Arctic and subarctic zones of the European North-East of Russia in the Iron Age and the Middle Ages

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Abstract. The processes associated with the development of the Pre-Polar and Polar regions of the European North-East in the Iron Age and in the Middle Ages are studied. The interrelation of these processes with climatic changes is traced. In the context of the ongoing cold snap in the I Millennium B.C. the outflow of the population to the zone of Northern taiga takes place. On the territory of the Bolshezemelskaya and Malozemelskaya tundra a very small number of sites was revealed, which probably indicates the occasional use of commercial resources of these areas. The next stage of development and settling of the Arctic and subArctic zone begins in the I Millennium A.D. due to the improvement of climatic conditions in the middle Subatlantic. By the middle of the I Millennium A.D a subarctic culture associated in its origin with the Ob-Yamal North of Western Siberia is formed on the territory of this region. The culture is characterized by ceramic complexes of the More-Yu, Khutiyunkos and Komatyvis type. Economic and cultural type of its bearers included coastal and land hunting with seasonal change of occupations. In the valley of the Polar Pechora a special ethno-territorial group of the second half of the I – first half of the II Millennium A.D documented by pottery of Novoborsk type is revealed. According to its characteristics, it is close to the Ugric or Samoyedic range of related archaeological cultures of the West Siberian or pre-Ural-Pechora cultural areas. In the first half of the II Millennium A.D. a new stage in the history of the Arctic and subArctic zone begins. Its main content is the process of development of these areas by the ancient Russian population. Early archaeological evidence of penetration of the Russians refers to the XII century. In the XIII-XVI centuries famous Russian settlements are known. This process ended with the entry of this region into the Russian state.

1. Introduction
The Arctic and subArctic zone of the Pechora Pre-Urals includes the lower Pechora basin with tributaries within the Bolshezemelskaya and Malozemelskaya tundra and forest tundra in Vorkuta, Inta, Izhma, Usinsk, Ust-Tsilm regions of the Komi Republic and the Nenets Autonomous Area of the Arkhangelsk Region. The first written evidence on the history of this vast region refers to the beginning of the II Millennium A.D. They are very few and fragmentary. The main source is the archaeological data. Archaeological work in the Transpolar and Subpolar regions of the North-East of Europe is of fundamental importance in solving the problems of development of high latitudes of the European continent in different eras of ancient history and the ethnogenesis of the peoples of the Arctic regions of Eurasia.
The initial reliable information about archaeological finds in the region dates back to the second half of the XIX century. In the first half – middle of the last century, the main contribution to the study of antiquities of the Bolshezemelskaya and Malozemelskaya tundras was made by the geologists, who, during their expeditions collected the pick-up material on the trays. The surveys of G.A. Chernov, who in fact created a base for the archaeological study of the region with his discoveries [1], take a special place among them. Since the 1960s, the archaeologists begin to study the Pechora Arctic. The field works were carried out by the expeditions from Syktyvkar, St.Petersburg, Moscow, Nefteyugansk, Naryan-Mar. Currently, several hundred sites of different archaeological eras are known in the territory under study.

The purpose of this publication is to trace, on the basis of modern sources, the ethnocultural processes in the Polar regions of the European North-East in the Iron Age and the Middle Ages (I Millennium B.C. – mid of the II Millennium A.D.).

2. Development of the Arctic and subArctic zone of the European North-East of Russia in the Iron Age and the Middle Ages

The first centuries of the early Iron Age are characterized by the deterioration of climatic conditions that arose in the Bronze Age. This is the cause of the scarcity of materials of that time [2], [3]. Three sites (Padimei 7, 32 and Sandibe-Yu 7) refer to Ananyino stage (VIII-III centuries B.C.) of this period in the Arctic zone. Antiquities of the next Glyadenovo stage (late III-II centuries B.C. – first half of the I Millennium B.C.) are represented by materials of the settlement Minina Viska II, location Khasikha 3 and settlement Moreyu II (Map). The found ceramics is typologically close to the antiquities of the forest zone of the European North-East. Small number of sites probably indicates their seasonal nature associated with the exploitation of fishing-hunting resources of the tundra zone.

