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RUSSIAN HUNTERS IN EASTERN SIBERIA IN THE SEVENTEENTH
CENTURY:

LIFESTYLE AND ECONOMY

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Translated by Mina A. Jacobs

Abstract. Many sources indicate that Russian promyshlenniki [fur hunters, trappers and traders] were operating as professionals in the east Siberian taiga when a permanent Russian population had only begun to establish itself there. These hunters organized themselves into "arteli" (cooperatives) and freely used the taiga of the indigenous people; hunting, trapping and paying tribute to a watchful government which depended on their contribution to the State coffers. Their equipment, transportation and trapping methods were so effective that by the late 1600s the sable population was nearly exhausted. These hardy individuals adapted by hunting less valuable furs, introducing agriculture into the mountain-taiga zone, and developing models for a complete and productive economy.

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"All of Siberia, both in its southern as well as its northern parts appears to be one of the healthiest corners in the whole world. There have been examples of locals being resettled in Russia who soon died;...but the Siberian air or lifestyle has never been known to harm a Russian person".

--G.F. Müller, History of Siberia. Vol. 2, Chapt. 7, No.85.

EASTWARD EXPANSION

The commercial penetration of the Eurasian boreal zone by Russian promyshlenniki culminated in the 1630s with the annexation of eastern Siberia by the Moscovite State. The southern taiga border near the Minusinsk steppe was secured in 1628 by the construction of the Krasnoiarsk ostrog on the Enisei River. The northern border of this vast country was safeguarded by arctic ice. In the east, Ivan Moskvitin's men, cossacks and promyshlenniki, pushed forward in 1639 only to encounter the natural barrier of the Pacific Ocean in the east. After the construction of the Okhotsk outpost and Semen Dezhnev's voyage around the Chukotka Peninsula in 1648, the Russians had finally secured their position in the Far East. The lengthy process of the Slavic people's eastward expansion, which had started in the 12th-13th centuries with the Novgorodian feudal

republic, was finally completed. In the 14th and 15th centuries this process was retarded by major agricultural and demographic crises caused by the Mongol invasion of Russian principalities, the military rivalry between Novgorod and Sweden and competition with Crusader Orders for influence in northeastern Europe.

The growth of the Moscow Principality and its annexation of Novgorod in 1471, and the Permian lands in 1472, opened a new stage in Russian movement beyond the Urals. As a result, Grand Prince Ivan III's detachments accomplished a series of successful campaigns into northwestern Siberia as early as 1499-1502 (Lantzeff and Pierce 1973: 31-50).

Russian economic penetration of Siberia was active long before the official conquest of the Tartar khanate of Sibir by the cossack commander Ermak Timofeevich in 1582. During the first half of the sixteenth century, Russian colonists from the northern Dvina basin, motivated by fur gathering, trading and commercial interests had mastered the northern sea route along the coast of the Arctic Ocean all the way to the Ob' River estuary (Belov 1951; Skalon 1951). Archaeological excavations at Mangazeia indicate that there was an eastern-most factory town of Pomor'ie¹ settlers located in the Ob-Enisei region on the River Taz as early as 1572 (Belov et al. 1981). According to Belov, such early Russian trade settlements were established before Ermak's campaign and probably included the Obdorskii township at the mouth of the Ob' River and the Pantuev township at the mouth of the Pur (Belov et al. 1981: 33). Here, it is worth mentioning Grand Prince Ivan III's inclusion of the "Obdorskaia and Kondinskaia Lands" among his titles for the first time in 1514. These lands lay on the lower course of the Ob' and along the Konda River which flows into the Irtysh (Andrievich 1889: 2; Müller

1937: 206). The successes of the Pomor'ie settlers in mastering the northern coasts of western Siberia enabled Ivan IV, the Terrible, to append to his list of titles in 1554-1556, the following lands: "the Obdorskii, the Kondinskii and many other lands, Lord of all shores" while in a 1563 missive to the Polish King, Sigismund-August, one encounters the addition of "[Lord]...of all Siberia". The latter was probably associated with the beginning of tribute payments by the Siberian khanate and Khan Ediger's dispatch of a charter in 1557, wherein he swore an oath of allegiance to the Tsar as his vassal, the shertnaia prisiazhnaia gramota (Müller 1937; 207-208).

However, the difficulties caused by the Livonian War (1558-82), the constant threat from the south by the Crimean Tartars and a policy of unrestrained internal terror, diverted Moscow's attention and prevented her from exercising any direct intervention in Siberian affairs for a very long time. The drive to penetrate these "new lands" was left to the great private commercial and industrial house of the Stroganovs, to companies and cooperative bands [vatagi and arteli] of the Pomor'ie, and to entrepreneurs of the northern Dvina basin, all free peasants and town settlers.

The emerging relationship between goods and money, the expense of an active foreign policy, and the sharp change in world market conditions associated with the "price revolution" which took place in western Europe during the mid-16th century, all required significant capital to keep the Tsar's Court functioning. Russia lacked its own source of precious metals--gold and silver in the 16th and 17th centuries. It was the Siberian furs that provided the basis for hard currency. These yielded tremendous profits and motivated the merchants and promyshlenniki to move on, farther east. By

the middle of the 16th century the Russian state had monopolized the fur trade and had impeded, in every way possible, the attempts by English and Dutch sea borne expeditions to penetrate the north of Siberia (Platonov 1922: 7-17).

Aggressive fur gathering by the Russians led to the depletion of western Siberia's fur riches by the end of the 16th century. Ermak's blow against the Siberian khanate introduced the next stage in the history of Russia's penetration and annexation of Siberia.

FUR TRAPPING: GOVERNMENTAL ADMINISTRATION AND ASSESSMENT

As the taigal areas in eastern Siberia were settled during the first half of the 17th century, fur gathering activity burgeoned. During the 1640s and the 1650s, a "tsar's treasury" in sable, beaver, reddish-brown fox [cherno-buraia lisa],² and ermine valued at over 600,000 rubles, was dispatched from there annually. This constituted approximately 33% of all the total state income (Kotoshikhin 1884; 104). Thus, the Foreign office requirements in providing for their ambassadorial missions were paid for in sable, the value of which was translated into monetary figures. The nature of these ambassadorial missions was commercial/exchange. The main costs of the Tsar's gifts to foreign courts and the maintenance of foreign embassies in Moscow were covered by the "soft gold" account, with sable being the preferred choice (Kotoshikhin 1884: 52, 61-62, 74). The profits made from the sale or exchange of Siberian furs, specifically, permitted Russia to emerge from the severe nation-wide economic crisis of the early 17th century, to restore her own statehood, and to establish the new

dynasty of Romanovs. The Russian state, interested in developing the fur industry in the newly discovered lands east of the Asian continent, did not extend estate land tenure to the peasants of the Russian North.

