

The University of the Arctic Magazine

# SHARED VOICES

2009

UArctic: Building Human  
Capacity in the North



UNIVERSITY OF THE ARCTIC



## Indigenous World View in Northern Russia

The lead of UArctic's Thematic Network on World Images of Indigenous Peoples of the North discusses the similar world views of northern Russian Indigenous peoples, based on language, beliefs and celebrations.

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## A Good Start for the Masters in Health and Wellbeing

A new Master's degree is preparing a number of young experts for challenging work in the field of northern health and wellbeing.

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## New UArctic Institute will Explore Climate Change and Security Issues in the North

Rapid climate change is bringing about new issues for the North. The UArctic Institute on Applied Circumpolar Policy will explore these issues and the implications for those living in the North and the rest of the world.

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## Building Governance Capacity through Innovation and Partnerships

While the need for University-Business partnerships is becoming more apparent, these partnerships also present new opportunities and challenges for the academic world.

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## A Taste of the Arctic: UArctic Cookbook Collaboration

An international group of students are attempting to improve on the age-old method of cooking over an open fire.

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Nordic Council of Ministers



UArctic  
Thematic Networks

The University of the Arctic Shared Voices Magazine

Thematic Networks Edition 2009

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### Student Profile: Harry Borlase

Harry Borlase, from Labrador Canada, began his love affair with the North while studying at Mount Allison University in New Brunswick. It was there that he decided to take one of UArctic's online Bachelor of Circumpolar Studies courses – Peoples and Cultures II. Since then he has been involved in many UArctic programs, and worked at the UArctic International Secretariat in Rovaniemi, Finland.

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### Duodji - a Mental and Physical Process for the Artist

Reindeer antlers have a way of telling you what to do, says Sami artist and researcher Gunvor Guttorm.

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Graphic Design & Layout / **Puisto Design & Advertising / www.puistonpenkki.fi**

Cover Photo / **Veli-Pekka Laitinen**

Print Run / **2 000**

Printer / **Pohjolan painotuote Oy, Rovaniemi, Finland**



UNIVERSITY OF THE ARCTIC

# Foreword

Sinikka Bohlin, President of the Nordic Council

Climate change and new possibilities for extraction of natural resources found under the thawing land surfaces of the Arctic have had a gratifying effect – a growing interest in the region and the conditions of life of the people who live and work there. But there is also a danger. Things are developing more rapidly than any of us ever imagined. The permafrost of the Russian tundra (and other areas) has begun to melt, and the consequences of this can dramatically affect the climate of the whole world. Warming will take place much more quickly. No one, not even researchers, can forecast what will happen.

The Arctic region is not only rich in natural resources and beautiful scenery, but also rich in people – not in number obviously, but in culture and colourful variety. We must make the best possible use of these riches and build living, stable, rounded societies of men and women, children and young people, grandparents, relatives, and a broad range of friends.

This kind of society is built from the inside, by the residents themselves. Opportunities for education and for jobs utilising this education are the basic prerequisite for such a society. Getting young people, especially women, to stay in the region is one of the greatest challenges facing us. The University of the Arctic is a unique instrument for promoting this development. Education in the Arctic region is imperative if its people are to be able to take part in and contribute to its development. Education about the Arctic increases our understanding of its distinctive character.

Nordic cooperation prioritises educational questions. In The Nordic Council’s framework programme and in the Swedish Presidency programme for 2009 we emphasise the importance of investing – in training, R&D, innovation and renewal, and flexibility – to create sustainable economic growth. The Nordplus programme, for example, provides the oppor-

tunity to study in other Nordic countries. It has proved a recipe for success, and has contributed to broadening our knowledge of both the similarities and differences between the countries involved.

While it has a vast surface area, the Arctic region is sparsely populated. The University of the Arctic is a successful example of cooperation in the Arctic region and shows that common initiatives can have greater impact than if the countries act separately. In the Nordic cooperation we call that “Nordic utility”. Continued support for cross-border educational initiatives enhances skills that are valuable both on a regional and a global scale.

Sinikka Bohlin



Text / HSH Prince Albert of Monaco

Having recently returned from the South Pole, HSH Prince Albert of Monaco muses on the relationships between the Poles and rest of the world, and traditional and scientific knowledge.

Several weeks ago I was in the Antarctic, invited by scientists to visit their facilities, discover their living conditions and see for myself the importance of their task.

This journey was part of a long-term process, as I had already undertaken an equivalent expedition to the Arctic in 2006.

Despite the crises that are shaking our world, environmental concerns have not lessened, quite the opposite. During this last expedition I was able to witness this. I could feel for myself how a new solidarity is developing towards these lands.

The researchers who I met in Antarctica - Intergovernmental Panel on Climate Change (IPCC) scientists, rightly awarded the Nobel Peace Prize - are men and women who dedicate their lives to our planet and are now offering us the means to act with increasingly solid scientific knowledge.

In all countries of the world, both awareness and generosity are growing. Alongside governments, great philanthropists or small donors, our contemporaries are making increasing investments to protect our joint future.

# Royal Visits to the Poles

This promising context should encourage us to show determination and go much further in broadening the spectrum of our concerns to those who once seemed like forgotten people in terms of environmental mobilization - the indigenous populations of the North.

We must once again make them the centre of the debate, never forgetting that the major subject is and always will be man, since the wounds suffered by the earth are always misfortunes inflicted on humanity.

The global climate change which we are witnessing does not only have direct effects measured by topographical notes or biologists' surveys. In fact, there are also in-depth changes in social customs and mindsets, less obvious but present all the same. These are the changes which relentlessly alter the balances and traditions inherited from the long history of these populations. They have to protect their way of life by adapting to the changes in the world.

This is an immense challenge for all populations.

And what better solution than training? In the Arctic as elsewhere, it is through education that a long-term solution must be designed. The need for training here is very clear and a vital subject for the Arctic populations. The sustainable development of the circumpolar

region must be envisaged by sharing knowledge and experiences.

It is by retaining a balance between traditional knowledge and new scientific discoveries that humans forge ahead and communities can respond more effectively to major challenges.

It would be an illusion to believe that our social, cultural and educational action for the Arctic should be limited to the people who live there.

We know that global friendship is now on our horizon. If the cars that are driven here upset the ecosystem there, if the melting of glaciers makes the seas rise, then our commitment must be the same across all continents.

This is a duty of reciprocity that must at the same time lead us to prevent the forecasted catastrophes in the Arctic, notably by supporting local populations and fighting the causes of these changes by making a true community of change come about.

This too, will happen above all through knowledge, a general increase in awareness and distributing scientists' work to a greater number of people, but also by circulating our discussions from today.

Let us now share our views with as many as possible and we can do great things.

*The wounds suffered  
by the earth are always  
misfortunes inflicted on  
humanity.*



*HSH Prince Albert on his recent  
expedition to the North Pole*

Text / **Douglas Nakashima**, Chief, Small Islands and Indigenous Knowledge Section, UNESCO

# Adapting to Change in the Arctic: UNESCO and the Climate Challenge

A profound alteration of the world's climate is now an unavoidable reality, and the Arctic is on the frontlines of change.

Research and action have shifted from the scientific documentation and analysis of climate change, to a new focus on setting into place strategies to adapt and respond. To be successful, such strategies must be rooted in broad interdisciplinary approaches that encompass the monitoring and assessment of impacts on the physical environment, whilst also considering how biological systems will be transformed. But more than anything else, adaptation to climate change is a social, economic and cultural challenge as different societies struggle to respond to the changes brought on by global warming. In the Arctic, effective response requires the unified efforts of indigenous and northern communities, scientists, governments, and regional and international organizations from the circumpolar North but also from across the globe.

Recognising the major challenge posed by climate change in the Arctic, the United Nations Educational, Scientific and Cultural Organization (UNESCO), with the support of the Principality of Monaco, organised an international experts meeting on 'Climate Change and Arctic Sustainable Development: scientific, social, cultural and educational challenges'. From 3 to 6 March 2009, some 40 experts in the social and natural sciences, ethics, education and international affairs, including indigenous experts, sought to identify gaps and strategies for the sustainable development of the region, taking into account the Organization's broad mandate.

Within the UN system, UNESCO is unique. Its cross-cutting mandate, which brings together natural sciences, social sciences, culture, ed-

ucation, ethics and communication, provides an exceptional springboard for enhancing integrated approaches to Arctic climate change action. UNESCO can also bolster efforts to involve circumpolar indigenous peoples in the development of culturally-sound adaptation strategies through recognition of their indigenous knowledge and intangible heritage.

