Ethnocultural aspects of the formation of the Arctic oikumen by indigenous peoples

S L Chernishova, O A Arutov, E V Malisheva and N V Dorichenko
Herzen State Pedagogical University of Russia, St. Petersburg, Russia

schernysheva@herzen.spb.ru, oarutov@herzen.spb.ru, emalisheva@herzen.spb.ru, dorichenkonv@herzen.spb.ru

Abstract. The article reveals the ethno-cultural aspects of the formation of the Arctic oikumen based on the analysis of the traditional life-support culture of indigenous Arctic ethnic groups. Based on interdisciplinary approach use, the authors analyzed the basic laws of the formation of the environment of the circumpolar region, among which special attention was paid to the natural-climatic, geographical, physical and social features. The authors revealed that the development of the habitat by Arctic aborigines was formed with ecologically sustainable Arctic environment and habitats of ethnic communities preservation, which characterized by the heterogeneity of its natural and cultural landscapes. Features of the domestic way of life and sustainable traditions of economic activity had a significant impact on the formation of the Arctic habitat. Reindeer herding based on the breeding and use of reindeer, hunting of large marine animals, such as seals, walruses and whales, fishing, hunting and wild plants gathering were main activities.

1. Problem statement
The exploration of the Arctic territory is of vital importance in the development of world civilization and is the subject of comprehensive research both in Russia and abroad. The increased interest in the Arctic is due to geopolitical challenges related to the strategy of the Arctic states development, the growth of international cooperation on the legal regulation of the circumpolar territory, the need to modernize the armed forces and increase the military presence in the Arctic region, the industrial development of natural energy resources, the development of transport and social infrastructure in the region. Increasing attention to the Arctic is also determined for the purpose of its innovative and technological development. An important interest in the Arctic is also caused from the perspective of studying climate change and nature management. Despite the relevance of Arctic issues and the growing interest in the region it is necessary to note a lack of sufficient research on the development of natural-geographic space of the Arctic, the formation of its socio-cultural environment, the adaptation of traditional farming systems to extreme natural-climatic conditions of indigenous Arctic ethnic groups. Meanwhile, the understanding of the values of the Arctic culture is actual in the field of social and natural sciences (cultural studies, social geography, ethnography, ethnology, anthropology, sociology, history, philosophy, economics, psychology, philology, linguistics, pedagogy, etc.).

The phenomenon of the multidisciplinary research may contribute to a comprehensive study of a person, historically living in extreme Arctic conditions, and identify the main trends that need to be understood in the context of the formation of national identity and worldview within a particular ethnic tradition, the preservation and development of a language, ethnic culture and distinctive traditions of...
indigenous ethnic groups of the territory and their contribution to the world civilization. The development of a certain territory by people suitable for their further residence is a factor of particular ethno social community evolution. A territory, with its special natural, climatic and landscape conditions, is capable of influencing, on the one hand, the national character and behavior of ethnic groups, making social forms in which ethnic communities are contrasted with other communities, and on the other hand, on the uniqueness of the system of economic values of the society, characterized by the production, the usage and reproduction of natural resources for life support. Gumilev L.N., an outstanding Russian historian, geographer, ethnologist and philosopher, proposed the concept of "feeding landscape" to denote the natural resource potential, i.e. economic opportunities available in the natural conditions of the territory that an ethnic group has cultivated for living. Studying the landscape components that have formed and exist without human involvement, the fact of the forced transformation of the natural landscape by ethnic groups through its cultivation is become obvious. These groups of humanization of space, create their own habitat, arrangement of ecumenical life, as this, for example, occurs in the process of development of traditional economic activity. Traditional housekeeping appears, first, in adapting to a particular territory and adapting, changing it in accordance with the needs of inhabitants. This is about the formation of a cultural landscape, a space that has both natural and anthropogenic components. At the same time, as Shishkina A. A. notes, the cultural landscape remains a part of nature and continues to develop according to its laws [21].

