **Kayukovsky** pottery occur in other sites of the north of the West Siberia, for example, Chortova gora site, although these materials were not analysed under a comprehensive approach, so it is impossible to be sure that they are a part of **Kayukovsky** culture. (Text, fig 004)

As a part of **Kayukovsky** culture we will present the defensive and settlement complex Kayukovo 2, it is the best researched with archaeological excavations site. It is situated near the Bolshoye Kayukovo lake in the watershed of the Bolshoy Salym river and the Bolshoy Yugan river (the left tributaries of the Ob’ river), in the Nefte-Yugansk region of the Khanty-Mansiisk autonomous district, Yugra. Kayukovo 2 was named after the family name of the khant people, who are living near this site in Punsy yurtas.(Fig. 005, fig 006, text 007)

The site was discovered in 1991 and was initially investigated by the survey work group of Vizgalov G.P. In 2000-2002 the archaeological excavations were directed by Kardash O.V. In the summer of 2018 the excavation was continued by the international expedition organized by autonomous non-profit organization Institute of the archaeology of the North, Scientific Production Association ‘The Northern Archaeology’ in partnership with the Institute of History and Archaeology of the Ural branch of the Russian Academy of Science, under the charge of Chairkina N.M. and Institut für Ur- und Frühgeschichte Christian-Albrechts-Universität zu Kiel under the charge of Prof. Dr. Henny Piezonka.

The functioning time of Kayukovo 2 was determined with the radiocarbon dating method. During 3 years of the excavation, radiocarbon dating was obtained for 10 finds, although the earliest data were obtained from the sample of the deepest part of the layers. There are two of them, which were cross-dated in the laboratory of SB RAS (Siberian Branch of the Russian Academy of Sciences) in Novosibirsk and the Institute for the History of Material Culture of the Russian Academy of Sciences in Saint-Petersburg. (Text. 008) The first sample[[2]](#footnote-2)absolute calibrated dates is

* SOAN-4800: 6020-5375 BC (the end of the 7 century – the middle of the 6 century)
* Le-6206: 5739 – 5635 BC (the beginning of the 5 century BC)

The second sample[[3]](#footnote-3)absolute calibrated dates is

* SOAN-4800: 6020-5375 BC (the end of the 7 century – the middle of the 6 century)
* Le-6206: 5611 – 5479 BC (the middle of the 6 century BC).

The radiocarbon dating determines the period of Kayukovo 2 functioning as the first third of the 6 millennium BC. The cultural layer morphology and absence of evidence of rebuilding indicate, that the wooden-earthen habitation structure existed for a short period of time, not more than 100 years, it defines the site as a single-layer structure.

**The architectural aspect** of Kayukovo 2 is the most interesting. An important characteristic of the soils of the North of the Western Siberia should be mentioned, they are sands and sandy loams[[4]](#footnote-4). In such a ground the remains of the ancient settlements are distinct in the microrelief. That provides the opportunity to study architectural characteristics both the certain habitation structures and plans structure of the settlements prior to the excavation. (Fig. 009).

Three settlements of **Kayukovsky** culture have circular plan structure, that are Kayukovo 2, Kachnisap 2 and Barsovagora II/9, one settlement has linear or street structure (in two rows) plan structure. In sufficient scale the first settlements with the elements of fortification appeared here since the Late Bronze Age (14-9 centuries BC), And the defensive and settlement complexes with regular plan appeared even later, since the early Iron Age (8-7 centuries BC). The settlement complexes of Kayukovsky culture, with their regular plan structure and fortification elements, are exclusive in the architecture of the humans of the North of the Western Siberia.

Above the ground the ruins of the settlement complex Kayukovo 2 looked like remains of the five habitation structures in the form of hollows (pits): a big central pit connected via the corridors with the four others. In plan view the remains of the habitation structures looked like cruciform structure with the diameter about 35 m. (Fig. 010, fig 011, fig 012,text 013)

The excavation revealed the characteristic of the habitation structure, which were not evident above the ground. On the western part the “entrance” to the inner space of the building was discovered, it was marked with the paired fireplaces and pits. The central construction is square in plan view, its size is 6x6 meters, its facades were oriented toward north-west and south-east directions respectively (its corners were close to the axis north-south and west-east). The central construction was connected via the corridors 2x1 meters with the other four constructions of the complex, each of them was rectangular with the size of 4x5 meters.

The excavated constructions were supposedly the semi-subterranean dwellings; there is a foundation pit about 1 or 2 meters deep, earthen walls and central hearth. The earthen walls were supported with the irremovable frame, made of vertical thin logs. Their foundations were fixed in the small ditch, dug along the perimeter of the foundation pit. The flat roof was covered with the ground and had the hollow to remove smoke, which was, probably, a separate entrance above the hearth. (Fig. 015, fig 016.)