Of course, climate change in the Arctic cannot be isolated from global processes that both impact on the North and are in turn affected by changes in that region. UNESCO can reinforce mutually beneficial interconnections between Arctic and non-Arctic countries for scientific research and other joint endeavours. Moreover, lessons learned in the Arctic may greatly enhance efforts to adapt and respond to climate change in other world regions.

Finally, as education at all levels is crucial for sustainable development, UNESCO's expertise in this domain is also essential. In the Arctic context, this may include informing northern communities about climate change processes and adaptation options, highlighting and sharing locally-developed knowledge and adaptation techniques, and providing education world-wide on the ways that global processes exacerbate climate change impacts in the Arctic.

As climate change adaptation becomes increasingly crucial, UNESCO is set to respond to this latest challenge by working hand in hand with key international and regional organizations, notably the Arctic Council, and on the education front, with the University of the Arctic.

Text / **Lars Kullerud**, President of the University of the Arctic

Photograph / **Outi Snellman**

## UArctic Thematic Networks: Partnerships for Change

The academic community has practiced international cooperation in Arctic research since the first Polar Year 125 years ago. It laid the groundwork for a century when the Arctic became an increasingly attractive arena for scientific research. In UArctic, northern Higher Education institutions together represent an unparalleled educational and research capacity. The shared strength and diversity in this network provides hope for a resilient northern region, able to face a changing world, serving the needs of its population, and the rest of the world.

Today, the people of the North are no longer an object of study; instead, indigenous peoples and other northerners together actively take part in the development and governance of the region, and in defining the research agenda for the North, with "Shared Voices."

Practically all northern universities, colleges, and other organisations engaged in higher education have organized themselves into the University of the Arctic, with over 100 members, providing thousands of potential institutional partnerships: quite a set of friends!

The Rectors of UArctic higher education institutions have signed a declaration, the UArctic Charter, which demonstrates an unparalleled will to share resources and goals across national and institutional boundaries to ensure research, education and training in and about the North. The ambition is for a dynamic UArctic that uses



Lars Kullerud

its members' resources and capacity in a flexible and adaptive manner to meet the needs of the North as they change over time.

UArctic members are ready to take a collective responsibility as leaders of research and education that is relevant to northern communities. This will serve the North's internal needs, as well as equip the North with the capacity to serve the rest of the planet.

UArctic is a circumpolar network. The members share the ownership of the network beyond institutional, regional or national boundaries. The diversity of the membership, combining the strengths of different types of institutions not constrained by size or academic level, is a value in itself: the network strengthens the quality and diversity of education, training, and research of each individual member.

The work of UArctic is organized into UArctic Thematic Networks. These networks foster issues-based cooperation that enables networking among UArctic members on specific areas of expertise. These Thematic Networks create a natural framework for development of UArctic training and education programs, tools for knowledge generation and application, as well as a structure for facilitating successful student and faculty mobility. Thematic Networks:



- encourage faculty and institutional cooperation on subjects of shared interest among UArctic members, aiming at stimulating cooperation and sharing resources.

- are the tools for developing the stable relations among member institutions that form the backbone of UArctic activities.

- value the diversity in the UArctic membership to foster and develop the specific institutional roles and inter-linkages.

- enhance the potential of northern organizations and institutions as creators, holders, and communicators of knowledge about northern issues and regions.

Shared Voices 2009 provides insights and examples of how the higher education institutions of the North are creating thematic partnerships - UArctic Thematic Networks - to take leadership in the sustainable development of the region for the future. The UArctic Thematic Networks Strategic Area is coordinated from Thule Institute at the University of Oulu, Finland.

*UArctic has 17 Thematic Networks (May 2009). The networks are represented here by lines joining each network member. UArctic also allows non-members to participate in Thematic Networks.*

Map / © University of the Arctic 2009, Philippe Rekacewicz, Veli-Pekka Laitinen and Hugo Ahlenius, Nordpil

#### UArctic Thematic Networks

- UArctic Thematic Networks are independent and thematically focused networks of experts in specific areas of northern relevance. UArctic Thematic Networks should eventually cover all relevant issues for people of the north, thus creating a framework for all UArctic activities.
- Currently there are 17 Thematic Networks
- Chair / Kari Laine
- Coordinator / Kirsi Latola
- Office / Thule Institute, University of Oulu, P.O. Box 7300, FI-90014, Finland
- Contact / thematic.networks@uarctic.org  
Tel +358-40-0274056

Text / Aleksis Ahlakorpi  
 Photograph / Pekka Kallasaari

# Reindeer Festival a Culture Collision for UArctic Journalism Students

Poro Feria is a weekend festival held in Oulu, Finland, in the beginning of February. During the festival the most northern and southern cultures of Europe are brought together.

*The reindeer can keep up quite a pace. This year's Poro Feria Sprint winner, Takaveto, ran the quarter-mile snow track in 16,97 seconds.*

Students working on the UArctic Ezine - a project of UArctic's Thematic Network on Journalism - took part in the annual Poro Feria Festival in Oulu. This year's event was held on February 7 and 8 in the Oulu market square, which was made to look like an old-style Sami village, complete with laavus (traditional Sami housing).

The name of the festival comes from a combination of Finnish and Spanish words. Poro means reindeer in Finnish and Feria is the Spanish word for festival. During the two day festival visitors could enjoy reindeer races, flamenco music, purchase handicrafts and sample traditional food.

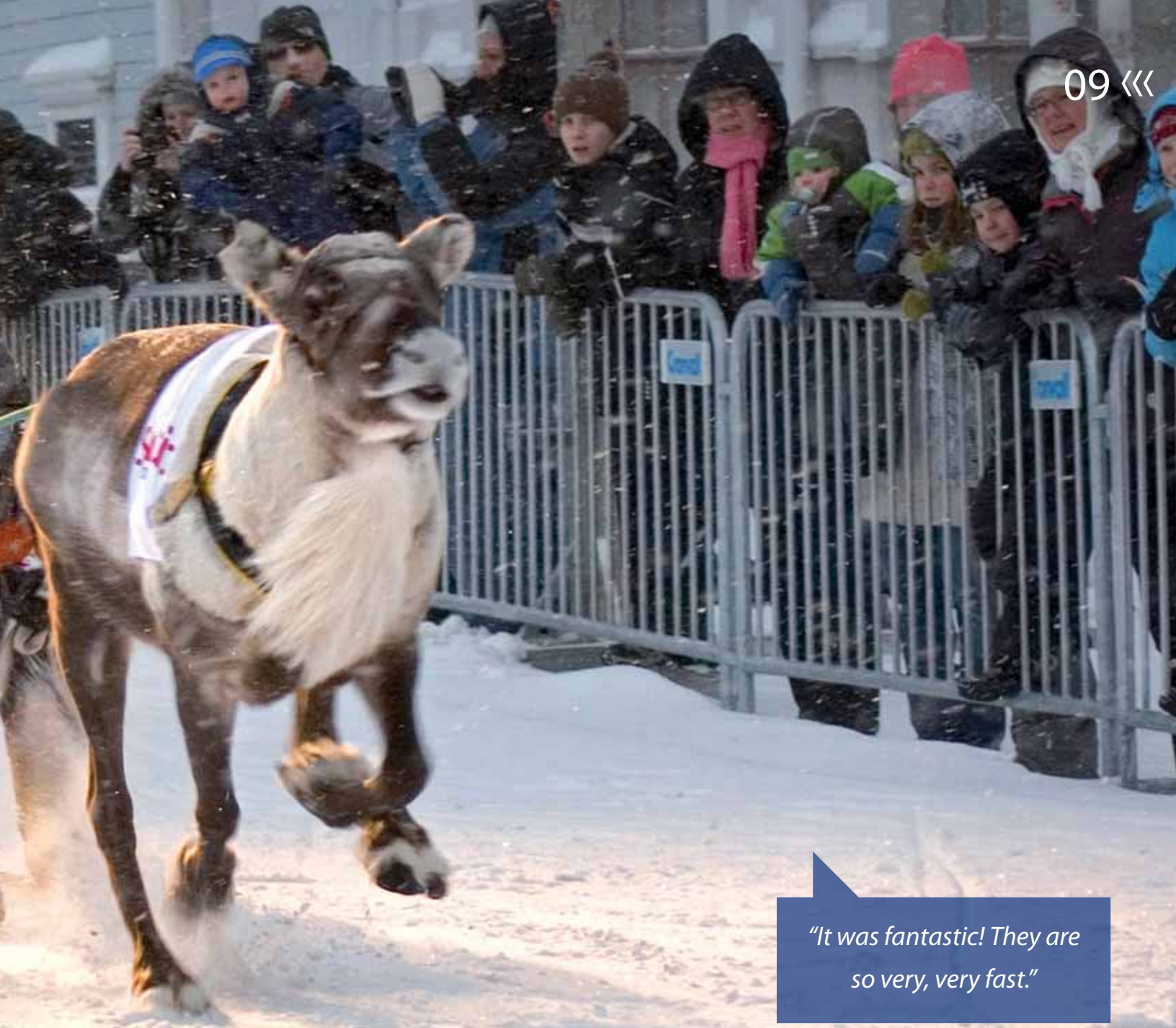
All nine Ezine students attended the festival on Saturday, hoping to capture the whole festival with digital and video cameras. Later, they plan to create a photographic reportage of the festival.