2. The main patterns of the Arctic oikumena formation

As evidenced by archaeological research, the presence of man in the Arctic has a long history. Paleolithic sites of ancient people in this region suggest that they were fully accustomed to extreme conditions, significantly increasing their adaptive capability and forming individual features peculiar to the Arctic type of human population [20]. An important role in the formation of the historiography of the Arctic had the notes of travelers, as well as the studies of domestic and foreign historians, ethnographers, anthropologists, archaeologists, etc. These studies contain information about the natural environment, climate features and the nature of the area of settlement of Arctic aborigines. Furthermore, an attempt was made to appreciate the historical mission of indigenous small Arctic ethnic groups in the development of circumpolar territories. In the article "Northern territories: traditions of their development and interaction of Northern peoples" E. D. Aypin, a famous Khanty Soviet and Russian writer, leading public figure and statesman, gave a brief description of the historical model of the development of the Far North adhering to the view of the Russian archaeologist P. Yu. Chernosvitov. He divided the cultural and historical model into the Post-Glacial period, Mesolithic, Eneolithic and Neolithic epochs, the Iron Age, as well as the early Middle Ages and New Age. According to this model, the original settlement of the former glacial zone was carried out by people, moving behind the retreating glacier and striving to preserve their ancestral type of economy. According to the author, the dominant reason for the movement of people to the North up to the Arctic Ocean was the increase in population density in the Southern and Western regions of Eurasia. The cultivation of the northern territories contributed to the development of economic activity, expressed in the desire to maximize the use of all available resources of the territory. For example, with the Neolithic, the inhabitants of the seacoasts of the Barents and White seas became sea hunters, using boats, and the tundra population developed reindeer husbandry. The inhabitants of the forest zone became sedentary fishermen and seasonal hunters [1]. It is important to note that hard-to-reach circumpolar territories remained the habitat of indigenous peoples with their stable cultural, social and religious characteristics until the beginning of the XVIII century when northern territories joined to the Russia. Among the reasons for the expansion of the Arctic oikumen, we highlight the heterogeneity of its natural and cultural landscapes. The economic life of people mainly depended on the conditions of nature and landscape. For example, the economic development of the Arctic by nomadic reindeer herders largely depended on the fragmentation of the berry cover in particular parts of the Arctic tundra. The specific resources of pastures, which due to natural and anthropogenic factors change the quantitative and qualitative composition and location of their natural forage base, as well as the availability of its use in different seasons, caused difficulties for
reindeer herders in determining grazing areas and influenced the content of the grazed reindeer population, thus forming the natural and historical specificity of reindeer herding activity. “The natural feature of deer pastures is enough reindeer moss presence, which is the most valuable component of reindeer feeding. Unlike land feeds (grass, shrubs), they are used only for three to four months a year, and grow over a number of years. That is why the way of using reindeer pastures is mainly determined by the features of reindeer moss growth” [8]. In our view, these circumstances prompted the reindeer herding peoples to choose routes for seasonal migration, to determine the boundaries of pasturelands, places for long camps, etc., thus cultivating new lands and expanding their habitat. In the process of adjusting of autochthonous ethnic groups to the specific climate and the development of landscape and geographical conditions of the Arctic, which characterized by the presence of various natural zones such as Arctic deserts, forest-tundra, tundra and taiga, there was a formation of autonomous social and economic habitats with unique traditions, cultural and economic ways of life which include: reindeer herding, marine hunting, hunting, traditional gathering of wild plants, etc. It is important to note that the basis of traditional housekeeping is the simultaneous presence of both predominant and additional types of economic activities. At the same time, it should be noted that the predominant type of economic activity may be not only at the stage of growth, but also at the stage of stagnation or decline [4]. For example, among Eskimos and coastal Chukchi, the basis of life support is marine hunting, and additional economic activities are fishing, hunting, collecting eggs of seabirds and seafood. They use almost all available food chains and thus a person receives products from four to five trophic levels [18]. Settlements are located in places of concentration of at least three types of resources - at the ocean shore, lakes, lagoons, at the junction of fresh and salt waters, etc., which allows to use the resource potential of the "feeding landscape" with maximum efficiency [10].

