

# Domestic economy and commodity trade among West Siberian Reindeer herders

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## Abstract

This paper shows how seemingly contradictory concepts of economic activity among Arctic reindeer nomads are united under one livelihood. On the example of the velvet antler trade between nomads and Far Eastern businesspeople, I show how tundra people welcome integration in international trade. Their involvement in a rather recent economic activity shows how they cleverly manoeuvre in the arena of opportunities for diversified incomes. Nenets nomads make explicit distinctions between different spheres of production, as a result of which the nature of money becomes personalised: the source of income determines the sphere of spending. The argument is in this and other cases that involvement in global economy does not have to replace but rather supplements a solid basis of traditional subsistence or domestic market production.

**Keywords:** International trade, domestic mode of production, reindeer nomadism, Nenets, Russia, West Siberia, theory of money

## Introduction

Indigenous peoples, particularly Russian Northern remote reindeer nomads, are often portrayed as brave defenders of a harmony with nature and sustainable lifestyle, basing on intuitive relations and irrational worldviews. In these terms the Nenets reindeer nomads of West Siberia can be seen as one of the most vivid examples of 'noble savages' in the 21<sup>st</sup> century (Kohl 1983, Stammler 2005). Refuting such simplistic notions, I show in this paper how herders unite seemingly contradictory concepts under one livelihood, navigating cleverly between traditional nature use and exploitation of short term market advantages in a globalised economy.

On the example of the velvet antler trade between Nenets reindeer nomads and Far Eastern businesspeople, I show how tundra people flexibly take on previously unknown forms of economy and welcome integration in international trade, even though most think that velvet antler production harms the animals. Their involvement in this rather recent economic activity shows how nomads and their representatives cleverly manoeuvre in the arena of opportunities for diversified incomes. The globalisation of trade brought such opportunities to the remotest regions of the Arctic, where indigenous people cooperate with incoming trading organisations where necessary for their aims. Even though trade is known to the inhabitants of West Siberia for many centuries, reindeer antler is a new resource for herders not used within the subsistence economy and became increasingly popular with the opening up of Southeast Asian markets.

Drawing on ethnographic research between 1998-2006, I argue that agency for such commercial activities among nomads develops best on a stable base of subsistence and market meat production, providing a safety-net to fall back to - in case risky ventures on the global market fail. This leads, I argue, to a diversification of economic sectors with a clear culturally

bounded hierarchy, where the new risky business is a supplement to the foundation of the nomadic livelihood. The distinction between high revenue market adventures (through velvet antler) and constant stable economic backbone activity (through subsistence and market meat production) can also be tracked in the spending practice of the income gained from these different economic spheres. The analysis of this spending practice contributes to anthropological discussions about the nature of money and theories of exchange. The material presented here supports arguments about the subjectivity of economic decision making on the ground. I argue that economic reasoning is personalised to an extent, where the reputation of the source of income becomes for decision making more important than pure monetary value. Culturally bounded morality thus is the principal factor giving a hierarchical structure to different sectors of a multiple northern nomadic economy.