## Visiting the Laavus

Norwegian student Erik Lieungh, and Irina Azarkina from Russia were enjoying their first Poro Feria experience. Both of them thought the idea of the festival was quite interesting.

"We also have Sami people in Norway and it was kind of funny to see their culture mixed together with flamenco dancers and the southern part of Europe," said Erik. "I also visited





*"It was fantastic! They are so very, very fast."*

some of the laavus and I thought it was really interesting. It's not that often that you get to go into a laavu where I come from. And also you get some sense of the Sami tradition. I thought that was kind of cool. What I didn't like is that it was too cold," he concluded.

### Reindeers One-on-One

The biggest attraction of the festival was the Poro Feria Sprint.

In the sprint 16 of the fastest reindeer in the world competed against each other in a quarter-mile track. Reindeer were divided into eight pairs making it a one-on-one race for the glory.

Irina and Erik were impressed by the agile reindeer and thought the race was the most exciting part of the festival.

"It was fantastic! In Murmansk we also have some competitions like this. But they compete with sleds, not with skis like here. I suppose it is rather difficult to manage reindeer and go by skis. They are so very, very fast," said Irina.

For more information on the UArctic Thematic Network on Journalism, please visit: [www.uarctic.org](http://www.uarctic.org) > programs > thematic networks > journalism

UArctic Thematic Network on Journalism  
– A Student Ezine

- Host / Oulu University of Applied Sciences, Finland
- Lead / Heikki Ylipaavalniemi
- Goal / to develop a new virtual media to be used by universities in the Arctic
- The students write articles about living environments of the Arctic region. The aim is to create an evolving archive of articles that later can be used as an excellent introduction to the Arctic region from the young people's point of view. The Ezine will be published for the first time in April 2009.



## Student Profile / Canada

Anna Crawford:  
UArctic's Original Student

Anna Crawford has been a UArctic student since the beginning.

"I took the first online course ever offered in 2002, through Yukon College," said the 27 year-old from Whitehorse, Canada. Crawford was one of four students to take this first course offered by UArctic's Bachelor of Circumpolar Studies (BCS) program.

It was at the 1998 Circumpolar Conference on Sustainable Development in Whitehorse that Crawford first heard about UArctic. Since then she has studied photography, bicycled through Cuba, travelled to Russia, and worked for an NGO in the Solomon Islands, all while taking BCS courses and waiting for the program to catch up to her ambitions.

BCS is now offered online or locally through 30 UArctic member institutions, and students can choose from 14 advanced emphases, to focus their studies on specific topics.

Crawford finds it exciting to be part of an international group of students so involved in their studies. "The dynamics of having students from Greenland and all parts of Russia, discussing abstract ideas and how they relate to their personal experiences, are really amazing," she said.

Crawford is now taking a semester of Arctic Studies in Finland through the north2north exchange program. "Since I began BCS, the largest attraction for me was the north2north program," she said. "I totally think that's the best kind of learning that you can do, it's an integral aspect of the program."

Crawford will graduate from the BCS program next year, with an Advanced Emphasis in Arctic Governance, from the University of Northern British Columbia.

To students considering the BCS and north2north programs, Crawford says: "They should do it! You have the opportunity to go to another country, or the flexibility to stay at home. It's alternative learning that nobody else is doing."

# New UArctic Institute will Explore Climate Change and Security Issues in the North

Text / **Ross Virginia**, Institute of Arctic Studies, Dartmouth College, US  
and **Michael Sfraga**, University of Alaska, Fairbanks, US

Photograph / **Outi Snellman**

The UArctic Institute on Applied Circumpolar Policy, located at Dartmouth's Dickey Center for International Understanding in Hanover, USA, was created in November 2008 to examine scientific research regarding the Arctic and the policy implications of the consequences of rapid climate change.

A major goal of the Institute is to create an interdisciplinary dialog through conferences and educational programs on issues such as shipping and energy policy, resource development and sovereignty, and the use of western and indigenous science in policy. The Institute is the first such program for the University of the Arctic.

Dartmouth College and the University of Alaska Fairbanks (UAF) have partnered with Urbana University, in Ohio, to create a set of institute activities that engage those UArctic member institutions who share interests in linking research and education with the policy process.

Former US Ambassador Kenneth Yalowitz who, along with Michael Sfraga from UAF, is directing the startup of the Institute, stated: "The policy challenges from climate change in the North are urgent and complex and the Institute can make significant contributions to the dialog on how to deal with them."

The Institute's first conference was held at Dartmouth from December 1-3, 2008 on the subject of Arctic climate change and security policy. The three co-sponsoring organizations and their conference hosts were the Dickey Center for International Understanding at Dartmouth (Ambassador Kenneth Yalowitz) and its Institute of Arctic Studies (Ross Virginia), the Carnegie Endowment for International Peace (Ambassador James Collins) and the University of the Arctic (President Lars Kullerud). The UAF efforts were led by Michael Sfraga, while Stephen Jones represented Urbana University and the UArctic Board of Governors.

The conference brought together an international group of 35 academics, scientists, government officials and representatives of indigenous peoples for a discussion of the significant scientific, economic, political, security and governance issues facing the Arctic over the next 10-20 years. In keeping with the mission of the Institute, the meeting stimulated an interdisciplinary dialog which encouraged open and frank discussion of issues and solutions. The conference summary and policy



recommendations will be published and also presented to the US policy community in Washington DC at a public briefing in April, hosted by the Carnegie Endowment.

Planning is already underway for the next Institute conference to be held at UAF in fall 2009. This meeting will examine implications of the recent US Presidential Directive on the Arctic for the state of Alaska and the other US states, and more broadly for the international Arctic community. "Arctic policy, and in particular, US Arctic policy will influence Alaska and the North well into the future," said UAF Interim Chancellor Brian Rogers, "and UAF will be an active partner in this timely and unique collaboration."

*Climate Change may make some northern places more temperate, but what are the long-term environmental, social and political implications of these changes?*

# New Global Change Curriculum



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Nordic Council of Ministers

*Abandoned village near Nuuk,  
Greenland August 2008*

The UArctic Thematic Network on Global Change has been working to develop new Masters level courses in Global Change. Below the Thematic Network reports on their work.

**A report by the Thematic Network on Global Change**

Text and photograph / **Kirsi Latola**, University of Oulu, Finland

The goal of the Thematic Network on Global Change is to strengthen the delivery of higher education in topical issues related to global change in the Arctic; such as adaptation to change, impacts on human health and well-being, and economy and livelihoods. Further, the network aims to increase the capacity of northern universities, other higher education institutions, and indigenous peoples to participate in knowledge generation and knowledge transfer on global change in the Arctic.

