FOREST UNGULATES FOUND IN HOLOCENE ARCHAEOLOGICAL MATERIALS FROM THE EUROPEAN NORTHEAST[1]

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ABSTRACT: The ungulate fauna present in Mesolithic, Neolithic, and Eneolithic Age sites of the Pechora and Vychegda Basins were considerable. These sites differed in archaeological culture and in the type of settlement they represented. Established sites included summer and winter camps, permanent settlements, and temporary campsites. In spite of many changes in natural conditions, moose (*Alces alces*) were utilized consistently throughout the early and middle Holocene. The significance of this trend for the economy was that it affected the ideology of the human population.

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The early and middle Holocene (from Mezolithic to Eneolithic Ages) was a time when moose meat prevailed in the diets of primitive people of the forest (taiga) zone, including northeastern Europeans. The subsistence strategy of ancient hunters was often associated with moose. The great importance of moose to these ancient people was reflected in their art and tool craftsmanship, including drawings and engravings on rocks, and articles made of bone, antler, and wood. Moose and the ideas associated with this species took a leading role in the spiritual culture of these ancient people (Stolar 1983). To confirm this we may refer to the works of investigators and ethnographers. Good analyses of such previous work were conducted by Okladnicov (1950) and Studzitskaya (1981).

In the Paleolithic Age the depictions of moose were very few. The known depictions were located at sites dated to the final stage of the Upper Paleolithic Age (Melnichuc and Pavlov 1987). In a number of cases the interpretations of these depictions differed, and the artwork may have represented either moose or saiga antelope (Arts and Deeben 1987). Moose were not the preferred catch for Paleolithic hunters, and the bones of moose found at Paleolithic sites were very few in number (Tromnau 1987). Paleogeographic and archaeological data may provide some explanation of a change in the primary species hunted by people. Changes in the material culture of the people may have broadened their adaptive possibilities.

MATERIALS AND METHODS

Most Holocene sites of the European northeast (Vychegda and Pechora River Basins) were located on the sandy edges of pine forests. The soil conditions at these sites did not provide for adequate preservation of organic remains. Bones obtained from these sites were in extremely bad condition and were represented as small charred fragments. In spite of the poor

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condition of most bones, we managed to accumulate some osteological material (osteological analyses were conducted by P. A. Kointsev, Institute of Ecology, Ecaterinburg). This allowed us to draw some conclusions about regional specificity of information concerning the role of moose in the lifestyle and culture of ancient people. In addition to osteological materials, we used topographical data and the composition of implements found at the sites (Table 1). Archaeological description (chronologically and culturally) of these sites, individually and as groups, is as follows.

ARCHAEOLOGICAL SITE DESCRIPTIONS

In collections from the Parch 2 and 3 sites (Vychegda River), a series of arrowheads on blades and inserts were of special interest. There were also different burins and side–scrapers present. The difference between the material culture of Parch 2 and 3 sites and other known Mesolithic sites of the region should be pointed out. The ages of the sites were derived from pollen analyses, radiocarbon dating, and from the complex of paleogeographic data (Volokitin and Kovalenko 1988, Volokitin and Kosinskaya 1989).

Ust–Ukhta 1 and the Leck–Lesa Mesolithic sites (Izhma River, Pechora River tributary) referred to another archaeological culture based on their stone implements. At the Ust–Ukhta 1 site, a compact concentration of material was discovered that may be the remains of a ground dwelling. Tools, blades, and inserts were represented in collections from this site. Among numerous findings at the Leck–Lesa site, there were knife kits with large blades, double truncated bladeletes, points, and side–scrapers. The burins were few. Several sites in the basins of the lower Vychegda and Izhma Rivers were joined into 3 cultural groups and dated to the early Neolithic Age based on the character of stone implements and ceramics.

The first group included the sites Kochmas A and Chernaya Vadya on the lower Vychegda River. Findings from the Kochmas A site included only flint implements. The chipped stone technique left blade–flakes. Knives and scrapers prevailed in tool kits. Many tools were used for bone and antler processing, although no bone articles were found. Stone projectile points were not discovered, but through the presence of blade–inserts, we inferred the existence of manufactured points. Flint implements of the Chernaya Vadya site were made according to blade technology. Tools prevalent at this site were knives, scrapers, and inserts from short rectangular segments of blades. There were lateral points that may have served as edge inserts for composed heads of a hunter's weapon. Fragments from 2–3 vessels were also found in the dwellings. Kochmas A and Chernaya Vadya are similar to the upper Volga (early Neolithic) sites and date back to the fourth and fifth millennia BC.

The second group from the early Neolithic Age was represented by the Revyu I site. Flint manufacture included a combination of blade and flake production. Side–scrapers and cutting tools were common at this site. Small trapezium inserts from chips were prevalent in kits at this site, but large symmetrical trapeziums of average height were few. Ceramics were not discovered. Hypothetical dating was to the second half of the fourth millennium BC.