The main source of fur income for the Treasury was the so-called "Sovereign Tithing Tax". This tax of 10% was composed of a duty levelled on the fur catch declared by the trappers and once again at the time of their sale. Thus, the fur catch was taxed twice. In Siberia, when the traders and trappers returned from the hunt they presented their entire catch at specially established permanent custom collection points where the government agents registered the furs. The trappers were given a receipt with an official seal certifying that the tax, in skins, had been paid. Then, the furs that remained with the trappers were stamped. At market, when the furs were sold, the sales tax was collected and the furs were stamped again (DAI, v. 3, doc. # 7, 18, 19).

Pavlov researched the dynamics of the incoming iasak³ and of the fur gathering tax taken in Siberia during a 70 year period, from 1620 to 1690. He concluded that 3/4 of the sable received by the Treasury was derived from iasak and 1/4 from the tenth portion tax levelled on the private fur catches and trade. However, in eastern Siberia the relative proportion of the tenth portion tax was greater than that for Siberia in general. At the height of sable harvesting, in the middle of the 17th century, the state received 50%-60% of its entire sable tax from Russian trappers in eastern Siberia (Pavlov 1974; 22-23). The collection of iasak furs cost the state more than the collection of the tenth portion tax. The latter demanded practically no financial outlay from the state. In contrast, to obtain iasak, it was necessary to organize special expeditions, to offer gifts to the iasak paying people and to maintain the numerous hostages at various outposts.

This entire system was effected by servicemen, military personnel, soldiers or cossacks, who were maintained by the state (Pavlov 1974; 21).

Nevertheless, a significant part of the furs remained in the possession of the fur traders and trappers. Through the agents of the large Russian commercial merchant houses, the furs made their way to the markets of Ustiug Velikii, Iaroslavl', Arkhangel'sk and Moscow. Between 1650-1652, about 79,000 sables were harvested in eastern Siberia even though a significant permanent Russian population was still not resident in this area at that time (Monakhov 1965; 57). It has been established on the basis of registers in customs books that among the 15,983 trappers active from 1620 to 1680 in the Mangazeia, Eniseisk, and Ilimsk administrative districts and in Yakutia, there were only 28 Siberian peasants. This is only 0.175% of the total number of trappers. (Vilkov 1982; 69). As numerous archival documents attest, when the Russian population was initially settling in the taiga zones of eastern Siberia, fur trapping was conducted by professionals who came from the North of European Russia. There were 526 hunters trapping in the Eneseisk district in 1630-1631. Of this total, 429 were from the Pomor'ie (Aleksandrov 1964; 144). According to data in a 1658 customs book for the Ilimsk ostrog, of the 585 trappers entering the Baikal taiga region [Pribaikal'ie], not a single man came from an area further south than Kargopol', Vologda or Galich. Men from the five north Russian cities of Ustiug Velikii, Vaga, Vychehda, Sol' Vychehodsk and Usol'ie numbered 372 and comprised 64% of all the hunters who entered the Baikal region that year (Sherstoboev 1949: 101-102).

THE DYNAMICS OF THE PROMYSHLENNIKI 'ARTEL'

The difficulty of the travel routes combined with the long duration of the hunt in distant and not always peaceful lands required considerable means to organize, prepare and conduct the fur harvest. Going it alone, in the Siberian taiga, was not an option. The trappers banded together in vatagi [arteli/cooperative labor crews]. It is possible to distinguish between two types of these cooperative units. First of all, there were the vatagi of the independent fur gatherer/trappers who provided equally toward the enterprise organization. Secondly, there were the crews of the hired trappers. The crews of independent hunters were formed by peasants or township residents who contributed a specified "share" to complete the supply requirements of the expedition: necessary equipment, provisions, and clothing. The independent fur gatherers were jointly responsible for obtaining transportation and sustaining travel expenses. They collaborated on all the work associated with fur trapping which included the construction of winter camps, manufacturing traps, stockpiling firewood and fishing. The entire fur catch went into a common pot which, after they left the taiga and paid the tithing duty, was then divided into equal "shares". Usually, the crews of independent fur gatherers were composed of men linked by ties of consanguineous kinship: fathers and sons, brothers, uncles and nephews. Outsiders could also join and contribute equipment, provisions, and money, their "share". In such a vataga, the eldest member of the family automatically became the foreman. If the independent hunters were not related by blood, then a foreman was elected and the amount of compensation was stipulated in advance, generally amounting to two shares

of the catch. Less frequently, the foreman received one share, like everyone else, and was additionally compensated in money.

The institution of "pooling resources" probably contributed to the formation of Russian settlements in eastern Siberia. Hunters who were in the area at the time had to make the switch from harvesting the profitable sable to certain other forms of husbandry. They combined hunting less valuable fur bearers, primarily squirrels, with fishing and cargo hauling both on land and water. Sherstoboev noted that "pooling resources" was widely practiced among the peasant populations in the Baikal region and on the Upper Lena until the introduction of the poll tax at the beginning of the 1720s (Sherstoboev 1949; 269-274). From the 16th to the first half of the 18th century, a similar situation existed in the Russian north, where "pooling resources" also played a significant role in the formation of Pomor'ie settlements (Bernshtam 1983; 23).

In eastern Siberia, the hiring of poor peasants and township folk was a common practice in the fur gathering business. As early as the 14th and 15th centuries, this hiring was a characteristic feature of the fur trade in the Pomor'ie. At that time, the Novgorodian fur companies acted as employers of these "willing" hunters in harvesting walrus and seal. (Efimenko 1873: 24). In the 17th and beginning of the 18th centuries, the large mercantile and industrial houses of the Russian north, Iaroslavl' and Moscow, made significant contributions, both financially and materially, to organizing the fur gathering crews which were departing to Siberia in search of furs (Bakhrushin 1940: 98-128, 1955: 226-252; Aleksandrov 1961, 1962). The hired laborers received an "employer's share", meaning all the necessary equipment, clothing, provisions and money to pay for transportation. In this type of vataga, the catch was also put into the

common pot. But after completing the harvest and the paying the tithing duties, the employer received two thirds of the furs. The hired trappers sold the remaining third and divided the proceeds between them. The foreman was paid a full share without deducting the employer's portion. The hire was fixed according to a so-called "written record", or contract (Bakhrushin 1955:201). The activities of the hired trappers were supervised on behalf of the wholesale merchants of Ustiug, Sol' Vychegodsk, Solikamsk, Iaroslavl' and Moscow through agents residing in the Siberian towns and ostrogi. Frequently, a government agent [prikazchik] went out on the hunt with the hired laborers. There is a lively account of this in Semeon Dezhnev's famous "Report" of the sea expedition to the Anadyr' River. Along with the servicemen in his detachment, Dezhnev had fur harvesters led by their agents, Bezson Ostaf'iev and Ofonasii Ondreev. At one stage of their journey, they left behind "...their hired man, Elfimko Merkur'iev", to guard their belongings. (DAI, v.4, doc. #7). This type of hire was characteristic of all Pomor'ie and Siberian fur gathering enterprises in the 17th century.