The indisputable reason for the development of the Arctic habitat by representatives of traditional Northern communities is the immensity and vastness of natural resources of the Arctic. The specificity of the system of economic values of the Arctic ethnic groups is the development of the fields based on traditional technologies and organization of production, which are aimed at the consumption of biological products (furs, meat, poultry, fish, etc.) of tundra, forest tundra, river, lake and sea coastal waters of the Arctic. Hence, the population is not engaged in breeding, but fish in natural waters. The same situation is with fishing large marine mammals (seals, walruses, gray whales) and hunting wild animals and birds. In these conditions, the scale of production and employment (auth. - which are the basis of the economy) depends on the fact what nature can give them and nothing more [11].

As previously noted, the development of new territories occurs through the humanization of the area and the formation of its own social and economic environment. It is about the development of mechanisms of traditional nature cultivation by the Arctic communities, defining the lifestyle of a nation. Thus, Bogoslovskaya L. S. highlighted three main types of lifestyles peculiar to the autochthonous Arctic ethnic groups: a nomadic way of life in which human collectives, together with bioresources that provide animal protein (domestic deer), move relative to bioresources that provide primary products (pastures). Such are the peoples and sub-ethnic groups leading large-scale tundra reindeer herding, primarily the tundra Nenets and Chukchi reindeer herders. According to L.S. Bogoslovskyi sedentary lifestyle lead Arctic sea animal hunters (Eskimos, Yupik and coastal Chukchi) and fishermen of sea coasts and large river basins. In mixed lifestyles, human collectives use a variety of limited migratory animal species in combination with sedentary and highly migratory species. This way of life is peculiar to many groups of indigenous population of the Arctic such as Evenks, Evens, Dolgans, etc. [3].

In a traditional society, the interaction of man with nature is a process of unity between them. This feature is characteristic to the ethnic cultures of the indigenous peoples of the Arctic, which forming their worldview developed ideas of the universe integrity. Such traditions are based on co-evolution, combining the interests of man and his environment. On the basis of ethno-ecological approach ethno-cultural ways of traditional nature use by ethnic communities of the Arctic were constructed. Thus, each of the ethnic communities of the circumpolar region is characterized by such a system of traditional nature use, which has an organic connection with nature and corresponds to the principles of the ethnic worldview concept. This worldview concept is considered as biocentrism, based on the concept of
ecosystem. According to this concept, nature is a comprehensive spiritualized being. “The Northern peoples, being true children of nature and completely dependent on it and realizing the close relationship between their own well-being and the well-being of the nature created the Northern civilization aimed at preserving healthy nature, through harmonious existence with it, developing a kind of Northern ecological imperative” [14]. The statements of A.I. Pospelova confirm this opinion. Particularly in following: “The consciousness of the Arctic civilization is aimed at maintaining its stability in conjunction with nature. Life and economic cycles are subordinated to the rhythms of nature and are fixed by ancient customs and traditions seeming as if they exist forever” [15].

Sustainable traditions of ethnic nature use, based on the original style of relations of the indigenous peoples of the Arctic to natural and climatic conditions and the natural environment artificially created by them, is defined as an Arctic circumpolar civilization [9]. Researchers justify the use of the concept of “circumpolar civilization”, primarily, by the very phenomenon of the Arctic, its independence and uniqueness. In philosophy, culturology, sociology, can be also found the concepts of “Northern Civilization” and “Arctic Civilization”.

The development of new territories occurred through the active transformation of nature during the process of material and production activities of man. At the same time, the indigenous population of the Arctic strives to change the environment as little as possible while such activities done. Thus, the principal difference between the cultural landscapes of the indigenous peoples and the cultural landscapes of other ethnic groups is their visual unity with the surrounding nature, which gives an impression that these territories have not been touched and developed by man yet [2].

Despite the fact that the adaptation of Arctic ethnic groups to the environment from a biological and cultural point of view led to the expansion of the boundaries of the development of the Arctic habitat suitable for life support, the territory of the Arctic is among the least populated on the planet and therefore less changed by its aboriginal population. While in areas of developed agriculture, as a result of continuous land plowing and intensive livestock breeding, the cultural landscape is represented on huge, usually almost on full areas, in the Arctic, human influence affects small, isolated from each other areas [17].

