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ETHNOARCHAEOLOGICAL APPROACH TO LATE PALEOLITHIC SETTLEMENTS AND HABITATION STRUCTURES ANALYSIS (TRANS-BAIKAL, SIBERIA)

1. Late Paleolithic settlements and habitation structures in Trans-Baikal

The decoding of the archaeological records, particularly when those consist of complex images used as symbols in ancient times is one of the most difficult problems in archaeology. As it well known ethnoarcheological approach has emerged out of processual archaeology that was a response to the intellectual critics of the 1960s (Binford, 1983; 2000). Today etnoarchaeology seems to be one of the approaches in contemporary processual and postprocessual archaeology that based on using of knowledge about cultures of indigenous peoples following traditional lifeways for explanation of material remains (features and structures) of the Past (David & Kramer, 2001). From the beginning ethnoarchaeology was related with hunter-gatherers studies and they still occupy very substantial place in ethnoarchaeological issues (Gamble & Boismier, 1991), often to be combined with settlement archaeology and experimental archaeology. This approach does not exclude traditional typology based approach, but places it in a dynamic relation to other methodological approaches such as refitting, microwear analysis and distribution analysis. Ethnoarchaeology as one of the approaches in contemporary archaeology is becoming popular in Siberia because of discovering in last decades several Late Paleolithic settlements with almost undisturbed cultural layers and well preserved habitation structures. Among others the most representative settlements are containing an important information on spatial organization and structure of habitation floors are 'Studenoye'-I, II; 'Kosaya Shivera'-I, II and 'Ust-Menza'-I, II, III placed in South-West of Trans-Baikal region and dated by 18.000 – 10.000 B.P. with radiocarbon. The most remarkable features of the habitation floors are so called 'tent-ring' structures that are usually interpreted by researchers as the rests of mobile tent dwellings (Konstantinov, 1994; Kuznetsov, 2006). Most of habitation structures are representing a space encircled with cobbles which are lying down as a 'tent-ring' sometimes dense, sometimes not. The hearths represent charcoal length with diameter around 80 cm surrounded by cobbles and situated in the center of 'tent-ring' structures. The bulk of archaeological remnants are concentrated inside 'tent rings' and around the hearth. Since the surfaces of river terraces were seasonally flooded, these habitation floors of Paleolithic settlements must represent different occupation periods related with summer half-year. The small amount of archaeological materials as well as bone waste and charcoal, give us evidence that occupation periods were of very short-term. At the same time all archaeological features and structures look almost undisturbed that could be a result of fast conservation by deposited send and silt sediments. That is why an important means of obtaining more detailed information on the behavior and social organization of Paleolithic foragers is spatial analysis of the activity areas at the settlements and habitation structures. Analyzing different 'tent-ring' structures found at Late Paleolithic settlements of Trans-Baikal we can define the general pattern of space organization of habitation floors. The 'tent-ring' internal space organization at 'Studenoye'-I, II, 'Kosaya Shivera'-I, II and 'Ust-Menza'-I, II, III settlements usually consist of the hearth encircled by cobbles as a central dwelling feature, adjacent zone of charcoal and artifacts

concentration around the hearth. Such pattern of internal dwelling space organization looks close to those registered on short-term hunter camps described by Lewis Binford for Alaskan Eskimo (Binford, 1983). Late Paleolithic settlements of Trans-Baikal also show us a case with space organization representing two contemporary 'tent-ring' habitation structures as it was discovered in cultural layers 19/4 and 18/2 at 'Studenoye'- I settlement. An analysis of space organization at Late Paleolithic settlements of Trans-Baikal, the presence of well preserved 'ten-ring' structures, a small amount of archaeological remains and bone waste as well as technological and functional analysis of toolkits allow us to interpret those sites, as short-term hunter camps of mobile forager groups. Seasonally Late Paleolithic foragers visited well-known hunting points placed along the rivers valleys. The patterns of settlement space organization are repeated from one cultural layer to another and thus show us most probably undisturbed cultural continuity for several thousands years. We can mention that very similar pattern of space organization demonstrating two contemporary 'tent-ring' dwelling structures discovered at 'Fløyrivaten'-VI settlement in Southern Norway (Bang-Andersen, 2003). Such a pattern is well known in ethnographic data collected from different parts of Siberia and we suppose that ethnoarchaeological investigation of settlement organization and habitation structures of some Siberian indigenous peoples can help us to understand obtained archaeological records.

