



SPECIFICS OF TRADITIONAL NUTRITION OF THE PEOPLES OF THE NORTH

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Abstract

The article discusses the studies dealing with history and current state of studying food culture of the people of Yakutia. The root of the problem is that food culture is underexplored in view of transformation and applied relevance in modern Yakutia. Objective: our study is aimed at the examination of historic base and generalization of the current state of the issue related to traditional nutrition and its role in modern Yakutia. Results obtained in the study will form the basis for making northern nutrition and interdisciplinary studies popular both in theory and in practice. The study of northern nutrition as part of cultural heritage is a new trend of cultural anthropology. In Yakutia, the issue of nutrition as cultural heritage has just been turning into the object of scientific analysis. The article deals with the basic landmarks of northern nutrition studies. Principle studies dealing with the nutritional issue are reviewed; a brief journey is made into the most developed trends of nutrition culture of the peoples of the North.

Keywords: Northern nutrition; specifics; scientific study; nutrition culture; mutual enrichment; multilayeredness.

I. Introduction

Studying specifics of traditional nutrition is one of the most important parts of interdisciplinary studies.

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The problem is urgent as the issue of traditional nutrition of the peoples of Yakutia is currently going through renaissance. The process needs scientific support. Thus, the following objective has been set: to study the historic base and generalize the current state of traditional nutrition and its role in modern Yakutia. The objective can be achieved through the following goals: 1. To study basic literature about nutritional culture. 2. To study historic and ethnographic data on nutritional culture. 3. To analyze modern state of nutritional culture studies in interdisciplinary terms. 4. To find the social aspect of nutrition of the people of Yakutia.

The study results can seem interesting to a community of readers and scientists interested in receiving information about food culture in the north. The world nutrition culture research consists of a number of studies divided into 3 trends such as a general problem of cultural heritage and describing nutrition as cultural heritage of various nations. Studying nutrition as a part of cultural heritage is a new trend of cultural anthropology. The studies by Montanari Flandrin, Phillipe Marshon and Lowrance Berar (France), Jacques Goody (England) are known in the West. There is a small number of studies related to mixed nutrition culture, including the studies by Richard Wilk, Xu Wenig (USA), Stéphane de Tapia, Jean Pierre Corbeau (France), etc.

In Yakutia, the problem of nutrition as cultural heritage is just at the initial stage of consideration. Some studies address the topic both implicitly and ethnographically. Meanwhile, analysis of historic studies enables to reveal basic values of nutrition as cultural heritage of the Yakut (Sakha). Studying of modern medical and interdisciplinary researches will allow making the positive role of traditional nutrition popular.

II. Materials and Methods

To obtain data on basic values of nutrition as cultural heritage of the Yakut (Sakha), we will primarily study and analyze the works of ethnographers and chronologists of the XIX century. Then we will obtain the data that will make the obtained information popular and help produce recommendations by studying and generalizing modern researches in the area of medical and interdisciplinary studies.

The value of nutrition in the culture and its social aspect were examined by the first researchers of Yakutia. The researchers stated that many rituals, traditions and prohibitions were related to nutrition. It was noted that the Yakut (Sakha) prefer greasy and rich food. This is explained by the biological feature of a body in the north. Simple and low-calorie diet was indicative of poverty: ‘От-масаһылыктаах/they eat grass and trees’. The Yakut considered fat and oil as an essential part of ceremonial food and the best food for the gods: ‘Арыылаахалаадыннанкүндүлээтилэр, саамалкымыһынанайахтуттулар/ they treated us to buttered pancakes and kumis’. Bayanay, God of Hunter, was given greasy food; Ayihyt, Goddess of Fertility, got саламаат/salamaat, rich porridge.

Basic studies of nutrition culture of the Yakut were used as materials for analysis.

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First data about economic management and nutrition of the northern people are presented in the 'News of Yakutsk district and adjacent jails, wintering places; what people inhabit the area; what laws they have, what works they do and what they eat' made by a surveyor Peter Skobeltsyn (1741), etc. [www.k2x2.info/istorija/put k bolshoi zemle/p31.php] Numerous data of the Second Kamchatka Expedition held in 1733-1743, reproduce daily routine of the Yakut, including the aspect of nutrition.

