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ETHNO-CULTURAL SPECIFICITY OF ENVIRONMENTAL ENERGY USE BY INDIGENOUS AND NOMADIC PEOPLES

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Abstract

Indigenous peoples of the North, Siberia and Far East for centuries, on the basis of their unique culture, adapted to the environment, creating man-made landscapes, extracted from nature all energy resources, necessary for life. For this they used an original set of tools, land and water means of transport, domestic animals, that are maximum adapted to the environment of the North, mountain taiga, tundra, sea coast and bays, mountain rivers and lakes. Forms of obtaining and consuming the energy had various specific features and practical sense. They also depended on ethnic contacts with neighbouring, similar in culture, peoples, and nomadic tribes, having other ethno-cultural markers and aspirations, which have influenced the northern culture since the seventeenth century. Research of these phenomena is possible based on interdisciplinary methodological grounds, developed by Russian and foreign scientists in the area of ethnography, ethnic history, ethnic ecology, ethnic geography, ethno-psychology, cultural studies, physical, cultural and social anthropology. The integrating role in these directions, researching the mechanism of using natural resources in traditional and modern economic activities of certain local northern communities can belong to the concept by Y. Cohen, considering culture in general as adaptation. However, with the help of this concept it is possible to reveal the ethnic specificity of using the natural environment as a source of energy resources by ethnic groups, degree of impact made by aboriginal and European cultures on the environment, traditions of rational use of natural resources, historical factors of forming and functioning of ethnic ecosystems.

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Keywords: Indigenous, nomadic, peoples, adaptation mechanisms, culture.



1. Introduction

In Siberia, North and Far East indigenous peoples live for centuries, comprising Samoyed, Ugrian, Paleo-Siberian, Tungusic and other ethnic linguistic communities. Even nowadays they mostly preserve the aspects of primitive household and cultural type, and continue to herd reindeer, go fishing, hunting terricole animals and birds, sea-hunting, picking medicinal herbs and edible plants, plants for technical purposes, other products of taiga and sea, necessary for survival in harsh climate. The overwhelming part of the energy production and consumption process in their lifestyle is related with environment and its natural resources. In the XVII-XVIII centuries in northern regions the bearers of European agricultural culture settled down. The ethno-cultural specific features of extracting the energy by the indigenous peoples and settlers are grounded in the difference in the history of given ethnic groups as a whole, in the intensity of inter-ethnic contacts, exchange of cultural values, specificity of basic forms of economic activity, household items, mentality (Alekseeva, 2011; Anderson, Kvie, Davydov, & Roed, 2017; Arsen'ev, 2007; Berezniitsky, 1998; Berkes, 1993; Berkes, Colding, & Folke, 2000; Bogoslovskaya, 2003; Borodulina, 2018; Golovnyov, Lyozova, Abramov, Belorussova, & Babenkova, 2014; Davydov, 2017, 2018; Davydova, 2018; D'yachenko, 2005; Hastrup, 2009; Hill & Gaddy, 2003; Khlinovskaya-Rockhill & Sidorova, 2018; Krupnik, 1989; Landscape ethnoecology: concepts of biotic and physical space, 2012; Lavrillier & Gabyshev, 2017; Mel'nikov & Fedorov, 2018; Mosolov & Fil', 2010; Nuykina, 2011; Ong & Ward, 2005; Pivneva, 2010; Sirina, 2012; Ssorin-Chaikov, 2003; Terekhina, 2018; Willerslev, 2007).