## **Reindeer herders as producers of image and commodity**

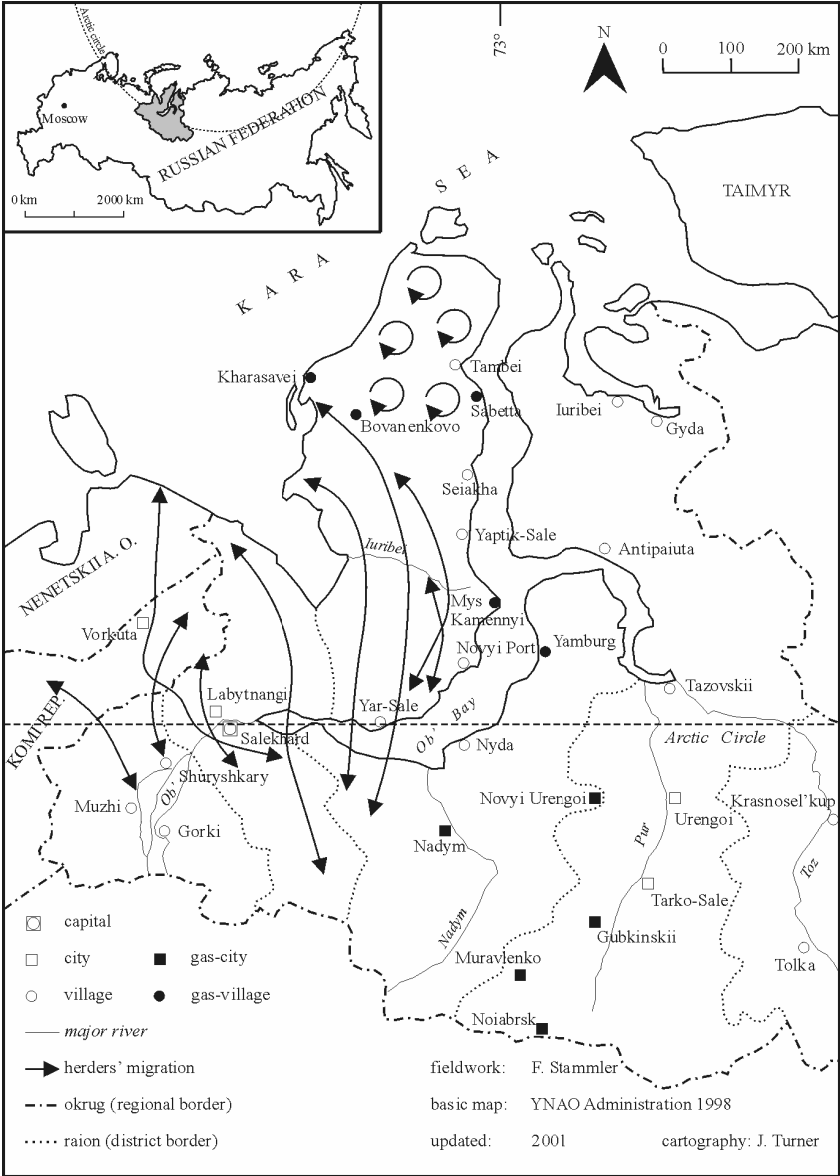
Indigenous people of the North have succeeded to gain a positive global image of following a sustainable livelihood, basing on a subsistence economy that relies mainly on the use of renewable on-surface resources of the North. The Yamal-Nenets Autonomous region, where fieldwork for this research was done, today has the world's biggest herds of domestic reindeer, counting 540000 animals all together. It is also the number one gas producing region of Russia. In comparison to the income from gas exports, the economic importance of reindeer herding is close to nothing. However, for the approximately 15000 mostly indigenous people directly occupied with herding reindeer on the tundra, this animal is their main resource, for subsistence and market production, for all basic and extended needs. Reindeer herding and the nomadic livelihood of the herders has also become an important popular regional identity marker, used to advertise a successful coexistence between 'tra-

ditional' (reindeer herding) and 'industrial' (gas extraction) use of nature (see Stammer 2005: 179f, see photo 1).



*Photo 1: The regional flag of Yamal-Nenets Okrug: reindeer as regional identity. Photo: Florian Stammer*

All the reindeer herding is done in a highly mobile way, with herders performing extensive migrations varying from 100 to more than 1000 km a year (see map).



Map 1: Yamal-Nenets Okrug, West Siberia, main migration routes of reindeer nomads (Stammler 2005, 76).

In Pre-Soviet and Soviet times, reindeer herding was done mainly for subsistence, transport and for production of meat. In the period of perestroika and the first decade after the fall of the Soviet Union, many reindeer herders said that producing velvet reindeer antler (*'panty'*) had become equally important for their income as producing meat. However, the nature of this income, as I will show below, had important implications for the spending behaviour of the earners, and the importance of *'panty'* as income has decreased after the boom in the 1990s.

The *'panty'* business shows how a risky 'unsustainable' activity develops under the umbrella of a livelihood that looks ideally 'sustainable', (subsistence and meat production of nomads in the tundra), where tundra nomads looks like remote naïve 'noble-savages' acting according to their intuition. In the following I shall give a rather lengthy ethnographic account of the *'panty'* business for several reasons:

- a) because it is a new activity in reindeer herding completely generated by a demand outside of herding, out there in the 'global economy'
- b) this business is seen by many as endangering the health of reindeer herding on the long run
- c) to show how grounded ethnography contributes to our understanding of general economic processes
- d) the way in which reindeer nomads use this business shows the idea of supplementarity instead of replacement in Nenets reindeer herding lifestyle. It strengthens an argument made in earlier work (Stammler 2005) that this livelihood is not in danger of extinction from inside. Reindeer nomadism can, however, die out when pasture resources are devastated by industrial development, but this is a topic covered in other publications (Stammler & Wilson 2006).