Spiritual culture is of particular importance in the process of development of the Arctic oikumen and human adaptation to Arctic conditions. In spiritual development of Arctic ethnic groups, a traditional worldview and unique traditions of art culture are inherent. A. Vinokurova defined the worldview of environmental harmony by the term “ecosophy”. In her opinion, ecosophy is aimed at nature and people saving. It is based on Living knowledge and Living logic, proceeds from the creative and harmonious communication of man with nature, the world of life, symbols of the art of life creativity [7].

3. Conclusion

New comprehension of the role of the Arctic in the development of world civilization implies not only the definition of it as a resource-industrial and ecological world reserve, but also the recognition of the high universal value of the original culture of the Arctic peoples. Over many centuries of being on high latitudes of the Arctic, the northern aborigines developed a harmonious type of human adaptation to extreme natural and climatic environment, creating a special circumpolar civilization, which was able to maintain its internal stability despite the rather long time and powerful external force. While exploring vast Arctic territories in ancient times, the autochthonous peoples developed specific types of traditional economy and culture, unique ethnic health-saving technologies and mechanisms suitable for the harsh climatic and geographical conditions of the circumpolar region. The achievement of the Northern peoples was the formation of environmental principles of production activity in a sparing mode of natural resources use. The unique experience of rational nature use of the peoples of the Arctic is especially relevant nowadays, when humanity has realized the danger of environmental disaster [5].

In this study, we tried to determine the characteristic features of the ethnic culture of indigenous peoples of the Arctic, which vividly reflected in the material sphere. Their lifestyle considers, mainly, sustainable forms of life based on resource craft and traditional housekeeping. In our opinion, these factors contributed to the improvement of traditional farming methods of Arctic ethnic groups, which
were critically dependent on natural conditions and characterized as relic ethnic cultures. “Traditional methods of farming and nature use of Northern peoples, being the basis of their sustenance, the significant factor in preserving the original way of life, culture and national psychology, are the most important historically developed components of Northern ecosystem which demonstrate ecologically balanced ways of environmental development” [19].

Housekeeping traditions of the indigenous peoples of the Arctic: nomadic reindeer husbandry, marine hunting, fishing, hunting and fur trapping, gathering of wild plants contributed to the development of the natural landscape and the formation of the main ethno-economic areas. Thus, the development of large-scale tundra reindeer herding became the most important stabilizing factor in the process of human development of the Arctic, as it guaranteed the ancient reindeer hunters living in that harsh conditions a constant source of food and the necessary feedstock for making clothes and habitation winterization [13]. The development of marine hunting for small and large animals also played a significant role in the exploration of new coastal territories of Chukotka. The habitat of animals and birds, which were the object of commercial hunting, ensured the development of large areas of tundra, forest tundra, arctic desert and taiga. Rationalism, the basic characteristic of the Arctic traditional nature use, considers a harmonious use of natural resources. For indigenous small Arctic ethnic groups, rationalism proceeds, first of all, from the need of successfully adapting to the specific climatic conditions of the Arctic. The “challenge of nature”, perhaps the most severe climate on the planet, predetermined not only the style of farming and its culture, but also the only possible form of its organization, guaranteeing the harmonious use of natural resources. The dependence on nature predetermined the sacred attitude of human to the seasonal elements as well as to all living things. The whole activity and culture of the Chukchi, in this regard, is a permanent dialogue with nature, as an incomprehensible substance, of which man is a part” [6].

Cultural and historical features of the ethnic culture of the autochthonous Arctic ethnic groups determined the specifics of the Arctic traditional nature use, which defined by the following:
- balanced and integrated use of natural resources;
- limited biological resources for a reasonable consumption possibility;
- maximum disposal of products;
- the specifics of traditional household methods based on inexhaustible use of the Arctic biological diversity of animals and plants;
- the frequency of the movement of household activity arena in order to ensure the renewal of the ecosystem and biosphere on disturbed areas, etc.

As noted by A. A. Tishkov, in traditional forms of household, the preservation of natural ecosystems and their biosphere functions is provided by the regulation of the withdrawal of biological resources and the shifting method of land exploitation [16].

Thus, we can conclude that the ancient reindeer herders and hunters, leading their adaptive household activities fit into the natural and geographical environment of the Arctic, without trying to change it. This led to the formation of unique cultures and traditions that regulate the life of a traditional society.