The third group included the Chernoborskaya III (Izhma River) and Niremka III (Vym River) sites. The flint implements of Chernoborskaya III were manufactured using the large blade and flake technique. Narrow triple–edged arrowheads, knives on blades, and side–scrapers were numerous. Several ceramic vessels were found. At Niremka III, flint

Table 1. Archaeological sites in the Komi Republic with faunal remains of ungulates.

Age	Sites	Type of Settlement	Topography	Fauna	Dating[1]
Mesolithic	Parch 2	2 ground dwellings	flood–plain, 5 m	beaver 3[2]/1[3] moose 3/?	BO–1
	Parch 3	site–work–shop	flood–plain, 5 m	beaver 7/1	BO–1
	Ust–Ukhta 1		II terrace, 19 m	moose 1/1	AT–1
	Leck–Lesa	ground excavation–1 dwelling	II terrace 15–16 m	beaver 3/3 moose 1/1 bear 1/1	AT–1
	Leck–Lesa	ground excavation–2 dwellings	II terrace, 15–16 m	moose/?	AT–1
Early Neolithic	Kochmas A	winter dwelling (with work–shop)	II terrace, 8 m	moose 26/2 beaver 7/2 fox 1/1 bird 1/1	AT–2 AT–3 (middle–southern taiga)
	Chernaya Vadya	dwelling round–the–excavation–2 remains	II terrace	moose 1/1 beaver 2/2	AT–2 AT–3 (middle–southern taiga)
Early Neolithic	Revyu 1 excavation 2	winter dwelling?	II terrace	moose 42/? beaver 1/1 reindeer 6/? bear 4/? wolf 2/?	AT–3 (southern taiga)
	Chernoborskaya III	site	II terrace, 14 m	moose 1/? reindeer 6/?	AT–3
Neolithic	Niremka III	hunter's camp	II terrace, 11 m	moose 10/2	AT–3 SB–1 (middle–southern taiga
Eneolithic	Niremka I	dwellings and household constructions	II terrace, 7 m	reindeer 1/1	SB–2 (southern taiga)
	Niremka I	dwellings–winter?	II terrace, 7 m	reindeer 1/1 beaver 1/1	SB–2
	Niremka I	dwelling–winter?	II terrance, 7 m	beaver 1/1	SB–2

[1] According to Holocene subdivisions by Hotinksy (1977).
[2] Number of identified bones.
[3] Number of individuals.

manufacture was practically nonexistent. The sites of this group hypothetically date back to the third and fourth millennia BC.

Three dwellings at Niremka I were indicative of the Eneolithic Age. Ceramics and stone implements were concentrated inside the dwellings; an indication of the winter character of the dwellings. The ceramics were not numerous (3–8 vessels per dwelling). Flint implements were made using the flake technique and each dwelling contained indications of mass flint manufacture. Side–scrapers prevailed in tool kit knives. Small arrowheads of leaf–like shape and dart–heads were found. All 3 dwellings were different in age, were associated with the Choinovtinskaya culture, and dated back to the latter half of the third and the first half of the second millennia BC.

In summary, the stone implements present at all the sites mentioned above show that hunting was the occupational trend of ancient populations in this region during the Mesolithic through Eneolithic Ages.

CONCLUSIONS

In spite of differences in culture and natural conditions, the household activities of ancient people of the European northeast were based on hunting forest ungulates and beaver throughout a time period of several thousand years. This trend was characteristic of other taiga regions.

The regional role of moose in the household activities and culture (ideology) of the population in the Holocene Age became evident based on depictions of this animal in the Vis peat bog of Sindor Lake (Vychegda River Basin). The most realistic depiction is on a hunter's ski. Evidently, this was a case of the manifestation of hunting magic (Burov 1968).

The household (seasonal) activities of the ancient people of the Vychegda and Pechora Basins were based on hunting large forest ungulates and beaver, in addition to fishing and gathering. Based on ethnographical data, we conclude that evolution lead to the development of a population of taiga hunters and fishermen characterized by relative mobility throughout the annual seasonal cycle and by economical use of natural resources. This provided for stable development of the population. The methods and means of hunting evidently changed and improved over time.

We note that investigators usually assume the use of passive hunting methods for large taiga ungulates during the Mezolithic through Eneolithic Ages (Savvateev and Vereschagin 1983). The real evidence of the use of such implements in the European northeast were the findings at the Vis peat bog. Gigantic self–shooting bows made of small tree trunks were present in the collection of wooden articles found there. These bows might have been used for hunting large ungulates (Burov 1973). Rock carvings have depicted scenes of collective winter moose hunting by humans using skis (Savvateev 1973). From the analysis of rock carvings, it was also presumed that moose hunting was done from boats at river crossings using horn axes. However, this method was considered to be more characteristic of reindeer hunting. It should be pointed out that in the region of the Parch 1–3 sites, moose still cross the Vychegda River today.