## **'Panty': a Far Eastern commodity conquers the tundra<sup>14</sup>**

Velvet antlers, in Russian '*panty*',<sup>15</sup> have a long tradition as a medicine in Asia. Its first use was documented in China 100 BC (Grover & Renecker 1994: 1). The past as well as present demand for the raw material comes mainly from China and its neighbouring countries. According to old Chinese sources, the extract of velvet antlers "reduces hot temperedness, dizziness, strengthens male kidneys and testicles, cures involuntary ejaculation of male semen during sexual intercourse with a ghost during the sleep" (quoted in Iudin 1993:3).

With the economic liberalisation in Russia and China, consumers in Asia have become potential customers and the reindeer herders the potential producers of this mysterious medicine, *panty*. National and international trade with this commodity affects the way of life of Yamal reindeer nomads, and it affects how they react to their integration into a network of worldwide exchange. My main argument with this material is that global connectedness has become an additional feature of Nenets nomadic lifestyle, but it has not replaced their intimate relations with their renewable surroundings (such as reindeer, pastures, spirits, sacred sites...).

### **Fresh velvet antlers: chronology of a commodity**

Originally, *panty*, velvet fresh antlers, were not an invention of the North. Before Perestroika, the southeast Asian mar-

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<sup>14</sup> An earlier version of the part on antler-ethnography in this paper was published in Stammler 2004. Research for this paper was supported by the Max-Planck Institute for Social Anthropology, Germany, the BALANCE project of the EU, contract number EVK2-2002-00169, and the ENSINOR project of the Finnish Academy, contract number 208147.

<sup>15</sup> Although being aware of the English meaning of this term, I would like to encourage the reader to accept this as the Russian "terminus technicus" throughout this contribution. I use it therefore in italics and without quotation marks throughout this article

kets were satisfied mostly with raw material coming from New Zealand, China, to lesser extents North America and from poached animals of different origins (Grover & Renecker 1994). Within Russia, the most important source animal for this raw material are marals (*Cervus elaphus maral*) in the Altai mountains. Although the first Chinese bought *panty* also from reindeer as early as 1910 (Iudin 1993:62), real production only started in the 1970s, and this mostly in state farms in the far east of Russia, in rather small quantities. Antlers from reindeer were developed as a business resource most efficiently in Alaskan reindeer herding (Naylor et al 1980: 259), and on a much smaller scale among Evenki herders in China (Beach 2003). In 1993 the world production of velvet antlers from all species, including reindeer, was estimated 300 tons (Grover & Renecker 1994: 2). Russian reindeer were not included in that figure.

The medically relevant ingredient in the fresh antlers is called *pantocrine* (for southern animal species) or *rantarine* (for reindeer). *Panty* are rich in amino-acids and many other relevant elements, analysed in detail by Russian scholars (see Iudin 1993:63–69). In America the substance is advertised for its richness in chondronitin sulfate (CSA), glucosamine sulphate and type II collagen (Kaylor, n.d.). It was only after perestroika that *panty* became significant as a source of income for reindeer herders in Russia. There as well as in North America, *pantocrine* is sold as having similar effects as Echinacea, strengthening the overall condition of the human body.<sup>16</sup> (Kaylor n.d.). Apart from medical preparations, in China and other Asian countries *panty* are also consumed as dried chips in restaurants.

In Yamal the real boom in panty business began in the beginning of the 1990s, when the limits on entrepreneurial ac-

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<sup>16</sup> See e. g. the instructions for use for “cigapan”, which can be purchased in pharmacies in Russia. For American medicines advertising with scientific evidence for pantocrine, check:

<http://www.powerhealth.com/detail.cfm?pageid=421>,

<http://www.natraflex.com/velvetantler.htm> (accessed 02/05/2007)



tivities in the Soviet Union fell, Chinese and Korean traders could become more active, and simultaneously the need for additional income increased because of the lack of state support. By the mid 1990s, prices skyrocketed and reached a historical high around 300 \$ per kg dry panty. Considering that with a big reindeer herd a herder could extract around 150 kg per summer, this value equivalent in money would have been quite substantial (45000 \$). However, most of this value went (as in many other cases too) to middlemen instead of herders directly). Since West Siberia was the only region in the former Soviet Union to experience growth of domestic reindeer after the end of the planned socialist economy (Stammler 2005), it was here where building up a velvet antler trade network was most promising. However, an economic crisis in Southeast Asia and (as some informants say), the broad popularity of Viagra (see Hippel & Hippel 2002) have led to a drastic decline of prices, which after 2001 became more or less stable at 60 \$ per kg dry weight. This led to a reaction on the market too, since with the high transport expenses connected to *panty* production the profit margin melted down close to zero. Currently the business is only viable for traders if they succeed to connect to free transport capacity, for example empty helicopters from oil or gas companies or border guards ('*panty-hitchhiking*', see below).

