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Above-Ground Frame Buildings in Western Siberia: Archaeological and Ethnographic Parallels

This study examines above-ground frame buildings and their numerous parallels in various cultures. In Western Siberia, these structures occur throughout the area from the forest-steppe to the northern taiga and over a time span from the Chalcolithic to the Middle Ages. They were especially popular during the Bronze to Iron Age transition. In settlements, remains of these buildings usually look like oval or rounded areas raised above the ground and surrounded by shallow pits or ditches and sometimes by low earthen mounds. Recent ethnographic studies among the Selkups of the Upper Taz River, Krasnoselkupsky District, Yamal-Nenets Autonomous Okrug, demonstrate that the natives of the northern taiga have been using such constructions until the present time. These frame dwellings, shaped like truncated pyramids, had no foundation pits, and were covered with sand and turf. They were called poy-mat, which means "wooden house" in Selkup. Poy-mat was a seasonal dwelling that, in the 20th century, was used by hunters and poor reindeer herders in the winter. Our findings reveal parallels between Selkup and archaeological dwellings and allow us to reconstruct the appearance of ancient buildings, their construction, materials, and usage. This type of building had several adaptive advantages that contributed to its viability over the centuries.

Keywords: *Ethno-archaeology, Western Siberia, Selkups, above-ground buildings.*

Introduction

Buildings of the above-ground type are found in Western Siberia in the archaeological cultures of various periods: the Chalcolithic, the Late Bronze Age, the Early Iron Age, and the Middle Ages (Fig. 1). We use the term "above-ground buildings" to refer to post-frame structures without a foundation pit, built on the ancient daylight surface. Currently, the remains of these structures at settlements have the form of oval or rounded areas raised above the ground, surrounded by shallow pits or ditches and sometimes by low earthen mounds. These areas are barely visible in the terrain; their height is 0.15–0.30 m, sometimes reaching 0.5–0.7 m. The areas vary from small (3 × 4 to 7 × 7 m) to larger (7 × 14 to 12 × 15 m, etc.) in size. The remains of the structures provide very little evidence for reconstructing their above-ground part and interior space. The presence and location of beams and holes from the posts, as well as their mutual arrangement and some other features, often suggest a frame or post-frame structure in the shape of a pyramid / truncated pyramid. Sometimes these objects show a small quantity of finds in the cultural layer, which may suggest that some of the structures served as seasonal dwellings (Ocherki…, 1994: 284, 300, etc.; Chemyakin, Karacharov, 2002; Chemyakin, Zykov, 2004: 48–49, 53, etc.; Mikhalev, Korusenko, 2007; Zimina, Zakh, 2009; and others).

In most cases, the task of identifying the house-building traditions of ancient peoples leads us to search for parallels among ethnographic materials: the types of

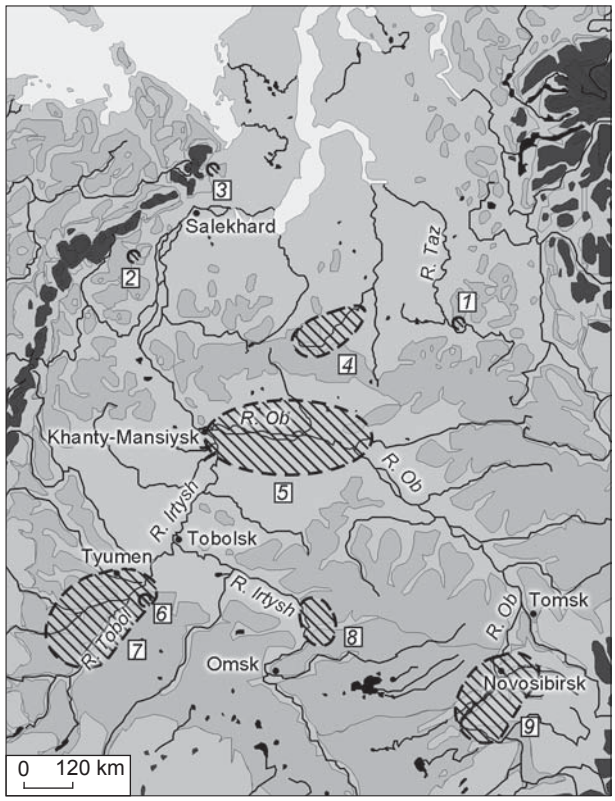


Fig. 1. Areas of Western Siberian cultures with known above-ground buildings, and the location of Selkup abandoned dwellings of the 20th century.
1 – present day; *2*, *8*, *9* – the Middle Ages; *3–5*, *7* – the Late Bronze–Early Iron Ages; *6* – the Chalcolithic.

