March 2008 Volume 3, Number 1

Eternal Kantele at the End of Time– Reflections on Retraditionalization of Traditional Knowledge In the Face of Rapid Ecological Changes in the Arctic

by TeroMustonen

...Iski kerran, iski toisen / She struck it once, struck it twice
iski kohta kolmannenkin / soon struck it a third time too:
jo ilolle tuntui / now joy had the feel of joy
laulu laululle tajusi / and song had the sense of song
alkoi sormet souatella / Her fingers began to work
käsivarret vatvaella / her arms to move back and forth...

1. Introduction

This paper looks at the role of traditional knowledge (TK) and revitalization attempts of this knowledge in face of rapid social and ecological changes in the Arctic, more specifically in the context of human-induced Arctic climate collapse (Arctic Council 2004, Mustonen et al. 2004). As the incapacity of the regional, national and international regimes of governance becomes more evident in trying to respond to the looming crisis, the local Northern communities are on the front lines of receiving the impacts of the climate and weather changes. At the same time, these communities in the North, many of which are Indigenous by population, have survived colonisation, modernisation and have entered into the "global" age as survivors and significant actors in the multiple frameworks of the North; from land claims recipients to international focal points of Arctic change. For example the Inuit people have demonstrated this with the active policies regarding climate change. One of the themes of the Northern Research Forum, 4th Meeting, is "Borders, barriers, interactive cultures and borderlands – is the North becoming a common borderless space?" More specifically it has been identified that one of the key sub themes is "Learning the epistemology of indigenous knowledge systems and worldview". This paper, while outlining some of the recent examples of the application of local and Indigenous knowledge systems into research and policy (Arctic Climate Impact Assessment Report, 2004) touches on a number of themes embedded in this field. At first, after introducing Snowchange, the organisation operating as a context for this paper, an outline will be given on the relationship of ecological, including climate changes to traditional knowledge, with examples from the Baltic-Finnish cultural zone. Then a quick overview of three community-based oral history projects will be done to highlight practical, concrete examples of Arctic and Subarctic communities trying to preserve and revitalize core elements of their knowledge systems.

1.1. Snowchange Cooperative

Winner of the prestigious Worldwide Fund for Nature 2002 'Panda Prize' for best national ecological project, SnowChange was started in late 2000 to document and work with local and Indigenous communities of the Northern regions. In 2001, a partnership was established with the Arctic Climate Impact Assessment to provide case studies from Finland and Russia to the Chapter 3 of ACIA: Indigenous perspectives. Aim of this project was to document and work with local communities and Indigenous peoples to present their findings of climate and ecological change in a way that would offer a viewpoint that empowers the local people of the changing Arctic. As well, a strong educational element was included to introduce students of the mainstream societies of Russia, Finland, Iceland, Canada and Alaska to the values, ethics, lifestyles and knowledge of the Indigenous societies of the North. Students worked with reindeer herders, fishermen and hunters in the circumpolar regions to collect the Indigenous observations of change. The results were released in a groundbreaking publication Snowscapes, Dreamscapes in Helsinki, Finland in June 2004. Overall the Sámi and other local participants have a clear message of the changes taking place; in the past 20 years there has been a significant new phase in the weather and natural cycles. The Sámi have traditional knowledge building on generations of people living in close relationship with the sub-arctic ecosystem. This knowledge is best expressed in the Sámi language. Despite colonization attempts by missionaries, boarding schools and the Nordic states, the Sámi culture and people survive and are regaining the control of their own destiny once again. SnowChange community interviews are being digitalized and archived into DVDs for future generations, while new documentation goes on.