## **An ethnography of panty production**

Velvet antler (*panty*) production is closely linked to the seasonal nomadic cycle of reindeer herders. Reindeer (*rangifer tarandus*) is the only animal where both of male and female reindeer grow antlers, and also bulls and castrated bulls. Depending on the weather and the quality of the pastures, the antlers reach their full size, up to 50 cm, towards the middle or the end of June. After this, for approximately 4 weeks, is the optimal time for cutting the fresh antlers off the deer. Usually, it

is done a bit later than this ideal time suggests, from mid-July to mid-August. An ethnographic sketch should illustrate the process of *panty* production in the herders' eyes:

Anniko and his family have a mid-sized reindeer herd of slightly more than 1000 reindeer in North Yamal. In June, the antlers are already quite well developed, and they know that soon the helicopter will come. What the collecting enterprise normally does is to fly by helicopter to every reindeer herder's camp preliminary, in order to agree on an exact date for the collection of *panty*. The guide of the helicopters has to have an immense local knowledge of the land in order to locate any nomadic camp in the region on a particular day in summer. So they fly to Anniko to ask him how many kg of *panty* he wants to cut this year. He answers 300 kg (fresh wet weight). Then Anniko chooses from the goods in the helicopter offered by the trader: fresh bread of the day, tea, tobacco, pasta, spices, newspapers, books, rubber boots, a bottle of vodka and two apples for the children. During this first flight, the *panty* collecting company brings to the tundra a variety of the most common goods, which reindeer herders normally buy. Anniko and all herders get these goods in advance, basing on relations of trust with the trader, before having cut the antlers. The entrepreneur writes the price of the purchase in his account book, and when the *panty* are collected, he counterbalances the given *panty* (payment) against the sold goods, and sees whether there are debts or profits. The first visit of the trading helicopter is the occasion for the herders to order more or different goods. The entrepreneur writes down the order and the prices.

This first flight is necessary because usually private camps are not connected by any means of telecommunication. Only through personal communication does an entrepreneur know what his customers would like to buy this summer, how many kg of *panty* they want to sell, and on exactly which date he will be able to collect the *panty*. Cash at this stage does not play any role. The whole pricelist of goods is calculated in kg of

*panty*. During the first visit of the trader, no *panty* are collected, since they are not cut yet.

Two days before the agreed day of collection, Anniko and his family start the cutting process. The deer have to be driven to a self-made corral in the tundra, and the *panty* animals have to be chosen and separated from the rest of the herd, either by lassoing them or by rounding them up in front of the nomadic camp. Most herders choose to cut antlers only from castrated bulls or those bulls that are not considered to have very good reproductive capacities. Reproductive bulls are considered to be weakened unnecessarily by *panty* cutting, and females should have their antlers because they will need them when competing for the best pastures in autumn and winter, and they should not be stressed too much since their main task is feeding the calves that usually are born 2-3 months before the *panty* harvest. The cutting itself is done jointly by several herders per deer, since one or two men have to keep the animal calm while one is sawing the antlers. Ideally, after the cut, the wound which is normally bleeding is treated with a bandage and iodine to stop bleeding and disinfect.



Photo 2. Cutting fresh reindeer antlers, mid July, Yamal Peninsula  
Photo: Florian Stammerl.

One or two days after the reindeer herders have cut and packed the *panty* in linen sacs, the helicopter comes to collect the raw material, if the trader or the air company has not gone bankrupt in the meantime (which happened during 2001 field-work). Only then will Anniko know whether he sold more or less *panty* than he got goods in advance. Before the *panty* are loaded on the helicopter, the herders get the goods that they ordered. Anniko got this time a spare piston for his snowmobile, batteries for his Chinese tape recorder, some tapes with recent Russian disco music for his sons, canvas for his chum (nomadic tent) and ammunition for his gun. Moreover, he got some more food since he has run short of bread and tea. However, all the goods that he took are not essential for his camp's survival, even though they make life easier and more pleasurable. Anniko sold 300 kg *panty*, which equals 2/3 of the price of a *buran* (Russian snowmobile), of which he already has two that do not work very well.

Normally, Anniko does not know the actual price of the goods he ordered and purchased. He trusts the entrepreneurs, because they know each other. They are his only interface to the outside world, because only they know how the herders migrate and where they stand during antler cutting time. If one entrepreneur charges dishonest prices for Anniko, he will work with another one next year. This time it turned out that he took less products from the helicopter than he sold *panty*, which means that the trading enterprise owes Anniko money. He can take goods equal to this sum in early winter when he migrates to the trading post. In the 1990s *panty* had become as important as a means of income as meat for him, but he spends the income from *panty* differently than the one from meat production, even though there is an overlap between the two. This is why he slaughtered less male reindeer, resulting in a slightly higher share of males in his herd, since he did not want to cut antlers from his females. The fact that many herders made similar husbandry decisions lately resulted in what Anniko's neighbour

calls “the overcrowded tundra” (*tundra perepolnilas*). Many young people think that living in the tundra as a reindeer herder, producing *panty* and meat, promises a better economic return than to live in the village with a badly paid job.