It was subsequently widespread in the north Pacific during the 18th century and through the first quarter of the 19th. This was also true in eastern Siberia right up to the end of the 1920's.

In Irkutsk, the same method of hiring Siberian hunters for fur gathering was commonly practiced by the agents of the Russian American Company until the 1820s. For purposes of illustration one can turn to a passage from *An Historical Calendar of the Russian-American Company (1817)*.

There are up to 500 Russian promyshlenniks [sic] throughout the islands. Instead of salaries they usually arrange that they

will receive half of the entire catch accumulated in two, three or four years. From this portion they pay the company what they owe at the beginning of the voyage or incur while in the islands. These debts consist of discharge of debts to creditors, payment of taxes, pensions to relatives and a special allowance for clothes, footwear and various personal needs. The other half of the catch belongs to the company for its vessels, goods supplied for exchange with the islanders for furs, artillery, all kinds of provisions, for losses and troubles, for sea provisions, treatment and so on (Pierce, ed. 1976: 37).

Normally a crew consisted of 10-15 people. However, in some documents crews are mentioned which included some 30 - 40 hired laborers. (Bakhrushin 1955: 207; Aleksandrov 1964: 235). Not a single expedition undertaken by servicemen in the the middle of the 17th century, whether to the east of the Lena, to the Amur, Chukotka or the Sea of Okhotsk, was without the participation of such crews of promyshlenniki (DAI, vol. 3, doc. #12; vol. 4, doc. #7; Syn Otechestva 1840: 125-126). Significantly fewer hunters belonged to the crews of private shareholders, from 5 -6 to 15 men.

LIFESTYLE

Participation in Siberian fur gathering kept a peasant or a township dweller away from his family and normal activities for a long time. For example, it would take a hunting crew from Ustiug Velikii or Soli Kamsk about two to three years to carry out a single hunting season in eastern Siberia and return home with the catch. In the middle of the 17th century,

expeditions to the Amur and Zeia Rivers, to the Okhotsk Sea, took significantly longer. As a rule, an expedition leaving the taiga of the Baikal region or from Yakutsk, going "to the Daury", lasted not less than two years.

First of all, the men moved from the Pomor'ie districts and quarters to the Siberian townships and ostrogi which included: Mangazeia, Turukhanskoe zimovi'ia⁴, Eniseisk, Ilimsk, Bratsk, Ust'-Kut, Yakutsk and to the numerous sovereign's winter camps. Here the hunters of "soft gold" waited for the fur trapping to begin. They stocked up on grain, got themselves outfitted and learned the location of the sable-rich areas in the vicinity. Now and then the crew hired an interpreter who knew the language of the "Siberian foreigners". The administrative census for all those who set out to gather furs was also taken at the vataga. Here, the "sovereign's tithe" was collected from those returning from the hunt. The promyshlenniki were required to pay various personal taxes: a property tax, a head tax, a departure and transit head tax. They also paid customs duties on the stores of grain they transported to the hunting sites and on all their hunting equipment; boats, sledges and skis. Moreover, before the promyshlenniki set off for the hunt they were enlisted to perform various jobs, most often transporting government cargo (Pavlov 1974: 22-23). Taverns and steam baths were constructed for the promyshlenniki and trademens' use at the "state winter stations". The steam baths included a distinctive kind of snack bar where the drinks, kvas and suslo, were served. One can evaluate the prevailing morals at such collection points according to "instructional reminders" dispatched from Moscow to the Siberian regional administrator. Here one encounters lines such as: "...watch carefully that the tradesmen and promyshlenniki do not keep wine, mead, beer and home brew, nor tobacco, dice, or cards in their winter

station and that no one gambles for money, especially with dice; and see that this order is adhered to by the letter in all the winter stations..." (DAI, v.3 doc. #8).

In the summer, promyshlenniki were hired for agricultural work. For example, during the summer of 1645, eighty-four promyshlenniki left the Lower Tunguska to Eniseisk to earn their bread at "village work", according to their own words, for the upcoming fur gathering season (Kopylov 1965: 85-86).

In eastern Siberia, prior to the decline of the sable industry in the 1670's, it was quite common for the incoming hunting crews to exploit the taiga where the indigenous people were nomadizing. During the course of the hunt, bloody skirmishes frequently erupted between rival crews over the possession of certain hunting grounds which were rich in fur bearing animals (Pavlov, 1974: 49). The appearance of individual or familial ownership of hunting territories seems to be linked with the massive settlement of eastern Siberia by the incoming promyshlenniki during the latter quarter of the seventeenth to the beginning of the eighteenth century. This settlement was linked to the disappearance of sable and the incorporation of less valuable furs--squirrels and polar foxes, into the commercial traffic. Stationary self-triggering traps and pits were used to harvest these furs. Basically, this form of territorial ownership of hunting grounds persisted until the collectivization of the Siberian peasantry by the Soviets in the early 1930s. It was derived from the principle of continued exploitation of the territory by those promyshlenniki who invested their effort in constructing essential equipment such as the stationary self-triggering traps, fences, pits (to capture hoofed animals) and building hunting cabins and caches.

In the middle of the 17th century, a period of active exploitation of east Siberia's taiga zone and of Russian movement to the Amur and northeast Asia, the mainstay of the fur trade was the catch of the valuable fur bearers: sable, beaver and the reddish-brown fox. The hunting season lasted all winter, from October to the end of March. The basic means of transport were a variety of watercraft: kochi, doshchaniki, and struzhki; sledges [narty] and fur lined skis. The fur gathering combined both active and passive hunting methods. The "passive" approach involved the use of various stationary traps; the "active" method employed dogs, bows and arrows. There was an "intermediate" system which utilized dogs and netting. The Russian fur gathering habits differed substantially from those of the indigenous inhabitants of the taiga: the Tungus [Evenk], Arin, Ket, Karagass [Tofalar], and Yukagir. While at the Zeia River in 1646, Vasilii Poiarkov's comrades-in-arms reported: "...They do hunt sables, going out of their dwelling [yurt] for a day only. They take the sables, Gosudar, in the same way as others and shoot from their bows. They did not use or seem to know about the Russian nets and cubby trap sets." (DAI, v.3, doc. #12). The use of the cubby trap sets [kulemniki] led to the rapid exhaustion of the once abundant fur riches in eastern Siberia. In 1649, the Tungus complained to Yakutsk that the traders and trappers...