The ethnographic program of actual supervisor of historic and ethnographic works of the Second Kamchatka Expedition G. F. Miller composed for another participant of expedition studies by I. E Fisher is of certain interest. The document written in 1740 is a result of the scientist's years of work in Siberia. It contains issues related to nutrition as well (animals, fishes, birds used and not used for food; gourmet foods and their names; beverages and how to make them; and eating customs'.

A. Shimansky was a political exile who examined domestic culture of the people of Yakutia. He described basic data on nutrition of the Yakut in his work 'Food of the Yakut' (Saint-Petersburg, 1886). Shimansky was the first who found the connection between nutrition of the Yakut and their climate. He wrote, 'There is no doubt that food was one of the main reasons that provided the Yakut with their amazing energy to fight the bleak nature on the banks of the Lena river [XVII, p. 10]. The author touched upon the social and cultural aspect of Yakut nutrition for the first time, stating that 'ethnic cuisine is dictated by heavy work performed by the Yakut. Their food is very satisfying, it saturates with energy. It is also very healthy, tasty and substantial. That is why the northern people adhere to traditional nutrition, pass down the tradition through the generations improving the formulation of dishes and beverages of the national cuisine. From the earliest times, the table was covered with meat and fish dishes, milk food enriched with plants' [XVII, p. 10].

The issue of nutrition and ethnographic description of food of the Yakut and people of the North were described in general ethnographic and cultural studies by such famous researches as Maak R. K., Seroshevsky V. L., Khudyakova I.A.

Maak R. K., who examined the traditional life of the Yakut from the Wilui River region, noted a significance of Yakut food which produced a favorable effect on a human health in his famous monography 'Wilui River region of the Yakutsk district' (Saint-Petersburg, 1887): 'There is no doubt that food, customs and pattern of life of people determine the state of health and tenderness to a greater extent than physical properties of the country. Out of the mentioned factors, food has a crucial importance' [IX, p. 61]. In his work, he mentioned the principal role of sour milk (tar) in the local diet.

In 1842-1845, academician A. F. Middendorff organizes an expedition in Yakutia and describes the results in a number of academic works. 'Journey to the north and east of Siberia' (Saint-Petersburg, 1878) was one of them. Mentioning and enumerating the Yakut dishes tasted by him, the scientist said, 'the apogee of all enjoyments of the tongue and interior is salamaat which is divine food' [XII, p. 109], [XIII]. V. L. Seroshevsky, who described the cuisine of the Sakha in detail in 'The

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Yakut' (Saint-Petersburg, 1896), said, 'the 'divine salamaat' which is a wedding breakfast, food of strong spirits, of the rich, ill and expectant mothers, is made of oil and flour'[XVII, p. 315]. In short, salamaat has not been losing its unique position for ages being the favorite food eaten on special occasions. Besides, Middendorf describes the technology of making a dense beverage called *yopə*, pine sap, stating that 'the taste is far from being bad' [XII, p. 109].

Pre-revolutionary scientific literature describes many ways of preparing and making traditional Yakut dishes. Thus, Khudyakov I. A. in his monography 'Brief description of Verkhoyansky district (Leningrad, 1969) describes expressively how to cook 33 various dishes [X, p. 78].

During the Soviet era, when traditional food was replaced by the universal Soviet diet and considered as a sign of underdevelopment, no serious works on this issue was published. The first Yakut researcher who had examined nutrition systematically was ethnographer A. A. Savvin [XVI, p. 117 - 138]. The work by A. A. Savvin 'Food of the Yakut prior to agriculture development (experience of historic and ethnographic monography) was written in 1950s but not issued that time. The article written by O. V. Ionova 'Plant Food of the Yakut' (Yakutsk, 1961) described the role of plant food in the lives of locals.

Since 1980-s, some articles have appeared; scientific understanding of traditional nutrition has been there since 1990s. Generalizing historic works of researchers of the XIX century, the role of the Yakut in the development of nutrition culture in the north is noted. In his work 'The origins of phenomenal stamina of the Sakha people', Professor M. A. Tyrylgin states, that the Yakut brought significant changes into the northern diet: 'Prior to arrival of the Yakut, diet of 30 northern nations inhabiting the vast territory of the North contained no milk, cream, sour cream, butter, farmer cheese, fermented milk products, kumis, tar, beef, horse meat and pine flour. Having improved fishing tools, the Yakut could use more fish in their diet' [VII]. [XX, p. 298]

Ethnographer S. I. Nikolaev (Somogotto) wrote about an interaction between different northern cuisines. He believes that multiple layers of the Yakut cuisine belong to its unique features. Somogotto wrote that 'It consists of cuisines of the Yakut, Turkic, Tungus and Samoyed-speaking groups and borrowed elements of the Russian cuisine' [VII].