Once the *panty* are collected, Anniko and his family can live in peace for the rest of the summer until the slaughtering campaign begins in October. His son Nikolai mentioned how the growing market competition over *panty* collection affected heavily their lives in the 1990s. In 2000 during one month, eight helicopters flew to his camp in the tundra to ask for *panty*. This is because different enterprises competed with each other for the velvet antlers of one and the same household. Anniko decided to give smaller amounts of *panty* to each of these enterprises. Such a competition was not welcomed by all herders, as they did not have enough time in summer anymore for repairing sledges, tent covers, clothes, harnesses and the like. In general, during the high peak of competition in the 1990s, the summer had become too hectic, whereas recently the market has consolidated and the situation ‘calmed down’.

### **Why panty production is unstable and suspicious**

The increase in *panty* business of the 1990s led among herders and their representatives to growing concerns about the consequences for ecology and economy in the tundra. Most herders in Russia nowadays agree that cutting *panty* has on the long run detrimental consequences on reindeer health; even though earlier literature stated that it does not negatively affect reindeer (Iudin 1993). Experts have also started to argue carefully that currently the consequences are not empirically studied yet, and funding to do so is lacking.<sup>17</sup> On the other hand, *pantocrine* is advertised as an ‘animal-friendly’ product by researchers closer to the business. Their argumentation is that

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<sup>17</sup> Alexandr Yuzhakov, personal conversation, Salekhard 2001

unlike rare and wild animals, reindeer are 'farmed' and do not die from *panty* production.<sup>18</sup> This picture, however, may fit better to Alaskan and Canadian conditions than to Siberian reindeer nomadism where strong transport bulls play such an important role, and herders started getting concerned about long-term reindeer herd health rather than health of particular animals.

Indigenous politicians have several times suggested at official congresses to put a ban on *panty* production. The underlying idea was that this kind of production is unsustainable and threatens reindeer herding as nomadic livelihood and as a cultural identity marker for northern indigenous minorities. However, all such attempts were so far refused by herders themselves. Most informants argued that official sedentary representatives do not have authority to interfere, since they can afford with their salaries in cities all kinds of luxury, whereas herders can use only *panty* for 'lifestyle' purchases.

Accounts of the detrimental effects of *panty* production for reindeer vary:

- Herders told that bulls become weak without antlers: "earlier you could drive a sledge-team for a whole day, nowadays you have to stop after a few hours".
- Reindeer with cut antlers gain less weight in summer, which badly influences their overall physical condition to survive the harsh winter and spring time. Reindeer use the antlers during the worst mosquito harassment to chase the insects away. Fresh antlers with their high blood content attract mosquitoes more than other parts of the reindeer body, which saves the overall physical condition of the animal. Without antlers, the reindeer body itself is more vulnerable to insect bites.
- Cutting *panty* from females or reproductive bulls is believed to lead to genetic degradation and decrease of overall herd health. Therefore, most herders, unlike their American

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<sup>18</sup> Kaylor, n.d., see also the adverts at [www.velvita.com](http://www.velvita.com).

colleagues, cut only from adult castrated animals, even though in the very peak years of the business, the temptation of good income was too big for some to resist.

- However, one respondent also mentioned a positive effect of cutting *panty*, sounding equally logical to laymen: cutting the panty directs all the energy from healthy summer pastures into the reindeer body rather than to the antlers. This should make reindeer gain more weight, not less, in case the mosquito harassment is not too strong. This respondent, however, had himself a strong involvement in the *panty* business, which is why he might have a commercial reason for giving such an explanation. The argument is similar to accounts from antler production in North America, where some deer farmers argue that it is good for animal and humans to cut the antlers in time. However, the strongest such case was made for farmed white tailed deer, which is very different from reindeer (cf Len 2004).



*Photo 3: Antlers are most attractive targets for mosquitoes. Herders recently started to use heavy chemicals for mosquito relief (not the most ecological way of protection, but better than DDT, which was used in Soviet times).*

*Photo: Florian Stammner.*

Basing on this information, we can say that cutting antlers is seen unhealthy on the long run by herders – even though many opt for it because of a good immediate return. Even though reindeer do not die from this activity, cutting *panty* should be different from cutting sheep’s wool, since the latter’s health is not affected long-term, whereas according to herders reindeer health is negatively affected.