"...from the very beginning of winter and right into spring [they] were cutting kulemniki and with these kulemniki they destroyed the sable kind. These traders and trappers abandoned the use of nets and dogs for their sable trapping." (DAI, v.3, doc. # 57).

At this point, it is worthwhile to describe in greater detail, the equipment of the Russian promyshlenniki and their practices while on the hunt.

SUPPLIES, EQUIPMENT AND TRANSPORTATION

The expenses in organizing a fur hunting expedition were enormous. As a rule, a contribution was expected in food provisions from each person. It was 20-30 pud (1 pud equals 36.11 pounds) of rye or oat flour, about one pud of wheat flour, one pud of salt, up to a quarter pud of various cereals [groats] and oatmeal; dried meat [jerky], butter and fish oil. To prevent scurvy, they stocked up on honey, up to a pud per person (Bakhrushin 1951: 90). To bake sourdough bread in the taiga, they brought along a bread raising pot and a birchbark container which held the sourdough starter. This sourdough was "the apple of their eye". Among these 17th and 18th century fur gatherers, the baked sourdough bread and "white" kyas made of flour were considered, by far, the most important provisions on the hunt (Krashenninikov, 1786, 240). A crew also took along the essential seining net. Before the fur harvesting season began, at the summer's end and in early autumn, fish was put up for the winter, both for themselves and their dogs. All the products went into a "common pot" and were used collectively.

The equipment of the promyshlenniki consisted of a copper cauldron for heating up their food, two axes, a knife and a sable net. This net measured up to 20 meters long and 1.5 meters high. Going out on the hunt, each man always brought along his firearm with a supply of "firepower". These 17th century excursions for "soft gold" took on the appearance of military expeditions. It is important to mention that not only the smooth bore harquebus but also ones with rifled barrels were widely used in Siberia at this time. It is possible to reach this conclusion by examining the inventories of goods brought into Siberia by Russian merchants in the

second half of the 17th century (Bakhrushin 1955: 235, 245). However, right up to the middle of the 19th century, active fur gathering was carried out with bows and blunt tipped arrows. In his account of the Vitim sable hunt, occurring during the first third of the 18th century, Stepan Krashenninikov confirms that after entering the taiga the trappers left their guns in the winter huts "because of their weight". Then, they set out after the sable and squirrel with their bow and arrow quiver (Krashenninikov 1786: 247). Accompanying the promyshlenniki were one or two husky dogs. Each promyshlennik owned fur lined [kamus]⁵ skis and a supply of 5 - 10 extra pieces of the lining material for repairs. There is an interesting note in a customs book dated 1649 for the Ilimsk ostrog. It gives an account of the duty which was levied on a trapper named Koz'ma. Among the imported Russian supplies acquired at the Eniseisk ostrog are: "... Russian goods: ...20 moose kamus at 5 altyn⁶ each, totaling 3 rubles. Twenty mare kamus at 3 altyn and 2 den'gi each, totaling 2 rubles..." (Sherstoboev 1949: 106).

From their earliest days in Siberia, the Russian promyshlenniki, traders and servicemen used the hand-pulled straight stanchion sledge [nart]. This has been confirmed through the reconstruction of a two-stanchion sledge found at Sims Bay in 1946 and by numerous allusions to sledges in reports submitted to the Siberian Prikaz [administrative department] written by 17th century Russian pioneers: "...in winter, by sled on the breast band" (Istoricheskii pamiatnik...1951: 103-104; Aleksandrov 1961 a: 7; DAI v.3, doc. # 12, 57). In the travel notes of the English physician, John Bell, dating to 1720, one encounters a description of how the Russian population of eastern Siberia utilized the hand-pulled sledge:

"...After travelling a few days in sledges, when the road becomes impassable by horses, they set

themselves on snow-shoes [sic, Russian context, skis], and drag after them what is called a nart [sic, in Russian narta], containing provisions and other necessaries; which are as few and light as possible. This nart is a kind of sledge, about five feet long, and ten inches broad, [152.4 cm. by 25.4 cm.--O.V.B.) which a man may easily draw upon the deepest snow. At night, they make a large fire, and lay themselves down to sleep in these narrow sledges. As soon as they have refreshed themselves, they again proceed on their snow-shoes [sic], as before. This manner of travelling continues about the space of ten days, when they come to a place where they procure dogs to draw both themselves and their narts [sic]. The dogs are yoked by pairs; and are more or fewer in number, according to the weight they have to drag...The dogs are fastened to the sledge by a soft rope, which is tied about their middle, and passes through between their hind legs. (Bell 1966:70-71) (Bell 1788:1.286-287).

Stepan Krashenninikov wrote a detailed description of the sledge used by the Russian promyshlenniki in the Lena River taiga province. He described the key joints of the sledge's construction, listed the materials used, and gave local names for all its parts (Krashenninikov 1786: 243-244, 247). If you were to compare Krashenninikov's data pertaining to the material culture of the Russian old settlers [starozhily] during the first

third of the 18th century with more recent ethnographic field studies on sled construction, usage and nomenclature, you would find that features of 19th and 20th century sleds have not changed from those of the 17th and 18th centuries. (IGOM Archive, Fond 13132, op. 2, op. 4; Fond 13354, op, 2; Fond 13523, op.1, various folios).

While researching the winter transport methods of the Komi hunters, Konakov concluded that the Komi's "nort" and the Russian old settlers' "nart" used in the taiga zone of eastern Siberia are analogous in design, usage, and as a means of transport during the hunt (Konakov 1983: 72-73). Such sledges exist among the Russian old settler population in the taiga belt of western Siberia, in the northern Urals and also among Russians living along the lower reaches of the Enisei River (Shukhov 1927a and 1927b; Dolgikh 1960: 28-33). Some scholars assert that the Russian population of the northern Pomor'ie was using dog teams to move into northeastern Europe and then into the taiga zones of Siberia. They were probably correct to suggest that Russian adaptation of dog teams had its origins in northeastern Europe (Kamenetskaia 1979:180; Konakov 1983: 74). There is literature and field material concerning this aspect of transportation used by Russian hunters/entrepreneurs of eastern Siberia which indicates that this technology has changed very little over the past 300 years. Evidence permits the assertion, that

"...the place of origin for this east Siberian type of dog husbandry was, in all respects, centered in the European northeast, in its taiga zone..., and can be counted among the cultural achievements of the fur gathering population. The ultimate formation of this kind of dog husbandry is associated with the new settlers' ability

to adapt their traditional culture to that of their new living conditions in Siberia "(Konakov 1983: 75 - 76).