It is true that when the Russians came to the land, the local diet changed and expanded significantly. Thus, people started growing wheat, potatoes and wheat flour pancakes became part of the Yakut traditional nutrition. Pine sap and *syma* (fermented fish) are used rarely today. Former daily food of the Yakut (horse ribs, abdominal fat, viscera, liver, skin formed on milk and cream, whipped cream, kumis, salt fish, and slices of frozen fish and meat served cold) was officially revived in 1990s and is considered as specialty of the area. The dishes that are in heavy demand are always present on any special occasion (wedding, anniversaries, and outstanding events). Offering national food to guests is an obligatory sign of hospitality.

There are works describing recipes and features of the northern nutrition. In particular, they include a monography by V. L. Alekseev 'Forgotten recipes' (2001, Yakutsk) [I], S. I. Nikolaev 'National cuisine of the people of Yakutia' (Yakutsk, 2009), etc. [XV]. Nutrition and food recipes of the Yakut and peoples of the North are described in general ethnographic and cultural studies, and by R. K. Maak, V. L. Seroshevsky, and I. A. Khudyakov, in particular. Some publications are written in the Yakutsk language. Works devoted to traditional nutrition of famous cooks (I. I. Tarbakhov, M. N. Gabysheva) have been popularized recently. The collective monography entitled 'Culture of nutrition of the Yakut' (2012) is the most complete edition of this kind.

An attempt to rehabilitate the Yakut diet in the system of food services has been made since 1957. The initiative of Suntar kitchen staff to introduce salamat, керчэх (whipped cream), сыопар (sour milk), kumis, хаан(blood sausage), and ойгорос(dishes made of foal ribs), Yakut soup was taken up by the cooks from Nyurba and Ytyk-Kyuel. The brochure entitled 'Yakutsk National Dishes' prepared by Kholbos Yakutsk Republican Consumer's Association and Ministry of Trade of Yakutia was published in 1975 (Korovina, Podryasova, 1975) [VII]. The activity of honored employee of national economy of Yakut Autonomous Soviet Socialist Republic, honored employee of trade of the Russian Federation I. I. Tarbakhov, who wrote the book entitled 'En ostuolunsakhalyyastara' (Yakutsk, 1993) [XIX], is essential to the professional description and systematization of forgotten Yakutsk recipes. In the post-Soviet era, the work on revival, development and advocacy of traditional culture in the end of 1980s and beginning of 1990s reaches a new line. Promotion of cultural legacy reaches new frontiers; highly-qualified young specialists started putting the best traditions of the people into practice. Scientific understanding of nutrition as cultural heritage of the Sakha people starts during this period. The Research and Practice Seminar 'Issues of preservation, development and popularization of folklore of the Yakutsk people' (Potapov, Zvereva, 2000) took place in 1989. Eminent cultural and scientific figures such as K. D. Utkin, E. N. Bokova, B. F. Neustroyev, V. D. Pinigina, M. N. Gabysheva, I. I. Tarbakhov participated in the seminar. A series of television programs entitled 'The Secrets of Tarbakhov's Magic Cuisine' (edited by A. N. Zvereva) have been broadcasting since 1992. During sovereignty of Yakutia, true revival of national identity was observed. The Yakutsk language was treated as a state language alongside with Russian. A new subject 'Yakutsk National Culture' appeared at schools; national book-printing was widely spread, etc. Moreover, decision of the First President of the Republic M. E. Nikolaev to launch the first national restaurant Tygyn Darkhan was another proof for the occurring revival of national culture. In 2005, the research and training conference 'Public nutrition in the Republic of Sakha (Yakutia): state, tendency of development and problems' devoted to the 10th anniversary of Tygyn Darkhan restaurant was organized and conducted under the supervision of K. Akimov, Chairman of the State Trade, Material and Technical Resources Committee named after R. I. Fyodorov, other participants, community and famous scientists. It was an important step in generalizing the experience in revival and popularization of healthy nutrition.