1.2. Rebirth of Snowchange

August 28th 2005 saw the rebirth of the Snowchange into its current form. At the traditional farm and fish camp of Olli Klemola the Snowchange Cooperative was founded. The Snowchange Cooperative is a non-profit educational, scientific and environmental independent organisation, a cooperative where all members are stakeholders. The decision making procedure of the Snowchange Cooperative follows the ancient method of consensus-based "käräjäpiiri" governance of traditional Finns. This allows all members of the cooperative to have a voice. The administrative, international and financial relations of the Snowchange Cooperative are governed by the Council of the Snowchange Cooperative. Consisting of five people, Elders, artists, fishermen, scientists and so forth, the Council prepares suggestions to the grand council once a year. Mikko Lamminpää is the Chairperson of the Council and Tero Mustonen, Executive Secretary, is responsible for the Archives and International Projects.

The scientific priority of Snowchange is currently in the following areas of the North: the Saami territories of Finland, Russia, Sweden and Norway, Murmansk Region and the Republics of Karelia and Sakha-Yakutia, Russian Federation, Savo, North Karelia and Kainuu, Finland, Iceland and Faroe Islands, British Columbia, Northwest Territories and Nunavut, Canada, Alaska, USA. In addition to these operations in all Arctic countries (United States / Alaska, Canada, Iceland, Greenland and Faroe Islands (Denmark), Norway, Sweden, Finland and Russian Federation) Snowchange has partners in Bolivia, Nepal, Ghana and New Zealand. In all of our member regions there is a large network of community people to whom we owe our daily thanks for making Snowchange possible. As well, several NGOs and other organisations such as the International WWF Arctic Programme have been and are key allies with our work.

1.3. Conferences of the Snowchange

Snowchange takes action on different levels. In communities, with media, educational institutions, cultural centres, schools and so forth. Our largest tools are the Snowchange

Conferences. Three have been organised so far: 2002 Tampere, Finland, 2003 Murmansk, Russia, 2005 Anchorage, Alaska, USA. Snowchange 2007 has been slated to take place in Sakha Republic, Russia with the Evenki people and Snowchange 2008 in New Zealand with the Maori people.

...Ei ollut sitä metsässä / There was none in the forest jalan neljän juoksevaista / running on four feet ku ei tullut kuulemahan / that did not come to listen soitantoa Väinämöisen, veen emosen / to Väinämöinen's playing...

2. Theoretical Approaches to Oral Traditional Knowledge Systems

Human-induced climate change has become a reality in the Arctic. Findings of such international research projects as the Arctic Climate Impact Assessment, ACIA [Arctic Council, November 2004] and the International Governmental Panel on Climate Change, IPCC confirm that the Arctic ecosystems and human societies face immense challenges in the nearby future. At the same time around the Circumpolar North, people living in small communities have argued for a number of years that there is an urgent need to study traditional economies and knowledge systems, to appreciate their character and complexity, and to preserve them. The traditional knowledge developed within local communities, is grounded in the close interaction between people and their local ecosystems over periods of hundreds, or even thousands, of years. It normally reflects subtle strategies for maintaining social cohesion and for making wise use of renewable natural resources in ways that are inherently sustainable. Traditional knowledge is of scientific interest as an (largely unexplored) example of knowledge acquisition and transmission, a medium of social cohesion, and a set of human strategies for coping with social and natural environments. Traditional, local knowledge is a hidden, but important, constituent of a culture, which is important to the maintaining of social and personal identity. It contributes to the preservation of the basic social fabric in a period of rapid and de-stabilizing change. It adds to the richness and diversity of experience no less than other cultural components such as art, literature or music. Like these other components, it deserves to be available to the public, but unlike the others, it is very difficult to display. Although the strategies and insights of traditional knowledge may become in various ways obsolete when the matrix surrounding human life undergoes rapid and drastic change, they may in many other cases be of help in understanding and adjusting to change and novelty. Traditional knowledge provides culturaly

...Ei ollut sitä ilmassa / There was nothing in the air siiven kahden lentäväistä / flying on two wings ku ei tullut kuulemahan / that did not come to listen soitantoa veen emosen / to Väinämöinen's playing...