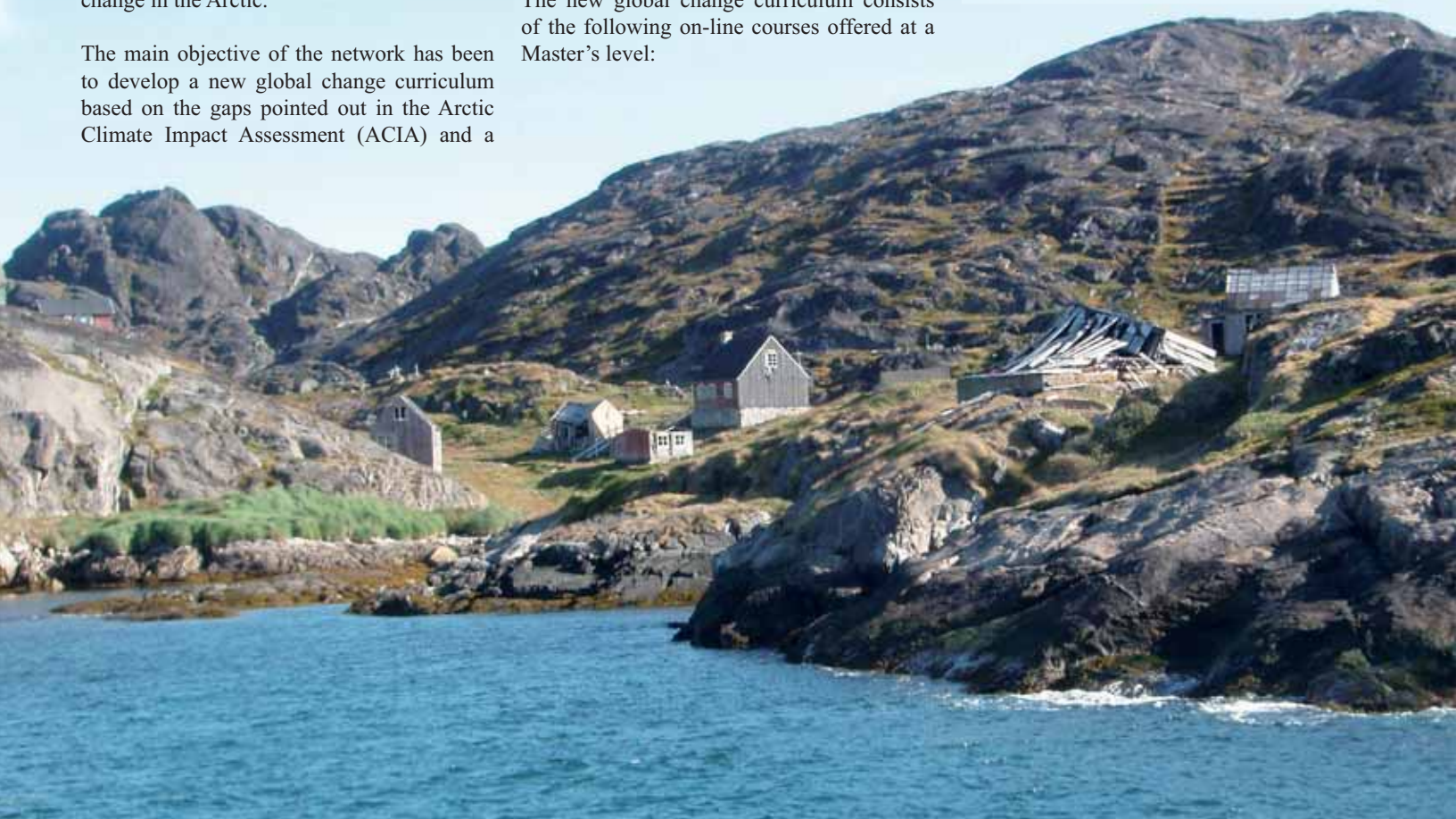
The main objective of the network has been to develop a new global change curriculum based on the gaps pointed out in the Arctic Climate Impact Assessment (ACIA) and a

web survey and questionnaire on the existing Global Change courses conducted within UArctic member organizations in 2006. As a result of the survey over 600 Global Change courses were found. They were then classified, analyzed and presented at a workshop in May 2006.

Based on the results, five multidisciplinary course outlines were developed with academic leaders supported by circumpolar teams. The new global change curriculum consists of the following on-line courses offered at a Master's level:

## UArctic Thematic Network on Global Change in the Arctic

- In operation since February 2006 with funding (2006-2008) from the Nordic Council of Ministers Arctic Co-operation Program
- Host / Thule Institute, University of Oulu, Finland
- Lead / Kari Laine
- 32 partners from Nordic countries, Russia, Canada and the USA



**Health, Security and Well-being in the North, 6 ECTS/3 North American Credit Hours (host University of Oulu, Finland)**

**Course development team**

- Academic Leader, Prof. Arja Rautio, Centre for Arctic Medicine, University of Oulu, Finland
- Dr. Gert Mulvad, Health Research Board Greenland
- Prof. Andrey Soloviev, Northern State Medical University, Russia
- Prof. Vappu Sunnari, U of Oulu/ Luleå Technical University, Finland/Sweden
- Additional teacher: Prof. John Moore, University of Lapland/University of Oulu

Main themes of the course are global/climate change, family and gender issues, health and well-being, dietary factors – food change – effects on health, risk factors, inequality and violence, social and health status changes, and health prevention.

**Learning outcomes**

Students will learn the current characteristics of health, security and well-being in the Circumpolar North and within their backgrounds. They will understand future challenges of health, security and well-being in the Circumpolar North in the context of globalization, and will have learned some means to deal with them. They will be motivated to and capable of seeking means to increase health, security and well-being.

**Arctic Economies and Livelihoods in a Changing World, 6 ECTS/3 North American Credit Hours**

**Course development team**

- Academic Leader, Dr. Joan Nymand Larsen, Stefansson Arctic Institute, Iceland
- Prof. Lee Huskey, University of Alaska Anchorage, USA
- Gérard Duhaime, Université Laval, Québec City, Canada
- Gorm Winther, University of Aalborg, Denmark

The course will consist of five broad themes relating to global change in the Arctic, and these are:

- Theme 1.0: An introduction to the Arctic economy, its characteristics and trends, broad themes and concerns
- Theme 2.0: Arctic Resources, Ownership and Control
- Theme 3.0: Industrial Development and the Economy of the North
- Theme 4.0: Economic Instability, Vulnerability and Viability of the Arctic
- Theme 5.0: Global Change and Human Development in the Arctic

**Learning outcomes**

After having passed this course the student will:

- understand and be able to discuss the current economic situation, the key current issues and the diversity of the economic experience of residents of the Arctic, including indigenous peoples and communities in the Arctic.
- be able to understand and discuss the causes, consequences and economic impacts of global change in the Arctic at local, regional, and national scales.
- be able to compare and contrast major trends and economic phenomena across the regions of the Arctic and identify which trends and phenomena are specific to the Arctic and which are common with the global economy.
- be able to understand and discuss the connection between economic systems and livelihoods of the residents of the Arctic, including acquiring an understanding of the economic impacts of global change on human development and societies.

- acquire a capacity to make use of quantitative concepts, methods, and data to analyse and understand the economies of the Arctic.

**Institutional Dimensions of Global Change, 10 ECTS/5 North American Credit Hours (host University of Tromsø, Norway)**

**Course development team**

- Academic Leader, Prof. Alf Håkon Hoel, University of Tromsø, Norway
- Sigve Leland, Dept of Political Science, University of Tromsø
- Olav Schram Stokke, Fridtjof Nansen Institute, Oslo
- Additional teacher: Dr. Aileen Espiritu, Barents Institute, Kirkeness, Norway

The course will provide an overview of major trends in global change and discuss institutional responses to these changes, in particular at the international level of governance. Important institutions include the global oceans regime and the international climate regime. The course consists of 6 modules:

- 1) Introduction to institutional dimensions of global change. Discussion of the phenomenon of GC as played out in the realms of environment, economy, and politics. The status of theory about institutions and global change. International institutions vs. global governance. Creation and maintenance of institutions. Institutional effectiveness.
- 2) Institutional architecture in the Arctic. What is the Arctic? Do "Arctic institutions" exist? Theory-informed analysis of existing institutional arrangements that affect the Arctic, notably their interplay and effectiveness.
- 3) Institutional dimensions of global environmental change and the Arctic. Discussion of climate change, biodiversity loss and spread of persistent organic pollutants. Impacts in the Arctic and institutional responses at various levels of governance, including relationships between the Arctic Council and broader institutions in these areas.
- 4) Global change and political mobilization among indigenous peoples in the Arctic. Institutional responses at various levels of governance, including relationships between the Arctic Council and broader institutions in these areas.
- 5) Institutional dimensions of global economic change and the Arctic. Discussion of fisheries, tourism and petroleum development, and the institutional structures that exist to regulate economic activity. IUU (illegal, unreported and unregulated) fisheries in the Arctic: lessons from the Central Bering Sea and the Barents Sea.
- 6) Conclusions and outlook. Discussion on future prospects.

