The Spatial Demography of the ‘Outer Taiga’ of the Zhuia River Valley, Eastern Siberia

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Introduction

A census is often associated with the accounting of people, however people always live in places – and place is usually a silent partner in demographic research. In this chapter we present our interim results of a project reconstructing the cultural landscape of what is today a remote resource extraction outpost of Irkutsk oblast’. Our project is to use traditional ethnographic field research, ethnohistorical interpretation, and environmental archaeology to understand the intersecting environments of Evenki, Iakut, Russian Settler, and Russian Industrial inhabitants. Here we focus upon the meaning of certain transitory spaces often described as ‘stopping places’ [stoibishche] in official Soviet archival records but today are often called ‘meadows’ [poliana], ‘seasonal or overwintering cabins’ [zimov’e] by local people. The Polar Census enumerator, A.T. Samokhin, wrote of these transitory spaces in his manuscripts with great energy and yet with great difficulty since they complicated the official distinction between ‘nomadic’ and ‘sedentary’ populations. Here we argue that a sufficient understanding of the interaction of people and place forces a broader understanding of the ‘built environment’ which includes meadows, trails and culturally modified trees as material signs of a flexible and autonomous hunting and herding culture. We propose that the material artefacts of what Samokhin described a ‘chaotic’ and ‘semi-nomadic’ [polukochovoe] existence can be better described as an adaptation focussed upon the use of a ‘river valley’ [reka] as a territorial unit. Instead of concurring with older arguments that these ‘not-yet’ settled adaptations were signs of the half-completed pressures cultural evolution and the incipient extinction of ancient nomadic forms, we argue that this semi-settled use of place is finely attuned to exploit the hunting and trade opportunities that mining and the fur-trade created. Our ethnographic work demonstrates that these adaptations are still viable today in the post-Soviet period. This chapter underscores the importance of the Polar Census archive for providing a frame for the project around which other types of data – such as landscape – can be arranged.
The heart of the project was planned by Dr. Evgenii M. Ineshin of the Laboratory of Archaeology, Irkutsk State Pedagogical University. Responding to Dr. David Anderson’s request to retrieve and digitise a set of three community diaries from the State Archive of Irkutsk Province (GAIO 1468-1-2) which matched a set of household cards held in the state Archive of Krasnoiarsk (GAKK 1845-1-78), he came upon Samokhin’s exacting description of the Zhuia River valley. Dr. Ineshin is an archaeologist with a strong interest in Upper Holocene geology and the reconstruction of ancient climates. He has worked in the lower Vitim region since 1985 as a state archaeologist ensuring that gold mining operations in the region do not erase the cultural heritage of the region. One of his portfolios is the protection of graveyards. The community diary for Lake Tolondo made passing reference to a previously unknown aboriginal (tuzemets) cemetery located near ‘an island’ at this alpine lake (GAIO 1469-1-2: 35v). Dr. Ineshin was already aware of this lake in a different context. Created by the retreat ancient glacier, the lake is a geographic oddity for being a large, relatively deep body of standing water (43m) in a rugged mountainous region. The river cuts into the middle of the lake allowing the lake to become a sort of reservoir for fish when the river falls in the summer and winter. The census records for 1926/7 record 229 pudy of fish caught including taimen, grayling and whitefish. The five meter terraces surrounding the lake, initially formed by the nearby Zhuia river, are very old and have seemingly been stable for nine thousand of years. Knowing that the Vitim-Patom plateau in general is characterised by ancient overlays of organic material sealed by permafrost, this combination of long-term occupation and climate alerted his instincts to a potentially interesting site for an archaeologist to find marks of ancient human occupation.

Dr. Anderson suggested adapting certain Swedish landscape archaeological techniques to try to untangle the history of human occupation in the Zhuia valley. The work of Kjell-Åke Aronsson (1991; 1994) demonstrated that forest meadows in Northern Sweden often begin their lives as the sites of ancient reindeer corrals. They then, in-turn, can be taken-over by other incoming populations for use as haymeadows for other types of animals. Aronsson’s work shows that what may at first glance look like a forest meadow might be a complex artefact created through generations of different types of cultivating strategies. The Polar Census documents suggested that the landscape of forest, meadow, log buildings, and trails was very
similar to that documented by Aronsson as that collectively belonging to Forest Saami and Swedish farmers. At first, this was a surprising idea since this region at the beginning of the 21st century is popularly thought to be ‘empty’ both in the sense of being ‘unbuilt’ and being thoroughly ‘erased’ by the placer gold mining operations of the last 150 years. The longer history of occupation of Evenki, Iakut and Russian Settler populations in the region, which we conservatively estimate at 800 years, is not widely acknowledged by residents today.

Dr. Ziker conducted a season of oral history and ethnographic research in the region in the summer of 2007 designed to recover the history of ‘local’ hunting and herding adaptations in the region. He was at first distracted by the categories of the iakuty and russkie. These local words, which stand respectively for ‘indigenous people’ and for ‘long-term [Russian] settlers’ at first glance seem to sound like nationality markers for ‘Iakut’ and ‘Russian’. Through interviews it turned out that the iakut stood for a person of Iakut and/or Evenki descent who lived with domestic reindeer and that the term russkii often signalled a ‘long-term dweller’ [starozhil] who was different from the shift-work miners of the current industrial area but who was not necessarily ‘Russian’. In describing their lives there was not much to separate the settler from the indigenous person. Indeed the later Imperial history of the valley was characterised by a cosmopolitan and creolised type of land-use where ancient hunting techniques for wild reindeer and moose are combined with relatively recent strategies for forage management to support small herds of cattle and horses. Dr. Ziker’s preliminary work played an important in demonstrating the robustness of a lifestyle that it seems has left very old traces in the environment. This chapter, therefore, summarises our collective work in bringing together archival and environmental clues with oral history to draw attention to an environment built not by foundations and structures but by a cultivated forest space of meadows, roads, and trees. Here we trace the ethnogenesis not of blood-lines and lineages but of the places that harbour life for many different types of local people.

Our project was designed to work over three summer field seasons. The polar census documents were digitised first in Krasnoiarsk in 2002 and then in Irkutsk in 2004. In August of 2006 a small group travelled to Lake Tolondo to discover the site of the former village ‘on the island at Tolondo’ as well as the aboriginal cemetery and
to use excavations and field survey to recover cultural markers. Along the way the
group made valuable contacts with individuals who began to narrate the complex
history of the region and suggest other sites. In June of 2007 a second group travelled
from Tolondo along the Zhuia valley excavating more sites and documenting
examples of modern land-use. A key part of this second expedition was the retrieval
of paleoecological data from several pits at Tolondo. A final expedition is still
planned for July and August of 2009 to refine the paleoecological techniques and to
speak once again to elders in the region. The detailed data from the paleoecological
research is in preparation as a parallel article (Ineshin et al in prep). Although the two
seasons of archaeological work were inconclusive, it directed the attention of our
team to the material signatures of the use of space, which is the subject of this chapter.

**The Zhuia River Valley and the Polar Census**

The Zhuia River is a left tributary of the Chara river, which in turn, after
merging with the Olekma river, drains into the Lena River – one of the central arteries
of Northern Eurasia. For half of its course, the Zhuia is a high-energy mountainous
stream which floods twice a year as snow and rain collect in the high plateau that
separates its course from the Vitim river. It calms sufficiently to be reliably navigated
only at the point that another tributary – the Khomolko – joins it. Indeed the valley is
not remarkable at all in the literature. The region is better known simply as the
‘Upper Lena’ or by the almost mythic ring of two of its tributaries – the Khomolko
(where placer gold was discovered in 1846); and the Vacha (made famous in a song
by the dissident bard Vladimir Vysotskii). Most Western and Russian historians, and
many Russian school children, will know of this place not by its hydrology but as the
site of the famous Lena Massacre. The mass execution of striking mining labourers
and porters Lenzoloto’s Bodaibo River gold mines in 1912 was one of the events that
fuelled the second Russian Revolution and civil war (Melankon 1994; Rosenberg
1996). In the local language, the valley is called the ‘Outer Taiga’ [dalnaia taiga] by
the hard rock and placer miners working out of the new regional centre in Bodaibo – a
small city located one watershed over on the Vitim river (Leshkov 1996).