3. Significant Natural and Ecological Changes in the Baltic Rim As Reflected in the Baltic-Finnish Oral Histories

Our focus region is the Baltic Sea and its Northern Rim; homelands of the Sámi, Scandinavian and Baltic-Finnish Nations for millenia. Therefore I will present some discussion on the role of traditional oral knowledge and its relationship with large scale ecosystem events and changes in the past. Ain Haas, Andres Peekna and Robert E. Walker argue that:

"The observation that human societies are shaped by the natural environment appears in the earliest treatises on cultural diversity. Scholars have focused their attention on the ordinary conditions of the environment (weather patterns, topography, natural resources, and other enduring features) or on recurrent events in an area (earthquakes, floods, droughts, etc.), when trying to account for local inhabitants' distinctive customs and beliefs. Yet recent investigations of ancient catactysms suggest that truly extraordinary events can also have a great and lasting impact...The Finnic and Baltic peoples, in particular, are noted for their extensive collections of folk songs and tales, compiled mostly in the 1800s—a product of their deep reverence for the oral traditions of their ancestors and their recent and wholehearted conversion to literacy. These peoples are also noted for their etnacious commitment to their homelands. Compared to most other parts of the world, the population of this area has been relatively stable for millennia. Archeological, linguistic, and genetic evidence all point to continuous occupation of the shores of the Baltic Sea since the end of the Ice Age" (2003: 49-50).

Ain Haas, Andres Peekna and Robert E. Walker discuss the knowledge regarding the birth of fire in their article further:

"In his books Hōbevalge (1976) and Hōbevalgem (1984), Lennart Meri (the scholar, anthropological filmmaker, and diplomat who became Estonia's first post-Soviet president) notes that another, literally earth-shattering, cataclysm took place in the area, when a meteorite broke apart in the atmosphere and the pieces smashed into the Estonian island of Saaremaa to form the crater of Kaali and several smaller ones. He presents an intriguing argument that this had a major impact on Estonian-Finnish mythology, folklore, involvement in iron-making and trade, etc. The date he reports for this event, 600–700 B.C., was based on radiocarbon dating of charred wood from the craters...The Kanimeteorite crash is the kind of unique and astounding event that must have become a topic of storytelling and singing for many generations afterward. As mentioned above, it evidently occurred around 2000 BC, on Saaremaa Island in the Baltic Sea. As recent scientific studies have established ... a meteorite of iron streaked from east to west over the Estonian mainland, broke apart as a result of atmospheric friction, and hit the island in at least 9 places, leaving craters that can be seen to this day.... In the folkloric sources of the peoples living in the vicinity of the cataclysm, the description that is the most detailed and seems closest to the reality of the meteorite crash can be found in the Kalevala epic. The 47th rune of the revised (1849) version is as vivid, comprehensive, and accurate as one could ever expect, if an account of the disaster had been passed down through some 4000 years (or about 160 generations) of oral tradition. The poem's reference to the fiery fragments of heaven speeding and crashing along the cloud-line fits with the scientists' (2003; 51, 56, 61).

Even though the written epic Kalevala by Elias Lönnrot can hardly be taken as an accurate oral history document, the point emphasized by Haas et al. is an important one. Deriving their conclusions on oral knowledge largely from President Meri, they are looking at how multifaceted variations of one of the most significant and spiritually potent oral songs of the Karelian and Finnish Nations, "Birth of Fire", may reflect an event of a massive scale – that of a meteorite hitting Estonian homelands in the distant past. Such knowledge and detailed, sensitive readings of local landscapes, place names, harvest areas and localities that are embedded in the oral systems of knowledge in the Arctic are at the core of understanding traditional knowledge. Collectively the age of the rune singers and Finnish traditional community life has been declared over at the close of the 19th Century. Many community people, artists and scientists however have tried to work and make sure that cultural knowledge core of taiga forest ecosystems was preserved. In 1960s and 1970s, at the height of the post-War modernisation and industrialisation in Finland several important social and cultural figures tried to maintain rudiments of this relationship through their work; these include fisherman Into Sandberg on the Pori area Baltic Coast, artist Reidar Särestöniemi, photographer Matti Saanio and most significantly, author and translator Brita Polttila, to name a few. Polttilas "Pohjan Portit / Gates of the North" from 1982 offers a break-though reading of the relationship between Karelian / Finnish traditional oral songs and the cyclic, seasonal changes of the Northern taiga ecosystems, with strong emphasis on northern lights and the way they are reflected in our song, in our belief and in our ideas of the land.