**Learning outcomes**

The students will understand how political and legal institutions at the international level provide mechanisms and arenas for adopting principles and rules for the management of the challenges associated with global change in the Arctic.

**Adaptation to Global Change in the Arctic, 6 ECTS/3 North American Credit Hours**

**Course development team**

- Academic Leader, Prof. Svein Mathiesen, International Centre for Reindeer Husbandry & Sámi University College, Norway with researchers involved in EALÁT, the Reindeer Herders Vulnerability Network Study.

The aim is to provide students with the understanding of effects of climate variability and change on society and nature; and to what extent institutions and governance constrain, or create opportunities to cope with and to adapt to the effects of global change in the Arctic. Adaptation could be defined as adjustment in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts.

**Learning outcomes**

The students will learn that the ability to adapt to change is based on knowledge embodied in the language, local institutions (rural or non-rural) and the actions of individual persons and their local experience.

The format of each course is very interactive and includes different types of videos and audio, articles and other reading material. Students will work on assignments both individually and in groups. All on-line courses will have their first enrollment in spring 2009.

One of the courses, Global Change Technology, methodology, and analysis, is a field course:

**Global Change Technology, methodology, and analysis, 6 ECTS/3 North American Credit Hours (first field school will hosted by University of Alaska Fairbanks, USA)**

**Course development team**

- Academic Leader, Prof. John Moore, Arctic Centre, University of Lapland, Finland
- Richard Boone, University of Alaska Fairbanks, USA

This interdisciplinary course focuses not on the scientific knowledge of global change research, but rather on the basis for that knowledge. We will discuss the measurement of the most important parameters in atmospheric, terrestrial ecology, marine and cryospheric environments.

**Learning outcomes**

The students will learn the potential and limitations of instruments and computational methods used to analyze past, monitor on-going, and predict global change. They will also learn how to access the basic tools and data that are being continuously updated by the large international infrastructure networks. The course will equip students with the knowledge needed to better partake in the debate on global change and appropriate responses. The first field course will be held at Toolik field station, in Alaska, USA in late summer 2009.

The new curriculum will be launched at Arctic Science Summit Week in March 2009, in Bergen, Norway. Even though it may seem as though our job is done, the network is continuing its work. One of the newest initiatives is a partnership in Climate Change — Adapting to The Impacts, by Communities in Northern Peripheral Regions project, which is funded by the European commission Northern Periphery program for 2008-2011 (see <http://www.clim-atic.org/>).

**Contact information /**

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Text and Photographs / **Gunvor Guttorm**, Sámi University College, Norway

# Duodji - a Mental and Physical Process for the Artist

Gunvor Guttorm was born in Karasjok on the Norwegian side of Sápmi (the land of the Sami people); she now lives in Jokkmokk, Sweden. Gunvor is a researcher in Sami traditional and applied art, also called duodji. She has taught both practical and theoretical courses on traditional Sami art, crafts and applied art. Gunvor holds a PhD in duodji from the University of Tromsø and is the lead of UArctic's Thematic Network on Indigenous Arts and Crafts. Here, she tells us about the use of reindeer antlers in her artwork.

While thinking about the way a reindeer antler grows, I realized the importance of its inner part - that is where the blood circulates. I then became fascinated with the idea of using this part of the antler in my craft. Earlier, I had used antlers in a very ordinary way. Now I wanted to use the so-called worst part of the antlers: the marrow and the end parts.

Usually in a duodji process, the material has a way of showing you what to do - how the shape ought to be, and so on. Thus, the sketching is done on the raw material, which is often a traditional material.

I am used to working this way in duodji and had adopted the method this time too, but I had to watch and put in more effort than usual. This is because even if I had an idea of the

shape at the beginning of the process, it could change. But what is most important here is the personal story that I attach to the work. It does not necessarily mean that the viewer needs to adopt my experiences.

I wanted to get a design that would look both smooth and raw, so I used both marrow and bony material. Making these pieces of craftwork felt meditative, as I repeated the same process over and over. I looked for a piece of antler, studied the pieces I had already used and glued the two together. At the same time I also worked intentionally, examining how the different colours and characteristics of the antler – bony and porous parts – could be used to create a certain appearance. I also had to find a way of getting the pieces to stick firmly together.

Another important aspect of duodji is that you make the duodji (the object) for a special person. While I was working on some of the pieces, I thought about a specific person and in that sense applied a method of the duodji tradition. Here I present some of the products of the process.

For more information on Duodji and Gunvor's work, please visit her website: <http://www.duodjikonsult.com>

#### UArctic Thematic Network on Indigenous Arts and Crafts

- Host / Sámi University College, Norway
- Partners / University of Manitoba, Canada and Arctic State Institute of Culture and Art, Russia
- Focus / To exchange knowledge and research about traditional and contemporary applied art, and encourage exchange of guest lecturers in the field.

*Usually in a duodji process, the material has a way of showing you what to do...*



Duodji by Gunvor Guttorm

The main theme of the sixth Open Assembly of the Northern Research Forum (NRF), which will take place in October 2010 in Oslo, Norway, is Our Ice Dependent World. It deals with the significance of ice and its importance for the circumpolar North and its people, as well for the entire earth and all of humankind. This theme, along with several integrated sub-themes, represents different perspectives for viewing the subject of natural ice and evaluating its importance. Further, the themes cover the interface of nature and society, humanity and communities, knowledge and education, international law and governance, economics, and geopolitics.

In general, discussions and dialogues in the Open Assemblies of the NRF are open, democratic and lively, with a method of real-world problem-solving. Particularly, they address the role of research both in a society as well as in the whole international community, and thus implement the interplay between politics and science, which is much needed, but not often used in political decision-making.

The NRF aims “to provide a platform for an effective dialogue among members of the research community and a wide range of stakeholders to (a) facilitate research relevant to issues on the contemporary Northern agenda and (b) engage researchers, the policy community and other stakeholders to discuss, assess and report on research results and application.” Furthermore, two of the fundamental aims of the NRF are dialogue-building for problem-solving and confidence-building, and stage-building for the creation of a new kind of platform, to seek out fresh thinking and bold new ideas from the leading minds across the North. This is done while maintaining constant implementation of the interplay between politics and science.

For example, the fifth Open Assembly, Seeking Balance in a Changing North, which took place in September 2008 in Anchorage, Alaska, discussed key matters and dynamics of northern environment, politics and economics. These included issues, such as: how to (re)define more equal, post-colonial interrelations between the North and the rest of the globe, what kind of leadership is needed in the age of uncertainty, and how to draw up

a holistic picture of the changing geopolitics of the North.

This idea of an open discussion and interactive dialogue is much needed. In particular it is relevant in international, multilateral northern cooperation, like that of the Arctic Council. Here discussion takes place between policy-makers, such as Senior Arctic Officials, Indigenous peoples’ representatives, such as Permanent Participants, and finally, the scholars and scientists, such as NRF young researchers.

This has been done through the NRF Young Researchers who play an important role in Open Assemblies through their excellent contributions to discussions when they present their research and act as rapporteurs. This kind of education and career training, which the NRF started in cooperation with the Association of Polar Early Career Scientists (APECS), is particularly valuable for young researchers, who have the potential to become professional researchers or experts in their fields. Finally, this may be valuable in this age of global climate uncertainty, an age which requires a new kind of leadership.

## Ten Years of the Northern Research Forum

Dr. Ólafur Ragnar Grímsson, President of Iceland, launched the idea of the Northern Research Forum in September 1998 at the University of Lapland, Finland. Subsequently, the University of Lapland prepared a feasibility study regarding this initiative. The NRF began its work in Iceland in October 1999 with the formation of an international Steering Committee and a Secretariat. The operational work of the NRF and international preparations of NRF Open Assemblies are done by the International Steering Committee and the NRF Secretariat at the University of Akureyri, Iceland.