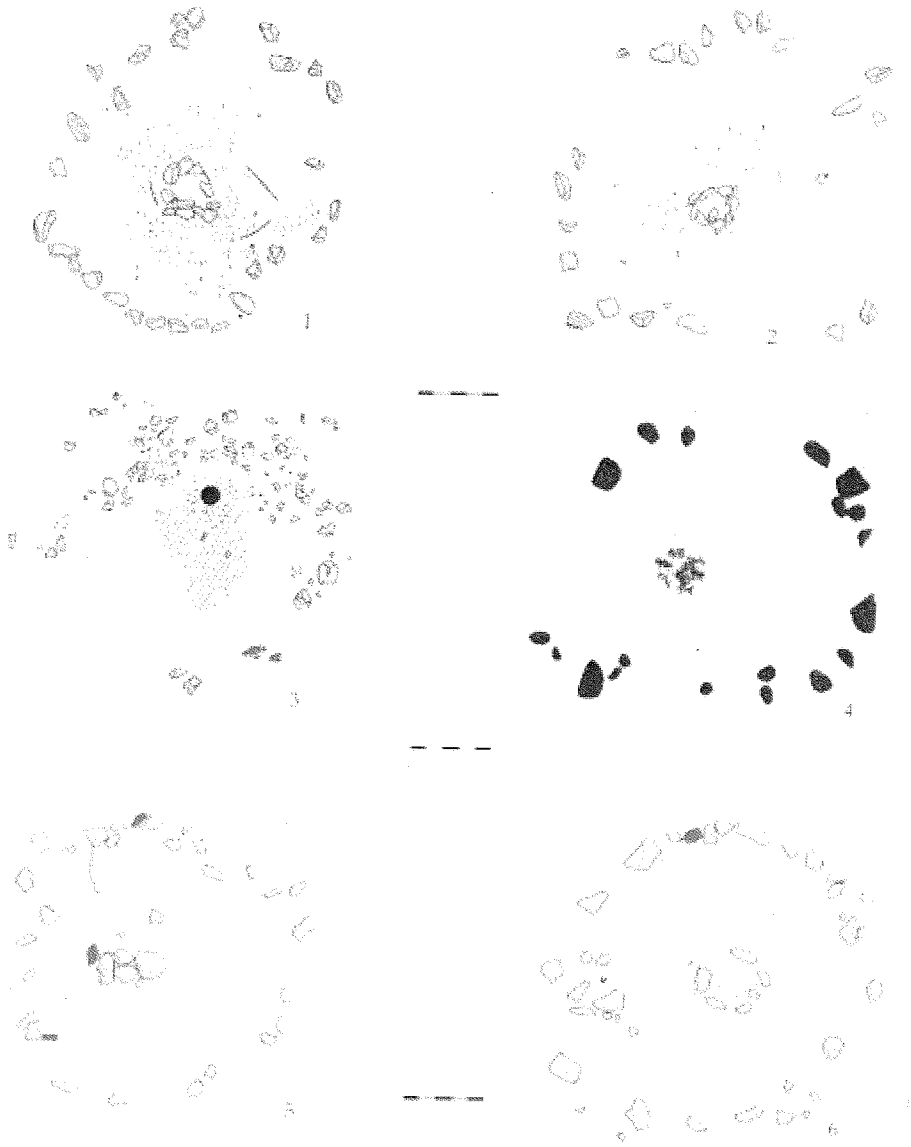
2. Ethnoarchaeology of Evenki habitation structures and settlements

In archaeological reasoning researchers often to resort to ethnographic information about subsistence strategy and settlement organization of Eskimo or Bushmen, who live in extreme natural environments, but we should be aware that for understanding of behavior of prehistoric hunter-gatherers of Siberian temperate forests it is important to study contemporary foragers living in the same type of environment and landscape. Before Russians came to Trans-Baikal in XVII Century Evenki reindeer hunters inhabited the region, but later under pressure of Mongolian nomads penetrated from Central Asia had to retreat to Northern part of the area where they live now. Some researchers based on archaeological data propose that Evenki culture developed from the Neolithic time in the Baikal area (Vasilevich & Smolyak, 1956). In spite of the fact that many literary sources give the impression that no Evenki follow a traditional way of life in Siberia any more, we found that some – still live as mobile hunters and preserved some of their old beliefs and behaviors. As a rule Evenki have chosen the places for their summer settlements at the surface of river terraces or at the lake shores in several meters to water line. In the autumn they moved to higher locations, and spent winter in windless hollows reach of firewood and close to mountains. In spring they start a new seasonal round and moving down to river valleys. The pattern of Evenki settlements organization includes as a central feature the conical tent dwelling 'dyukcha'. Traditionally framework of 'dyukcha' tent consisted of 3 poles tied together at the top, 21– 35 poles were added depending on the size of the tent. The tent cover consisted of birch bark in summer time or reindeer skin in winter. There was a hearth in the centre of the dwelling, sometimes surrounded by cobbles. Above it on a horizontal pole 'ikeptun' with one end attached to the back of the tent framework and the other to a vertical pole 'chimka' standing next to the hearth, were teakettles and pots suspended. Usually firewood lay between the hearth and the entrance in 'tjongay' area. Kitchen utensils, containers and food was stored along the wall and on both sides of the entrance in 'tjongay' area whereas male equipment such as hunting gear and weapons, male clothes was stored along the wall on the men's side. Opposite the entrance beyond the fire and the back side of the tent placed the most sacred part of the dwelling 'malu'