In the field of Arctic sciences, the application of traditional knowledge to the understanding of ecosystem changes has begun to take root. The most significant of these attempts so far is the Arctic Climate Impact Assessment from 2004 (Arctic Council 2004), which contains observations of climate and weather changes around the Arctic communities. At the dawn of the 21st Century Arctic, with an imminent collapse of the climate system in front of us (*The Siberian permafrost region has the potential to release billions of tonnes of methane, says Walter.* "It is a ticking time bomb," she says; in Walter, Zimov, Chanton, Verbyla and Chapin 2006: 71 – 75) the local communities and individuals are faced with a significant question: How do we adapt and mitigate the vast and overlapping changes that loom ahead? In many cases of the North, the traditional knowledge and the revitalization of this knowledge are proving to be answers to the dilemma. In short this process features the following components:

Chart 1: Retraditionalisation of Northern Communities

- ${\it 1. Revitalisation of Community Autonomy (political, economic, cultural) leading to}\\$
- ${\it 2. Revitalisation of Local Economy and Language (Oral \, history \, projects) \, leading \, to} \\$

...Veen emosen soitellessa / As Väinämöinen played kutku kullervoiellessa / as she plucked the loud strings lohen purstoista iloa / as the salmon tail rejoiced kalanluista kanteloista / to the fish bone kantele...

4. Overview of the Three Snowchange-Related Oral History Projects in the North

4.1. Igloolik Oral History Project

Igloolik Oral History Project based in the Canadian High Arctic in the Inuit community of Igloolik was started in the 1980s on the wishes of the local Elders and researcher John Macdonald to preserve the Inuktitut language, dialect and *Inuit Qaujimajatuqangit*, Inuit traditional knowledge. Copies of all documented Inuit Qaujimajatuqangit interviews are stored at the community and are available to stakeholders. In 2000, the project yielded a community-based book "Arctic Sky" devoted to the Inuit knowledge of the celestial events, navigation, myths and so forth. Community events, such as seasonal festivities (return of the sun etc.) have been re-activated and re-introduced. Snowchange has collaborated with the Igloolik Oral History Project since 2002 in the form of joint publication of materials, online exhibitions of Inuit Qaujimajatuqangit and educational projects, including seminars. The Igloolik Oral History Project represents one of the most long-running attempts in community based knowledge revival and therefore is an important baseline and comparative case.

4.2. Snowchange Yakutia - Ecological Traditions of the Aboriginal Peoples of the North of Russian Federation In Context Of Climate Change

Snowchange Yakutia works with two communities in the Republic of Sakha-Yakutia, Siberia, Russia to preserve and advance local Chukchi and Evenki knowledge, language and oral histories as well as document rapidly advancing climate change (Walter, Zimov, Chanton, Verbyla and Chapin 2006: 71 – 75) in partnership with the local reindeer herders, subsistence fishermen and hunters. The project "Ecological Traditions of the Aboriginal Peoples of the North of Russian Federation In Context of Climate Change" represents an attempt to collect and accurately describe the cultural heritage of Northern peoples in Yakutia. Primary attention is given to rapidly disappearing materials, spiritual heritage patterns and bearers of traditional culture of Northern and Arctic peoples. Simultaneously, attention is paid to existing display of Indigenous peoples cultures, which have not been obtained properly in the past. Previous colonial researchers have misrepresented the local cultural issues in a distorted way. The Snowchange Yakutia project is designed so that Indigenous participants work with other Indigenous informants and retain full control of the project during its execution – thus ensuring a proper way of representation and participation. The first segment of the documentation and research of the traditional knowledge has been conducted in Nerungrinsky region, Sakha Republic, Russia and Niznekolumsky region, Sakha Republic, Russia and Patters and Snowchange. In total appr. 150 hours of interview materials, diaries, maps and photos have been researched and documented. First community in the Snowchange Yakutia process is the village of Iengra (Evenki) and the nearby nomadic reindeer camps, with a special focus on brigade #4. Community oral history project began in July 2004, with long fieldtrips in 2005 and 2006. Niznikolumskaja raion is the second territory in the Snowchange Yakutia. Even, Yukagir and Chukchi Tribal Indigenous communities Nutendli and Turvaurgin obschinas are the primary partners for this work. Niznikolumskaj