[Figure 1 about here]
Today the Zhuia valley is one of the outer frontiers of Irkutsk oblast’. It forms the watershed that defines the Northern boundary of Boidaibo raion, which in turn is the northernmost district of this large Eastern Siberian province. The river hosts one major population point – the community of Perevoz – a mixed Russian, Iakut, and Evenki village of 1261 subsistence-plot farmers, hunters, reindeer herders, and affiliated employees of the many gold mining operations still in the region. Upstream from Perevoz is the small similarly mixed community of Svetlyi (57-62 people), dominated today by hard rock operation of the Greenfields Ltd. mining company. At the height of the Soviet period Svetlyi was a busy settlement of upwards of 12,500 people largely employed by the Svetlyi goldmining company (which still operates in other areas of the region). Svetlyi Ltd. still relies on one farming operation in the small village for fresh meat, milk, and vegetables for the kitchens of its shift-work camps.

To arrive on the upper Zhuia today one has to fly to the regional capital Bodaibo on the Vitim river, and then make arrangements to travel inland with one of the regular mining shift transports that service the many mining operations in the plateau region at Kropotkin. There is a rough all-terrain trail that connects Kropotkin with Svetlyi located in the next watershed. Local people travel the river with aluminium boats and outboard motors. There is an interesting local adaptation of these boats to travel upstream from Svetlyi in the shallow summer waters of the Zhuia. The tiunnel’ is a type of home-made jet-boat a made by mounting a regular outboard motor high and within an aluminium boat and constructing a conduit to bring water from under the boat to the propeller, which in turns shoots the stream through a pair of home-made dividers allowing one to steer the boat. Others use the more traditional transport of horse and reindeer, or simply walk.

[Table 2 about here]

It does not take a very long interview with local residents to realise that this ‘outer taiga’ to Bodaibo was not very long ago the centre of logistical supply routes. Elders today speak of the Lena River village of Macha as the regional centre (Leshkov 1999). One of the best visual illustrations of this shifting centre of activity is in the archaic 1866 topographical map by Petr Kropotkin (1873). This pioneering
map shows an exact description of the valleys and tributaries of the Lena River, criss-crossed with trails, but a wonderfully distorted representation of the Vitim river drainage which at that relatively late date was still unknown territory. This old frontier – what might one describe as the ‘Central Taiga’ – was the main provisioning routes for the global fur-trade economy through the Cossack fur-tribute posts built first at the mouth of the Olekma (1643) and then at the mouth of the Zhuia on the Chara river (1648) and later across the plateau at the Patom river (1670s) (Dolgikh 1960: 480-482). The Upper Lena region was firmly incorporated into the Russian Empire through the creation of an Imperial postal route in 1743 (Sokolov 2002; Mainov 1912; 136ff). This route consisted of a set of provisioning posts located 15-20 kilometres from each other where horses would be kept and traded to allow commerce and communication to flow seamlessly from Irkutsk to Yakutsk. The central postal trakt soon sprouted “a system” of subsidiary routes though-out the region which at least one historian cites as one of the major material factors of colonisation (Safronov 1978: 99-100, 121). Following Kropotkin’s expedition of 1866-7, the southern leg of this route shifted through the headwaters of the Upper Zhuia valley to link with Imperial centres at Chita and Irkutsk. Parts of this supply route are still in use today as rough gravel roads. The Central Taiga became the food basket for the new placer gold mining operations opened at first at Persi on the Upper Khomolko (1843). These pre-California gold operations distinguished themselves for their massive reliance on manual labour for extracting this precious metal (Rosenburg 1996) and hence the need for a massive provisioning effort of meat, flour and other staples, which in turn required huge caravans of hundreds of domestic animals – both horses and reindeer. The animals, in turn, required their own lines of provisioning for forage – mostly hay and oats creating a unique economic opportunity

The gold mines created a demand for bread, butter, meat, hay, oats and labour power. Connected with this the traditional government [postal] freight shifted created a new economy: the transport of freight for the mines from the [settlement] Vitim and from Macha. The freight was floated down to these settlements on the Lena river and then shifted to the main centre of the mining world at Bodaibo on winter roads (Mainov 1912: 94-95).

I.I. Mainov (1912) describes this economy in all of its exploitative detail with the effect that it had on the creation of a ‘lakut bourgeoisie’ (p99) to the diminishing returns that led to eventual impoverishment of the porters who staked their entire
estate of 3-5 horses in the hope of gaining some monetary income (pp 136ff; 253 ff.). Despite the small scale of the pastoral estates of the porters, and average Iakut contractor from Macha would shift six thousand pud y (p. 157) requiring a fleet of 180 horses and 20 sub-contractors (each pulling 6 horses) (p.285). Today a local elder remembers this economy as a picture of ‘thousands and thousands of horses and reindeer”. According to Sokolov (2002: 81) between 1860 and 1894, over 85 thousand horses served to supply the gold mines. In Soviet times, the transport economy was routinised with the establishment of collective farms which were given a profile of keeping horses and reindeer for cargo transport. The farms in the Zhuia valley – ‘Red Khomolko’, ‘The Trusted Trail’, and ‘The Chara Hunter’ – kept herds of between 50 to 370 reindeer and 6-30 horses to shift freight into the rugged highlands of the valley.\textsuperscript{1} Parallel to the collective farm economy, the nationalised mining company of the time Lenzoloto was documented as holding its own herd of 1273 reindeer and 1278 reindeer in 1934 (BGGA 26—1-4: 50). Oral history suggests that during the 1930s a ‘tag-team’ system was developed of delivering freight to warehouses in the lower Zhuia valley by horse (roughly marked by the boundary of the Khomolko and Nechera tributaries) and then carrying the freight onwards and upwards into the mountainous highlands with reindeer. This distinction between ‘lower’ and ‘higher’ will be shown to be important when discussing the spatial demography of the cultural landscape below.

\[\text{Figure 3 about here}\]

It is important to mention the impact of Christianity on the region, even if its direct effects on the population were muted. In what is still today one of the best summaries of archival Orthodox church data on the region, Mainov (1898: 50ff) only finds records relating to Olekma Iakuts and makes no mention at all of the Zhuia river Tunguses. Despite the fact that there were only 4 churches serving the huge Olekma district at the start of the 20\textsuperscript{th} Century (Mainov 1927: 377), the enumerator A.T. Samokhin in several places in his manuscripts classifies both the Zhuia river Evenkis and Iakuts as Christians due to their burial practices, their names, and most importantly the integration of church holidays into their yearly round.\textsuperscript{2} If Christianity was not an active faith, it nevertheless left its mark on the way that the landscape was used and most obviously on the burial practices of the people living in the valley.
Long-term stopping places in the valley are more often than not associated with a cemetery with grave monuments either in imported carved marble or built wooded structures with a cross placed an Orthodox Christian manner.

The published literature suggests that local peoples of the central part of the Zhuia valley have been living, trading and provisioning the lives of others with domestic animals for at least 350 years. The key parts of this economy was a trade of fur (sable, squirrel) and meat (wild reindeer, domestic reindeer, moose) for commodities, the supply of transport services, and of importance to this article, the provisioning of hay to the animals that for such a long time formed the lifeline of this region.

Despite the long history of contact and settlement, by the summer of 1927 the Zhuia river valley was a place that seemed isolated from the centres of civilisation. The Siberian Statistical Administration was late in sending an enumerator to this valley. The region was then an extraterritorial fragment of Irkutsk Okrug, perched on the boundaries between the Far Eastern Territory and Iakutsk Okrug, within the sprawling Siberian Territory based in Novosibirsk. The Polar Census enumerator A.T. Samokhin spent June, July and August of 1927 negotiating his way through the uplands above Bodaibo into what then seemed the remote interior of the Zhuia valley. His sketch map (GAKK 769-1-310: 4) is an ironic inversion of Kropotkin’s map of only 66 years earlier. It shows the places closest to the Vitim river in relatively exact detail and only the vaguest understanding of the supply trails and rivers that look towards the Lena River valley. Mainov (1912: 150) records the gradual shift in the geography of trade from the Lena to the Vitim drainage from 1893 onwards with the technological improvements that led to river navigation as far as Bodaibo.