As mentioned earlier, the trappers, jointly, either obtained or built various types of water vessels--kochi, doshchaniki, struzhki-odnodrevki which they used to transport all their necessary goods to their hunting grounds.

An essential part of the Siberian hunter's gear was his pack frame, which facilitated the hauling of all kinds of equipment. As the hunters set out on their journey, each man acquired a sheepskin coat, although, the main clothing of the trappers was a kind of peasant's coat made of grey or white very coarsely woven woolen broadcloth. On top of this, they wore a vest-type mantle made of woolen broadcloth, open at the sides, sleeveless and reaching to the waist. The lower edge of this mantle was trimmed with hide and a thong was threaded through it (Krashenninikov 1786: 239). It protected the hunter from the snow which dislodged from the trees. It was necessary to bring along an extra supply of 10-15 arshin⁷ of coarsely woven woolen broadcloth and sackcloth.

For footwear, the trappers brought two pairs of handmade leather shoes [chirki]. These are reminiscent of the uledi, another hand-made leather footwear used when travelling on skis. The trappers also carried a supply of leather for repairing worn-out footwear. Head gear consisted of woolen hats with ear flaps which were sometimes lined with fur. One or two sheepskin blankets were used for bedding. When Bakhrushin was researching the manufactured and hand produced items of Iaroslavl' during the 17th century, he made an interesting observation. There were about 700 artisans occupied in the leather-working quarter of Iaroslavl', manufacturing material to be sold at the market, primarily the Siberian one.

Among the various kinds of footwear were the mass produced uledi, one of most popular forms of workmanship used with skis. Another type were the pre-cut and prepared footwear "kits" that were completed later when it was convenient. Iaroslavl' was renowned for manufacturing a particular type of thick, coarse sackcloth [khriashch], sold through Ustiug Velikii to Siberia (Dal' 1982: v. 4, 567). In 1647, over the course of a year, a total of 4,190 arshin [ca. 3259 yards] of sackcloth was exported to Siberia. Ready made clothing was also sold there--long underwear, burlap trousers and shirts. There was also include a denim-like fabric and various kinds of woolen cloths. Famous merchant families of Iaroslavl' made profits from this Siberian trade and re-invested it through their agents in fur procurement (Bakhrushin 1987: 143-144, 148-149).

As previously mentioned, acquisition of fur trapping equipment and other necessary supplies required a large financial outlay. Due to this expense, the practice of hiring laborers became widespread in Siberian trapping. In order to increase the profitability of fur procurement, the hunters engaged in barter/trade with local indigenous populations. They stocked up on items such as large colored glass beads, seed beads, "copper in pots", various items of adornment and needles. The sale or exchange of any kind of weapon was strictly forbidden (Lappo-Danilevskii 1890: 426).

FUR PROCUREMENT PRACTICES

After completing the necessary preparations and determining where to hunt, the crew of promyshlenniki set out in mid-June by watercraft--in their kochi, doshchaniki or struzhki--for the tributaries of the Lower and Stony Tunguska, Angara, Lena and Amur Rivers. Along this water route,

they reached the desired stream. There, they built a summer camp where they seined for fish to put up for the winter (DAI, v.3 doc. no. 57).

Toward late summer and early fall, the trappers established their winter camp in the taiga, surveyed and built up their hunting area with cubby trap sets. The construction of stationary wooden traps--deadfalls--[kulema], the type with a suspended, weighted balk [placed within the cubby sets] has been carefully described by Krashenninikov (1786:246). This cubby set trapping method was an extraordinarily effective hunting device. Each crew member built more than 10 traps apiece. In the records of the Siberian Department one often encounters entries of the following sort:

"...[we] chopped enough wood throughout the hunting area to construct 30 wooden traps per man" or "...the cubby traps they had...for 4 men, were 60 per camp" (Bakhrushin 1951: 91).

After preparing the hunting area, the crew split up into parties of 2 - 3 men. Each party went about their fur gathering in their own particular area which was assigned to them by a foreman. Each crew had its own store of provisions and its own trapline, a path where the cubby sets were placed.

The sable hunting began at the time of the first snow, sometime in October or November, assisted by "the dog's foot". The dog barked, cornered the animal and the hunter discharged a blunt tipped arrow from his bow. This arrow did not damage the valuable pelt. On its striking end, the arrow had a pear shaped tip, formed completely of mammoth or walrus ivory. Sometimes, the tip might be cut entirely from a piece of wood (Belov et al. 1980: 132; Istoricheskii pamiatnik... 1951: 29).

After a deep snow fell, sometime in mid-November to the early December, hunting with the help of "the dog's foot" was no longer possible.

From that time onward, the cubby traps and the sable nets were used to obtain the furs. Each day, the hunter skied along his trapline and inspected all the traps. He extracted the sable and re-armed the deadfalls, adding bait of fish, berries or the carcasses of forest birds. If the hunter encountered fresh sable tracks, he followed them until he discovered the animal's shelter. Next, he enclosed the area with a net which had many small bells sewn along the upper edge. The hunter then waited until the sable abandoned his refuge and became entangled in the net. This type of hunting continued throughout winter until early spring.