Most of the project field work will rely on ground-up approaches. Actual field interviews are expected to be conducted using semi-structured interviews. Informant participation is important and semi-structured interviews will allow the participants to priorise the issues, observations, narratives and processes that they feel are important for them. This method ensures that proper presentation and guidance of fieldwork will be conducted as well as an ethic treatment of the local participants according to the established standards of the international law and guidelines of similar research. Each local participant is a co-owner of the documented material. They and / or their representatives have rights to decide what parts and in what ways their knowledge will be presented to various audiences and in the Snowchange archive. Technically, documentation of the field work involves the use of field notes, digital cameras and minidisk recorders as well as conventional documentation equipment. Most of the field documentation has been filmed using MiniDV Digital Cameras. Topics of research includes narratives, observations, stories and understandings that put emphasis on relationship between local people and surrounding ecosystems. Emphasis lies as well with climate change, to start monitoring of community-based observations in Yakutia and to continue the work of the previously mentioned ACIA and IPCC climate change studies.

4.2.2. The Nutendli Nomadic School

Nomadic way of life survives in Yakutia, Rapidly melting permafrost, loss of culture and other factors are priority challenges for Snowchange. We are funding Nutendli Nomadic School to preserve Chukchi culture, language and way of life. In short, the new nomadic schools, which would allow the Indigenous children to receive their education close at their traditional homes on the land may represent last and best attempt to preserve the unique cultures, livelihoods and languages of the peoples involved. This may sound theoretical and romantic at first, but at the core of the debate this issue really emerges - the survival of the traditional mind and peoples on the land. Once the nomadic way of life is over, the process can never be reversed. When Sibria was colonised by Russia and later the industrial colonisation took place under the Soviet state, Indigenous societies of the region were assimilated and the attempt was made effectively to wipe out the local knowledge systems, beliefs and languages. The residential internat school system has caused the near destruction of these societies. Therefore the introduction of new nomadic schools in Yakutia represents an attempt to correct the problems of the colonisation in Russia and support the re-birth of the (neo)traditional lifestyles of the tundra and taiga. In the process of establishment of a nomadic school the first responsibility is always with the local obschina or community / family. If they feel they have the responsibility and resources to enter into this demanding attempt to re-establish Indigenous education among their peoples, this decision is the start of the process. There has to be some real "criteria" of internal situation in place that the concept will be considered whether the language is still spoken, is the nomadic way practiced, are there enough Elders who can teach the young people the core of the traditional knowledge systems, rituals, ceremonies, reindeer way of life, and in the end, does the community have the willingness to enter into this ch

ku ei tullut kuulemahan / that did not come to listen

Veen emosen soitellessa / As Väinämöinen played...

5. Indigenous Criticisms of "Oral History Projects"

In brief, criticism of documentation of traditional knowledge exists, but has been marginalized in academia and at large. One of the leading scholars of this topic, Leanne Simpson from the Anishinaabe Nation in Canada, argues that:

"Our teachings tell us that knowledge is a process that must be lived.(italics by author). Anishinaabe knowledge holders for example have always documented aspects of their knowledge systems (petroglyphs, pictographs, scrolls, wampum etc.) but the contemporary pressure to document is coming from the colonizing culture. So whenever I am confronted with a documentation project I always look at the motives. In cases where real Indigenous knowledge holders want to document aspects of their knowledge for specific political purposes, I can usually respect that decision...Documenting knowledge makes it more accessible and palatable to those who know little or nothing about Indigenous cultures. Our knowledge holders caution that documented knowledge is only the "residue" of these systems and it can easily be misunderstood and exploited when taken out of context. Meaning is derived by context. I believe we need to focus our efforts on internal matters — on community and nation building, on recovery and revitalization of decolonizing, etc. in terms of knowledge that means creating situations where youth are interacting with Elders so that Elders and knowledge holdershave the opportunity to pass their knowledge on using culturally inherent ways. It means protecting the land. It means promoting language, recovering traditional political culture, leadership and governance. It means strengthening connections to the land. It means finding a way to live our knowledge in the contemporary world". (2006). Comments made here are a welcome and fresh point of view in the rush of the academia to document and extract, "strip-mine" if you will, traditional knowledge of the North.

...Veen emosen soitellessa / As Väinämöinen played kutku kullervoiellessa / as he plucked the loud strings kalanluista kanteloista / to the fishbone kantele lohen purstoista punaisen / the red salmon tail...

6. Conclusions: Eternal Kantele at the End of Time

My own cultural background, as a member of a Karelian family with roots in Äyräpää in Ladoga Karelia and Leppävirrat in Savo region of Finland, is a contested one and complex one. Our traditions have been documented for decades by scholars from the Association of Finnish Literature among others. Traditional Finnish Knowledge has been documented for centuries. On the surface we are a modern European nation-state. Often it is said that our traditional knowledge is dead. However, it is the first priority of the Snowchange Cooperative to make sure that the forest knowledge of Finns is preserved and actively in use. Our language is very old, our epic songs, incantations and sacred beings consist echoes and stories since Time Immemorial. This forest knowledge is best expressed in our local dialects and languages. Therefore Snowchange is in active process of re-traditionalisation of our society in different levels. Examples include handicrafts, nuotta style traditional fishing, runonlaulanta singing and many more.

"Tuohiaika" – "Age of Birch Bark" is an oral history project to document North Karelian, Savo and Russian Karelian oral histories regarding fishing, hunting and weather knowledge. It was initiated in 2005. Key components of the Tuohiaika project are; critical analysis of the character, nature and extent of surviving Karelian knowledge, documentation and archival of Finnish knowledge, organisation of community events, training, conferences and participation in research that enable the advancement of traditional Karelian and Finnish Knowledge, opposition and positive action to stop unlimited forestry and other industrial activities in the European Peripheries, community based conflict management and solutions and most importantly, the rebirth of Forest Knowledge of Finns. This process will as well provide a new, post-colonial scientific framework that will lead to a "new approach", attitude and interpretation of cultures of the Arctic. This new approach will be built on the traditional governance and learning structures of the local cultures. Such a unique process has few peer projects in the world.

Ain Haas, Andres Peekna and Robert E. Walker write about the social functions of remembering rapid, drastic ecosystem changes and cataclysms:

"There can be no doubt that after the sudden periglacial lake drainages and the meteorite crash occurred, the cataclysms became a main topic of conversation for the observers and their descendants for a long time to come. People would have tried to interpret the unprecedented events in terms of more familiar concepts, speculated about what unseen forces or supermatural beings might have made Nature take such unexpected turns, and worked the amazing events into the stories, songs, incantations, and other lore passed on to subsequent generations. Those who were eyewitnesses to the events would have related their experiences with firm conviction and strong emotion. Those who were born shortly after the event would have taken the claims most seriously and passed them on without casting doubt on the veracity of their elders. In those days, people lived a precarious existence, had to pay close attention to the dangers and opportunities in the natural environment, and could not afford to believe only what they had directly experienced themselves. Many generations later, the lore connected to the cataclysms would have receded in importance. Without recurrences, interest in the ancient events was bound to wane eventually. New disasters and extraordinary events would come to the fore — wars, plagues, religious conversions, etc. — and compete for the attention of storytellers and singers. New characters might be connected to old sites, as in the mainland Estonian tale about Vanapagan (Old Pagan) doing his sauna-whisking and bathing at Kaali.—But there would still be an important reason to pass on ancestral lore about the environment of the past. Remembering something about what was considered noteworthy by one's elders and those before them would be a way of honoring ancestors and affirming one's affiliation with a long chain of generations of one's own kind, even if the relevance of the information to contemporary problems seems minimal... Many of the metaphors that are presented in the lore will remain mysterious, but a