A.T. Samokhin’s census manuscripts are a richly documented yet interstitial set of texts which were never analysed due to the dislocations of a rapidly changing early Soviet institutional structure. The detailed set of index tables, household cards, community diaries, hygiene cards and sketch maps were designed to be read as an integral whole representing the middle range of the Vitim valley, the Zhuia valley, and portions of the Olekma valley. However the collection was divided between the relevant statistical administrations and sent to Irkutsk, Krasnoiarsk, and Iakutsk where they lie divided to this day. Samokhin published a preliminary summary of his work in 1929. That article gives a very good prosaic reflection of the type of information collected in his community diaries as it mimics the organisation and classification of
the polar census forms themselves. What is distinctive in his published and unpublished work is his keen interest in documenting space – a question which was linked to an implicit evolutionist agenda of whether or not the indigenous Evenki-Tungus exist or have been assimilated. The article gives a very clear summary of his impressions that “strangely” Tungus cultural traditions are best preserved only a few verstey from the headquarters of Soviet mining operations in Bodaibo but seem especially weak in the Zhuia valley farthest from the mining. He attributes this to an ‘evolution’ of Tungus cultural patterns into the ‘higher’ culture of Iakut horse pastoralism. To illustrate this implicit agenda his manuscripts carefully document the dimensions and internal conditions of conical mooseskin lodges, with sketches, and approvingly the architecture of log cabins and structures built with imported timber. As this chapter will demonstrate, his interest in the relation between culture, structure and space can be reassembled into a detailed account of a semi-sedentary subsistence strategy that combines trade and transport with hunting and herding.

### Population and Territory in 1927

Taken as a single population, the household cards compiled the Zhuia valley in June and July of 1927 present an intermarried population 40 of Tungus and Iakut families with a total population of 151 individuals. The decision of the Siberian Statistical Committee to do only a partial census of the region, focussing only on the indigenous people, has produced a skewed picture of the population dynamics. The ragged age-sex pyramid in Figure 4 shows an imbalance of men and women in almost every cohort except the oldest and the youngest. The ration of men to women in Samokhin’s sample is 128.4 – a number which speaks to significant under-enumeration. The noticeable lack of women in their late teens and 30s may speak also to out-marriage with settled Russian populations. The enumerator, guided by early Soviet transportation corridors, includes the Evenki people of the Vitim drainage as part of the same grouping as the Zhuia valley. However both oral history and a reading of the archives show that kinship links and local geography have traditionally made this population look northwards towards the Lena valley and the Iakut republic. Samokhin (1929: 6) himself records the hear-say existence of a minimum of 350 individuals in valleys towards the Patom plateau who were missed in his survey.

[Figure 4 about here]
Population records are a highly politicised topic in this region. Although data on lifestyle and economy of the indigenous peoples of the Upper Lena valley are particularly sketchy, counts of the tax-paying male population are surprisingly prolific. Using published sources it is possible to trace the crude demographic history of the zhuintsy as far back as 1640 dating right back to the arrival of the first Tsarist torgovlie liudi from Mangazei and Eniseisk (Figure 5). The history of the population of the Upper Lena valley is a history of gold rushes. In the words of the eminent Siberian historian Sergei Bakhrushin (1922:35), the newly opened ‘Great’ [Lena] river valley became “dizzying” a magnet for immigration of peasants searching for ‘soft gold’ starting from the second half of the 17th century. Official representatives of the Russian state were obliged to keep accurate taxation records of the indigenous peoples upon whom they relied to bring in a regular intake of furs. However the richness of the paper archive led to a debate, mediated by some of the great names of late Russian and Soviet historical ethnography, on whether or not the original population of the region was tungus or iakut (Mainov 1898; Tokarev 1957; Dolgikh 1960). Mainov (1927: 392) credits the first tribute being taken from Tunguses by the Cossack Demian Mnogogreshnogo in 1673 and cites documents stating that Iakuts came to the Iasak post at Olekminsk in 1675 from the North. It is often remarked, in some accounts, that the ‘wandering’ Evenki-Tungus, were ‘pushed away’ to ‘remote’ parts of the river drainages suitable only for hunting leaving better hay pastures to settled pastoralist peoples like Iakuts (Mainov 1898: 28-29; Mainov 1927: 73; Dolgikh 1960: 482, 490; Samokhin 1929: 6). Indeed there are interesting written complaints by Tunguses to having their lands being occupied by Iakut horse pastoralists without paying respect to what Mainov (1898: 31; 1912: 243) describes as an indigenous land tenure system involving annual payments of rent for leasing pastures over a long term period of time. Iokelson (1896: 130-131) has perhaps the most colourful representation of the process:

After bloody battles with the Iakuts … the Tunguses surrendered their outer territories and [retreated] to the mountainous forests rich in fur, or to the barren tops of the mountain ridges and to the moss-covered tundras rich in birds. In these places … they were left in peace

It is striking when reading these accounts today that little data is produced to illustrate this common-sense fact that nomadic Evenki were removed from their lands and that
settled Iakuts assumed all of the places suitable for horse pastoralism. As this study will show, the relation between settled pastoralism and remote hunting outposts is not so clear cut. As will be seen below, relatively remote taiga areas, in this case in the ‘Upper Zhuia’, were fashioned to create new hay-producing meadows suitable for both reindeer and horses, and these new upland meadows were strategically located closer to the intersection of fish, fur and meat and the hungry mining populations. It would seem that local people had more options than a simple choice of following either ‘cultured’ pastoralism or ‘wild’ fur-hunting.

[Figure 5 about here]

What is remarkable about the list of population numbers in Figure 5 is the consistency in the total population numbers for the valley for several centuries. Most estimates show a population ranging between 300-400 individuals (with high estimates of 900 over a slightly larger territory). Although micro-level statistics are only available for the 1926/27 census, it would seem that general age/sex proportions and total population numbers have been stable, pointing in turn to a stable economic system.

Samokhin, surveying the region in 1927, invested a great deal of energy, in trying to identify a territorial focus for the population moving across the valley. Being more conservative than some, he identified only two focal points for the population: Lake Tolondo in the Upper Zhuia (GAIO 1468-1-2: 21-36) and the Mouth of the Khomolko River [Khomolko] in the Lower Zhuia (GAIO 1468-1-2: 47-58). This strategy of identifying rather tight orbits of people led to interesting anomalies in his work. It is interesting that he crossed-out the title ‘nomadic’ on many of the cards and often wrote over the words ‘semi-nomadic’ for 14 households. The notations in the community diary affirm that the movements of the population are ‘regular’ or ‘planned’ (pravil’no) for the range at Lake Tolondo. However the movements of the population at Khomolko are described as travelling “within a specific region but within this region they travel chaotically” (Samokhin 1929: 10). In the study of nomadic populations anywhere, the word ‘chaotic’ is often a good clue that an outside observer does not fully understand a rather complex pastoral system. An analysis of the place names that Samokhin associated with each family on the first page of his household cards shows 18 unique placenames. Of these two are properly settlements
(priisk Svetlyi; Ust’-Khomolkho). Fifteen are all small tributaries of the Zhuia river.
One is Lake Tolondo. The places along the fifteen rivers are distinguished with crude
identifiers of ‘mouth’, ‘middle’ and ‘headwaters’. Local people then undoubtedly
associated these relational identifiers with specific places which are good to hunt,
good to pasture animals, or a ‘high dry moraine where it is good to set a tent’ [aiian -
Evenki], as they do today.