The habitation structure in the form of ditch 1,0-1,5 meters deep and width was found, it circled almost completely the most part of the settlement complex along the outer perimeter. In the structure there are the remains of the wooden frame that can be the framework of the outer wall or the roofed tunnel from the north-western structure 4 to the western complex entrance.

All the structures, including the outer wall-tunnel, were deliberately burnt. The action of burning is confirmed with both absence of considerable number of undamaged items (pottery), which could be left if the fire had been accidental, and evidence of fire in all rooms, even in the isolated places, that suggests simultaneous fire outbreak and simultaneous as well flame extinction because of construction demolishing. (Text. 017)

**The object complex** consist of 1200 artefacts, mostly they are fragments approximately 90-95 pottery vessels. All vessels are similar to each other in shape and ornamentation. The most common are the sphero-conical vessels with wide open mouth and flat cylindrical bottom. There are several vessels (two or three), their shape was unusual, although they had identical ornamentation, that were the vessels with rounded or pointed bottoms. The vessels walls were thick, they were characterized with loose structure and different colours because of low-temperature firing. (Fig. 018, fig 019, fig 020, fig 021)

The outer surface of the vessels is completely covered with ornament. Most of the vessels have undulating edge, made with finger pressing. Below it the upper part is decorated with the belt of large foveolar imprints. The ornaments, mostly linear, consist of the parallel row; they were made by stick impression with shift “shifted stick”. Comb stamp was used rarely, usually as a dividing as well. Variety of ornamental compositions is an important characteristic. There are vertical, horizontal, diagonal and scaly ornamental compositions and their variation. At least part of the vessels was coloured with ochre. (Fig. 022)

All of the flat bottoms are ornamented with symbolic pictures – labrys or solar cross, which were widely used in the Neolithic period – the Bronze Age of Western Asia, Mediterranean region and Black Sea region. Often the bottoms with symbols were used after the vessel was broken. (Fig. 023, fig. 024)

Sculpted statuettes should be mentioned as a part of ceramic items. Four statuettes were found: 3 fragments of bird, supposedly goose, statuettes and one, probably, human statuettes. The shape of the head and the edge are similar with female statuettes of Tripol culture of the South-Eastern Europe. (Fig. 025, fig. 026)

There are little of stone artefacts, not more than 50 items. They are grinded implements and abrasives. Adzes with longitudinal channel and knives in the shape of sickle are typical and were not found in the other Neolithic sites in the region. The tools were made of the rocks, which cannot be found in the Western Siberia, but were common in the Southern Urals and Kazakhstan. (Fig. 027)

**Conclusion**. The site Kayukovo 2 has the complex of unique characteristics, which are not typical for other Neolithic sites in the Yugra. Firstly, it is the complicated architectural plan of the habitational structure, which looks extraneous for the North of the Western Siberia. These defensive settlement complexes, are nontypical for simple societies of ancient hunters, and, probably, existed in the societies with more complicated social structure. In a way, complicated architecture of Kayukovo 2 may be comparable with the constructions of ancient preagricultural societies of Western Asia, for example, Gebekli Tepe (the southern-eastern Turkey). There are no direct similarities, but there are two common characteristics: (Fig. 028)

* Architectural organisation of the space of the structures inside the circle
* Spiral bypass corridor along the outer diameter.

The shape of the vessels and, especially, ornaments and sign-symbolic composition, such as labrys, solar cross, ochre colouring etc, also are parallel to archaeological materials from the early periods of the Central Eurasia.

We would like to attract attention to the problem of societies with distinct social structures, which differ from well-known tribal and village communities of hunter-gatherers. And defensive settlement complexes are one of the hallmarks such societies.

The listed above hallmarks suggest that population of Kayukovo 2 originated or was connected to the some archaeological cultures of the Western Asia and the South-Eastern Europe.(Fig. 029,fig 030.)

1. Число памятников эпохи палеолита и мезолита не более 30 [↑](#footnote-ref-1)
2. Первый образец был взят в 2000 году из основания Постройки № 3, (ур. 63.40-63.50) [↑](#footnote-ref-2)
3. Второй образец был взят в 2001 году из основания сооружения наружного рва/лабиринта (?), (ур. 63.55-63.65) [↑](#footnote-ref-3)
4. Большинство археологических объектов Югры расположены на хорошо дренированных участках береговых террас рек и озер, рассредоточены и редко составляют многослойные памятники. [↑](#footnote-ref-4)