## How panty enter the global economy

When the *panty* are cut, a herder gets the equivalent of app. 150-250 Russian Roubles per kg, (maximum 7 EUR, as of 2005). Alaskan herders got 8 USD for one pound of *panty* as early as 1977 (Naylor et al 1980:260), and 30 USD currently<sup>19</sup>. This indicates that Russian herders get less than their western colleagues. Nonetheless, herders with big herds can get for their *panty* the equivalent of half a Russian snowmobile in one season. After collection from the herders, the entrepreneur flies the *panty* to a base village and puts them into an underground ice chamber in the permafrost. Here, the *panty*, according to the rules, have to be kept frozen for 20 days. After this period, *panty* are shipped (by boat or helicopter) to one of the centres for drying, if they are not dried in a self-made drying facility.



*Photo 4. In 2000, 30 Tons of frozen panty were shipped from northern Yamal for drying.  
Photo: Florian Stammler.*

<sup>19</sup> Information from Gregory Finstad, Reindeer programme, University of Alaska Fairbanks. Email communication from 02 May 2007.



When the *panty* arrive in the south, they can already be unfrozen, and have to be put for about four hours in a dry heating room of 70–72 degrees (Iudin 1993:71). Afterwards, they are put in a wind dryer for 24 hours. This process is repeated until the material is dry.

Then, the collecting enterprise has several possibilities involving various trading routes and middlemen, resulting in end prices reaching from 15 \$ for immediate resale to middlemen to 60\$ directly to Moscow or the Far East (more detailed in Stammler 2004: 113). One defining criterion for the commoditisation of the business is the stage, at which far Eastern entrepreneurs, mostly from China or Korea, enter the business.

In some cases Chinese traders have made it to Yamal, either the capital Salekhard or even Yar-Sale (a reindeer herding village) in order to buy raw material directly from the local deep freezer, for a price of around 15-20 \$ (2005). In this way all the added value from processing goes to the Far East. In other cases Nenets entrepreneurs together with Russians engage in the business more actively themselves, organising part of the processing or transporting. Either the *panty* are shipped by train raw to Moscow, or they are dried in the Yamal Okrug and then shipped to Moscow. In the latter case, the first middlemen from the Far East have to pay +- 60 \$ per kg.

In Moscow, the *panty* business is highly flexibly and unstable. The enterprise bringing *panty* to Moscow calls the phone number of a private house, normally where Koreans or Chinese live. The entrepreneur announces that he has a certain amount of *panty* to sell right on the spot. He gets a call back from a Korean or Chinese businessman, who then comes to meet him and pays for the *panty* right away in cash. This businessman normally does not disclose his identity, nor does he give his own phone number. He organises shipping to his home country, along unofficial trading routes in order to avoid problems with taxes and border guards (bribing increases the costs). In China

or Korea he sells the *panty* on, either as extract for medicine, or chips for restaurants.

Unfortunately, from the point when the *panty* arrive in Moscow, we know almost nothing about the further trade lines. The only information I could get is from a Japanese colleague who did fieldwork on a Chinese market in Seoul in April 1996, where 500 grams of cheap dried *panty* slices were offered for 40,000 South Korean won (\$52), which works out at \$104 per kg. This product is called *Rokkaku*. The traditional Chinese medicine, probably a highly concentrated velvet antler extract, is called *Rokuju* and was sold for 241,071 won per 75g. This gives a price of \$4,185 per kg! (Takakura 1997: 74–89). This huge price difference can only be explained after more research is done on the Far Eastern side in Chinese and Korean language. What we know is that from any city onwards, *panty* business is dominated by very unstable structures, which change very quickly. In some cases in the 1990s, this instability influenced the producers of the raw material in the tundra, where *panty* collectors could not keep their promises and did not deliver goods for the *panty* collected. Therefore, the business has a very unstable reputation among reindeer herders.