As is well remarked in the literature for the region, the unit of a ‘river’ is a
very old and robust unit for marking territory. Mainov (1912: 243) remarks that the
word ‘river’ is a proxy in the local dialect for an area where one hunts or fishes (ie
‘territory’ or ‘range’).

… within each clan there was a common clan territory. It served as a
commons for pasturing animals [dlia vsekh rodovichei obshchim vygonom] in
the summer season. However natural hay fields from which each family
prepared winter reserves of hay for their [cattle and horse] herds were usually
kept in constant use by these very families. The ancient measure of land for
Iakuts it seems was the naturally-bounded meadows [urochishcha]. In fact the
Tunguses still today call the same measure a ‘river [valley]’ [rechka]. The
inherited use rights of these meadows from a long time back has come to a
situation that access to them produces a quality like sovereignty [dominium
Latin]. The hay-producing meadow could be rented out by the holder for
money, could be gifted, or could even be sold to Russian [settlers].

In another work, Mainov (1898: 31-32) cites a well institutionalised system of the
exploitation and leasing of ‘rivers’ such that one tungus family rented out a system of
twelve rivers for cash while saving for themselves another 100 rivers for their own
use. In the urban folklore of gold mining in the region, it is said that the Tungus elder
Afanasii Iakomin ‘sold’ the rich Upper Khomolko to Russian gold-miners for ‘a
mere’ 40 rubles in silver (Gulevskii 2007). Whatever the status of this transaction in
the mid 19th century, two Iakomin descendants were still using at least some of the
Upper Khomolko tributaries for autumn hunting in 1927.

It is interesting that the Imperial geographer Sergei Patkanov (1906: 95-96) in
his summary of the 1897 census results for the Zhuia tunguses of Olekma okrug also
describes them as a group of 476 individuals occupying using a set of eight rivers
over a somewhat larger territory.
Unfortunately, the household cards are not specific enough to reconstruct the yearly round in all of its detail. Specific examples of movement are nevertheless interesting. An extensively migrating family, like that of Gavril Zakharov (GAKK 1845-1-78:091-092) moved right from the mouth of the Zhuia in winter up to its headwaters beyond Tolondo in the spring (a distance of over 150 km) – a strategy that would have combine the needs of tending herds with that of subsistence fishing. Eight other households circled around the placer mining operation at Svetlyi moving into the gold mining community in September and then switching to a nomadic rhythm up and down the Zhuia valley from October to January and then May to August.

Examples such of these cast doubt on whether the population can really be summarised as being based around two specific population points (or that indeed these population points were slowly becoming dominant). It would seem that the presence of a collection of built wooden structures at both Tolondo and Khomolko attracted the enumerator’s attention. However, reading the community diaries carefully, it seems that the built ‘village’ at Tolondo can not be understood without including hay-meadows and hunting areas along the Vacha and Zhua river valleys. Similarly the Khomolko diary speaks to smaller established and named settlements at Nechera, Chenga and Bolochzhik.

The language used by Samokhin, and indeed many other government enumerators of this period, betrays a predilection to classify economies in this region as either/or nomadic or settled. His scribbled-in notation of the semi-nomadic and lists of place names, which stand in exception to the tight description of settled focal points, speak to the existence of an economy organised on a broader scale such as that of an entire river valley. The word Samokhin uses for place – the stoibische [literally a stopping place] – treats these settled spots as exceptions to a nomadic rule. However it would seem that regularly occurring winter and summer places were in fact the keystone of the economic strategy – and the ‘wandering nomadism’ the exception.

Samokhin (1929: 11-12) chooses to analyse Iakut and Tungus households separately, following a long tradition of ethnological separatism. What is striking about the Polar Census survey was the presence of only one Russian woman marrying into a Tungus household. Six partnerships were entirely Iakut, eighteen were entirely tungus, and a five were a mixture of Iakut and Tungus. Our oral history work in 2006
and 2007 showed evidence of what in other parts of the world would be described as a mixed-blood settler population. As mentioned above, mixed marriages of this type were likely coded as Russians (as indeed these individuals self-identify today). However this problem of identification leads to a broader problem of the identity of households. Ten individuals are recorded in the cards as being sole householders, but the notes on the cards and in the community diaries link most of them by descent or mutual aid to one of the other families. Here, as in many cases across Siberia, the strict definition of the household in the census forms did not capture the way that the extended family worked in this region. The population is perhaps best described by its dwellings with 19 cabins (zimov’e) and six conical tent systems (moose leather and bark lodges) housing 151 individuals with their associated meadows, storage structures, and fishing areas. It is significant for this article that most sets of dwellings (17), whether a cabin or a set of conical tents, had a hay pasture (pokos) recorded as being assigned to it with an average size of 2 desiatok (approx 3 ha). Information is missing on Russian headed households which may have been related by blood to ‘indigenous’ households but the oral history work of Dr. Ziker shows that these ‘Russians’ also maintained a system of cabins, pastures, and domestic reindeer and spoke a language that mixed Russian, Iakut and Evenki.

A Pastoral System of Dwellings and Roads

If we disaggregate the two community diaries and link together the single households cards from Samokhin’s 1926/27 survey, it is possible to build an interpretation of people in space that captures elements of a traditional pastoral economy that both in use today and which has left a long-term archaeological signature. Rather than placing the focus upon household ‘heads’ (khoziain) and settled communities (poselemy), a focus on the so-called ‘stopping-places’ (stoibishche) creates a different frame through which the data can be organised.

On all vernacular maps of the region, in addition to rivers, there are certain ‘semi-settled’ places that every observer has found notable. Prince Kropotkin, in 1866, used the words of his Evenki guides to mark 27 ‘winter-cabins’ and storage structures in the Lower Zhuia and neighbouring Molbo drainage. Even Samokhin, in his sketch map, indicated significant collections of lodges on the Vacha and Nechera rivers.
In the worlds of the Russian ‘old-settler’ elder Iurii Konstantinovich Polititsyn, the winter cabin zimov’e was more than a timber-frame structure. It was a moral undertaking well integrated into a regional economy:

… my uncle kept a winter-cabin on the Zheltogar [a tributary of the Vacha river in the ‘Upper Zhuia’]. He had a big meadow and a big winter cabin there. Up to 100 people could spend the night and they lived there [as well]. The meadow was created by hand. Before everything was cultivated by hand. They could service up to 1000 horses [over a season (?)]. Now everything is overgrown there. Many years have passed. … Before, there were no trains, no roads, there was nothing here. … Before everything only came by transport – by horses, reindeers; and by karbaza – the big boats that were floated down to the mouth [of the Zhuia]. … People from Chara [shifted freight] to the collective farms. … They farmed and hunted, they had big herds of cattle and made butter and so on. … People from the Nizhnee Vuliui [River region] brought meat, lard and other things - everything. … Flour and sugar came up from the Lena. All these products were brought by transport caravan. … The caravans (transport) worked with the power of 1500-2000 horses. Then, four days later, a caravan of 1500-2000 reindeers would follow. They arranged for the road not to be used at the same time. [The different caravans] needed a place to spend a night. They travelled in intervals of two to three days. One caravan came, spent a night. Rested. Three days later the second group came, also spent a night and rested, and then the third came.

The zimov’e was centred around a built log dwelling, but attached to it was a meadow carved from the forest and maintained through constant use. Given the severe shortage of forage recorded in the historical literature of the region, these cultivated places were certainly valuable. Mainov (1912:273) records how in the 19th century, native portage contractors working for the gold-mines kept a network of local people based in such zimov’e to supply and refresh their caravans:

In Olekma okrug, the richer peasants build in convenient places (if they have access to these places) small “zimov’ia” and employ there some kind of resident or watch-keeper [to look after the place]. On the plot of land next to the winter-cabin over the winter a good supply of manure collects which serves to create an utug [a Buriat word meaning a meadow specially created over several years by deliberate manuring]. The peasants of the lakut okrug usually take the porter into their homes for pay. They receive payment not in money but almost always in frozen milk, butter and frozen and whipped butter (khaiak).
An anonymous overview of agricultural strategies in pre-revolutionary Iakut Province also underscores the complex way in which pastoralism, architecture, and hay-production were interlinked in the Olekma region:

Iakuts, at first, seed hay on the otekakh. These are cultivated [usadvenye] places near old dwellings [iurty] where for a long time there was a corral for horses or for cattle. … In extremely remote locations one can still find this type of economy. The Iakuts also can cast up to 7 pudy of rye on the marshy banks of a retreating lake (or on a lake peninsula), but they harvest very little (K voprosu 1896: 67).