buildings which existed among the indigenous peoples of Siberia. In the summer of 2013, two abandoned half-ruined Selkup dwellings of the post-frame structure, covered with sand and turf (Fig. 2) were found in the vicinity of the village of Kikki-Akki (the upper reaches of the Taz River) in Krasnoselkupsky District of the Yamal-Nenets Autonomous Okrug during the work of an archaeological and ethnographic expedition arranged by the Institute of Northern Development of SB RAS. The remains were similar to frame dwellings of the truncated pyramid type according to the typology of the ethnologist Z.P. Sokolova who specializes in Siberian cultures (1998: 137–138). The appearance of the discovered structures, their state in the process of "archaeologization", and the opportunity to speak with their owners suggested the idea for considering the above-ground buildings from a broader historical perspective. A.V. Kenig, who conducted his ethno-archaeological studies in the same Krasnoselkupsky District, emphasized that "studying the processes of archaeologization at functioning or recently abandoned settlements is an important source of information for creating archaeological reconstructions" (2001: 60).

Archaeological materials

Western Siberian buildings can be categorized in accordance with the depth of the foundation pit. There are some differences in classification of buildings from different periods. Thus, three building types have been identified for the Neolithic–Bronze Age: above-ground buildings (set into the ground less than 30 cm from the ancient daylight surface), half-dugout buildings (with a depth of 30–150 cm), and pit-houses (with a depth of over 150 cm) (Ocherki…, 1994: 245). The Early Iron Age structures include above-ground, semi-underground (with a depth of 20–150 cm), and underground buildings (with a depth of over 150 cm). In some cases, scholars note that "above-ground structures differ from the semi-underground structures by the lack of a foundation pit" (Ibid.: 299–300); in other instances, they describe buildings "with a foundation pit of slight depth (up to 25 cm)" (Ibid.: 366) as above-ground structures. In this study, we will only consider structures which are not set into the ground.

In our opinion, buildings of the above-ground type have as of yet remained understudied. The earliest of the excavated dwellings of this type were examined by V.A. Zakh at the settlement of Sredniy Baklan-1 in the subtaiga area of the Tobol region. The buildings belong to the Andreyevskoye culture and were dated to the Chalcolithic (Zakh, Fomina, 1999: 15). Such dwellings became widespread during the Bronze to Iron Age transition. The area of their distribution is the forest-steppe subzone of the northern taiga.

In the northern taiga, the structures of the above-ground type in most cases belong to the Early Iron Age (Sugmuten-Yagun VI, VII, IX, Ust-Kamchin-Yagun) or the Middle Ages (Pitlyar fortified settlement of the 6th–7th and 8th–9th centuries, Ust-Voykar settlement of the 14th century, etc.) (Kosinskaya, Fedorova, 1994: 58–59, 79–81; Istoriya…, 2010: 31, 77–78, 82–83). The settlements discovered at the Sugmuten-Yagun River (Pur River basin) and previously dated to the Early Iron Age, include from one to five dwellings ranging from 2.5 × 3.5 to 8.5 × 10.5 m in size, and surrounded by external pits around the perimeter (Kosinskaya, Fedorova, 1994: 80–81).

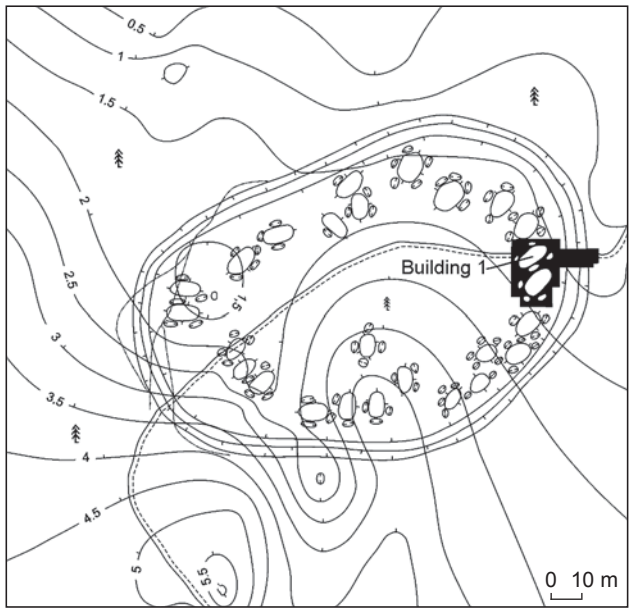
Above-ground buildings emerged in the middle taiga subzone of Western Siberia (the Surgut region of the Ob) in the Late Bronze Age (Barsov culture), and became more widespread in the Early Iron Age among the carriers of the Beloyarsky, Kalinkino, and Kulai (early phase) cultures. These dwellings constituted more extensive settlements, including fortified ones surrounded by a rampart and a ditch (Chemyakin, Zykov, 2004: 18, 25, 29, 33, 48–49).

