

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

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*...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. These cases come from Arctic Canada with the Inuit of Igloodik, Sakha Republic (Yakutia), Russian Federation and the Savo-Karelian cultural zone in Finland and the Russian Federation (Provinces of North Karelia, District of Kainuu and Republic of Karelia, Russia). **Igloodik Oral History Project** based in the Canadian High Arctic in the Inuit community of Igloodik was started in the 1980s on the wishes of the local Elders and researcher John Macdonald to preserve the Inuktitut language, dialect and *Inuit Qaujimaqatuqangit*, Inuit traditional knowledge. **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 in partnership with the local reindeer herders, subsistence fishermen and hunters. **"Tuohiaika" – 'Age of Birch Bark'** an oral history

project to document North Karelian, Savo and Russian Karelian oral histories regarding fishing, hunting and weather knowledge was initiated in 2005. In the end, some reflections on the Indigenous criticism of documenting and establishing "oral history projects" will be offered and a look ahead provided.

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.

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.

***...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 destabilizing 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 culturally specific tools which enable people to adapt strange and unexpected influences to the local. The diversity of knowledge embedded in local traditional knowledge is reflected in local languages and language usage, and this requires ecologists and social scientists to reach out to linguistics in order to better appreciate the cognitive map of traditional knowledge, which exists within a largely oral context. In the United States, the National Science Foundation explicitly endorsed and recognized the value of the traditional knowledge in 1999. However, despite growing recognition of the importance of traditional knowledge, and awareness of the danger of such knowledge vanishing in a rapidly changing world, very little has actually been done in the way of revitalization of traditional knowledge on community level.

**...*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 cataclysms 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 tenacious 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 *Hõbevalge* (1976) and *Hõbevalgem* (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 Kaali meteorite 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' calculation that the meteorite came in at a 30–45° angle with respect to the horizontal surface. The white-hot fire that consumed people, a spruce forest, and boglands also fits." (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. 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. Polttila's "*Pohjan Portit / Gates of the North*" from 1982 offers a break-through 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

1. *Revitalisation of Community Autonomy (political, economic, cultural) leading to*
2. *Revitalisation of Local Economy and Language (Oral history projects) leading to*
3. *Revitalisation of Knowledge: People of the Land teach young people to be on the Land*

***...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 by the Russian partners 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 Turvaugin *obschinas* are the primary partners for this work. Niznikolumskaja raion is as well one of the three ECORA Project regions in the Russian North. Snowchange works closely with the integrated ecosystem management process of ECORA in the fields of climate change studies, traditional land use, education of Indigenous communities, development of civil society, conflict management and preservation of traditional knowledge. The ECORA project represents a historical attempt in the Arctic to preserve and revitalize Northern communities. It may be the best and last attempt to influence the development of this region. Next Snowchange Conference is planned in Iengra sometime in 2007-2008 with the Evenki people.

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 prioritise 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. In April 2007 the Snowchange 2007 Workshop – Traditions of the North is planned in Neriungri and Iengra of Sakha Republic to release key findings of the community observations of the changes from the field work regions.

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 Siberia 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 work. Some of these include 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 challenging road. In principle the idea of nomadic school is considered to be good and worth support in Yakutsk among the government representatives, NGOS, UNESCO, and educational bodies. Lip service is paid very often to the fact that support is given. Even in the regional centres the same rhetoric is practised. Unfortunately so, 99% of the time no support flows down to where it is needed the most - the actual school and tribal community. Now we see the rhetorical support for the idea of these school among politicians but as we get to the local and practical level, in fact there is active suppression and denial of protection and support for these attempts. A priority would be to provide higher-than-normal salaries for the teachers of the Indigenous languages and other nomadic school teachers, if they come from outside, as this could be a method of attracting people to the remote localities. Now very few people wish to go to remote camp along the Kolyma or to Aldan, when similar and higher paying job might be available in Yakutsk, Cherski or Neriungri. There is neither enough legal protection nor financial help from the government. Curriculum development to reflect Indigenous knowledge, something that we are very heavily involved in Nutendli, is not happening to a large extent because there is no funding to renew curriculum or rather the way in which teaching should be done in traditional ways. Unfortunately the most recent situation (Autumn 2006) points to the opposite direction - with the plans to introduce "rent" on the traditional land use of reindeer herders, fishermen and hunters, instead of the right of use and hopefully one day traditional ownership, which has taken place in Canada (Nunavut, Deh Cho, Nisga'a Final Agreements). Snowchange opposes strongly the new law of "renting" these lands, and continues to work both on the community level as well as all administrations of Russia to influence the situation. This nomadic school "*Nutendli*" and the tribal *obschina* led by Slava Kemlil represents in many ways the best example of trying to regain control of the culture, language, traditional livelihood and survival in the Arctic. It has few peer projects. Therefore the new nomadic schools are a historical attempt to try to break the sad circle of colonisation which has led to the near

extermination of the local languages, cultures, beliefs and ways of life inherent to the Russian North. Instead "civilisation" has brought diseases, suicide, alcoholism, western (Russian) education, Russian language, resource extraction and in 1930s during the purges the killing of spiritual leaders (shamans) and old people. Further development of the nomadic schools in Russia is an attempt to renew life, relationships, languages and traditional knowledge in culturally appropriate terms. They are the most advanced form of Indigenous education today in the Arctic. They may, given positive developments, enable the re-birth of the traditional mind in the current generation and future children and ensure that the ancient way of life continues.

***...ei ollut sitä meressä / there was nothing in the sea
evän kuuen kulkevaista / moving with six fins
purston puikerrehtavaista / darting with a tail
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 on decolonizing, etc. in terms of knowledge that means creating situations where youth are interacting with Elders so that Elders and knowledge holders have 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 ancient 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 supernatural 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 preserved in the lore will remain mysterious, but a clearer understanding of some of them is possible if we start from an examination of what our ancestors’ world was actually like and think about what they might have wanted to emphasize in their tales and songs.” (2003: 72, 74).

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...

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