None of the historical literature confirms there being ‘thousands’ of horses and reindeer in discrete caravans as cited by Potilytin’s grandfather and uncle. However the question of scale aside, the intertwining of a dwelling with a regional economy of reindeer and horse transport is an important clue to the interpretation of the landscape.

Samokhin’s 1926/27 census survey only records 14 instances of literal zimov’e, but as mentioned above, there were 17 meadows held in association with various systems of timber cabins (izbushki) and winter and summer skin (or bark) lodges (chum). Unfortunately, the exact location of these dwelling-meadow systems is not always possible to reconstruct from the cards. However three abandoned residential meadows were investigated by our archaeological team in 2006 and 2007 (Ineshin et al. 2008). As the old-dweller Politysn predicted, they all showed signs of colonisation on the outer edges by dwarf birch (Betula nanae.) but nevertheless even after 30-40 years of disuse their meadows were still visible and stuck out sharply from a landscape otherwise characterised by thick forests of tamarack. Our botanist, Oksanna Vinkovskaia, estimated that elements of what she described as a ‘meadow plant community’ (lugovoe soobshstvo) created by the trampling and fertilising effects of domestic animals, could persist for up to 300 years in this region.7 Our archaeological team dug three pits at the intricately referenced meadow-dwelling system at Lake Tolondo and two pits at the mouth of Nechera river – both places at the gateway to the ‘Upper Zhuia’. Although their detailed results will be the subject of other articles, it is sufficient to say that fossil pollen shows signs of continuous human disturbance and the presence of some semi-settled form of domestication at both sites for at least 350 years. This time frame would correspond to the arrival of
tax-collecting Cossacks at the mouth of the Zhuia river, and what may have been an initial re-organisation of the local economy into one that supplied fur to these visitors.

Our team intensively analysed the site at Lake Tolondo, which initially attracted us to this region. According to the Polar Census household cards, at least two log cabins and one summer bark conical lodge were present at the site in 1927, as well as a system of 6 subsidiary hunting cabins in the immediate vicinity. The household cards record 10 hectares of hay producing meadows around the dwellings. A visual inspection of the territory of the site showed several deeply inscribed trails approaching the lake (and undamaged by mechanised vehicles) which may represent fragments of overland transportation corridors. There was also a system of pits both along the banks of the lake and the river as well as inland, which may have been used for storing fish. Across from the peninsula on which the cabins once stood we discovered the ‘aboriginal’ cemetery consisting of one marked grave and two stone heaps which might represent an older type of burial. Although the region was heavily transformed by logging in the 1930s and by forest fires in the 1960s and 1970s, we also found evidence of culturally modified trees such as stumps carved with a one-sided axe-adze and imperial-era forestry markers (Figure 6). Oral history from elders at Svetlyi speaks to the regular tending of the meadows and even the seeding of grass at Tolondo in Soviet times. The old cabin was still used as hunting way-post into the mid 1990s when it was destroyed by fire.

Our archaeological research at this important site showed a much longer picture of occupation. The stratification of the trenches revealed a ten centimetre deep soft soil layer which may point to a history of occupation starting approximately 850 years ago. The presence of fossil pollen from dwarf birch (*Betula Nanae*), goosefoot *Chenopodiaceae*, dandelion *Taraxacum*, wild rhubarb *Rumex*, and wild sage *Artemisia* in the upper 5 cm in various trenches points to a more intensive history of occupation which, again inconclusively, may point to the presence of corrals and even types of seasonal gardening corresponding with the arrival of Russian tax-collectors.

It is difficult to link the community at Tolondo directly with a network of trade. Three of the eight families at the site in 1926/27 used their reindeer and
animals shipping logs for the gold-mining operation at Svetlyi which was then in decline. The documents record these families as then unemployed. Tolondo is visible both on Kropotkin’s map and Samokhin’s map, but both put it somewhat to the side of the main overland transportation corridors which went overland from the Zhuia river up the Vacha valley some 30 km downstream. Patkanov (1906: 95) listed five individuals living on the ‘Zhia peninsula’ in 1897. The presence of a well-marked cemetery with several monuments mark the site as an important place at least at the end of the 19th century (one grave to a 29 year old member of the Zhuia Tungus clan is marked to 1910). It is unlikely that the site served as a major staging post for ‘thousands’ of reindeer and horses, but given the evident richness of the lake and the close location of important moose and wild deer hunting areas, it may have been a stable provisioning post of meat, forage, and fish for the families of the region for a very long time.

This picture of a system of ‘rivers’, characterised by certain fixed points with cultivated meadows, can be filled out by the data collected on domestic animals in 1926/27. In contrast to the discussion above on the history of population records, Samokhin’s census manuscripts provide one of the only sources in existence on the subsistence economy of the region (Cf. Gibel’man 1925). Most of 40 households held small estates of domestic animals. Only 6 households were recorded as having no animals whatsoever, and of those only one was a large multigenerational family (implying that some other family was looking after the interests of the single elderly individuals or young families without animals). In contrast to the prosaic herds of Turukhansk krai these herds were typically small with the majority holding between 4-6 head of reindeer and horses together. Only seven households held more than six reindeer or more than four horses – a number which Mainov (1912: 154) identifies as the minimum number of animals in order to offer oneself for portage work. The total population of animals for the valley was 121 reindeer (of which 82 were used for transport), 49 horses and 86 head of cattle. The average herd size by census household, or by households-in-dwellings, was 8 head of reindeer, 2 head of horses, and 7 head of cattle. It is interesting that no Iakut headed families held any reindeer. Mainov records only 20% of all Iakut households in Olekminsk uezd having more than 5 head of horses (1912: 154). Indeed, as remarked above, these small-sized herds were constant through the Soviet period and, as we shall see below, are typical even today.
Although the statistics from this community are small it is possible to see a division of subsistence strategy between Iakut and Tungus households. Tungus households were far more likely to have all-reindeer operations or to combine horse herding with reindeer. Although Iakut-headed households were few, they were more likely to combine horses with cattle as is commented in the literature (Syroechovskii 1993 156 ff; Mainov 1912). The choice of a herding strategy is significant for this article since once a family keeps a horse or a cow it is bound to also to have access to a meadow for preparing forage for the winter. It is interesting that at Ust’-Khomolko seven Tungus-headed households seem to have adopted a Iakut pattern by keeping hay pastures. In the community dairy for Ust’-Khomolko there is a record of feeding hay to reindeer (GAIO 1468-1-2:46v). Reindeer cows were milked (even if there were not very many of them). Almost all households (35) had at least one hunting dog and three kept more than two.

It is significant that in the community diaries for the region the enumerator states strongly that Tunguses ‘as a general rule’ do not employ themselves as porters (despite some evidence to the contrary in that same enumerator’s household cards) (GAIO 1468-1-2: 051v). Instead he cites that Russian peasants from Macha are much more engaged in contracts for delivering goods to the mining camps. He does note a significant tradition of hauling wood with reindeer for the local gold mining operation and notes that by 1927 with the decline in the use of the mining interest at Svetlyi that this source of income is declining (GAIO 1468-1-2: 22; 051v-52v). Iokelson (1896: 133), writing of a period one generation earlier, associates Olekma Tunguses exclusively with the pattern of hauling timber for the mining companies.