Seventeenth century sources do not provide descriptions of the hunting methods used in taking another valuable, although far less abundant fur bearer, the beaver. Beaver was not only valued for its fur. A main consideration in harvesting the beaver was for its castor, widely used at that time in medicine and perfumes. According to a 1674 Moscow customs assessment, one pound of Siberian beaver castor was valued at 4.5 rubles, while a pound of beaver castor obtained in the Ukraine merited only 1.5 rubles. The wool was combed out of the beaver pelt and sold abroad, "beyond the sea", to Holland, England and France where it was made into beaver hats [kastorovie] (Kaverznev 1930: 86). We know the ecology of this animal and have descriptions of hunting methods used in the European part of the country during the 16th to the 18th century. We also know about those methods used in western Siberia in the early 20th century. With all this information, it is reasonable to suggest that in the east Siberian taiga, beavers were being taken by basket trap [kosha, also koshka] and underwater pen set traps [ez] at this time. Silant'ev (1898: 5) characterized the first, as a set trap, which looked like a very large basket. The second, a pen set [channel] or underwater runway, also called a fencer impound set], was a

partitioned corral made of sharpened stakes which were driven into the bottom of the stream. The animal was able to get into the impound but unable to get out. Next to the beaver's air hole, they set up automatically triggered crossbows and positioned forged iron traps (Silant'ev 1898: 186; Kaverznev 1930: 78, 82, 85). The hunters also watched for the animal at its breathing hole with their firearm. It is possible that hunters shot beavers from boats on the remote taiga streams in eastern Siberia just as in western Siberia in the Ob' River Basin. Hunters came twice a year to take the beaver, at the end of ice break-up and in the middle of summer after "St. Peter's Day", July 12, by the Gregorian calendar [June 29, by the Julian] (Kaverznev 1930: 82-83). Beaver hunting was practiced so intensely in the 17th century that by the beginning of the 18th century there is no mention of any beaver pelts obtained on the taiga rivers of eastern Siberia. (Arembovskii 1937: 118-127).

Occasionally, the fur trappers encountered black or reddish-brown fox. At the beginning of the hunt and with the first snow, the trapper looked for fox tracks and determined its living area. Then he erected a deadfall trap, larger in size than the the one used for sable. Hunting with firearms and dogs, they did not lose an opportunity to take the fox during the critical period between the first snow and the large snowfall.

The length of time a crew spent in one place extended over several years. On their hunting grounds, they built their winter quarters including their "establishment" which consisted of caches for storing their provisions and traplines with the cubby sets. If the fur gathering at a particular location was unsuccessful, the hunters loaded all their supplies onto their sledges, crossed over to another small stream where they set up a new camp

and continued their hunt. The hunting territory was claimed, in accordance with the customary law by either the crew or its foreman.

Fur gathering was considered successful when each hunter got a share "... three, four, five, six or seven times forty [soroka]", that is, from 120-280 sable pelts for each man (DAI v.3, doc. no.57). If the hunters only received 15 - 20 sables, the enterprise was considered uneconomical.

The men returned from the hunt as soon as the rivers began to break free of ice, in May to early June. Analysis of custom books of the Ilimsk ostrog demonstrates that the number of hunters coming out to the Angara with their furs, peaked between the months of May and July with 89 percent of all hunters exiting (Sherstoboev 1949: 103). Having paid the "sovereign tithe", the hired men settled their accounts with their employers, while the independent hunters divided their catch or the money they obtained for the furs, equally.

There were several factors which contributed to a number of promyshlenniki permanently settling in the Baikal area as early as the 1650-60's. There were the difficulties associated with a return trek to the "Rus" after an extended hunting season, economic successes in mastering the area, and work practices and traditions which permitted them to establish and develop an agricultural economy in boreal forest conditions. Government policy also played a large part in stabilizing a population subjected to "fur gathering migration". It provided for the establishment of local eastern Siberian grain production to further the colonization of northeast Asia and the North Amur region. As early as 1655, the Ilimsk voevoda⁸ Olad'in assigned 3 servicemen, 5 promyshlenniki and unattached persons to the "sovereign's land", to replace peasants who had fled "to the Daury". In that same year, also within the Ilimsk administrative district,

another 32 men were settled on agricultural land; nine of whom had previously been engaged in fur procurement (Sherstoboev 1949: 231). In the records of the Ilimsk administrative office there is a rare document--a land use grant dated 1661:

"...given to the Tuturskaia rural district, the area between the rivers Lena and Tutura, in the wedge of the Great Sovereign, lands and meadow lie vacant; and upon petition of the promyshlennik, Mishka, son of Dmitrii, Vorobei to the sovereign, which was granted, it is ordered that the said Mishka be settled to work the land with tax [tiaglo] due to the Great Sovereign, from 1/2 of a desiatina.⁹ It is ordered to allow the said Mishka Vorob' the cattle pasture, [land for] the farm and a small garden without taxation" (cited after Sherstoboev 1949: 161).

During the 1670's, in east Siberia, no less than 1300 professional hunters were active over the course of a year (Pavlov 1972: 305). In addition, peasants and township dwellers participated in fur gathering. Most of them were yesterday's promyshlenniki who settled in the Baikal area when sable procurement declined. Aleksandrov cites data about persons in eastern Siberia who, in 1679, changed their status to that of peasant or township dwellers:

"Shareholder, Isai Ivanov, having left Viatka, was a promyshlennik for about 35 years on the Lena and at Eniseisk, while shareholder Iakov Avramov, having left Ustiug in his youth and abandoned payment of his township taxes, hunted for 25 years on the Lena at Turukhansk and at Eniseisk. Peasant, Ignatii Dmitriev, shareholder[s] Iakov Samoilov, Fiodor Kondrat'ev, Mikhail Tikhonov resided on the Lena and

hunted sable for decades, while Maksim Artem'ev, spent 28 years on the Sobach'ia River (Indigirka)." (Aleksandrov 1961: 12)

It should be noted that immigrants leaving the Pomor'ie from northern Rus' in the 17th century did not represent a single, monolithic ethnicity. Not only Russians moved into Siberia. Among the fur trappers and the settlers, scholars mention representatives of the Komi-Zyrian and Komi-Perm ethnos (Belitser 1958: 17-18; Aleksandrov 1964: 144; Zherebtsov 1982: 100-103). Local onomastics provide indirect evidence to this. On the Upper Lena, among the Russian old-timers, family names like Zyrianov, Permin, Permitin, and Perminov are common. There is a series of toponyms indicating the presence of migrants from the European Russian North of Finno-Ugric descent. Such are the former village of Zyrianovo in the Bratsk district of the Irkutsk region and the villages of the Upper and Lower Karelino, on the upper reaches of the Lower Tunguska River, in the Kirensk district of the Irkutsk region.

One might question whether the Russian hunting/fur procurement process was imported to Siberia. If one follows Zherebtsov's conclusions, numerous borrowings from Russian culture in the area of hunting enterprise were evident among the Komi in the 16th - 17th century (Zherebtsov 1982: 127). The influence was most pronounced in fur procurement. In a number of cases, Russian nomenclature for fur bearing animals completely replaced local names which then disappeared from the living language. Terms associated with firearms, hunting, and equipment used in fur procurement are also borrowings from the Russian language (Zherebtsov 1972: 42, 72; 1982: 127, 128). This adoption of Russian terminology was probably linked to a reorientation of the Komi hunting economy from a purely subsistence lifestyle to a commercial one which focused on the state

of the market as it related to fur procurement. It should be noted that Russian terminology is mainly associated with the active, firearm-type hunting, while the passive aspect, connected with stationary traps and snares, have Komi names. Both are known to the Finno-Ugric and the Russian peoples of the country's European boreal forest belt. For example, the deadfall [plashka], used for sable and squirrel, in Komi is called nal'k, another type of deadfall [slopets or slopsy] is called choes, and the third [kulema] is called pi'om (Belitser 1958: 80; Konakov 1983: 94).