Settlements with above-ground buildings re-emerged in the valley of the Tobol River, in the south of Western

Fig. 2. An abandoned Selkup dwelling in the upper reaches of the Taz River. Photograph by O.E. Poshekhonova, 2013.
1 – general view; *2* – fragments of the covering; *3* – interior space; *4* – joining of the structural elements.

Siberia, at the turn of the Bronze and Iron Ages. They mostly could be found in the subtaiga zone and in the coniferous forest of the forest-steppe region. In general, such structures were not typical of the house-building tradition of the Tobol region which was predominantly characterized by dwellings with foundation pits. In this area, above-ground buildings occurred in fortified settlements with circular layout belonging to the eastern version of the Itkul culture (Fig. 3; 4, *I*). These settlements comprised from 4 to 40 dwellings. Unfortified settlements comprised between 3 and 82 buildings (Zimin,

Fig. 3. Remains of the above-ground dwelling on the land. Fortified settlement of Mityushino-5 (Tyumensky District of the Tyumen Region).



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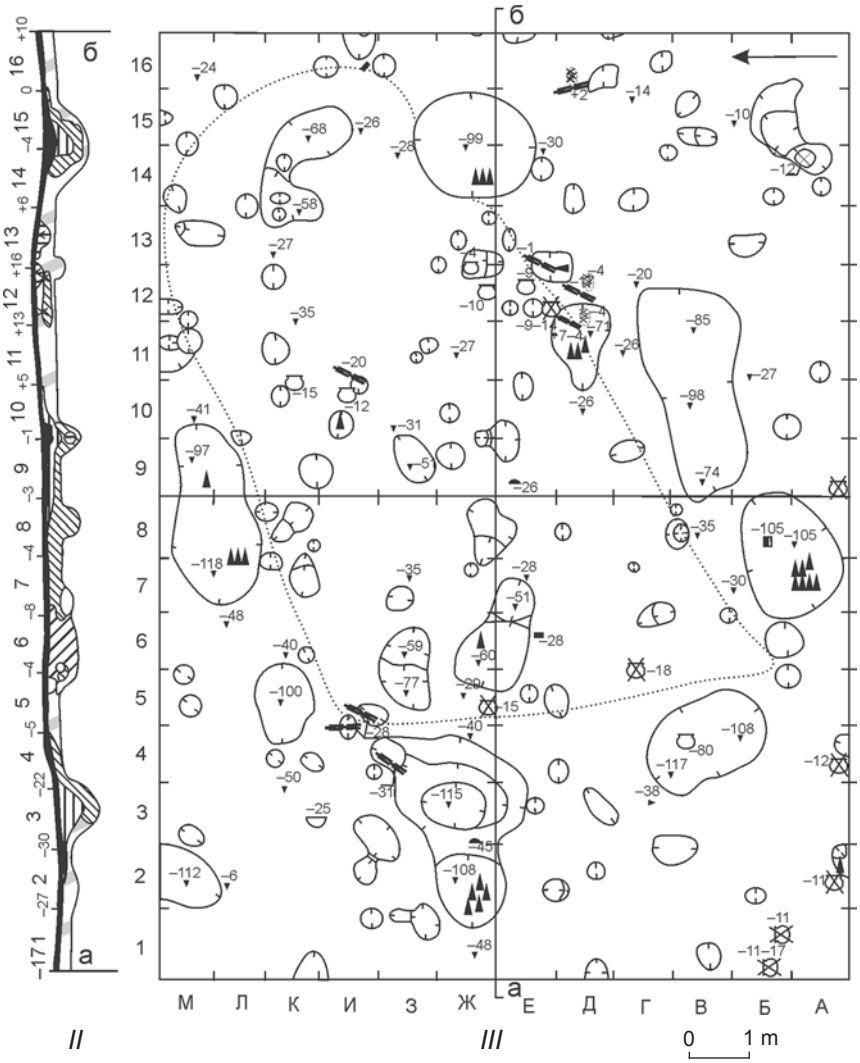

II *III*

Fig. 4. Layout plan of the fortified settlement of Karagai Aul-4 in Yarkovsky District of the Tyumen Region (*I*), stratigraphy (*II*), and the excavation plan of structure 1 of this site relative to the virgin soil (*III*).