2. Problem Statement

It seems relevant to reveal the ethnic and cultural features of the energy production and consumption process by indigenous and nomadic tribes in the North, Siberia and Far East. Research is based on the concepts, put forward by Russian and foreign scientists in the area of ethno-cultural adaptive experience. The American psychologist and cultural anthropologist Cohen (1968, 1974) is widely known by his studies in the sphere of adaptation aspects of culture, strategy of human adaptation, characteristics of social models as means to obtain from the environment the maximum energy. He defines culture as a way, an essential tool of adaptation of a man to environment, through which human society can extract and absorb the energy of the world. Adaptation represents a complex process, via which a man effectively uses the energy potential of his or her habitat for productive purposes. The institutes of human culture are rooted in the mechanism, which regulates the complex process of transforming the energy potential of the environment into various food for a human community. Naturally, every culture has its own characteristics of this process. There are ethno-cultural specific features of the process in communities of indigenous peoples in the North, Siberia and Far East: a specific model of obtaining the vital energy from environment within traditional and modern culture in the process of adaptation to the world. The ethno-cultural specificity of getting food is also related with the differences of adaptation process of a given ethnic group, its level of development, economic-cultural type, material and spiritual culture, degree of culture transformation, resulting from ethnic contacts with neighbouring peoples, as well as owing to the European culture impact. The strategy of producing energy enables each given ethnic community not only to survive in severe climate or when surrounded by hostile tribes but reproduce the essential ethnic markers. After establishing and

summarizing the maximum possible number of concrete examples when indigenous and nomadic ethnic groups adapted via extracting energy in northern regions, they are compared to establish their ethno-cultural differences. Energy, necessary for human life, is obtained from the products of hunting terricole and marine wildlife, picking plants and herbs, herding domestic animals. The Russian scientist Bahta (1960) highlights a few basic characteristics of economic activity: degree of nomadism, technologies of conserving products, seasonality of work processes. The most important is said to be the mechanism of accumulating the food for future use as a result of freezing, sun-drying, smoking, pickling and other methods. These methods also depend on the ethno-cultural markers and historical conditions.

3. Research Questions

Comparison of two major models of obtaining and consuming the energy in the life-support system: traditional, related with the process of adapting to the environment and borrowed from nomadic tribes as new forms of energy, transport, accommodation, set of tools, used in hunting methods.

4. Purpose of the Study

Establishing the ethno-cultural special features of adaptation mechanism of extracting the energy from the environment by indigenous and nomadic peoples of northern regions.

5. Research Methods

To solve the problem the methods of field ethnography are applied: observation, interviewing informants, anthropological experiment, survey, documentation of ethnographic materials in paper and electronic media. The theoretical methods include comparative-historical investigation of specific ethnic history and culture of indigenous and nomadic tribes of northern regions in Russia, based on the studies of stage phenomenon, types of their cultures, processes of cultural mutual influence; interpretation of spiritual aspects of culture and mentality; structural-functional analysis of ethno-cultural complexes and mechanisms of adaptation to natural and social environment.

6. Findings

Traditional industry of indigenous peoples of the North represents a complex set of popular knowledge about behaviours of marine and taiga animals, their migration routes, ways of tracking and hunting, methods to observe the weather, hunting equipment and transport, philosophy of using the energy of domestic animals. In the XVII-XVIII centuries the technology of using the energy of transport animals: deer and dogs by indigenous and nomadic ethnic groups remained practically the same. Transformation of the hunting culture of indigenous peoples of the North was historically caused by the impact of neighbouring hunting and reindeer herding ethnic tribes. In particular, the Chukchi and Yakuts drove away the Koryaks and Yukaghirs, took away their reindeer and pastures, and changed the traditional migration routes of wild deer. Due to the effects of herding domestic deer, which continuously requires new pastures, herders eradicated wild deer. This fight for pastures took place all over Siberia and North. As a result of the