### **Panty-hitchhiking: new trade routes in the 21st century**

With a resale price of 60 \$ per kg dry panty (for which you need 3-4 kg fresh raw material), renting helicopters at official prices of 2000 \$ per hour (2006) is not an option anymore. Therefore the flurry of new entrepreneurs at the end of the 1990s (many of them native (Stammler 2005, ch 8)) has disappeared from the scene, and in the whole region only 3 companies survived, which have divided the market among themselves and now operate without competing against each other. The time where herders were the targets of 8 competing helicopters are gone. Nowadays *panty* production is viable from an

economical point of view for a trader, if he can organise 'hitchhiking' on helicopters that are already paid for. Such a situation is more likely to occur in regions with intensive natural resource extraction or preparation for it, such as the Yamal Peninsula. For example, in 2005 the two main traders engaging in the business used transport according to a sophisticated system of sharing, mutual assistance, barter and informal agreements:

A helicopter was used for bringing supplies and a new shift of gas workers to a remote village close to summer pastures of herders on a Saturday morning. The crew of the helicopter were friends with the trader, who also ran a section of the remote village. He invited the crew for the weekend. However, in Russia flying helicopters during night time and on Sundays is forbidden. Therefore, the crew took out the black box of the helicopter, refuelled manually with unofficial fuel from a gas deposit, and flew to all reindeer herders for *panty* collection during Saturday night and Sunday daytime. None of these flights was recorded anywhere. Much of the flying had to be less than 30 m over the ground in order to avoid radar coverage by flight authorities. After a nice relaxing Sunday evening and night, the helicopter was officially refuelled on Monday, taking a gas worker shift back to the city. The helicopter was in addition loaded with *panty* up to the ceiling, overloading it to the very limit. This way the *panty* 'hitchhiked' for minimal expenses to the city, where they were sold on to traders from the Far East.

The other trader partnered with an indigenous entrepreneur and was himself an experienced pilot employed in a leading position in a regional air company. His wife worked as the chief flight dispatcher on one of the main airports in the region. This enabled them to fly with minimal expenses according to similar principles like in the first case. These cost-cutting measures can be seen as making the most efficient use of expensive non-renewable resources, at the same time contributing to

Russia's 'economy of favours' that has become so typical after the Soviet Union (Ledeneva 1998).

## **The character of income and the nature of money**

For herders, the income from this recent commodity, *panty*, challenges the orientation of their economy to subsistence and meat production. From a market point of view, producing *panty* was for at least a decade more profitable than producing meat, but still this new commodity has neither become the only, nor even the major economic activity of the reindeer herders.

One reason for this is the reputation of *panty* cutting among the nomads. A major contribution of anthropology to understanding economic processes was the subjectivity of economic behaviour and the finding that many cultural factors beyond monetary or other forms of calculation influence actors' decision making. One such important factor is the reputation of the income generated from a particular activity. This turns 'the market' into a culturally bounded unit (Carrier 1997, Humphrey & Mandel 2002). Even more, research has also shown that money itself loses its anonymity and universality when it becomes embedded in a system of cultural symbols and hierarchies (Hutchinson 1996).

The perception of the *panty* production and business is very ambiguous among the producers (the herders). The business is considered dirty and mafiotic, and the income is highly risky and unreliable. One year the business might work well, next year it might not, for reasons beyond the influence of herders themselves (e.g. the development of Viagra). Therefore many think it is better not to rely on income from this commodity. *Panty* has therefore always been an additional, supplementary source of income on top of the main reindeer herding production - meat for subsistence and the market. It is noteworthy,

however that the division between commodity and domestic use of a resource should still be conceptualised as two parts within one integrated economic system among herders. Gude-man (1994) has rightly argued that categories such as 'market' and 'community' sphere of exchange do not exclude each other and are not always easily separable in real life. Nonetheless, *panty* in the tundra are produced exclusively for the commodity sphere.

Correspondingly, the things that reindeer herders buy from such a supplementary income are goods or services going beyond the basic needs, such as spices from Caucasus, fruits, items for leisure times, tape recorders, music and the like, as well as expensive equipment such as snowmobiles, expensive services such as university education for the children, or expensive luxury such as housing in town. All these things are not essential for reindeer herders' nomadic lifestyle on the tundra, and all of these are considered a luxury. Thus, income from *panty* enables the herders to increase their standard of living beyond the needs of survival. Some richer herders can afford to buy a snowmobile every second year, e. g. to equip their boys, just as some western school children get a car for their 18th birthday.

This clear cut difference between basic needs and extended non-essential needs allows us to conceptualise *panty* income as a sort of special purpose money (Parry & Bloch 1989). Hutchinson (1996) has shown for the African Nuer pastoralists along similar lines how income from a low prestige business is spent only for non-essential if not unnecessary purposes, but never for economically, let alone culturally prestigious purposes. Hutchinson's informants would not have paid bride prices with 'shit money', gained from carrying the excrements of the rich to the waste deposits in a city. Unprestigious money must not spoil prestigious events or rituals. A similar argument was made by Graetz (2003), who found that African agriculturalists working in small scale gold mining would rather share

their income among working colleagues and friends within the mining communities, then taking the money out of its context and sharing it with relatives in their culturally bounded systems of exchange and trade. They would rather spend this income within the same sphere where it was generated, away from home, e.g. on alcohol in pubs of the mining village, or for entertainment, and all available leisure expenses.