1 – above-ground dwelling; *2* – ditch-mound; *3* – excavation; *4* – pine forest; *5* – earth road; *6* – fire trenches; *7* – turf; *8–12* – sandy loams: *8* – light brown, *9* – brown, *10* – dark brown, *11* – brown-gray, *12* – dark gray; *13* – calcination; *14* – border of the structure; *15* – bench marks; *16* – hole; *17* – coal accumulation; *18* – pieces of wood; *19* – fragments of a broken vessel; *20* – accumulation of ceramics; *21* – fragments of pottery; *22* – a stone with the traces of processing; *23* – individual fragments of ceramics; *24* – a ceramic end-scraper.

Zakh, 2009: 26–130). The remains of above-ground structures have been found much less frequently at the settlements of the Baitovskoye culture (Tsembalyuk et al., 2011).

In the Tobol region, above-ground buildings were examined at the settlements belonging to the eastern version of the Itkul culture (Karagai Aul-1, -4, Vak-Kur-2). On the land, the raised areas had the sizes from 8 × 8 to 9 × 14 m, and the height of 0.25–0.35 m. Excavations have shown that the floor of the structures was at the level of the ancient daylight surface. An amorphous pit was found near a wall in only one out of three examined buildings at the fortified settlement of Vak-Kur-2. The pit had the size of approximately 5.0 × 3.5 m, and a depth of 0.25–0.30 m. Traces of hearths in the form of spots of calcined sandy loam were located in the center of the dwelling (Karagai Aul-1) or were slightly shifted from the center (Vak-Kur-2, Karagai Aul-4); in some buildings, they were absent (Karagai Aul-1, -4). The remains of the post-frame structure could be seen on light-brown sandy loam in the form of spots of gray sandy loam, sometimes with charcoal inclusions (Fig. 5, *1*). In the virgin soil, they are manifested as holes with a diameter of 0.25–0.40 m. The boundaries of the structure are marked by the holes from the posts and large external pits around the perimeter (see Fig. 4, *II*, *III*; 5, *2*). The approximate dimensions of the structures ranged from 7.5 × 7.5 m to 8 × 11 m, occupying an area of 60–70 m^2. One building was of subtrapezoid shape in layout; its size was 5.5 × 6.0 × 6.5 × 3.0 m; the building occupied an area of about 30 m^2. The size of one structure at the settlement of Vak-Kur-2 was 12.0 × 8.5 to 10.0 m, but the location of holes from the posts suggests that the building consisted of two adjoining rooms 6 × 10 and 6 × 8 m. The external pits surrounding the structure might have had significant size (3.5 to 3.0 × 2.3 to 2.5 m) and depth (0.84–1.24 m). The soil from the pits might have been used for insulating the walls during the construction of the dwelling. Sometimes, the external pits around the buildings did not contain any finds (Karagai Aul-4, Karagai Aul-1, section A); in other cases (Vak-Kur-2, Karagai Aul-1, section B), they were filled with artifacts, mostly fragments of ceramic ware. In general, the saturation of the cultural layer at the archaeological sites of the eastern version of the Itkul culture in the early (Itkul) period was insignificant, and the layers of the later stage contained much richer finds, mostly including fragments of pottery, scrapers from the breakage of vessels, stone abraders, ceramic spindle whorls, sporadic objects of bronze-casting production (fragments of crucibles), and objects of bronze.

1

2

Fig. 5. Remains of an above-ground building in the cultural layer at a depth of 20 cm from the surface (*1*) and in the virgin soil (*2*). Structure 1 at the site of Karagai Aul-4 (Yarkovsky District of the Tyumen Region).