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Publication of fundamental works by ethnographers such as A. A. Savvin (Food of the Yakut prior to Agriculture Development' (based on the historic and ethnographic monography) (Yakutsk, 2005), S. I. Nikolaev-Somogotto 'Food of the Yakut (in the view of adjacent cultures' (Yakutsk, 2009) [XV] was the best result of the conference. Publication of the album by I. I. Tarbakhov 'Blessed food of the Yakut' could also be considered as a report (Yakutsk, 2009).

Results of the studies on the medical aspects of northern nutrition were presented in the works of U. M. Lebedeva, M. N. Petrova and researches of the medical institute of the North-East Federal University. The authors consider the following issues: nutrition as the basis for a way of life and health in the north, nutrition of children and adolescents who go to educational institutions of the Sakha Republic (Yakutia) / U. M. Lebedeva, S. I. Prokopieva, K. M. Stepanov, N. B. Borissova, A. M. Dokhunaeva, A. M. Lebedeva, A. S. Vladimirov, Y. N. Ivanova/, prevention and nutritional correction of osteopenic conditions in adolescents of the north / U.M. Lebedeva, K. M. Stepanov, A. M. Lebedeva/, research and methodological support of healthy nutrition activities in the Sakha Republic (Yakutia) /U. M. Lebedeva, S. I. Prokopieva, K. M. Stepanov, N. N. Gryaznukhina, N. A. Sleptsova, A. M. Dokhunaeva, L. S. Zakharova, Y. N. Ivanova/Nutrition as predictor of health disturbances in a mother and her child in the Sakha Republic (Yakutia) /U. M. Lebedeva, N. A. Sleptsova, S. A. Kirillina, V.V Efimova, N. N. Gryaznukhina, S. I. Prokopieva, K. M. Stepanov/, Identity differences in the condition of health among adolescents inhabiting different parts of the Sakha Republic (Yakutia)/ M. I. Samsonova, T. E. Burtseva, U. M. Lebedeva, K. M. Stepanov/, Actual problems of humanitarian and natural sciences, the role of natural nutrition using local products in the Republic of Sakha (Yakutia)/K. M. Stepanov, U. M. Lebedeva, A. M. Dokhunaeva, L. S. Zakharova, A. V. Chugunov, S. T. Efremova/, the basis for nutrigenetics in the north/ U. M. Lebedeva, K. M. Stepanov, A. M. Dokhunaeva, L. S. Zakharova/, the possibilities of using fat of Yakut growing horses to correct the composition of fats with human milk substitute/ K. M. Stepanov, U. M. Lebedeva, V. T. Vasiliev/, research, methodological and innovation support of nutrition optimization in the Sakha Republic (Yakutia)/ U. M. Lebedeva, K. M. Stepanov, M. I. Samsonova, A. M. Dokhunaeva, L. S. Zakharova, M. P. Dyachkovskaya/, basis for creating combined and functional products made of local raw material/ K. M. Stepanov, U. M. Lebedeva, A. M. Dokhunaeva, L. S. Zakharova, M. P. Dyachkovskaya/, creating innovation products made of velvet antlers and blood of reindeers at TABA NAOC ZAO/ K. M. Stepanov, U. M. Lebedeva, M. M. Pavlov, V. E. Fyodorov/, Clinical estimate of diet therapy effectiveness in functional digestive disturbances in children/ U. M. Lebedeva, S. A. Kirillina/, Factors of risk for obesity in the inhabitants of Yakutia/ L. S. Zakharova, U. M. Lebedeva, A. M. Dokhunaeva/, Winter nutrition composition in the inhabitants of Yakutsk/ T. S. Neustroeva, U. M. Lebedeva, O. V. Shadrina, S. I. Prokopieva/, Protein products in the nutrition of children and adolescents in the north/ N. V. Mestnikova, U. M. Lebedeva, S. I. Prokopieva/, The role of a therapeutic and prevention nutrition center in scientific and methodological support of healthy nutritional policy in the region / U. M. Lebedeva, S. I. Prokopieva, N. N. Gryaznukhina, A. M. Dokhunaeva/Modern technologies of