Brita Polttila, a scholar, author, writes in her «Pohjan Portit» from 1982:

«As I was reading the (documented) version of the birth of the Cosmic 'kantele' instrument, I was filled with an emotion that among the poetry of the world there cannot be more potent celebration of the healing powers of Life...The world view, belief system and imagination embedded in our songs and poems is one of shamanism. There are no traces of the shaman drums in our poems. But just like the Sámi and Altaic shaman drum, kantele is our symbol for the universe...Kantele was used to predict things, the playing of kantele allowed noita, the shaman to fall into trance to travel to the spirit world. When noita, shaman conducted her incantations kantele rested on her knees. It symbolized a cosmic instrument built from the eternal jaw bones of the Northern Pike. It was a cosmic kantele of the Aurora Borealis. The Kantele of the Rites was a powerful symbol of forces of life and renewal of the new Cosmos, Life itself.» (1982: 237.)

Spirituality, land, language and weather changes are related. New documentation of climate change and further adaptation and mitigation has to recognize spirituality. Indigenous and cultural spiritual relationship is best expressed in local languages. We need spiritual leaders to determine the direction of our work. We need mechanisms in place for financial, material and educational support of these local languages. There is a need for sensitivity in relationship with spiritual knowledge. We in Snowchange have to make sure our ways of life and local knowledge are kept despite colonization and the predicted changes that are affecting our realities. We must find different ways to document snow, ice and other related terminology and the ecosystem changes. We need to create a forum for indigenous and local peoples to express these relationships. We need to have to dialog with people who are threatened by indigenous peoples. We need to include people with different values into the discussion. Documentation is just one step - in some cases that is what is needed. But according to our vision we archive and document knowledge to embark on a road to re-traditionalize and rebirth our cultures, our languages, our beings in the world. At the time of changes, we believe we must live our knowledge, our songs, our dreams.

...Veen emosen soitellessa / As Väinämöinen played...

Thanks to Mikael Karsson, Professor, Department of Social and Economic Development, University of Akureyri, Iceland for support. As well thanks to the staff and researchers of the Institute of Small-Numbered Peoples of the North, Yakutsk, Yakutia and Vladimir Vasiliev, Acting President of the Northern Forum Secretariat, Yakutsk, Yakutia as well as all participating communities and individuals.

References and Further Reading

ALHGREN, Simo in a book MUSTONEN, Tero & NIEMINEN, Mika (a). Ahdin nuotta-apajilla. Pirkanmaan ammattikalastajat. Tampereen ammattikorkeakoulu, Tampere, 2004.

ARCTIC COUNCIL. Arctic Climate Impact Assessment, Chapter 3: Indigenous Perspectives. Alaska 2004.

ATLEO, Richard Umeek. Tsawalk - A Nuu-chah-nulth Worldview. Vancouver: UBC Press, 2004. ISBN 0-7748-1085-8.

BERKES, Fikret. Sacred Ecology. 1999

BÄCKMAN, LOUISE. The Noaidi and the Noaidis Worldview: A Study in Saami Shamanism From a Historical Viewpoint. Kirjassa MUSTONEN, Tero & HELANDER, Elina. Snowscapes, Dreamscapes – A Snowchange Community Book on Community Voices of Change. Tampereen ammattikorkeakoulu, Tampere, 2004

ELIADE, Mircea. Shamanism - Archaic Techniques of Ecstasy. London: Penguin Books/Arkana, 1989.

HAAS, Ain, PEEKNA, Andres and WALKER, Robert E. Echoes of Ancient Cataclysms in the Baltic Area in "Folklore" – An Electronic Journal of Folklore, vol 23, July 2003. Available online at http://www.folklore.ee/folklore/vol23/echoes.pdf.