Text / **Thorsteinn Gunnarsson**, Member of the NRF Steering Committee, Rector, University of Akureyri, Iceland  
and **Lassi Heininen**, Chairman of the NRF Steering Committee, Docent, University of Lapland, Finland

Further, in the NRF context there is inter-sectoriality to enable crossing of borders between different sectors of our modern cultural, political, legal and administrative systems. Also there is an aim to serve as a multi-functional and interdisciplinary platform and workshop both independently and in close cooperation with other institutions of higher education, such as the University of the Arctic. Behind this is a perception by many scholars that science is more than labs - it’s the people, and the environment. The purpose is to cluster talented people, and thus build and promote both human and social capital.

Clustering of talented people is also done through the five NRF Theme Project Groups on Legal and Political Issues, Economies in the North, Energy Issues, Northern Sea Routes and Climate Change - Northern Security. They act as epistemic communities in their fields by gathering expertise from academia, political activity, administration, business and civil society. These groups are open for those who are interested in participating in this work and are ready to contribute to it.

For more information, please visit the NRF website: [www.nrf.is](http://www.nrf.is)

Text / **Outi Snellman**, Vice-President (Administration),  
Head of UArctic International Secretariat

# Shared Organization— UArctic at Your Service!

The University of the Arctic (UArctic), which started in 2001 as a small community of people and institutions with a common vision, is now a network of 115 organizations from all over the Circumpolar North. It can be argued that the network already includes all higher education institutions in the North. This represents an incredible potential for institutional partnerships, as each member gains a set of partners with a similar mindset, which includes Diverse, Holistic and Circumpolar higher education and research as essential elements.

Together, UArctic’s members have more than 50 000 academic faculty and some 700 000 students. It is the sharing of their resources, both human and material, that has been the key to UArctic’s success and growth. The incredible power of the network lies not only in what members have in common, but also in how they complement each other.

Through its various programs, UArctic allows higher education institutions in the North to share their expertise on northern issues and to ensure the future of Arctic science, an area which will without a doubt continue to gain importance on a global level in the years to come. Through their engagement in programs, members work together for the sustainable development of the circumpolar region. Programs range from undergraduate and graduate academic programs to mobility programs, all of which allow members to offer their students more broad and unique opportunities to study the North first hand.

The sharing of knowledge about the Arctic is not only beneficial for students, but also for Arctic researchers and educators. The UArctic Thematic Networks allow academics to be part of an open and constant dialogue on issues of shared interest, such as Global Change and Local and Regional Development in the North. In its new Strategic Plan 2008-2013, approved by the 115-member Council and the Board of UArctic in summer 2008, UArctic defines the

## University of the Arctic

- [www.uarctic.org](http://www.uarctic.org)
- 115 members – higher education institutions, colleges, research institutes, other organizations
- Across the 8 Arctic countries: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, US
- Founded in 2001
- Programs in the following Strategic Areas: Thematic Networks, Undergraduate Studies, Graduate Studies, Mobility, Knowledge and Dialogue, and Service to Members.
- 15 offices located in five northern countries
- Over 700 000 students and
- 50 000 academics in all member institutions combined
- Want to stay informed? Subscribe to the UArctic Shared Voices electronic Newsletter at [www.uarctic.org>media>shared voices newsletter](http://www.uarctic.org>media>shared%20voices%20newsletter)



- Member institutions
- University of the Arctic offices





UNIVERSITY OF THE ARCTIC

Thematic Networks as the key mechanism for implementing the goals set by its members. Therefore, most UArctic activities in the future will relate to Thematic Networks in some way.

In addition to strengthening the existing links between researchers, UArctic also brings together leaders of higher education. The UArctic Rectors' Forum is another way UArctic members can unite their voices to increase their presence and impact on a circumpolar and global level. The Third UArctic Rectors' Forum will be organized in June 2009 at Yugra State University in Khanty-Mansisk, Russia.

New opportunities for UArctic members lie within UArctic Institutes. The first UArctic Institute was established in 2008 as a partnership between University of Alaska Fairbanks and Dartmouth College in the US. Members take initiative for these institutes, and several are currently underway.

The sharing of knowledge, opinions and resources in order to empower the North is at the core of UArctic's values, and therefore can be seen not only between its members, but also at an internal and organizational level.

UArctic is a borderless, decentralized organization, which functions thanks to the collaboration of geographically dispersed offices, working closely together on a daily basis. These 15 offices are hosted by member institutions in five northern countries - Canada, Finland, Norway, Russia and the US - and they each have a specific mandate, ranging from program coordination to information management. The close collaboration between offices is another key to UArctic's success. Dedicated staff from across the Circumpolar North unite their expertise, resources and energy every day to fulfil UArctic's mission of empowering the North through accessible and relevant education for Northerners.

With UArctic's constant growth and evolution, the power of the network will only increase, adding to the meaning of the motto "With Shared Voices." Thanks to the collaboration of its growing membership and its offices, UArctic will continue to develop programs that encompass both conventional academic and traditional indigenous knowledge systems, for the benefit of northerners and their communities.

UArctic has set a lofty goal—to change the future for the Circumpolar North. Recognizing the collective potential of the entire network, it is indeed possible to believe that this is already happening.

Text / Kirsi Latola, Johanna Issakainen and Arja Rautio  
 Photograph / Lars Kullerud

# A Good Start for the Masters in Health and Wellbeing



*Young boys playing football in Greenland*

A new Master's Degree Program in Health and Wellbeing in the Circumpolar Area, developed by UArctic's Thematic Network on Arctic Medicine, will provide the Arctic region with much needed experts in the field of health.

UArctic's first international, jointly developed Master's Degree program has begun, with a very international first set of students.

#### UArctic Thematic Network on Arctic Medicine

- Host / Thule Institute, Centre for Arctic Medicine, University of Oulu, Finland
- Lead / Arja Rautio
- Mission / to improve sustainable development of health and wellbeing in Circumpolar regions
- Graduate school for Circumpolar wellbeing, health and adaptation established in 2002
- Master's programme in Circumpolar Health and Wellbeing established in 2008

11 students representing Canada, the United Kingdom, Finland, Russia and Australia have begun the program. Students share an interest in working for the circumpolar North and many have personal or work experience with either Northern indigenous peoples or Australian aboriginal peoples.

Finnish student Sami Niemelä is participating in the program because of his relations to circumpolar societies. "My present job working with colleagues across the circumpolar area has aroused my interest in the Arctic issues and matters affecting life and societies in the northern areas, and what is needed to support the people living in these areas," he said. "The circumpolar societies share somewhat similar nature and climate, although there are also vast differences, especially when it comes to where and how far north they actually are located."

The first common seminar for the program was held in January 2009 in Oulu, Finland. During the seminar students worked on a circumpolar knowledge map and gave presentations related to health and wellbeing in their own region, or area of interest. The seminar, which was led by Arja Rautio from the University of Oulu and Kristina Hunter from the University of Manitoba, also gave important practical information on individual learning agreements and on-line courses.

The Master's Degree Program in Health and Wellbeing in the Circumpolar Area is an international two-year program established and managed in collaboration with the following partner universities: University of Oulu (Finland), Luleå University of Technology (Sweden), Northern State Medical University (Russia), Pomor State University (Russia), University of Lapland (Finland), University of Manitoba (Canada), and University of Southern Denmark.

The program consists of six compulsory online courses and seminars as well as onsite studies offered by partner universities, according to each student's personal study plan. A Master's Thesis as well as an elective three-month internship is included in the curriculum.

After two years of full-time studies, these new Masters in Health Science will be capable of acting as independent professionals in the field of health and well-being. They can expect employment in administrative and managerial positions in health care services and health promotion, as well as in education, development, planning and research.

The next application period for the program opens in fall 2010. More information on the program can be found at: <http://arctichealth.oulu.fi/suomi/maisterikoulu.html>

Text / Hannele Zubeck, University of Alaska Anchorage, US

## Arctic Engineering and Science Survivors

UArctic's Thematic Network on Arctic Engineering and Science was only established in June 2008, but it already offers an online Masters program in Arctic Engineering and is busy bringing students out into the ice and snow, where the real work is done.



Professor Sven Knutsson from Luleå University of Technology (LTU) is a true campaigner for snow and ice as the material for engineering experiments. He doesn't leave the learning in the laboratory, but has blazed a trail for holding camps in the wild during the coldest time of the year.

The students who participated in these arctic camps described their experience as "unforgettable". They are extremely proud of their achievement as survivors, and highly respected by their peers. The LTU is currently cooperating with the University of Oulu, Finland in co-teaching such courses in Arctic Engineering.