In the Irtysh basin and Baraba, above-ground buildings are associated with the cultures of the Middle Ages. The remains of such structures in the form of raised areas surrounded by pits have been found in some Potchevash (Cheplyarovo-26, -28, Murlinka-2, Lozhka-4) and Ust-Ishim (Alekseyevka XIII, XXVI) settlements on the lower reaches of the Tara River. The Potchevash settlements date back to the 6th–8th centuries; the Ust-Ishim settlements to the 10th–11th (13th) centuries (Baraba…, 1988: 124–129; Mikhalev, Korusenko, 2007; Mikhalev, 2008). Judging by the small size of the hearths and low embankments remaining from the mound at the bottom of the walls, scholars concluded that these dwellings were used by the medieval population of the Irtysh basin in a relatively warm season (fall?) (Mikhalev, Korusenko, 2007: 312).

In the Novosibirsk region of the Ob, above-ground frame structures (currently in the form of rectangular mounds with sides mostly measuring 6–7 m, 0.4–0.5 m

high, and pits along the edges) have been studied at the settlements of the 10th–14th centuries. These settlements are located within river terraces, and are composed of remains of a small number of structures; the cultural layer is practically absent; the finds are concentrated in the dwellings or in the pits next to them. It is believed that these settlements could have served as seasonal winter shelters (Adamov, 2000: 14–15).

Ethnographic data

Now we should turn to more detailed information from the supposed ethnographic parallels to the ancient buildings. It should be noted that the abandoned Selkup dwellings, discovered in the upper reaches of the Taz River, are quite specific because they are of the above-ground type. They are clearly distinguished from half-dugouts of similar design common among the neighboring groups of the Selkups, the Kets, and the Eastern Khanty by the lack of any significant deepening into the soil. In the Selkup language, such a structure has the name of *poy-mat*, which means "wooden house". In Russian, the Upper Taz Selkups often call it "zemlyanka" or "zasypukha"; and they consider the latter name to be more accurate, because the building is not deepened into the soil. This type of dwelling was seasonal; it was widely used in the 20th century by the owners of small deer herds and hunters without deer as winter shelters, "*Those who stay in one place—have zemlyankas. They live there near the river in the summer and in zemlyankas in the winter*" (field materials by V.N. Adayev, 2013).

Some publications contain the descriptions of *poy-mats* which were somewhat deepened into the soil (Kenig, 2010: 59–61; Irikov, 2002: 73–74). Probably, such structures without foundation pits had only local use among the Upper Taz Selkups. The conclusion of S.V. Lezova that the structure of this type of dwelling was brought to the upper reaches of the Taz River from the south (the rivers of Narym and Vakh) during the Selkup migration to the northern taiga areas in the 17th–18th centuries, seems to be entirely plausible. Simplification of the dwelling structure occurred with the transition of the Selkup population from sedentary fishery to a semi-nomadic hunting economy, namely, the dwelling pit became significantly reduced (and in some areas almost disappeared) (Lezova, 1991: 104–107). It is interesting that modern residents of the village of Kikki-Akki consider the real dugouts, or more precisely half-dugouts (*chul-mat*), well known in other areas where the Northern Selkups live, to be of non-Selkup origin and even tend to doubt the practical usefulness of such dwellings, "*The Selkups never dug zemlyankas into the ground. If you dig, there will be dampness, and you can get sick*" (field materials by V.N. Adayev, 2013). For this reason, the Selkups always interpret depressions which remained from ancient buildings and and are found near their villages as the remains of dwellings belonging to the Nenets, the people who had lived in the same area before the arrival of the Selkups.

Further information about the dwellings is based on field ethnographic materials collected during the expedition of 2013 by V.N. Adayev and O.E. Poshekhonova. The last instances of living in a *poy-mat* in the vicinity of the village of Kikki-Akki occurred in the early 2000s. One dwelling located 2 km west of the village, on a promontory of the right terrace of the river Taz, was built in 1996–1997 and was abandoned in 2001; three persons lived there (an owner and his guests practicing seasonal hunting). The second *poy-mat* which fell out of use around 1996 (the date of its building could not be established), is located 2 km north-east of Kikki-Akki, on a promontary, 50 meters from the edge of the right terrace of the Kikkeokke stream; about five people lived in the dwelling (a woman of middle age and her adult and adolescent children). The dwellings were abandoned because their owners ceased to practice seasonal hunting (in the former case) or reindeer breeding (in the latter case). In spite of significant shedding of the earth covering of the buildings and partial collapse of the structure, the elements of the wooden frame have remained firm for a long time, and according to the local residents, after repair, both dwellings may again become fully operational.