Significant changes occur in the first centuries of the new era. On the basis of contacts of groups of the Pidzh culture of the Pechora region and the moved from beyond the Urals bearers of the Kulai (Ust-Polui) culture the sites of the Bichevnitsy cultural type, spread in the taiga and tundra belts of the European North-East, Upper Kama, Lower Ob [4], [5] areas, are formed. The new development of high latitudes of the European North-East was due, first of all, to the favorable climatic conditions [2], which made it possible to reach the Barents Sea coast already in the first centuries of our era. Another factor that contributed to the development of this region in the first half of the I Millennium A.D. and
strengthening of cultural ties between the European North-East and the lower Ob area, was the development since the end of the I Millennium B.C. of reindeer transport [6]. This caused an increase in the mobility of the population, linked the remote areas of the North of Eurasia with each other. Perhaps it is from this time that the process of formation in the Arctic zone of the European North-East of the culture genetically related to the lower Ob-Yamal range of cultures, begins.

Comparative-typological analysis of ceramic materials of the I Millennium A.D. allowed to distinguish three types of pottery (More-Yu, Khutiuyunkos, Komatyvis - map), corresponding to three chronological stages of development of "subarctic" archaeological culture in the Malo- and Bolshezemelskaya tundra. More-Yu type is the earliest of these. Pottery characteristic of the forest zone of the European North-East occasionally found in the polar sites is synchronous to the ceramics of More-Yu type. Khutiuyunkos type dates back to the third quarter of the I Millennium A.D. Sites with ceramics of the Komatyvis type dating back to the VIII – X centuries A.D., close the chronological series of early medieval sources as evidenced by radiocarbon dating of settlements of Mys Vkhodnoi and Karpova Guba (Map) [5].

All these sites belong to the local culture of wild reindeer hunters of the subarctic zone of the North-East of Europe, associated in its origin with the lower Ob-Yamal (Ugric or Samoyedic by ethnic-cultural belonging) range of cultures [5]. L.P. Khlobystin believed that the settlement Mys Vkhodnoi on the mainland coast of the Strait Yugorsky Shar (Map) is a site of arctic coastal culture. The economic and cultural type of this coastal population was complex and included both the developed sea and land fishing-hunting with seasonal change of the main occupation [7]. M. Yasinsky and O.V. Ovsyannikov suggested that the lower Pechora settlements of the second half of the I Millennium A.D. served as tribal centers of the local population, known as the "Pechery" of the old Russian Chronicles or "Siirtya" of the Nenets legends, which had close ethnic and cultural ties with the Northern Urals and the lower Ob areas. These sites ceased to exist after the X century, in the process of establishing of tributary relations and subordination of the Pechora tribes to the Russian influence [8].

In the Arctic zone outside the tundra of the European North, the analogy of subarctic ceramics of the second half of the I Millennium A.D. is found in the sites of the coastal strip of the Yamal Peninsula [9] Ceramics typologically close to Bolshezemelskaya one is presented in the settlements and the sites of the middle Yamal Peninsula, which dates back to the V-IX centuries A.D. [10].

There is less evidence about the contacts of the transpolar population with the groups of the taiga zone of the Izhma-Pechora basin. So far, at least five settlements are known where single finds of subarctic ceramics may indicate the episodic penetration of small groups from the Arctic region of the North-Eastern Europe into the more southern regions of the Northern Urals up to 63º North latitude.

In the course of the latest field research, the study of ceramic complexes of sites of the second half of the I - first half of the II Millennium A.D., the subarctic and Arctic zones of the region, the hypothesis that the currently available sources allow us to identify in the tundra zone and adjacent areas of the extreme Northern Pechora taiga along with the population, whose way of life has been adapted to habitat not only in the continental areas of the Bolshezemelskaya and Yamal tundras, but also in their coastal areas and Islands, one more ethno-cultural formation, the antiquities of which gravitated mainly to the forested valley of the lower Pechora and are documented by ceramics of the Novoborsk type. The specific features of this pottery show similarities with the Ugric or Samoyedic range of related archaeological cultures of the West Siberian or Ural-Pechora cultural areas [11].

