On the problem of formation the cultures of the Early Iron Age and the Middle Ages of the taiga and tundra zones in the extreme North-East of Europe

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Abstract. The article summarizes the results of the excavations of the settlement of reindeer hunters (Rangifer tarandus) in the settlement More-Yu II (Bolshezemelskaya tundra). The settlement by 14C is dated back to the Early Iron Age. The materials of the site document the Arctic component associated with the West-Siberian ethno-cultural area. It became a part of the Northern Glyadenovo collectives and by the middle of the 1st millennium A.D. radically changed the traditional appearance of the material culture of the taiga (Finnish-Permian) population of the Pechora Pre-Urals.

1. Introduction

Archaeological works in the Polar and Sub-Polar regions of the European North-East are one of the most important in solving a number of current fundamental scientific problems of the Ural archaeology. However, a number of key problems of the region's ancient history, which are extremely important for an adequate reconstruction of the past of the modern peoples of the North, are still debatable. These include the origin and ethno-cultural belonging of the aboriginal population, details of the interaction of collectives in the North of Eurasia. The excavated medieval archaeological sites of the tundra zone of the North-East of the European Russia are not numerous. They are represented exclusively by multi-layer complexes with a wide range of existence within the epoch. In this regard, the dated materials of a single-layer settlement of the subarctic culture More-Yu II are of great interest.

2. Analysis of materials

The settlement is located at a distance of about 60 km from the coast of the Barents Sea, on the right Bank of the river. In the cultural layer of the site (thickness - 2-12 cm), buried by Aeolian sands up to 170 cm thick, numerous spots of humus sand with a high content of raw animal bones and fire pits were cleared. All the finds concentrated in the form of wrecks of vessels gravitated to them, accumulations of ceramics and faunistic material. Ware implements included fragments of ceramics and animal bones, arrowheads, decorations, tools, cult items, iron fragments and splashes of non-ferrous metal, flagstone with traces of use, bone with traces of processing, and slag (Figure).
Figure 1. More-Yu II settlement. Ware implements. 1, 2 - beads, 3 - pendant, 4 - cult item, 5-9, 11 - arrowheads, 10 - awl, 12 - animal fang (amulet-?), 13 - spatula, 14-20 - fragments of vessels (1, 2 - glass, 3, 4, 7, 11 - bronze, 5, 6, 8-10 - iron, 12, 13 - bone, 14-20 - ceramics).

Outside of the Pechora tundra, direct analogies to the type-defining ceramic complex of the settlement, as a "marker of belonging" [1], are not found in published sources. However, the pottery of
Bolshezemelskaya tundra bears a similarity to it in details of shape and decoration of the second half of the 1st Millennium A.D.- turn of the 1st-IInd Millennium A.D. and the Yamal Peninsula [2], [3].

As well as dimple-combed-grooved ceramic dishes of the middle ages on the Ob river [4], [5], [6]. In the latitudinal direction, analogies of the late Bolshezemelskaya (Subarctic) and Yamal (Tiuteysalin) ceramics are known up to the Western coast of the Gydan Peninsula [7]. The combination of characteristic features inherent in the More-Yu type of ceramics in third-party territories can only be found on the West Siberian monuments of the Iron age, and such a feature as fluting, the Genesis of which is still not clear [8], was revealed in earlier complexes.

From the main ceramic complex of the settlement, vessels are distinguished, also indicating the territories lying to the East of the Ural range as the most likely source of origin. These ceramics has pits on the inner surface and domes-ears on the rim [1]. They should be considered as an imitation of the metal cauldrons of the nomadic population of the Eurasian steppes of the Scythian-Sarmatian period and the transmission of elements of southern cultures to the European Circumpolar North.

Based on the materials of the settlement within the subarctic culture, the cultural type of More-Yu was identified, which time of existence was initially determined by mid-1st Millennium A.D. - end of the IV-VI centuries A.D. [2], [9].

Currently, the results of ¹⁴C-Dating of bone material (reindeer - Rangifer tarandus) allowed us to revise the time of its existence and refer the site to the Early Iron Age, or rather (by ± 28) - VI century B.C. - II century A.D.[1]. Analysis of the archaeological collection found that the life support system of the inhabitants of the settlement was based on hunting reindeer. This camp can be considered as a seasonal camp that operated mainly in the winter [10].

The increasing age of settlement materials affects a wider range of archeology problems of the Iron Age of the European North-East and possibly adjacent territories. In this regard, it is appropriate to focus on the concept of the formation of certain cultural types in the more southern areas of the Pechora basin [2].

At the turn of the Early Iron Age-The Middle ages, the formation of new cultures of the boreal belt of the European northeast took place in the interaction of local and alien population groups [11].

An indicator of the changes that occurred on the North-Eastern edge of the Glyadenovo community was the formation by the mid- I millennium A.D., with the participation of one of the cultures of this community – Pidzh culture, the Bichevnitsy cultural type.

It is assumed [2] that collectives of the Bolshezemelsky North took part in its formation. Glyadenovo ceramics with flutes appears in taiga Pechora-course area already at the end of the III-II centuries B.C. [12], which indicates the probable beginning of this time-consuming process. These inhabitants of the Circumpolar North area due to centuries of infiltration on the south of the Arctic circle by mid- I millennium A.D. have fundamentally changed the traditional ceramic production of the Finnish-Permian (Glyadenovo) population of the Pechora-course area.

The gradual outflow of a part of the polar population to more southern regions could be triggered by the deterioration of climatic conditions in the North-East of Europe at the beginning of the sub-Atlantic period.

In the early Sub-Atlanticum (zone SA-1, 2500-1800 years ago), the landscape zones shift in the meridional direction and the tundra zone expansion with the forest vegetation boundary shifting 150 km from the modern one, occur [13]. This is confirmed by palynological analysis of spore-pollen complexes of the period of formation of the anthropogenic complex of finds at the site of the settlement, which register instability and climate deterioration in its territory and surrounding area [1].

There was one weak point left in the proposed cultural-historical scheme and its substantiation. The Arctic component of the Bichevnitsy cultural type must have been older than the type itself, which was not consistent with the previously proposed date, according to which the Arctic component was approximately synchronous with the Bichevnitsy antiquities.

The obtained radiocarbon datings remove this contradiction and serve as a weighty argument in favor of the proposed scheme of cultural Genesis of the Bichevnitsy population of the taiga Pechora-course area.
3. Conclusion
The settlement of Moret-Yu II is currently the earliest archaeological monument of the Iron age aboriginal culture in the tundras of the North-East of European Russia. It existed in the early Iron age. Previously, there was no reliable evidence of local settlements in the European tundra at this time.

The genesis of the Bolshezemelskaya ceramics of the sub-Arctic type of the Iron Age is not quite clear. The question of how the fluted ceramic complex was formed in the European Circumpolar North - as a result of large-scale changes that occurred in the West Siberian basin in the I millennium B.C. - beginning of the I millennium A.D., or independent development in the course of autochthonous traditions - remains open. There is no reliable evidence of a direct link between the circumpolar Pre-Ural subarctic culture directly from any of the Trans-Urals Iron Age cultures.

However, there are grounds to believe that during the second period of the Early Iron Age – turn of the I–II Millennium A.D., the territory of the circumpolar and polar regions of the Lower Ob, Yamal, and Bolshezemelskaya tundra was developed by a population whose Northern European groups were associated with the West Siberian ethno-cultural area.

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