area (Shorikogoroff, 1929; Vasilevich & Smolyak, 1964). Usually the settlements of Evenki have been composed of 1 – 3 families living in 1 – 2 conical tents that were widely spaced about 3 – 6 m and even more. The rest of habitation structures such as cooking hearths, storage platforms, reindeer bones platforms etc. were allocated in relation to tent dwellings according to activity areas at settlement. In front of the tent on some distance (3 – 5 m) a hearth for cooking 'gyluvun' sometimes surrounded by cobbles was placed. Cooking at the hearth was facilitated with 'tagan' – two tripod structures connected by horizontal pole with hooks for hanging a pot or kettle. The low platform for personal belongings and reindeer saddles named 'umnevyn' made of several stakes situated on the right or to the left side of a tent. Elevated storage platforms 'dalken' and reindeer bones platform 'gulick' were placed at periphery area of the settlement. Evenki use large amounts of firewood. Apart from fuel for the kitchen hearths, in summer they keep a number of 'smudge fires' 'honan' burning constantly to create a smoky zone where their reindeer can stay protected from the clouds of blood-sucking insects. The duration of occupation at Evenki settlements normally was from 2 – 3 days to a couple of weeks.

3. Application of ethnoarchaeological data for archaeological explanation

Ethnoarchaeological approach provides us important information concerning the general concept of 'settlement'. As our field research show in the case of Evenki the settlement seems not to be a small restricted area but to be a large zone could cover a half of square kilometre that gradually merges into the surrounding landscape. The areas where the tents are put up are normally void of higher vegetation apart from some larger trees that have been left for protection of the reindeer and the dwellings against sun, rain and strong wind. Around the central zone of settlement marked with habitation structures a zone where the forest vegetation is clearly modified due to the cutting of firewood, collection of bark from the larch trees etc. is surrounded. The settlement may also contain the remains of 'tent-rings' dwellings left from earlier occupations. Some structures for instance storage platforms may be used through a long time from dwellings occupying varying parts of the settlement. Next observation is related with handling of 'waste' at the settlements. Our field research demonstrate that there were surprisingly few bones left on the surface of still inhabited settlements with numerous old 'tent rings' habitation structures. Most of hunted animal bones observed, for example, at the 'Nitchatka Lake' settlements were deposited in accordance with elaborate ritual on special platforms. The bones of wild reindeer should be deposited on special triangle shape platforms 'gulick' normally placed at the settlement periphery behind the tent dwellings and away from the water. The main idea is that the killed animals should be treated with respect so that its souls feels well and likes the area where its bones are deposited. The soul of hunted animals should then tend to choose to be reborn as a new young animal in the same area. The skulls of musk deer are put on young larches as a gift to local spirits 'berilakh'. The bones and the skinned body of sable had to put with respect into a hole in a tree in the forest or on a special small-size platform. The bear is buried on a platform with a log box. In contrast the bones, skin and antler of domesticated reindeer may be hung on trees, and we have observed a domesticated reindeer calf that died accidentally was wrapped in a canvas bag and hung from a 3 metres high tripod on the side of the river opposite the settlement. The results from analysis of Evenki settlements and habitation structures show that that repeated patterns in space organization can be distinguished and they are a result of a similar type of human behavior. Our studies also show that the settlements are organized in accordance with a set of spatial rules. These observations have some obvious



Picture 1. Comparison of 'tent-ring' habitation structures:

1 - 'Studenoye'-I settlement, Trans-Baikal, Siberia; 2 - 'Kosaya Shivera' settlement, Trans-Baikal, Siberia; 3 – 'Listvyanka' settlement, Enisey, Siberia (Vasil'ev, 1994); 4 -'Mirvaten'-I settlement, Norway (Bang-Andersen, 2003); 5-6 'Chineisky Ayan' Evenki settlement, Trans-Baikal, Siberia.

consequences. We have to take the possibility of evaluation of the archaeological material in accordance with behavioral and spiritually based rules and customs that are play very serious role in interpretation of prehistoric settlements. The different cultures use of strict spatial rules for their organization of the dwelling spaces seems from an archaeological point of view to be one of the most useful general features observed in archaeology and anthropology. Because it provides the relations between spiritual and material culture, we have a chance to get information on the social organization of prehistoric foragers if the cultural and natural conditions have preserved the traces.

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Резюме

Полнота археологических реконструкции, в т.ч. реконструкции адаптации в позднем палеолите зависит от объема и качества информации как извлекаемой из археологических памятников, так и привлекаемых этноархеологических данных. В позднем палеолите Забайкалья на поселениях Студеное-I, II; Усть-Менза-I, II, III; Косая Шивера-I, II выявлены структуры обитания, в т.ч. остатки наземных жилищ, имеющие аналогии в материалах ряда енисейских стоянок, т.к. Майнинская стоянка, Уй-I, II, Лиственка, а также норвежских памятников Myrvatn и Fløyrivaten. Наличие серии кратковременных охотничьих лагерей позволяет говорить о высокой мобильности групп охотников и собирателей Забайкалья и о вероятном использовании ими 'логистической стратегии' (Binford, 1983) Для анализа структур обитания и организации позднепалеолитических поселений в докладе используются данные этноархеологических исследований эвенкийских стоянок и связанных с ними структур обитания, расположенных на севере Забайкалья.