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producing specialized baby food products of local raw materials/ K. M. Stepanov, U. M. Lebedeva, S. I. Prokopieva, N. N. Gryaznukhina, A. M. Lebedeva/, Natural environmentally friendly ethnic nutrition as the basis for health of the peoples of the north/ K. M. Stepanov, U. M. Lebedeva/, Nutrition and risk for osteoporosis in adolescents of the north/ A. M. Lebedeva, U. M. Lebedeva, A. M. Dokhunaeva// Nutrition of the peoples of the Sakha Republic (Yakutia): traditions, problems and development tendencies / U. M. Lebedeva, A. M. Dokhunaeva, L/ S. Zakharova, K. M. Stepanov/ Nutrition of children and adolescents in the Arctic North: traditions, problems and development tendencies/ U. M. Lebedeva, M. P. Dyachkovskaya, A. M. Dokhunaeva, K. M. Stepanov, L. S. Zakharova, Y. N. Ivanova, N. V. Ammosova/, Nutrition of children and adolescents of the Sakha Republic (Yakutia): scientific aspects and innovation approaches/U. M. Lebedeva, M. I. Samsonova, K. M. Stepanov/, Modern concept of nutrition of the peoples of the Republic of Sakha (Yakutia)/ U. M. Lebedeva, K. M. Stepanov, A. M. Dokhunaeva, L. S. Zakharova, M. P. Dyachkovskaya, L. S. Akimova/, Organizing healthy nutrition-related activities in the Sakha Republic (Yakutia), Estimating actual nutrition, quality and safety of food ingredients and food products in the Sakha Republic (Yakutia), Issues of food safety and analysis of actual nutrition in the Russian Federation and Sakha Republic (Yakutia), Actual nutrition of people and condition of food ingredients in the Sakha Republic (Yakutia)/ U. M. Lebedeva, A. N. Rumyantseva, M. E. Ignatieva, N. B. Borissova/, Frequency of product consumption in the Arctic/ U. M. Lebedeva, A. N. Rumyantseva, V. V. Efimova, L. S. Zakharova/, Comparative analysis of diet caloric value and provision of the peoples of modern Yakutia and Yakutia of the second half of the XIX century with the basic food products/D. G. Tikhonov, U. M. Lebedeva, L. D. Olesova, Z. N. Krivoschapina, E. I. Semyonova/.

Interdisciplinary studies associated with the research project entitled ‘The culture of nutrition and ethnicity’ are also being conducted; the results are presented in a number of articles. The authors consider the issue of transformation and mongrelism of nutritional culture [V], [VI], [II], [III].

Analysis of medical and interdisciplinary studies produces a negative effect on the health of food addiction transformation.

Many researchers believe that traditional nutrition produces a positive effect as it has been tested for ages and is closely interrelated with nature and its rhythms. Famous researches N. A. Agadzanyan and P. G. Petrova write that ‘under the extreme conditions of the North, the durative process of adaptation involves all types of metabolism such as protein, carbohydrate, fat, trace elements, vitamin, etc.

It is necessary to increase the role of fats and lipids in power supply of the body and use proteins actively as energetic material. The Asian North forms the polar metabolic type. Traditional nutrition of low-numbered peoples of the north was determined by the economic and cultural type, when deer raising was combined with hunting, fishing and gathering of nomadic people. Thus, the basis for their diet was meat and fish. The principal problem of the civilization consists in the loss of interrelation between humans and natural rhythms. Northern first nations believe that

food is the basis for a human life and, thus, it accumulates wisdom of the nation. Trying to be in the harmony with the environment, ancestors of the Yakut created a single calendar nutrition cycle that provided a body with all essential substances. Going back to the archaic heritage, we approach the forgotten laws when a human forms a single unity with nature, being a part of it' [VIII]

III. Results

Thus, a summary of popular scientific literature shows that the Arctic and the North, which are rich in natural resources, enabled the existence and development of the peoples of the North facing severe climate and eternal frost. In spite of their small number, northern people have an authentic culture and high level of social and biological adaptation. Revival of national identity through elements of nutrition and nutritional culture is an issue that touches upon various aspects. Properly selected nutrition promotes adaptation of a human body to severe environmental conditions. It is known that the traditional nutritional structure is an essential part of Arctic adaptation as it satisfies requirements of a body with a high rate of constructive and energy metabolism.