HAAVIO, Martti. Suomalainen mytologia. Porvoo: WSOY 1967.

KAUTOVAARA, Pekka, Kättentöitä, Otava, 2002,

KAUTOVAARA, Pekka. Hands at Work – Traditional Finnish Arts and Forgotten Skills in a book MUSTONEN, Tero & HELANDER, Elina. Snowscapes, Dreamscapes – A Snowchange Community Book on Community Voices of Change. Tampereen ammattikorkeakoulu, Tampere, 2004.

MACDONALD, John. Arctic Sky - Inuit Starlore and Astronomy. Nunavut Research Institute / Royal Ontario Museum, Iqaluit: 2000.

MUSTONEN, Tero & NIEMINEN, Mika (a). Ahdin nuotta-apajilla. Pirkanmaan ammattikalastajat. Tampereen ammattikorkeakoulu, Tampere, 2004.

MUSTONEN, Tero & MÄKINEN, AIJA. (b). Pitkät hylkeenpyyntimatkat ja muita kertomuksia Itämeren hylkeenpyynnistä. Tampereen ammattikorkeakoulu, Tampere, 2004.

MUSTONEN, Tero (c). Ramblings For a Post-Colonial Arctic, kirjassa MUSTONEN, Tero & HELANDER, Elina. Snowscapes, Dreamscapes – A Snowchange Community Book on Community Voices of Change. Tampereen ammattikorkeakoulu, Tampere, 2004.

MUSTONEN, Tero (a). Snowchange and Temporal Borders of the Northerm Indigenous Nations - A Geopolitical Inquiry of Sapmi, Sami of Finland and the Russian Federation. Tampereen yliopisto, Politiikan tutkimuksen laitos, 2003.

NUTENDLI NOMADIC SCHOOL. Available online at http://www.snowchange.org/snowchange/content/view/43/1/

PÁLSSON, Gísli. Coastal Economies, Cultural Accounts – Human Ecology and Icelandic Discourse. Manchester University Press, Manchester, 1991. ISBN 0-7190-3543-0.

POLTTILA, Brita. Pohjan portit. Helsinki: Tammi, 1982. ISBN 951-30-5573-6.

ROTO, Johanna & NIEMINEN, MIKA & SYRJÄMÄKI, EIJA & MUSTONEN, Tero. Case study: Pilot whales - food and culture in the Faroe Islands, United Nations Environmental Programme - Grid-Arendal, Norway. Available at

http://vitalgraphics.grida.no/arctic/?/showPage/chapterid/91

SIIKALA, Anna-Leena. Suomalainen Samanismi. SKS, Helsinki, 1996.

SIMPSON, Leanne. Anishinaabe Scholar. Personal Communication with Tero Mustonen, April 11th, 2006.

THOMSON, David. The People of the Sea - A Journey In Search of the Seal Legend. Washington D.C.: Counterpoint, 2000. ISBN 1-58243-086-1.

WALTER, K. M., ZIMOV S. A., CHANTON, J. P., VERBYLA D. & CHAPIN F. S. Methane bubbling from Siberian thaw lakes as a positive feedback to climate warming. Nature, 443. 71 - 75 (2006).

Tero Mustonen is a Finn living in North Karelia, appr. 70 kilometres from the Russian border in Eastern Finland. From his fathers side he has roots in Karelia. Mustonen has been conducting community-based research across the Circumpolar Arctic for the past 10 years, mostly in the remote subsistence and Indigenous communities (Inuit, Saami, Evenki, Chukchi) of Arctic Alaska, Canada, Siberia and Fennoscandia. Topic of the research is local knowledge and arctic climate change from the perspective of traditions. He is one of the authors of the acclaimed Arctic Climate Impact Assessment released in November 2004 (www.acia.uaf.edu). Mustonen is a subsistence fisherman, researcher and poet, who lives in a small village of Selkie with 300 people without running water in a Karelian farm from 1784. He is finishing his Ph D at the University of Joensuu, Finland.