According to the community diaries for Tolondo and Khomolko, reindeer were pastured together. In the summer, herds were gathered together for collective defence against insects with a small group of people hired to tend the smoke smudges. The smudges were prepared for them under a shelter which shaded the reindeer from the sun. The shelter could be built or the herdsmen could take advantage of the overhanging branches of large larch trees to create shade for the animals. This typical strategy for taiga forest reindeer herding is significant for the creation of the meadows described above. A contemporary illustration of this process is described and documented with photographs in the recent doctoral dissertation of Yoshiko Abe (2005) on an Evenki hunting and herding camp at nearby Lake Nerchatka in the Olekma river drainage. In the winter the animals would be used for fur hunting and
for transporting goods. A close reading of the occupational data held in the household cards show that those households with large numbers of animals would be employed for wages as porter in October-November or March-June. Of the 16 households reporting a money income, wages could be as a high as 1000 rubles per year but averaged at 370 rubles (which was still a large sum – equivalent to an income from fur-trapping). The largest reindeer herder in the region, with eighteen head, had nine members to his family and many young children. He distinguishes himself from others by a concentration on shooting squirrel (700 furs) and hunting moose, roe deer iziubr and other ungulates (18 head) but only bothering to catch 24 pudy of fish. By contrast, a smaller family with 5 head of reindeer at Lake Tolondo would catch 55 pudy and a large quantity of waterfowl. In the community diaries, the enumerator singles out the hunt for squirrel, bear, and fox as the most profitable sources of income. Squirrels functioned as a money proxy at the rate of 10 skins to 1 pud of rye flour (at 15 rubles being approximately double the monetary rate for store-bought flour). Rye flour was sometimes fed to reindeer up to 4 pud per year) (GAIO 1468-1-2: 47v). There was a commercial market for fish at the mining camp at Svetlii with taimen (15 rubles/pud) and Arctic char being especially valued (GAIO 1468-1-2: 49). The commercial sale of wild meat and fish still continues today in the post-Soviet period.

**Territory and Population in 2007**

Eighty years after the Polar Census expedition to the Bodaibo region, we still find Evenkis and Iakuts living together with Russians engaged in small scale hunting and trade using small herds of domestic reindeer. The numbers of families holding reindeer have declined greatly. Instead, transport is provided more commonly by the diesel-powered all-terrain vehicles owned by the mining companies and in the summer by the outboard motors that individuals may own. In the summer of 2007 there were two reindeer herding families travelling around the community of Svetlii and one family travelling around the mouth of the Nechora River at the Zhuia (Figure 1). There were also hearsay accounts of two or three families keeping small herds of reindeer North of Perevoz in the Lena river drainage.

Very little remains today of the 150 year-old direct alliance between reindeer herding and gold prospecting in the high alpine areas above the Zhuia river. Two
brothers who hold reindeer at Svetlii today worked for geological expeditions until about 1997. Sasha and Venya Shilnikov worked from May through October transporting explosives up to the highlands and returned to base camps with samples of rock (up to 50 kg). They were paid 5 rubles per reindeer per day. They explained that their job was to use reindeer to reach places where horses could not travel. It seems that even at the end of the 20th century, the reindeer maintained their economic advantage in that they could forage locally and not have to be provisioned with forage (unlike horses). The fact that reindeer are generally useful in extreme conditions is one of these families cite in 2007 for keeping them. However in the context of a community wracked by unemployment and the absence of a regular supply of cash, the fact that they provide free transport allowing these families to hunt is no doubt a second important reason.

The use of domestic reindeer for odd jobs in the modern mining economy continues a long tradition of using harnessed reindeer transport to mediate the divide between the Lower and Upper Zhuia valley. Elders in the village of Perevoz recall their former jobs in the 1950s as reindeer porters who would take freight brought to the mouth of the Nechora tributary by horse and then would be taken onwards by reindeer caravan through the Vacha drainage to the heart of the mining operations.

The main connection today between the mixed Evenki, Russian and Iakut community at Svetlyi and the gold-mining operations at Kropotkin is in the provision of food – much like in the past. Svetlyi is blessed with rich soil and abundant water making it the closest source of fresh vegetables. The community may host up to sixty permanent residents all year round, but its numbers double in the summer as Kropotkin residents return to tend their subsistence plots. It is very difficult to draw an ethnographic line around these market-garden activities, as indeed with the history of mixed reindeer and horse pastoralism in the region. One finds Evenkis and Iakuts equally engaged in planting potatoes much as one finds the label ‘Iakut’ being applied to Evenkis and Russian elders who were very good reindeer herders in their time. The Zhuia river valley has developed a very distinctive and diversified subsistence economy based on market gardening, small-scale pastoralism, and the sale of wild meat, fish and berries and the sale of sable pelts.

In 2007 our team made a case study of one reindeer herding family at Svetlyi including a visit to their herding operations up a small tributary from the community. The Shilnikov family includes Sasha, his wife Lena, and their son Sasha. An elder
daughter was studying in Bodaibo with plans to go to college in Irkutsk. The family had 30-40 reindeer with 11 calves in 2007. Five calves had been killed by bears by the time of our visit. Their economic activities included reindeer herding and milking, small-game hunting (esp. capercaille), fur trapping, gathering herbs and nuts, fishing, and big game hunting. The family, like everyone else, also kept a potato plot in Svetlii. The Shilnikovs also kept seven goats imported from Irkutsk which were tended by Lena’s mother when the couple were out in the taiga. This family hunts moose and wild reindeer for meat for themselves and for sharing with the extended-family, as well as for sale to villagers in Svetlii and Kropotkin. Sable are hunted on foot with the aid of several dogs that the family owns and shot with a small calibre rifle. Pelts are turned in to the Bodaibo cooperative hunting administration (koopzver’promkhoz), which issues use-rights for certain valleys to hunt sable. In the summer and fall the family collects wild blueberries, low-bush cranberries (brusnika), and cloudberries. In 2006, they collected 6 barrels (60 litres each) of berries for flavoured drinks and preserves for their own use and for sale. In the past they have collected and frozen up to 35 barrels of cranberry. The family also collects a small amount of wild red and black currents, wild grape, and wild mushroom. They also collect several types of traditional medicine such as the bogulnik (Rhododendron spp.) used by Russians and Evenkis as an expectorant, golden root [Radiola rosa] used an energising plant, and a special type of petrified liquid found in cliffs in the winter known as ‘stone fat’ [zhir kamen’]—a medicine used exclusively by Evenkis. Fresh cow or reindeer mik is whipped to make a dish called köchü, which is sometimes mixed with the berries they gather.

The Shilnikov family held their 35 reindeer using an open pasturage system. It is interesting that they still preserve a system of ‘river tenure’ and speak of keeping their reindeer up the watershed of one small tributary (Figure 1). Each of the two reindeer interrelated herding families at Svetlyi kept their herds in separate valleys. In the summer the Sasha Shilnikov maintained a summer camp 16 km from the community up the Lower Bugarikhta river. This summer camp had been used ten years by this family and featured a cemetery dating back to 1870. This cemetery, as the one at Tolondo, contained graves of Christianized Tunguses of the Zhuganskii clan from the 1870s, three of which were complete with wooden grave houses and stone monuments carved with their information. The Bugarikhta summer camp is noted on an historic map as a zimov’ia. The old cabin is a characteristic low-ceiling
log structure with a support log down the middle and open attic. It is said that an old
Iakut used to live there before this family moved in.

As a somewhat ambiguous symbol of their alliance with gold miners today,
the camp had been partially destroyed by gold prospectors who bulldozed part of the
traditional bark and wood structures to make room for their own structures and
machine shops between 2002 and 2005. Characteristically, the Shilnikovs now use
these structures in an assemblage that combines their own vernacular architecture.
The heart of the summer camp is a reindeer uncovered corral of approximately 1400
m². However the gates to the corral were kept open since it seemed that the reindeer
preferred to rest during the day in the cool shade of the old machine shop left by the
miners (Figure 7). In addition to setting up small smudges in buckets within the
corral, Sasha sets up a larger smudge in the hearth of an old metal stove, just outside
the machine shop to improve the environment for the reindeer. As Sasha says, the
reindeer know where their home is and there is no need to keep a close eye on the
herd. He maintains the smudge to remove the insects, provides salt, and comes to
milk the cows regularly.