influence of Russian culture in the XIX century virtually all the traditional stone, bone and wooden equipment and tools were already replaced with metal, the ancient traps were replaced with metal ones. The settlement system has changed: instead of tribal areas there are territories and administrative units. New types of stationary wooden houses have brought about a different mechanism of conserving the energy and food for future use. All this has led to the transformation of the traditional system of energy consumption. The great influence on the use of energy resources of Arctic, North, Siberia and Far East (mostly: fur, wood, bio-resources, oil, gas, coal) was caused by the authority measures, directed at voluntary and forced resettlement of population from the central parts of the country into these regions (the Cossacks, peasants, representatives of religious communities, participants in various construction projects, shift workers). As a result, some settlers could develop the survival strategy in the North, including those, borrowed from the adaptation experience of indigenous peoples (complex of clothes, traditional transport, hunting and fishing techniques). Others, when the state weakened at the end of the XX century, the ideology changed, and the social programmes of developing the northern territories were closed, started to leave in numbers these regions, which has led to the energy and infrastructure collapse of abandoned villages, towns, field deposits, mines, ports, and halting of production. It ought to be noted that there are rare examples of positive strategies of energy survival. In Yamal, since the beginning of the XXI century not only could the Nenets preserve the reindeer herding culture, but almost double the livestock population, develop the strategy of interaction with industrial companies, extracting natural energy resources, and affecting the traditional nomadic households in a negative way. Although the Nenets themselves continue to compete for optimal routes of migration, additional pastures, which rapidly exhaust because of bigger numbers of reindeer herds. However, just as before, the development of the Nenets is based on the energy of movement, characteristic for nomadic reindeer herding (Alekseeva, 2011; Golovnyov et al., 2014). This energy is created by reindeer, which are herded and eaten by people, whose skins are used for sewing clothes and shoes within a complex cycle of continuous nomadic life and energy conservation in the framework of age and gender division of labour in a community. Fishermen of the large Siberian and Far East river basins (Ob, Yenisei, Lena, Kolyma, Amur, Ussuri) in the adaptation process have acquired the non-waste technology of using fish energy resources. However, saving the most of energy resources, in comparison with unmounted and sleighing hunting in the wild, is achieved through nomadic reindeer husbandry and especially breeding large herds of deer. As a result of centuries-long adaptation to the natural environment the indigenous peoples do not really need to improve the structure of equipment and tools (Holodilova, 2009). Nevertheless, despite the specificity of their mentality and economic-cultural type, modernization is common for their society as well. In the XX century new types of transport emerged in Siberian vastness, tundra and Arctic coast: aeroplanes, snow mobiles, off-road vehicles, tractors, snow vehicles, quadricycles. However, even in the first quarter of the XXI century they could not fully replace the traditional means of transport: reindeer and dog sleighs. It is necessary to highlight the differences in using the energy of natural resources, related with the specific features of the economic-cultural type. Thus, the tribes of sea hunters have obtained the fleet of whale boats, powerful weapon and sufficient ammunition. In spite of the fact that grey whales are in the Red List, whale hunting for the Chukchi and Eskimos represents not only their traditional industry, but the main way of obtaining the vital energy, necessary in the Arctic, and the mechanism of preserving the ethno-cultural identity. The effects of European culture on indigenous peoples

of northern regions depends on the mentality of a contacting ethnic group, its level of development and structure of social organisation, warfare, economic-cultural type, degree of consolidation, presence or absence of civic administration, nature (peaceful, conflict or military) of interaction with Russian authorities. The most significant consequence of settlers' activities has been the development of a novelty for northern ethnic groups – a new type of economy: agriculture and related with it new ways of extracting energy.

7. Conclusion

Therefore, the analysis of the mechanisms of extraction, consumption, absorption of energy resources from the environment in northern regions, based on the concept of Cohen (1968, 1974), has shown that his formula «culture as adaptation» works, but with the indispensable accounting for ethno-cultural specificity. Settlers and indigenous peoples of northern regions will continue to co-exist, but, most likely, as separate entities and using the energy in their own ways. The human energy is dissolved in the energy of natural environment. However, the ecological culture of indigenous tribes of the North is explained not by their humane treatment of nature, but the absence of cutting edge and energy-consuming technologies, inevitably resulting in environmental pollution and degradation of ecosystems. Agricultural and hunting strategies cause different consequences in energy consumption, both of these systems affect the ecology, change landscapes, but do not lead to catastrophic and global changes, as can be seen in the by-products of industrial companies, extracting and processing hydrocarbons as the main source of modern types of energy.

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