For the construction of *poy-mat*, a ground area measuring 4 × 3 m (or of proportionally larger size) was cleared of turf; four supporting posts 2.5–3.0 m high and 20–30 cm in diameter were dug into the ground at the corners of the area, slanting inwardly at an angle of about 70 degrees. Four horizontal beams were set into grooves in the upper ends of the posts (see Fig. 2, *3*, *4*), thus creating a stable frame for the dwelling in the shape of a truncated pyramid. In larger buildings, two additional posts standing straight were sometimes added for supporting the longitudinal beams in their central parts. A log (sometimes two parallel logs at a distance of about 0.5 m from each other) was laid on top of the structure in a direction from the back wall towards the door, and served as roof beams for creating the required slope of gabled roof. The resulting frame was tightly covered by split logs 20–30 cm wide (pine, Siberian cedar, birch, or larch* could have been used) around the perimeter with their split surface inside. They were set on the ground with an angle toward the dwelling, leaving an opening at the entrance. The gaps between the wood-slabs were insulated with moss; the structure was further covered with layers of birch bark or turf, "*On top, people would first cover*

*Spruce was considered an unsuitable timber species due to its insufficient hardness.

*it with turf from the "black forest"**, *the turf is thick there… If they did not have birch bark, they would cover* [the dwelling] *with turf*". Turf and moss were dug up in the immediate vicinity of the future dwelling. Small logs with three branches were placed on top of the resulting layer in such a way that three levels of parallel steps would be formed around the perimeter of the entire dwelling, upon which poles about 15 cm in diameter were laid. The posts were intended to support a small mound of sand 15–20 cm thick, which completed the covering of the dwelling. Sand for the mound was also obtained from the immediate vicinity of the building, thus leading to the emergence of a chain of small depressions (holes and ditches) around the perimeter of the dwelling. The roof was covered with the same materials and in the same sequence; a square hole (approximately 0.5 × 0.5 m) for the chimney was left in the center of the roof. The height of the dwelling from the floor to the ceiling in the central part reached about 1.8–1.9 m.

A small adobe open fire stove (widely known in Western Siberia as a *chuval*) was made in the center for heating the dwelling. The base for the stove was often an old dugout boat of cedar pine or aspen, which was sawn crosswise, and the halves were placed together to form a cavity inside. The method of making such a type of stove is described by a local resident as follows, "*People would fold the boat, saw off the bow, then the whole thing would be daubed with clay. They would place it in the center under the hole in the roof, and made a fire inside. Gradually, the boat would burn out, and the clay would become baked. Firewood would be put into the stove from the roof*". An anteroom was sometimes added to the entrance of the dwelling. For this purpose, two more forked supporting posts would be dug into the ground at a distance of about 2 m from the smaller side of the structure. Beams would be placed into the forks; their other ends would rest on the roof of the dwelling. The resulting frame was covered with split logs, turf, and sand in the same way as the rest of the building. The entrance opening would be closed with deer skin or elk skin.

The floor of the dwelling was covered with a layer of coniferous tree branches, and split pine or cedar pine boards about 30 cm wide were placed on top of this layer. In order to extend their service life, the boards would be turned over approximately every two weeks. *Poy-mats* were usually made from three to seven days; all family members who were able to work participated in the construction. The most difficult work with wood was made by men. The total number of builders was usually two to five persons (one to three of whom could carry out hard physical work). The main construction tools which were used included axes, saws, and shovels. Every autumn the dwelling was repaired. People would put moss into emerging gaps and add sand which had slid down. Eventually, this earthen cover would become more and more stable. Such a building could serve for 20 years or more with small annual repairs.

Concluding our ethnographic description, we should provide some data on the functioning of *poy-mats*. One–two families, from 1 to 10 persons including children, could live in a dwelling 4 × 3 m. According to the recollections, in the past, such buildings could have been arranged in small groups; the distance between the houses was not less than 20–30 m. The interior space was divided in the following way: the women's half was located at the entrance in front of the posts, while the further part of the house belonged to the men (and was also used for receiving guests). The sleeping space was at the sides. There were usually few things in the dwelling (only those needed for daily use); the main bulk of the things were kept outside under a shelter, in a storage shed, or on reindeer sledges. Inside the dwelling, things were mostly kept near the posts or were hung on the posts on hooks. For example, cauldrons and other kitchen things were usually hung on the two posts at the entrance. Wood for the stove was kept in the corners on both sides of the entrance. The men's things and tools were kept at the two distant posts. Given the small space of the dwelling, its inhabitants would spend a significant part of time outside. This was particularly relevant for the men who actually used *poy-mats* only for sleeping, resting, and eating. Notably, the pits remaining from extraction of sand on the perimeter of the dwelling were used for disposing household garbage.