A new stage of development of the Lower Pechora basin and the Arctic zone of the European North-East starts in the first half of the II Millennium A.D. On the pages of the Russian Chronicles dating by the late XI – early XII centuries, the names "Pechera", "Ugra" and "Samoyad" “ [12] appear for the first time. Later, written sources mention "Pechera" as volost subordinated to Veliky Novgorod. The narrative documents of the end of XIII – beginning of XIV centuries ("Pechora acts") mention a region or volost Pechera, and the residents are called "pecherians". The last mention of "pechoryan" dates back to 1481. After the construction in 1499 of Pustozersk township the volost was renamed in Pustozersk.
It should be noted that, given the small number of written information related to the history of the population of the Lower Pechora in the first centuries of the II Millennium A.D., the archaeological sources, including materials of settlements Ortinsk (XI-XII centuries), Novy Bor 1-4 (XIII-XV centuries), Pustozersk (XVI-XX centuries); sanctuary Gnilka (VI-XIII centuries), the village Novy Bor (XIV–XVI centuries), the sites Pustozersk 3 and Naryanmar 5 (Map) [2], [13], [14], played the leading role. Of particular interest is the village of Novy Bor. The site is characterized by the presence of street planning, traces of more than 40 constructions are fixed. The remains of two industrial constructions (bone-cutting workshop and forge) were archaeologically investigated. The results obtained in the course of research allow us to compare the village with the sites of the North-Western Russia of the XIV-XVI centuries. The cultural identity of the site is also confirmed by the findings of the Russian round dishes.

Thus, written and archaeological sources allow us to outline the main features of the process of development of the polar regions of the European North-East by the Russian population. The earliest archaeological traces of their appearance on the Pechora are fixed in the XII century. They are represented, mainly, by complexes of ancient metal-work. Most of the sites, including the famous Russian settlements - the village of Novy Bor, the township of Pustozersk refer to the XIII-XVI centuries. Written evidence gives Lower Pechora in the "pre-Pustozersk" period as a place for periodic stay of the Russian fishing bands. However, the data obtained by archaeologists suggest a denser settling of the region by both Russian fishermen and aboriginal population. Thus, the Russian colonization of the lower Pechora is only one of the pages in the history of the development of the Arctic territory, the other one was the formation of a new aboriginal population.

3. Conclusion
The period of the I Millennium B.C. – mid of the II Millennium A.D. is one of the key periods in the history of exploration and settling of the most northern (Arctic and SubArctic) regions of the European North-East. Antiquities of the I Millennium B.C. are few, due to the cooling in the late Subboreal-early Subatlantic periods. The materials found probably testify to the short-term, seasonal nature of the sites.

In the first half of the I Millennium A.D. a new stage in the development of the studied region begins. In the course of interaction of groups of the Pidzh and Kulai archaeological cultures, the Bichevnitsy cultural type is formed. For the economic model of the population that left these sites, the use of different natural and climatic zones is characteristic. In the middle – second half of the I Millennium A.D. in the territory of the Bolshezemelskaya and Malozemelskaya tundras the subarctic culture is formed, showing similarities with the cultures of the Ob-Yamal North. Economic and cultural type of the population included seaside and land hunting with the seasonal change of occupation. At the same time in the valley of the Lower Pechora the ethno-cultural formation documented by ceramics of the Novoborsk type of the second half of the I – first half of the II Millennium A.D., showing similarity with pottery of West-Siberian or Ural-Pechora cultural areas, is developed.

Since XII century A.D. the penetration of the Russian-speaking population begins, which ended with the entry of the Arctic and subArctic zone into the Russian state and the creation of a new ethno-cultural map of the region.

Acknowledgements
The study was carried out within the framework of the research project №18-6-6-30 “Ethno-cultural process in the North-East Europe in the iron age and the middle ages” / The programme of the complex fundamental research of the Ural Branch of the RAS.

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