CONCLUSION

By the end of the 17th century and the beginning of the 18th, a significant part of the settled Russian population of eastern Siberia resided in the mountain-taiga zone, an area little suited to agriculture. It was here that a unique model of complex economy emerged over the course of several generations which combined extractive and productive elements. This economy merged traditional Russian agricultural and cattle raising methods with procuring activities: hunting, fishing, cargo hauling [on water] and nut gathering. A technical agricultural knowledge, a selection of grain bearing plants, agricultural implements, a northern breed of small but hardy cattle, dwelling types, hunting equipment and an inventory of traps--all enabled the former inhabitants of eastern Europe's northern forests to adapt to the east Siberian taiga. On Lake Baikal they began to take seals. This was a continuation of the northern Russian (Pomor'ie) sea mammal hunting tradition which dates to the 15th and 16th centuries. Thus, in the early 1690s, in the inventory of goods acquired in eastern Siberia by agents of the Moscow merchant, Gavriil Nikitin and probably for sale in China, seal skins

are listed: "...223 seal skins valued at 44 rubles 60 kopecks, 2 grivna¹⁰ for each skin" (Bakhrushin 1955: 240). At the beginning of the 18th century, seal taking in Lake Baikal was at the center of a dispute between the [local] peasants and Buriats on one side and the tax farmers-lease holders of merchants and administrators on the other (Istoriia Buriat-Mongol'skoi ASSR 1954: 166-167).

When the Russians entered Siberia, their level of social and economic development was unlike that of the indigenous population. Their fur procurement was commercial in character and substantially differed from the subsistence hunting of the indigenous people living in the taiga zone of eastern Siberia. Hunting and procurement practices of the Russian newcomers made it possible for them to exploit the vast expanse of the Siberian taiga, to maintain the general goals of their settled economy and to proceed with the next stage of settlement which occurred in the 18th to the 20th century.

¹Russians from the White Sea littoral and the arctic coastal area in the Russian north.

²Often ethno-historians confuse the farmed animal, silver-black fox [serebristo-chnaia] with the reddish brown fox [chno-buraia].

³Head tax collected from the natives.

⁴Winter station.

⁵ The lining was made of kamus, moose or reindeer skin taken from the hind legs.

⁶A monetary unit equivalent to six den'gi or three kopecks.

⁷One arshin equalled approximately 28 inches.

⁸A Tsar appointed administrator with military, civil and judicial powers over a district.

⁷ One desiatina equals 2.7 acres.

¹⁰One grivna equalled 20 den'gi.

ABBREVIATIONS FOR REFERENCES

DAI	Dopolneniia k aktam istoricheskim
IGOM	Irkutskii gosudarstvennyi ob"edinennyi muzei
KSIE	Kratkie soobshcheniia Instituta Etnografii AN SSSR im. N.N. Miklukho-Maklaia
SES	Sibirskii etnograficheskii sbornik
TIE	Trudy Instituta etnografii AN SSSR im. N.N. Miklukho- Maklaia

REFERENCES

Aleksandrov, V.A.

1961 Cherty semeinogo stroia u russkogo naseleniia Eniseiskogo kraia XVII-nachala XVIII v. (Characteristics of Family Structure among the Russian Population in the Enisei Region, Seventeenth- Early Eighteenth Century). In: SES. v. 3. Moscow - Leningrad.

1961 Sibirskie torgovye liudi Ushakovy v XVII v. (Siberian Tradesmen of Ushakova in the Seventeenth Century). In: Russkoe gosudarstvo v XVII v. Moscow.

1962 Rol' krupnogo kupechestva v organizatsii pushnykh promyslov i pushnoi torgovli na Enisee v XVII v. (The Role of Large Scale Merchants in the Organization of the Fur Trade and Industry on the Enisei in the 17th Century). In: Istoricheskie zapiski, Issue 71. Moscow.

1964 Russkoe naselenie Sibiri XVII-nachale XVIII v. (Russian Population of Siberia, Seventeenth-Early Eighteenth Century). In: TIE, v.87. Moscow.

Andrievich, V.K.

1889 Istoriia Sibiri (History of Siberia), pt. 1. St. Petersburg.

Arembovskii, I.V.

1937 Rechnoi bobr v proshlom Vostochnoi Sibiri (River Beaver in East Siberia's Past) In: Izvestiia Irkutskogo nauchnogo muzeia, Vol. 2 (57). Irkutsk.

Bakhrushin, S.V.

1940 Promyshlennye predpriiatiia russkikh torgovykh liudei XVII veka (Industrial Establishments of Russian Trade People in the 17th Century). In: Istoricheskii zapiski, Issue 8. Moscow.

1951 Snariazhenie russkikh promyshlennikov Sibiri v XVII v. (The Equipment of Russian Promyshlenniki in Siberia in the 17th Century). In the book: Istoricheskii pamiatnik russkogo arkticheskogo moreplavaniia. Moscow. Leningrad.

1955 Pokruta na sobolinykh promyslakh (Hired Labor as Practiced in the Sable Trade). In the book: Nauchnye trudy, vol. 3, pt. 1. Moscow.

1955 Torgi gostia Nikitina v Sibiri i Kitae (Guest Nikitin's trade in Siberia and China). In: Nauchnye trudy. Vol. 3., pt. 1. Moscow.

1987 Iaroslavskie Torgi (Iaroslav Markets). In the book: Trudy po istochnikovedeniiu, istoriografii i istorii Rossii epokhi feodalizma. Moscow.

Belitser, V.N.

1958 Ocherki po etnografii narodov komi. XIX - nachale XX v. (Essays on the Ethnography of the Komi People in the 19th to the Beginning of the 20th Century). In: TIE, Vol. 45. Moscow.

Bell, John

1788 Travels from St. Petersburg in Russia, to Various Parts of
Asia. Vol. I. Edinburgh.

1966 _____ New edition. Edinburgh.

Belov, M.I.

- 1951 Otkrytie i pervonachal'noe osvoenie russkimi Taimyrskogo poluostrova (Discovery and Initial Penetration by Russians of the Taimyr Peninsula). In the book: Istoricheskii pamiatnik russkogo arkticheskogo moreplavaniia. Moscow; Leningrad.