Currently, *poy-mats* have already fallen out of use among the Upper Taz Selkups, primarily owing to the widespread use of small seasonal cribwork cabins. Nevertheless, the tradition of building *poy-mats* has not completely died out, since teenagers and children construct small replicas of them. In 2013, two such toy houses were seen on the outskirts of the village of Kikki-Akki: one was being built, and another was constructed about 3–4 years ago by teenagers who "*already went to serve in the army*". Children's buildings quite faithfully reproduce the structure of the prototype, and even include the installation of a small metal stove inside. In addition to the reduced size, their essential difference is a simplified fastening system of construction elements: most of the parts are held together by nails.

Conclusions

Thus, ancient above-ground buildings are known everywhere in the forest zone of Western Siberia.

*The Selkups use the term "black forest" for referring to a special type of terrain—mixed forest in the lowlands or flood plains, different from dry pine forest areas.

The above examples demonstrate the absence of any association between them, and suggest the convergent emergence of similar types of buildings in various groups of population at various times. However, a large number of the known settlements with the remains of above-ground dwellings are yet undated. Without additional research it is difficult to say when exactly the above-ground buildings, the remains of which are found in large numbers in the vicinity of Tyumen at the confluence of the Tura and Pyshma rivers, in the Surgut region of the Ob, or in other places (Zakh et al., 2014: 73, 111, 112–114, 154–155; Chemyakin, Zykov, 2004: 112–115, 117–120), used to function.

The preservation of certain types of structures for a long period of time testifies to their universality. The type of buildings analyzed in this study has survived until our days and had a number of features which fully satisfied the adaptive advantages of the population over several epochs. These features included simplicity and speed of construction, easily available materials and technologies, as well as low labor costs. The discovered modern half-ruined dwellings make it possible to draw some parallels with similar buildings of the ancient period, to refine our ideas concerning the form of the building, its materials, and structural details. This is especially important for those elements which have not survived with time and can be reconstructed for the most part only hypothetically (the roof, its shape and covering, methods of joining the structural details, etc.). The data provided by the population, which has until recently used above-ground frame buildings, allow us to clarify information concerning the number of people living in such a dwelling, their way of life, the purpose of this kind of structures, their interior space, and constituent parts.

The comparison of information on the remains of the excavated ancient structures and the abandoned Selkup buildings testify to their probably being of similar design. Interestingly, these "light" structures were used by the inhabitants of the North in winter conditions. The continuation of this topic is also the distance at which the *poy-mats* of the Upper Taz Selkups were located from large rivers (from several dozen to several hundred meters). This is understandable, since the residents of winter settlements were to a lesser degree dependent on water bodies: they could easily get water from snow, and in addition to fishing, other activities such as hunting, or grazing sled reindeer became relevant for them in the winter. It is remarkable that such a significant distance from dwellings to the water bodies can also be observed in ancient times. Thus, the Itkul settlements of the Tobol region are mostly located in the depth of river terraces. The Beloyarsky settlements include both forest (located deep in the forest) and riverside settlements (Chemyakin, Karacharov, 2002: 35). In the Novosibirsk region of the Ob, in the 10th–14th centuries, seasonal settlements with above-ground buildings were also located in the depth of river terraces (Adamov, 2000: 11).

The history of the gradual change of house-building traditions in the Upper Taz region and the expressed local nature of the process are noteworthy in the ethnographic description which we have presented: the population building above-ground dwellings was surrounded by neighbors close to it in cultural terms, which built the same structures but set them into the soil. Ethnographic data make it possible to see the likely reasons behind the changes: resettlement into new territories with the subsequent restructuring of the economic complex. This example of localization of the house-building tradition easily finds its parallels in archaeological materials. For example, in the Tobol region, during the Bronze to Iron Age transition, the Itkul groups of population which settled in the Tobol River valley constructed only above-ground houses, while the groups which lived in the mountain-forest zone of the Trans-Urals (the main area of the Itkul culture) built structures of three types: above-ground (surface) buildings, semi-dugouts, and houses with foundation pits of slight depth in the center (Ocherki…, 1994: 256).

Certainly, we cannot directly extrapolate ethnographic data to archaeological materials. However, the ethnographic findings which we obtained make it possible to take a fresh look at some familiar archaeological interpretations regarding above-ground frame buildings, and to make some suggestions and identify promising parallels for further research.