Along similar lines, reindeer herders would rather spend money from *panty* for luxury items such as snowmobiles, TV's, Videocameras, DVD players, or vodka. As I have shown before, most of these items stay outside of the nomadic life so far. If they enter the tundra they are regarded as luxury supplements or entertainment for herders. One might compare this 'special purpose income' with the position of stock exchange incomes among western 'hobby brokers'. The *panty* market is also seen as hectic, unstable, and full of dishonest people, just as the stock exchange. Therefore people do not rely too heavily on this income for their everyday life, but nonetheless like to engage in the business.

This is why the backbone of the reindeer economy in Yamal is still meat production. Counting too much on *panty* income means investing in an unpredictable branch of the economy. The heavy fluctuations on the *panty* market have shown that this is dangerous for herders. However, in spite of its bad reputation, cutting *panty* is still seen as a legitimate source of income, and as Pine (2002:77) has pointed out for Poland "almost any means of obtaining it [money] is legitimate". We could conclude that *panty* for the herders express best their quest for the incorporation of their nomadic economy into world capitalism without becoming detached from the social processes within their communities.

Nash (1994) has found that engaging in the global economy does in many cases not lead to a depletion of subsistence activities. Continuing from there, I would argue that risky economic ventures in the global economy develop best on a solid

stable domestic economic base, here e.g. meat production and tundra exchange. If this basis will continue to be important, the intimate relation between humans and their animals in this form of nomadism will remain intensive and not fall victim to an increasingly dominant ideology of rationalised sustainable development (cf Beach and Stammer 2006). In this connection between the “global” and the “local”, we see the proof against the evolutionary assumption that we have subsistence economies in “pre-modern” societies, whereas commodity exchange takes place in the global economy. Evers (1996) and others point out that both can occur simultaneously in one community, in the reindeer case even using the same resource.

## Conclusion and outlook

This paper provided an assessment of a particular adaptation to rapid social and economic change among reindeer nomads of West Siberia. I have illustrated the process of economic integration of a remote arctic community into an international trading network, while at the same time showing how the community managed to maintain their more stable domestic foundation of their nomadic economy.

Basing on ethnography of velvet antler (*panty*) production and trade, I have shown that rapid integration in market adventures should not be seen as a ‘transition’ from one economic form to another. High risk commodity trade does not exclude subsistence and domestic market production. Economic actors in this case rather unite both elements. The case of reindeer herders makes this even more obvious, as it is one and the same resource – reindeer – that is used for engaging in both economic spheres.

The ethnography of *panty*, velvet reindeer antler business between Korean or Chinese customers, Russian traders and Nenets reindeer herders, revealed that different purposes of using one resource result in a clear divide not only of eco-

conomic activity itself but also of spending practice. The divide goes along the lines of basic needs, subsistence, market production for staples, resource sharing (through multiple use of reindeer in the tundra) on the one side, and luxury, entertainment, fun and non-essential needs (through *panty* trade) on the other side. Supporting arguments from African anthropology, the study demonstrated how this divide creates culturally meaningful categories of income, embedded into criteria of reputation, prestige and taboo. I argue that these categories of income follow a culturally bounded logic, which is rational from within the actors' point of view.

Where commodity trade supplements, but does not replace nomadic subsistence lifestyle, money is not merely a generalised anonymous means of exchange, but bound to special purposes and cultural meanings, which are not turned upside down by integration into global economic networks. Thus, in Yamal, and elsewhere in the North, the reindeer herd is still the principle wealth and the supreme form of property (Stammler 2005), not the equipment in town bought with *panty* money or a full bank account. In this context market integration and commoditisation do not always have to be accompanied by a marginalisation of nomads or a change of social strata among them. Commodity trade in Nenets reindeer nomadism does not turn herders into passive victims of globalisation that have to cope with outside pressures. They rather display a lot of agency, taking outside changes as an opportunity to benefit.

However, this does not mean that reindeer nomads are endlessly resilient. On the contrary, they are vulnerable, because unlike many other communities, they rely mainly on one resource. If that resource - reindeer - is gone, only fish can help to satisfy some basic needs, even though it is recognised as being of minor prestige to reindeer herding (poor people's income who cannot afford a big reindeer herd). Industrial development of the reindeer nomads' tundra therefore should pay particular



attention to preserving the principal resource base of their economy.

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