Online courses in the field of Arctic Engineering are also available through the University of Alaska Anchorage (UAA). Students can earn a Masters of Science in Arctic Engineering in an online environment – from the comfort of their offices or homes.

Professor Hannele Zubeck from the UAA likes to brag about Sergei Baranof, who graduated after two years of taking courses from Russia, the United Kingdom and Texas, U.S.A. - literally around the world.

Baranof, now a senior engineer, said that "UAA's Arctic Engineering courses helped me to develop my expertise week by week, allowing me to find better technical solutions and cut the costs of projects that I was coordinating."

Hannele says that UAA hopes to have more students like Sergei taking the entire program or a even few courses through the University of the Arctic.

Another interesting cooperation project is the International Semester in Greenland (ISG) to be hosted by ARTEK, the Arctic Technology Centre of the Technical University of Denmark (DTU). The ISG is open to university students from around the world and offers learning opportunities in sustainable technologies and engineering in extreme environments. Lectures, exercises, project work, and work in the field are all part of the student experience. Teaching will be done by faculty members and scientists from DTU, and collaborating institutions within the University of the Arctic.

Much more is in the works for this young thematic network. Please contact Hannele Zubeck at [afhkhz@uaa.alaska.edu](mailto:afhkhz@uaa.alaska.edu) with any questions and ideas.

*Sergei Baranov got his M.S. in Arctic Engineering from UAA using e-learning*

UArctic Thematic Network on Arctic Engineering and Science

- Hosts / Luleå University of Technology, Sweden and University of Alaska Anchorage, USA
- Leads / Sven Knutsson and Hannele Zubeck
- Goals / Improve quality of life and allow for development of natural resources in the Arctic through innovations in technologies
- Assess the impact of climate change on technologies used in the construction, maintenance and operation of infrastructure, housing, public/private facilities and equipment



Student Profile / Canada

Robin Bendig  
University of Saskatchewan, Canada

Taking part in the Skiippagurra evaluation and learning workshops provided us students with the opportunity to see how theory was put into practice. We met with and heard step by step accounts from the most active individuals, including how they overcame barriers.

I was shocked at how innovation mixed with local partnerships could take a community so far. Both communities' development efforts are very unique and this knowledge transfer to students will allow them to bring these examples home to their countries.

Skiippagurra's ability to turn their tarnished image into a positive one was especially interesting to me.

Tor Gjertsen made these workshops a great success, creating an atmosphere where everyone was on an equal level and able to ask questions at any time, taking us to local businesses, and even translating for each of the individuals who chose to speak in Norwegian.

Being a part of the workshops provided me with the motivation to see where I can assist with rural and northern development, and so I returned to Canada wanting to further my education in this field. I am currently a master's student of public administration in the Johnson-Shoyama School of Public Policy at the University of Saskatchewan. My master's project will focus on Norwegian public policy and how it enables or restricts northern and rural development.

Text / Tor Gjertsen, Finnmark University College, Norway

# Skiippagurra Workshop a Laboratory for Capacity Building

The Skiippagurra Evaluation and Learning Workshop 2009 is one of the most successful follow-up projects from the 2004 Tana development workshop.

During the workshop international students taking the BCS Advanced Emphasis in Community, Governance and Development at Finnmark University College (FiUC) work together with local development agents from the multicultural municipality of Tana, in northern Norway, to socially reconstruct the complex development process the people of Tana have lived through since 2004.

By joining forces with local politicians, public employees, businessmen and volunteer organisations, and by integrating theoretical and practical knowledge, the three-day Skiippagurra workshop has become a real laboratory for capacity building in local and regional innovation and development.

According to Frank Ingilæ, Mayor of Tana, the workshop does not only benefit the students, but also the locals. "The workshop gives us a unique opportunity to look back, reflect and discuss the social and economic changes that have taken place in Tana. Through my participation last year I got really interested in the issue of governance and meta-governance as a useful supplement to more traditional ways of political steering, especially in relation to local development processes," he said.

## Why Skiippagurra and Tana?

In the spring of 2004 the municipality of Tana asked FiUC to help solve some of the many serious social problems caused by sex, alcohol and drug trafficking from nearby Russia.

One of these problems was the media's negative focus on the municipality, especially toward Skiippagurra, the small community where the trafficking was concentrated. Because of the strong, persistent and one dimensional media focus, Skiippagurra had become almost synonymous with the illegal trade of alcohol, sex and drugs. So, branding and reputation building was chosen as the main objective for the local development workshop FiUC organised, together with the municipality and business community of Tana.

Early in the development process some local activists came up with the brilliant idea of holding a youth rock festival in Skiippagurra. It was a success from the very beginning. From 2005 to 2008 the number of participants at the festival increased from 300 to 3000. More important, the people behind the rock festival managed to change the negative image of Skiippagurra into something not only positive, but also an important and innovative force in the socioeconomic development process in Tana.

The valuable experiences gathered through the R&D-project Local and Regional Development Workshops in Tana and several other small, rural municipalities in Finnmark

The UArctic Thematic Network on Local and Regional Development in the North is working to build northern capacity with a joint international masters degree in Northern Governance and Development. This degree connects Finnmark University College project Local and regional development workshops and partnerships, the international Gargia Conference on Northern Innovation and Development, and new courses and study programmes from UArctic's Bachelor of Circumpolar Studies.

were integrated into a new UArctic Advanced Emphasis Course in Management of Local and Regional Development on FiUC's international program from 2007. The Skiippagurra Evaluation and Learning Workshop, was established the same year in close cooperation with the municipality of Tana.

### The Gargia Conference

Two other important spin-off effects of the R&D-project at FiUC were the Gargia Conference on Regional Development and the UArctic Thematic Network on Local and Regional Development in the North - launched in 2006 at the UArctic Council meeting in Bodø, Norway.

The Gargia Conference was established in 2004 as a meeting place for FiUC people and local and regional development agents involved in the project. Three years later it got an international dimension through the participation of our network partners at the Lönrot Institute in Kajaani, Finland.

Since 2007 the list of international participants and contributors at the Gargia Conference has been extended to include several Canadian and Russian UArctic partner institutions, but the conference has not lost its original function.

A similar experiment is going to take place in a first nation community in Northern Saskatchewan, in relation to a joint network meeting and seminar with the Thematic

Network on Northern Governance.

Our expectation is that the UArctic thematic networks will not only facilitate international cooperation in education, research and development work, but also strengthen our capacity building in concrete development projects and programmes like the FiUC-project: Local and Regional Development Workshops and Partnerships.

Both the Skiippagurra Evaluation and Learning Workshop and the Gargia Conference are useful tools in this endeavour. But what works in one municipality in Finnmark, does not necessarily work in another. The cultural and socio-economic differences between different municipalities in northern Norway are great, and the methods and techniques we use have to be adapted to these differences.

The challenges are even larger when trying to export our models to remote, rural communities in Northern Canada and Russia. But we must try, if we hope to realize the strategic objective of the network.

The UArctic Thematic Network on Local and Regional Development in the North has been involved in many other activities since it was established in 2006. You can read more about the network on FiUC's home page [www.hifm.no/Forum](http://www.hifm.no/Forum) and Network for Northern Governance and Development.



### Student Profile / Russia

Maria Iakovleva  
Sakha State University

The UArctic/ BCS Advanced Emphasis (AE) course in Community Governance and Development turned out to be more than just an academic course for me. The most obvious reason was its two evaluation and learning workshops. It was a great idea to try to integrate theory with practical experience in local governance and development

During our time at Finnmark University College in Alta we went to the community of Tana where we had the Skiippagurra Evaluation and Learning Workshop. It was one of the greatest experiences in my life! In three days we got as much information about local development as it normally would have taken many years of living in Norway to get. It was a well-organized workshop that opened a new door for me into the Arctic.

Coming from the 'South', I had no idea of how people in the high North lived, what problems and challenges they had to struggle with before I came to Alta and Northern Norway. The visit to a local Sami reindeer siida in Tana was a great adventure for me.

At the Skiippagurra workshop we learned about problems with outmigration, lack of young people, and the negative effect prostitution and drug trafficking had on the local community. After Tana we visited the small fishing community of Sørvær on an island off the coast from Alta. That was also a most outstanding experience.

In my opinion the UArctic/BCS AE Course in Community, Governance and Development at Finnmark University College is not only useful, but necessary for northern students who would like to participate actively in the development of their communities and regions. I would recommend it for southern students as well.