[Figure 7 about here]

The family has two other camps located up and down the valley where there is
a more traditional set of vernacular structures. The family follow their herd as it
migrates up and down the Lower Bukharikhta river valley in an annual cycle. The
animals move up the valley in the fall and into the highlands in the winter, where
winds blow the snow off the surface making it easier for the reindeer to find forage.
Their favourite summer forage is bamboo grass (*sibikhta*) and mushrooms. As spring
approaches, the reindeer move closer to the Zhuia River where the snow melts first
along the riverbanks and at the various meadows that one finds along its banks.
Unfortunately, we were not able to map the expansive meadows along the river, but it
is possible that the yearly return of the herds to these sites has kept them open over a
long period of time. In the spring, the reindeer change their diet to one of young grass
and buds off of birch and larch trees. This migration scheme is convenient for the
family in that they can trap and hunt efficiently in the higher elevations in the autumn,
winter and spring. As a cultural marker of this yearly round one can find a well-worn
path running parallel to the Lower Bukharikhta river. Along the river one can find
other signs of habitation. For example, two kilometres downstream from the current summer camp, there is an abandoned reindeer herding camp site featuring semi-subterranean structures and a conical lodge that was partially destroyed by the road built by the gold mining company at the start of the 21st century. Sasha suspected this site had been abandoned for at least 50 years.

This small reindeer herd is also used to hunt wild ungulates now as in the past. Wild reindeer migrate through the valley from the northwest (Khomolko River and Patom uplands) just before the domestic deer go into rut in the fall. Occasionally, the domestic reindeer in rut can be used to attract wild reindeer as prey. The wild deer are present until their springtime migration in small valleys (kliuchi) as well as the highlands. The herders also kill roe deer (izubr) and moose (sakhatyi). The family need three domestic reindeer to move a wild reindeer carcass, four to five reindeer to transport an elk, and eight to ten reindeer to carry a moose back to Svetlii.

It is interesting that both reindeer herding families in the region are called iakuty by locals in the villages of Svetlii and Perevoz. The genealogies, surnames, and language of both families are clearly Evenki. As mentioned above, this local identity seems to have more to do with their role as porters and as reindeer-people than their so-called ethnic identity. This brings up an interesting question of how skill and identity are related in this region – a question which could bear more research. By far the strongest identity category in the valley is the difference between a Russian settler [starozhil] and that of a newly arrived Russian working in the mines, a category we define as ‘Industrial Russian’. The Russian settlers speak of their knowledge of place and of skill in a way that approaches what anthropologists usually associate with indigenous people.

One of the best examples of this tendency is the elder Iuri Konstantinovich Polititsyn who describes himself as a ‘private famer’. Aged 70 years, Polititsyn is a tough, hardworking, and highly opinionated pensioner with a total of 350 hectares of land in and around Svetlii. He has lived the same house in the village since 1951 and identifies himself as a Russian. However, his great passion is for speaking about the taiga and the exploits of his family. His great-grandfather came to the Zhuia river as a katorga exile at some point in the mid 19th Century. He survived by building a zimov’ė downstream from the Nechora River confluence and provided sleeping quarters and food for travellers and animals on the Macha-Vacha-Bodaibo trade route. Although it was left unclear in the interview if he married a local Evenki woman or
not, it was made clear that he was fluent in Russian, Evenki, Iakut, and Chinese. Indeed his great-grandson’s interviews are interspersed with Evenki terms that he uses to describe geographical features. In some of the more colourful stories his great-grandfather is described as wearing Evenki reindeer skin leggings, of setting self-shooting arrow traps for wolves, and managing a large herd of domestic reindeer. His reindeer herd were literally gathered from the taiga as the stragglers (*padezh*) which were cut loose from impatient porters rushing to meet deadlines at appointed freight warehouses. It seems that the old man’s reindeer estate was a solid one for it was passed down to his grandson. Iurii Konstantinovich speaks with great passion of his own reindeer herd of three hundred head that he used for trapping and hunting wild reindeer at the headwaters of the Zhuia. He used his own herd well into the 1990s when age drew him to the comfort of the village and the relative luxury of relying on horses for hunting. Iuri still keeps several reindeer saddles that he used when he rode reindeer to hunt. His account of a creolised tradition of skill and knowledge of the environment serves as an appropriate conclusion to this study which has emphasised the importance of places in a regional economy not necessarily monopolised by one or another ethnic group.

**Conclusion**

This preliminary study has used a particularly evocative set of digitised household and community records from the 1926/27 Polar Census to make an argument about the way in which population, domestic animals and space can be combined to build a long-term social and economic adaptation that is not the property of one or another cultural group. To make this argument, we have critically analysed the categories of the 1926/27 census – namely those of household and community – to suggest that the local categories of ‘river’, *zimov’e*, ‘stopping-places’ and meadow (*poliana*) create objects which have their own history. We have tried to represent this history in three ways. First, by consulting oral history, we have shown that the populated places in the taiga are not limited to rich agricultural sites along the banks of major rivers but can be carved out of the taiga and cultivated by use of domestic animals. Second, by adapting the methods of environmental archaeology, we have shown that certain named places have a long-term signature that might predate the arrival of Russian fur-tax collectors by as much as 500 years. Third, by conducting a critical analysis of the published literature on the region, we have shown that many of
the categories in use by geographers and enumerators have assumed a model of cultural evolution that is not as nuanced as it might be to local ways of understanding the environment. Together this critique has shown that a combination of seasonal movement along rivers, together with knowledge of how to build attractive places for reindeer and horses, has created a flexible local economy that has survived in dialogue with major industrial development and also the collapse of the Soviet industrial state. In the terms of this collection, this study illustrates the way that the data of the Polar Census can be useful for guiding archaeological and historical research in the Siberian North.

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Acknowledgements

This research is the product of a large team of people all of whom took part in the fieldwork and many of whom are writing up their results as a separate paper. Oleg V. Kuznetsov of Chita State University helped with excavations in both field seasons. Elena G. Vologina of the Institute of the Earth’s Crust, Russian Academy of Sciences assisted in excavations and co-ordinated core analysis of sediments from Lake Tolondo in 2006. Oksanna P. Vin’kovskaa of the Irkutsk Regional Museum directed botanical analysis of abandoned reindeer pastures. Natal’ia V. Kulagina of the Institute of the Earth’s Crust conducted the species identification of pollen from excavations. Rebecca Ziker and Christopher Hill, both of Boise State University, assisted with the excavations in 2006 and 2007 and have commented generously on this paper.

The research would not have been possible without the help of Iurii Konstantinovich Potilitisyn, a lifetime resident of Svetlyi, who gave advice on sites of previous Evenki occupation and whose family helped us to navigate the river and organise the fieldwork.

This research was sponsored by grants from the National Science Foundation (0631970) and the Social Sciences and Humanities Research Council of Canada (SSHRC MCRI 412- 2005-1005). The NSF grant is part of the larger BOREAS research programme initiated (but not funded by) the European Science Foundation. This paper has benefited from two small seminars financed by the ESF EUROCORES programme under its BOREAS initiative.