Belov, M.I., Ovsiannikov, O.V., Starkov V.F.

- 1980 Mangazeia. Mangazeiskii morskoi khod (Mangazeia. Mangazeia Sea Passage), pt. 1. Leningrad.

-
- 1981 Mangazeia. Mangazeiskii morskoi khod (Mangazeia. Mangazeia Sea Passage). pt. 2. Moscow.

Bernshtam, T.A.

- 1983 Russkaia narodnaia kul'tura Pomor'ia v XIX - nachale XX v. (Russian Folk Culture of the Pomor' in the 19th to the Beginning of the 20th Century). Leningrad.

Dal', V. I.

- 1982 Tolkovyi slovar' zhivogo velikoruskogo iazyka (Interpretive Dictionary of the Living Great Russian Language), vol. 4. Moscow.

Dolgikh, B.O.

- 1960 Ezda na sobakakh u russkogo starozhil'cheskogo naseleniia nizov'ev Eniseia (Dog Mushing Among the Old-Timers (Sourdoughs) along the Lower Reaches of the Enisei). KSIE, Issue 35.

Dopolneniia k aktam istoricheskim, 1843-1872. (Supplements to Historic Documents, 1843-1872). Vols. 1-12. Moscow.

Efimenko, A.

- 1873 Arteli v Arkhangel'skoi gubernii (Co-operatives in the Arkhangel'sk Province). In the book: Sbornik materialov ob arteliakh v Rossii. Issue, 1. St. Petersburg.

- 1951 Istoricheskii pamiatnik russkogo arkticheskogo moreplavaniia XVIII veka. (Historic Monument of Russian Arctic Navigation in the 18th Century). Moscow; Leningrad.

- 1954 Istoriia Buriat-Mongol'skoi ASSR (History of the Buriat-Mongolian Republic [ASSR]). Vol. 1. Ulan-Ude.

Kamenetskaia, R.B.

- 1979 D.K. Zelenin i nekotorye voprosy etnografii russkikh starozhilov poliarnoi zony (D.K. Zelenin and Several Ethnographic Questions Concerning the Russian Old-Timers of the Polar Region) In the book: Problemy slavianskoi etnografii (k 100-letiiu so dnia rozhdeniia chlena-korrespondenta AN SSSR D.K. Zelenina). Leningrad.

Kaverznev, V.N.

- 1930 Promyslovye zveri nashikh vodoemov (Wild Animals with Commercial Value at our Reservoirs). Moscow.

Konakov, N.D.

- 1983 Komi okhotniki i rybolovy vo vtoroi polovine XIX -nachale XX v.
(Komi Hunters and Fishermen during the Second Half of the 19th to the Beginning of the 20th Century). Moscow.

Kopylov, I.P.

- 1965 Russkie na Enisee v XVII v. (Russians on the Enisei in the 17th Century). Novosibirsk.

Kotshikhin, G.

- 1884 O Rossii v tsarstvovanie Alekseia Mikhailovicha (Russia During the Reign of Aleksei Mikhailovich). St. Petersburg.

Krashenninikov, S.P.

- 1789 Opisanie zemli Kamchatki (Descriptions of Kamchatka). St. Petersburg.

-
- 1972 Explorations of Kamchatka (translated by E.A.P. Crownhart-Vaughan). Portland.

Lappo-Danilevskii, A.

- 1890 Organizatsiia primogo oblozheniia v Moskovskom gosudarstve
(The Organization of Direct Taxation in the Moscow
Government). St. Petersburg.

Monakhov, G.I.

- 1965 Dinamika chislennosti sobolia v Vostochnoi Sibiri (The
Dynamics of Sable Abundance in East Siberia). In the book:
Materialy k Vsesoiuznomu nauchno-proizvodstvennomu
soveshchaniiu po soboliu. Irkutsk.

Müller, G.F.

- 1937 Istoriia Sibiri (The History of Siberia), vol. 2. Moscow.
Leningrad.

Pavlov, P.N.

- 1972 Pushnoi promysel v Sibiri v XVII v. (Fur Gathering in Siberia in
the 17th Century). Krasnoiarsk.

-
- 1974 Promyslovaia kolonizatsiia Sibiri v XVII v. (The Industrial
Colonization of Siberia in the 17th Century) Krasnoiarsk.

Pierce, Richard (editor).

- 1976 Documents on the History of the Russian-American Company.
(Materials for the Study of Alaska History. No. 7, pt.1).
Kingston. (Krasnojarsk. 1957).

Platonov, S.F.

- 1922 Inozemtsy na russkom Severe v XVI - XVII vv. (Foreigners in
the Russian North during the 16th to the 17th Century). In the
book: Ocherki po istorii kolonizatsii Severa i Sibiri. Petrograd.

Sherstoboev, V.N.

- 1949 Ilimskaia Pashnia (The Plowland of Ilim). Vol. 1. Irkutsk.

Shukhov, I.

- 1927a Okhotnichii promysel v severo-zapadnoi chasti Tevrizkogo
raiona (Tarskii okrug): Okhotnik i pushnik Sibiri (The Hunting
Trade in the Northwestern Part of the Tevrisk Region (Tarski
District): Hunter and Fur Gatherer of Siberia). No. 1-2.
Novosibirsk.

-
- 1927b Okhotnichii promysel u zyrian Tarskogo okruga: Oxotnik i
pushnik Sibiri. (The Hunting Trade among the Zyrian of the
Tarski District: Hunter and Fur Gather of Siberia). No. 9.
Novosibirsk.

Silant'ev, A.A.

- 1898 Obzor promyslovykh okhot v Rossii (A Survey of Commercial Hunting in Russia). St. Petersburg.

Skalon, V. N.

- 1951 Russkie zemleprokhodtsy--issledovateli Sibiri XVII veka (Russian Overland Travelers--Explorers of Siberia in the Seventeenth Century). Moscow.

Vilkov, O.N.

- 1982 Promysly (Trade). In the book: Krest'ianstvo Sibiri v epokhu feodalizma. Novosibirsk.

Zherebtsov, L.N.

- 1972 Khoziaistvo, kul'tura i byt Udorskikh komi v XVIII - nachale XX vv. (Economy, Culture and Lifestyle of the Udorsk Komi during the 18th until the Beginning of the 20th Century). Moscow.

Zherebtsov, L.N.

- 1982 Istoriko-kul'turnye vzaimootnosheniia komi s sosednimi (The Historic-Cultural Relationship between the Komi and their Neighbors). Moscow.