References

Adamov A.A. 2000
Novosibirskoye Priobye v X–XIV vv. Tobolsk, Omsk: Izd. Omsk. Gos. Ped. Univ.

Baraba v tyurkskoye vremya. 1988
V.I. Molodin, D.G. Savinov, V.S. Elagin, V.I. Sobolev, N.V. Polosmak, E.A. Sidorov, V.A. Soloviev, A.P. Borodovsky, A.V. Novikov, A.R. Kim, T.A. Chikisheva, P.I. Belanov. Novosibirsk: Nauka.

Chemyakin Y.P., Karacharov K.G. 2002
Drevnyaya istoriya Surgutskogo Priobya. In *Ocherki istorii traditsionnogo zemlepolzovaniya khantov (materialy k atlasu)*. Yekaterinburg: Tezis, pp. 7–74.

Chemyakin Y.P., Zykov A.P. 2004
Barsova gora: Arkheologicheskaya karta. Surgut, Omsk: Izd. Omsk. Gos. Ped. Univ.

Irikov S.I. 2002
Zhilishche. In *Khomich L.V., Irikov S.I., Ayupova G.E. Tazovskiye selkupy: Ocherki traditsionnoi kultury*. St. Petersburg: Prosveshcheniye, pp. 72–80.

Istoriya Yamala. 2010
In 2 vols. Vol. 1: Yamal traditsionnyi. Bk. 1: Drevniye kultury i korennye narody. Yekaterinburg: Basko.

Kenig A.V. 2001
Etnoarkheologicheskaya model sezonnosti selkupskikh stoibishch (nakopleniye i obrazovaniye kulturnogo sloya). In *Integratsiya arkheologicheskikh i etnograficheskikh issledovaniy*. Nalchik, Omsk: Izd. Omsk. Gos. Ped. Univ., pp. 60–62.

Kenig A.V. 2010
Etnoarkheologiya kak metod arkheologicheskikh rekonstruktsiy (na primere tazovskikh selkupov). Yekaterinburg, Khanty-Mansiysk: Izd. AMB.

Kosinskaya L.L., Fedorova N.V. 1994
Arkheologicheskaya karta Yamalo-Nenetskogo avtonomnogo okruga. Preprint. Yekaterinburg: UrO RAN.

Lezova S.V. 1991
Zhilishche severnykh selkupov. In *Eksperimentalnaya arkheologiya*, iss. 1. Tobolsk: Tobolsk. Gos. Ped. Inst., pp. 101–107.

Mikhalev V.V. 2008
Gorodishcha s koltsevoi sistemoi oborony v Srednem Priirtyshye (predvaritelnoye soobshcheniye). In *VII istoricheskiye chteniya pamyati M.P. Gryaznova*. Omsk: Izd. Omsk. Gos. Ped. Univ., pp. 223–224.

Mikhalev V.V., Korusenko M.A. 2007
Domostroitelnye traditsii naseleniya Nizhnego Pritarya v epokhu srednevekovya (k voprosu o sezonnykh poseleniyakh). In *Integratsiya arkheologicheskikh i etnograficheskikh issledovaniy*. Odessa, Omsk: Izd. Omsk. Gos. Ped. Univ., pp. 310–313.

Ocherki kulturogeneza narodov Zapadnoi Sibiri. 1994
Vol. 1: Poseleniya i zhilishcha. Bk. 1. Tomsk: Izd. Tomsk. Gos. Univ.

Sokolova Z.P. 1998
Zhilishche narodov Sibiri (opyt tipologii). Moscow: TriL.

Tsembalyuk S.I., Ilyushina V.V., Ryabogina N.E., Ivanov S.N. 2011
Kompleksnoye issledovaniye baitovskogo gorodishcha Borovushka 2 (lesostepnoye Pritobolye). *Vestnik arkheologii, antropologii i etnografii*, No. 2: 98−107.

Zakh V.A., Fomina E.A. 1999
K voprosu o proiskhozhdenii andreyevskoi kultury. *Vestnik arkheologii, antropologii i etnografii*, No. 2: 14–21.

Zakh V.A., Usacheva I.V., Zimina O.Y., Skochina S.N., Chikunova I.Y. 2014
Drevnosti Andreyevskoi ozernoi sistemy. Vol. 1: Arkheologicheskiye pamyatniki. Novosibirsk: Nauka.

Zimina O.Y., Zakh V.A. 2009
Nizhneye Pritobolye na rubezhe bronzovogo i zheleznogo vekov. Novosibirsk: Nauka.

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