The research could not have been carried out without the in-kind support, equipment and expertise of the Laboratory of Archaeology, Irkutsk State Pedagogical University and the logistical support of the mining enterprise ‘Svetlyi’ based in Bodaibo. We are grateful to Iurii Vasilevich Zharkov of the gold-mining company Vitim and his uncle Iurii Alekseevich Zharkov of Svetlyi Ltd for professionally and reliably arranging ground transport for us and our equipment to and from the banks of the Zhuia river.
FIGURES AND TABLES

Figure 1: Map of the Outer Taiga along the Upper Zhuia River, Bodaibo Region

Cartography by Chris Willson

1) Lake Tolondo
2) The Potilitsyn zimov‘e at the mouth of the Zheltogar
3) A contemporary winter reindeer camp of the Shilkin family
4) An abandoned reindeer camp with cemetary
5) The contemporary summer reindeer camp of the Shilkin family
6) Abandoned reindeer camp at the mouth of the Nechera River
Table 2: Contemporary Aboriginal Population of selected settlements in Bodaibo region (2002-2008) by nationality

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<tr>
<td>2002</td>
<td>Bodaibo Region (2002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural Population</td>
<td>89</td>
<td>202</td>
<td>27 321</td>
</tr>
</tbody>
</table>

Source: 2008 data from the administration of Bodaibo Region for 01.01.2008 [Our estimates are in square brackets]. 2002 data from the Russian Federal Census.
Figure 3: An Evenki-Tungus transport reindeer camp in the region of the Lena Goldfields at the turn of the 20th Century (IOKM 11912-1)
Table 4: Age-Sex distribution of the aboriginal population of the Zhuia valley from the 1926-27 census results
Table 5: Summary of Imperial Populations for the Zhuia Administrative Clan, Olekma Region

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Imputed Total*</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1672</td>
<td>120</td>
<td></td>
<td>[480]</td>
<td></td>
<td>Dolgikh (1960: 483) ‘Chara and Patom zimovii’</td>
</tr>
<tr>
<td>1767</td>
<td>64</td>
<td></td>
<td>[256]</td>
<td></td>
<td>“Delo o postroik pochtovih domov in Mainov (1898: 11)”</td>
</tr>
<tr>
<td>1782</td>
<td>98</td>
<td></td>
<td>[392]</td>
<td></td>
<td>“Delo o postroik pochtovih domov” in Mainov (1898: 11)</td>
</tr>
<tr>
<td>1796</td>
<td>123</td>
<td></td>
<td>[492]</td>
<td></td>
<td>Mainov (1898: 20)</td>
</tr>
<tr>
<td>1798</td>
<td>123</td>
<td></td>
<td>[492]</td>
<td></td>
<td>“Delo o postroik pochtovih domov” in Mainov (1898: 11)</td>
</tr>
<tr>
<td>1824</td>
<td>166</td>
<td></td>
<td>[664]</td>
<td></td>
<td>“Vtoroi iasochnaia komissia” in Mainov (1898: 12)</td>
</tr>
<tr>
<td>1835</td>
<td>210</td>
<td></td>
<td>[840]</td>
<td></td>
<td>“Vtoroi iasochnaia komissia” in Mainov (1898: 14)</td>
</tr>
<tr>
<td>1858</td>
<td>178</td>
<td>161</td>
<td>339</td>
<td></td>
<td>“Desiataia reviziia” in Mainov (1898: 36)</td>
</tr>
<tr>
<td>1859</td>
<td>497</td>
<td>895</td>
<td>895</td>
<td></td>
<td>Patkanov (1903: 96)</td>
</tr>
<tr>
<td>1895</td>
<td>174</td>
<td>138</td>
<td>312</td>
<td></td>
<td>“Desiataia reviziia” in Mainov (1898: 36)</td>
</tr>
<tr>
<td>1897</td>
<td>244</td>
<td>476</td>
<td>476</td>
<td></td>
<td>Patkanov (1903: 95-96) [includes Vitim drainage]</td>
</tr>
<tr>
<td>1927</td>
<td>97</td>
<td>75</td>
<td>172</td>
<td>[522]**</td>
<td>Samokhin (1928:6) [includes Vitim drainage]</td>
</tr>
<tr>
<td>1927</td>
<td>86</td>
<td>67</td>
<td>153</td>
<td>[503]**</td>
<td>Samokhin (GAKK 1845-1-78) [restricted to Zhuia drainage]</td>
</tr>
</tbody>
</table>

*Iasak total populations in square brackets are imputed at a ratio of 4.

** Samokhin (1928:6 ) states that some 350 Patom-area river tunguses were not surveyed in his census according to local government records.
Figure 6: Culturally Modified Trees around Lake Tolondo, 2007
Figure 7: The Shilkovs separating cows from their calves at their summer camp on the Lower Bukharikta (2007) to prepare them for milking. (Photo Rebecca Ziker).
Endnotes

1 Archival accounts show that between 1931 and 1939 the collective farm ‘Red Khomolkho’ kept on average 291 reindeer and 34 horses (BGGA 26-1-4: 2, 46; BGGA 26-1-5: 4, 6v; BGGA 26-1-49: 27-30. ‘The Trusted Trail’, in Svetlyi, kept on average 152 reindeer and 6 horses (BGGA 26-1-27: 2; BGGA 26-1-45: 3; BGGA 26-1-49: 12, 29). The ‘Chara Hunter’ on average kept 63 reindeer and 10 horses (BGGA 26-1-33: 3; BGGA 26-1-37: 3). Individual families no doubt kept their own small private herds. This ratio of reindeer to horses contrasts sharply with the Bolsoi Patom collective located to the North on the Lena river of 20 reindeer to 80 horses illustrating a sharp difference in regional economy (BGGA 26-1-7:2; BGGA 26-1-7: 36,38; BGGA 26-1-49: 18).

2 Samokhin, in an unpublished essay, specifically mentions the respect for St. Peter’s Day, the Pokrov Day and Easter as highly respected holidays for Evenkis in the region (GAIO 1468-1-2: 39). Interestingly in character with the overriding importance of trade relations, all three holidays are associated with certain public markets.

3 The household cards for the Olekma valley are in NARS 70-1-3355 and partially in 70-1-973. The household cards for the Upper Vitim, Lower Vitim, and the Zhuia valley are in GAKK 1845-1-78 however the corresponding community diaries and settlement total sheets are in GAIO 1468-1-2 with significant handwritten supplemental notes at ll. 39-44v. The four hygiene cards are in GAKK 769-1-460: 60, 80, 81, 87. There is a detailed sketch map for the Lower Vitim and Zhuia valley in GAKK 769-1-310: 4. Although the material was summarised in the regional publication (SKSO 1928) the data does not appear on Tereletskii’s map of the region (1938) nor in the published federal results.

4 The statistics are not much better if we take a regional population of all of the Evenki or Iakut people recorded in the Vitim, Olekma and Zhuia valleys in 1926/27 by Samokhin and Kuznetsov (working for the Far Eastern Statistical Administration). This composite survey of two census districts yields a total of 828 individuals with a ration of men to women of 114.5, with many of the same cohorts missing.

5 Imperial fur-tax iasak records record only male ‘souls’. Historical demographers use different co-efficients to estimate the total population based on the number of men presenting themselves to pay tax. Patkanov (1906: 96), based on his analysis of 1898 census data, recommends a co-efficient of 4.3. Mainov (1927:394 ) based on his comprehensive analysis of archival records in Olekma and Irkutsk (many of which are now destroyed) recommends 6. Dolgikh (1960:14) based on his analysis of the summary data for the 1926/27 Polar Census uses the co-efficient 4 across Siberia and the figure of 5 for the Tungus horsebreeders of Zabaikal’e. Our analysis of the polar census records based on the microlevel household records indicate a figure of 3.8. A co-efficient of 4 was used to construct Table 5.

6 There are seven named ‘rivers’ associated with fishing spots in the immediate vicinity of Ust’-Khomolkho (GAIO 1468-1-2: 48v) and thirteen named places associated with fur hunting over a much larger radius in both the Zhuia and the Lena drainage (GAIO 1468-1-2: 49v).

7 Oksanna Vinkovskaia describes the ‘meadow plant community’ in the Zhuia valley as being characterised by the plant families Fabaceae, Poaceae, Ranunculasae, Saroylphyllaceae, Rosaceau and Polygonacaea. These plants distinguish themselves from the background communities of larch, and over time are gradually colonized by a series of bushes.

8 The pollen diagrams created from two trenches at Tolondo show a rise in Fabaceae, Poaceae, and a drop in Superaceae at this time, which, according to our botanist, speaks to there being a clearing in the forest at this site.