Ethnographic and historic literature contains enough data on history and culture of the northern people when traditional food is taken as an organic part of their national culture. Food, its composition, ways how to make daily, festive and ceremonial food of any people reflect conditions and landscape of northern people's permanent stay. Good food that compensates a negative effect produced by the climate on the body is one of main conditions for a favorable human life under extreme conditions. That is why northern people have always paid much attention to good and healthy food. The Sakha Republic is inhabited by over one hundred nations; 32,860 representatives of the low-numbered peoples of the North, including the Evenkis (18,232), Even (11,657), Yukagir (1,097), Chukchi (602), Dolgans (1,272), inhabit 21 districts of the Republic.

The basis for nutrition of the northern Yakut and indigenous people of the north has always been formed by meat and fish products due to the people's economic activity. However, their consumption differed in local groups. First and foremost, it depended on the type of activity. Tender meat is rapidly absorbed by the body. Venison dishes were the most popular ones as in the North, a deer could satisfy any vital human requirements including nutrition assortment. For the people of the North, venison is a universal product. Due to its nutritional properties, venison is valued better as compared to other types of meat. Having unique taste and food qualities, high calorific value and anti-scurvy properties, it is highly demanded by the northern people. This is a highly qualitative, protein product and a valuable source of vitamins. It is enough to say that venison contains 4-5 times more ascorbic acid than beef [XXI].

The locals have been fishing from the ancient time. Essential fish habitats are the Laptev Sea, East Siberian Sea and over 300 thousand and 709 thousand of lakes in Yakutia and Viluyok reservoir. In Yakutia, there are 708, 844 lakes with their total area of 7, 399.3 thousand hectares, i.e. 2.4% of the entire country area. Thus, fish was

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popular among the northern people. In the lower reaches of the Indigirka and Kolyma rivers it substituted bread: Russian long-term residents forgot the taste of bread and many people had no idea of its taste at all. In summer, the fish was boiled, preserved, fermented in the pits, stored in the ever-frost layer; slices of frozen fish, yukola were prepared and pounded fine in a mortar. Burbot bellies and liver were eaten unbaked, bowels and caviar were fried. They baked cakes with fish and caviar. In summer, fish was placed in osier-bed for a day. There is no need to discuss fish oil health benefits. It is completely digested, and supplies a body with vitamins that are not contained in other products.

Adequate nutrition requires various fish and meat dishes. Gathering was subsidiary. The people of the North didn't bother to can berries, nuts, and edible roots. They used them fresh. Imported tea was boiled just like flowers, rose hips, and rosebay leaves. Edible, medicinal and industrial plants were collected. By the end of the XIX-beginning of the XX century, the Evens mainly used home-made products (meat, fish, deer milk, wild edible plants). This traditional life-supporting method has been determinant for a long time, including the Soviet period. For instance, Beryozovka Evens had almost no bread until 1960s and didn't suit themselves with flour [IX]. In the XVII—XVIII centuries, northern people traded with the Russians and got flour, grains, salt, tea, sugar, tobacco and vodka. However, they were not widely used as they were expensive both for the rich and the poor. The most northern Turkic-speaking people, the Yakuts (Sakha), managed to preserve their traditional culture of nomadic cattle herders. Horse breeding is traditional for the nomadic Yakuts. It gives tender and digestible meat enriched with amino acids, and milk. The correlation between the consumed meat and milk depended on the season. Summer lasted from calving to the end of milking. Depending on a season, cows were milked 3-4 times a day. Milk food predominated in summer. Kumis, a nutrient rich and herb drink (refermented raw mare's milk), was made. There were three types of kumis: саамал, аарaxанд көйүү (the strongest beverage). According to V. L. Seroshevsky, a famous Yakutia researcher, 'the Yakuts who avoid having sour food when they are very tired make an exception for kumis. Kumis is absorbed by the body fast, increases blood supply and improves all vital functions. Alongside with mare's meat, it remains the most favorite food of the rich and heroes praised in songs. It used to constitute a significant part of people's nutrition, and that happened not long time ago [XVII, c. 298-299].