Modern processes of development of the Arctic space, associated mainly with its industrial development, form an oikumen of a fundamentally new type, expanding its borders. For many decades, spontaneous process of economic development of the Arctic with a clear predominance of getting maximum possible profit by economic agents at the expense of environmentally efficient integrated resource-saving development of the region has created a situation in which urgent drastic decisions on the introduction of qualitatively new forms of environmental management is necessary [12]. In this regard, the problems of preserving and protecting the ethno-cultural environment of the indigenous peoples of the Arctic are acute, revealing the consequences of the impact of industrial development on their traditional life support culture.

References
[1] Aipin E D 2012 Northern territories: traditions of their development and interaction of Northern peoples. (Bulletin of Ugric Studies) B3(10)
[2] Bogoslovskaya L S 2014 The future of the Russian Arctic - a system of cultures or the sum of technology? (Yakutsk: Publishing House of NEFU) p 344

[3] Bogoslovskaya L S 2000 Features of traditional nature use of the peoples of the Russian North (Moscow: Publ.Gos.Nhoughts) p 223

[4] Borisova I S Features of economic development in the region with the predominance of a separate type of economic activity Available from: http://cyberleninka.ru/article/n/osobennosti-razvitiya-ekonomiki-regiona-s-preobladaniem-otdelnogo-vida-hozyaystvennoy-deyatelnosti/viewer [Accessed 10 February 2020]

[5] Boyakova S I 2004 The development of the Arctic and the peoples of the North-East of Asia (XIX – 30-ies of XX century) (Yakutsk) p 499

[6] Brachun T A 2011 Value bases and features of the culture of Chukchi ethnos Electronic journal Humanities and social Sciences B4 Available from: http://hses-online.ru [Accessed 10 February 2020]

[7] Vinokurova U A 2014 Ecosophy of Arctic culture Arctic twenty-first century. Humanities B2(3) 100

[8] Grinsberg S N 2016 Legal and ecological support of rational use and protection of reindeer pastures (Krasnoyarsk SAU) B3

[9] Ignatieva S S 2015 Traditional culture of modernizing Yakutia: the problem of man in the global space Observatory of culture B5

[10] Klokov K B et al 2002 Ethnocultural aspects of the nature use of the Arctic region of Russia (Geography and natural resources) B 4

[11] Lashov B V 2017 Indigenous peoples of the Russian Arctic: economic and ethnic aspects of development Arctic twenty-first century. Humanitie B3(13)

[12] Matveeva K N et al 2016 Natural resource potential of Russian Arctic (Tomsk: TPU publishing House) Available from: http://earchive.tpu.ru/handle/11683/36727 [Accessed 10 February 2020]

[13] Murashko O A 2014 The problems of protection of life support culture of indigenous peoples in conditions of industrial development of the Arctic (Yakutsk: PH NEFU) p 344

[14] Poiseev I I 2015 Moral aspects of Arctic nature use Problems of the modern economy B1

[15] Pospelova A I 2009 Northern civilization and its specificity (Magadan: Northeastern State University) p 137

[16] Tishkov A A 2012 "Arctic vector" in preservation of unearthly ecosystems and biodiversity Arctic: Ecology and Economics B 2(6)

[17] Uspensky S M 2007 Features of avifauna of the cultural landscape of the Arctic and Subarctic Russian ornithological journal B16 Available from: https://readera.org/ornis/2007-393-16 [Accessed 10 February 2020]

[18] Usher P J 2000 Traditional Ecological Knowledge in Environmental Assessment and Management Arctic B53

[19] Chebotarev G N and Gladun E F 2015 Co-management of the Arctic territories during their industrial development by indigenous peoples of the North (Moscow: Legal publishing house "Norma") B5(221)

[20] Cherkasov A A 2016 Human body in Arctic conditions (Tomsk: TPU publishing House) Available from: https://earchive.tpu.ru/handle/11683/36727 [Accessed 10 February]

[21] Shishkina A A 2011 Cultural landscape: basic concepts Bulletin of the Nizhny Novgorod University after N.I. Lobachevsky. Social Science Series B1(21)