The Yakut people have brought their unique nutrition culture through ages. Severe northern conditions and harsh continental climate determined the features of Sakha nutrition. Turkic diet of nomadic people in the north was adopted under the influence of vast experience of local northern nations. Northern fishes and berries enriched the diet that mainly consisted of horse meat and milk products. Alongside with many Turco-Mongol nations, the Sakha differentiated between white (dairy/ үрүүнас) and black (meat/ xapa) food. In traditional Yakut culture, meat was eaten mainly in winter after cattle slaughtering. In summer, after the nation-wide holiday (Ыһыах) and during haying they had milk and fish. Vegetables and flour were introduced later, when the first Russian arrived. V. L. Seroshevsky wrote, 'The

Yakuts have no flavorings. They have started using salt just recently, subsequent to bread. They have sugar only when they drink tea, holding a small lump of sugar in their mouth. Their tea is mainly brick; they take plenty of it. Kumis was substituted by tea brick. For many poor people, the tea and its surrogates painted white can become the main diet during some months of the year. The rich have it 3 or 4 times a day, 6 to 10 cups each time. The poor have tea twice a day. The Yakuts drink no coffee' [XVII, p. 312].

'Food is distributed as follows: summer and autumn are the least hungry seasons (June, July, August, September, October). During the first two months, the food is almost completely dairy with addition of some fish, meat, and vegetable surrogates. There is less milk in August, but it is the season of bread. In August, haymaking is over, the autumn fishing and forest trade starts. Cattle is slaughtered in October. Many springer cows go dry since November, milk is significantly decreased. General worsening of nutrition occurs; many people have limited resources in December and January, many feel hungry in February and March –they can satisfy appetite fully just accidentally. During this time, about a half of the Yakuts have brick tea only; some milk is added to it. Forest industry revives in March; in April, ice fishing starts and pine trunks are used to get sap wood. Cows calve in May and the amount of milk increases [XVII, p. 315].

The national cuisine of the Yakut, Even, Evenk, Yukagir and Chukchi is one of the most ancient samples of food tradition for the people of the North who could fully and rationally use resources of the local nature. The Yakut nutritional culture absorbed all the traditions. Summing up the data in the works of researchers of the XVIII- XX centuries, the features of the Yakut nutritional culture can be summarized as follows: 1) seasonal organization of nutrition with summer and winter food, predominance of dairy (Үрүҥас), fish, vegetable food in summer, and predominance of meat (Хараас) and fish in winter. 2) presence of fermented food in the diet (fermented fish/syma, fermented dairy products with addition of bones, berries, and plants/tar) 3) eating some fatty meat (brains, tongue, etc.) by children and pregnant women is tabu; 4) using fresh local products, products obtained during hunting; 5) eating fresh frozen products thermally processed with cold (meat, fish, liver); 6) using ice water in winter; 7) eating not thoroughly cooked meat (horse beef); 8) eating calorific food in winter; 9) eating plant food such as wild crops, sap wood; 10) popularity of kumis (fermented beverage made of cow's milk), byrpakh (fermented beverage made of cow's milk).

The inevitable transformation of traditional northern cultures that took place in the XX century produced an effect on the nutritional culture as well. The data obtained during field studies and presented in the works of the beginning of the XXI century state that the Yakut still prefer meat and fish dishes. Traditions of making and having national dishes are still strong. Northern reindeer breeders still have substantial deer milk. It is used to whiten tea and make condensed milk, кҕөрчэх (creamed milk). No family can deal without some imported products (flour, bread, butter, sugar, salt, tea). They have acquired a traditional status by the middle of the XX century.

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Thus, the major components of traditional nutrition of the northern people of Yakutia are preserved till now. This is closely connected with preservation of the main activity type (deer farming, horse breeding). As local groups of northern people inhabiting Yakutia are located at a long distance, traditional diet is mainly unchanged. In the central and southern parts of Yakutia, tastes are transformed. However, an interest to traditional food has been observed recently. The food is though inaccessible to many people as environmentally friendly local products are expensive.

IV. Discussion

Based on the analyzed historic material, it can be stated that the studies of the XIX-XX centuries were descriptive in nature. They present data on archaic recipes and basis for up-to-date cultural heritage. Modern studies represent an analysis of historic materials (apart from some field studies held by A. A. Savvin), but contain data on transformation and interrelation between the northern peoples' cuisine. Medical, sociological and interdisciplinary nutrition studies are the most valuable.

background of the studied data, the Yakut living in five Yakutsk districts were breeding horses. Some Yakut from Viluysk did the same. They wrote, that some Tungus from Viluysk were busy with deer breeding. However, many inhabitants of the Viluy river had no cattle, they were hunters. The Yakut inhabiting two wintering places on the Yana river had both horses, and cows. The Kolymo-Alazey Yakuts had some cattle, whereas the Yakuts from Ust-Yansky and Zhigansky wintering places had no horses and cows. The Kolymo-Alazey and Indigirka Lamuts were engaged in deer breeding. The Yakuts living nearby Yakutsk were hunting foxes, some lynxes, gluttons, bears, ermines, squirrels and sables. They had meat (wild fowl and livestock) and fish, pine bark and various roots. There is evidence that the Yakut ate foxes, bears, squirrels, ermines, gluttons, hares, polar bears and blue foxes. They had fish and meat. The Yakut who stayed at the Olenek river hunted the animals and deer and ate venison and fish. The nomadic Lamut from the Indigirka river hunted sables, foxes, lynxes, gluttons, bears, wolves, ermines, squirrels, elks and deer [XIV], [XVII], [XVIII], [XI], [XIII], [X], [XVIII]. In former times, the locals in Yakutia had health and longevity due to highly-nutritious products made of meat, milk of Yakut cattle, Yakut horse, reindeer, meat of game animals, fish caught in the northern rivers and lakes. Analysis of modern interdisciplinary and medical studies shows that consumption of many imported products of doubtful origin that contain much carbohydrates in modern Yakutia produces a negative effect on the general condition of the people. Thus, mortality rate due to cardiovascular diseases has currently increased and constitutes 74% of those deceased in the Republic; morbidity with oncological diseases increased 1.5-2 times as compared to the 19 century; a number of weak, unhealthy, inviable children is increasing annually. There is a rise of patients with bronchocele due to iodine shortage in drinking water, improper feeding and decreased percentage of traditional, natural food products.

Less venison consumption resulted in the deficiency of protein, amino acid, vitamin and mineral food of the indigenous under population of the Sakha Republic

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(Yakutia) of the Russian Federation. In its turn, this became a development factor of different alimentary diseases. Total morbidity rate significantly exceeds data on endocrine disorders (from 3 to 30 times), diseases of blood and blood-forming organs (4-8 times). Boiled venison and venison broth have excellent organoleptic values. Venison contains 19.55 ± 0.03 % of protein, 18.81 ± 0.05 % of fat, essential amino acids (leucine, lysine, methionine, tryptophan), nonessential acids (tyrosine and cystine), all necessary micro- and macroelements, saturated and mono-saturated fatty acids and vitamins A, B12, B3, B1, Bc, E. Venison calorific value is 254.77 ± 5.10 kcal.

V. Conclusion

Thus, in spite of insignificant discrepancies in expedition data, their analysis enables to draw a conclusion that the traditional nutritional system of the Yakut and neighboring people, which mainly consists of meat (horse meat, venison) and fish, milk products and plants, water, milk products and herbal teas, is the basic means for health protection because it is balanced. The nutrition is valuable due to 1) seasonal organization of nutrition with summer and winter food, predominance of milk (Үрүҥас), fish and plants in summer, and predominance of meat (Хараас) and fish in winter; 2) popularity of fermented food (fermented fish/syma, fermented milk products with additions of bones, berries, plants/tar); 3) tabu for eating some fatty meat (brains, tongue, etc.) by children and pregnant women; 4) using fresh local products; 5) eating fresh frozen products thermally processed with cold (meat, fish, liver); 6) using ice water in winter; 7) eating not thoroughly cooked meat (preservation of vitamins); 8) eating calorific food and drinking kumis made of cow's milk; 9) eating wild crops, sap wood; 10) popularity of kumis (fermented beverage made of cow's milk), byrpakh (fermented beverage made of cow's milk).

The problem of supplying population with natural products is an important task due to the fast growth of population, nutrition transformation and worsening of environmental condition. Disturbed protein and lipid type of nutrition under severe northern conditions resulted in a significant increase of patients with cardiovascular diseases, diabetes, endocrinological and oncological disorders. The role of making time-proven traditional culture of nutrition popular is acquiring overriding concern.

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