*Young Evenks girls participating in the Bakaldyn celebrations.*



## Indigenous World View in Northern Russia

Many Northern peoples are united by similar landscapes and traditional ways of life. Such commonalities lead to similar world views, which can be identified through expressions such as cultural celebrations and language. This is the work undertaken by UArctic's Thematic Network on World Images of Indigenous Peoples of the North.

Our Thematic Network was set up on the basis of research undertaken at Sakha State University, Russia. This research was supported by the Russian Foundation for the Humanities. These projects study the ethnic specificities of world views of the Sakha, the Yukagir, the Even, and the Evenk peoples of northern Russia. All of these peoples' languages are among the endangered languages of the world.

Language is the major component of cultural and ethnic identities. Cultural richness and diversity must be preserved, enhanced and transmitted to future generations as a source of intercultural dialogue.

Through verbal concepts we study the northern outlook on landscape, natural phenomena, and traditional economic and social structure. We also research activities such as hunting, traditional beliefs, holidays and ceremonies.

Traditional northern cultures are closely related to ecology. Natural and climatic conditions often define the traditional way of life.

*The Sakha people celebrate Yhyakh every spring.*



Therefore, traditionally the new calendar year in the North often began in May, during the awakening of nature, the beginning of a new season.

It is at this time that the Sakha people celebrate Yhyakh, and the Evenks people celebrate Bakaldyn. These holidays have come from antiquity when our forefathers worshiped the Sun and made a ceremony of benediction to the forces of Nature. The celebrations of Yhyakh and Bakaldyn remain into our days.

*Cultural richness and diversity must be preserved, enhanced and transmitted to future generations as a source of intercultural dialogue.*

Animal worship is also connected with the traditional way of life. Horse plays an important role in the culture and mythology of the Sakha people, who are traditionally a nomadic people.

Tungus-speaking people deified their common forefather, the deer. According to the Evenk mythology there is a God named *Enekan Buga* who lives in the Higher World. He comes to earth in the appearance of deer. The Evenks, Evens and Yukagir respected especially the white-colored deer because it was thought to be a keeper of the herd.

Winter and frost in the mythology of the Sakha people are connected with the image of Ox. Most likely this comes from the image of the now-extinct mammoths that once populated the territory of Yakutia in ancient times. To this day we can still see the ice-sculptures of Ox of winter on the eve of a New Year.

To learn more about the Thematic Network, please visit the UArctic Thematic Networks webpage: [www.uarctic.org](http://www.uarctic.org)

UArctic Thematic Network on Images of Indigenous Peoples of the North

- Host / Sakha State University, Russia
- Lead / Lioudmila Sofronovna Zamorshikova
- Established at Bodø University College, Norway, in 2006



## Student Profile / Russia

Valentina Mikhaylova:  
UArctic Helps Realize her Dreams

Valentina Mikhaylova dreamed of studying abroad ever since she began to learn English. "One should have a dream and work hard to reach it. I think that makes our life meaningful and more interesting," said the young student from northern Russia.

So, when she enrolled at Yakutsk State University she worked to make this dream come true. "First of all, I registered for Bachelor of Circumpolar Studies (BCS) courses with the UArctic. I didn't know much about UArctic at that time, I just had a hope that these courses would be the first step for something great and worthy. And now I can say that my intuition didn't let me down," said Mikhaylova.

BCS was a great start for Mikhaylova's adventures with UArctic. "I understood that when I took my very first course, everything was about the North and for the North. I really liked these courses and took a new course every term. The instructors are just awesome, they are always ready to help," she said.

Through UArctic's north2north program Mikhaylova then studied for a year at the University of Saskatchewan. "Studying in Canada was the best and most useful experience for me ever. I learned a lot...and I've made very nice friends there," she said of the experience.

For Mikhaylova, UArctic has opened up a world of possibilities, including graduate school in Canada. As she put it: "UArctic is just a great international institution that connects universities in different parts of the North. I think the mission and goal is very generous, because first of all, the university works for the North, trying to contribute in the life of northerners, and they do a big job!"

# Tourists in the North: Then and Now

In 2007 Norwegian Børge Ousland and his Swiss companion Johann Ulrich crossed the Arctic Ocean. They repeated the route of Fridtjof Nansen and Hjalmar Johansen who, in 1895-96 left their ship the Fram to reach for the Pole. Crossing ice and open sea Ousland and Ulrich ended at Cape Flora on Franz Josef Land, as Nansen and Johansen had done over one hundred years earlier.

There are differences, of course. Nationalistic overtones have been replaced by more commercial ones, and equipment, security and communications matters are technologically updated. However, the dramatic reduction of the ice masses related to the changing of the climate is the dominant theme of reports from modern explorers. And in the century since Nansen the Arctic Ocean has become a relatively crowded place.

The Arctic Ocean nowadays is full of tourists. During the three weeks of waiting for the appointed transportation from Franz Josef Land Ousland's camp twice became an object of interest for Russian ice-breakers. This was primarily for control and inspection by the authorities, but the explorers were also visited by nearly one hundred Western tourists on board each vessel. The tourists swamped the beach, in their orange life vests and yellow overcoats, and invited the explorers on board for vodka and a shower. They were then furnished with food in exchange for a presentation of their journey.

These more or less accidental meetings between groups of Arctic tourists illustrate how the ultimate North is being penetrated by various late-modern experience seekers. The tourists are of almost all kinds. There are those in the spirit of Nansen – on a self made trip, four months long, including physical hardship, sponsored equipment and risk-taking. There is the inclusive two-three week cruise on an ice-breaker, based on some special interest and with few other demands on the tourists

Text / **Ola Sletvold**, Finnmark University College, Norway

Photograph / **Lars Kullerud**

*In the century since Nansen  
the Arctic Ocean has  
become a crowded place.*

than the one on their bank accounts. Or you can fly in for three nights at the Russian tent hotel at the Pole. In between there is Børge Ousland's own company, offering tourist trips of "the last degree to the Pole" both North and South.

Polar tourists are only the beginning of the more general northbound traffic in the circumpolar Northern landscapes or along its coasts. To address this tourism through research and education is the rationale of the UArctic Thematic Network on Northern Tourism.

The phenomenon, its tourist characteristics, motivations, products, volumes and economies; as well as the consequences of its involvement with nature and the communities of the circumpolar region are the main aspects that need attention.

The High North probably has a tourism development potential, not least as a show case for the consequences of global warming.

To learn more about Ousland's trip, please visit his blog: <http://www.ousland.no/blog/?cat=8>

*Snow machines and a tourist boat frozen  
into the fjord provide infrastructure for  
tourist operators in Svalbard, Norway.*





# Building Governance Capacity through Innovation and Partnerships

Text / Tom Novosel, University of Saskatchewan, Canada

UArctic's Northern Governance Thematic Network facilitates collaborative research, curriculum development, student exchanges, and Northern and Indigenous government and community needs. The Thematic Network is building capacity through innovation.

Graduate student training has been an important thrust of UArctic's Thematic Network on Northern Governance, so on March 9, 2009, the Northern Governance Thematic Network coordinated a symposium funded by the Department of Foreign Affairs and International Trade Canada (DFAIT).

This conference awarded nine fellowships to Canadian graduate students whose essays addressed innovative research and policy development around Canada's role in the circumpolar world (two of the scholarship recipients – Robin Urquhart and Harry Borlase – are from the North and former UArctic interns). This event fostered a linkage between graduate students and northern policy development.

The Northern Governance Thematic Network has been driving collaboration at the Master's degree level. The University of Akureyri, University of Lapland, and others have developed an innovative Master's degree in Polar Law. While the University of Saskatchewan (U of S), Bodø University College, Finnmark University College, Sakha State University, and Umeå University are working on master's level cooperation in the area of Northern Governance and Development. Sustainable natural resources management, indigenous rights, innovation and economic development, and Circumpolar cooperation are areas of study for this program.

The International Centre for Governance and Development (ICGD) at the U of S secured a contribution from the Government of

Saskatchewan for the Master's pilot project, and in February two Saskatchewan First Nations Chiefs – Grand Chief Ron Michel from the Prince Albert Grand Council and Chief Guy Lariviere from the Canoe Lake Cree Nation – attended meetings in Bodø, Norway and Umeå, Sweden to help set up the program. In March, 2009 a group of seven graduate students from the U of S enjoyed a one-week intensive course on Northern Governance in Bodø.

The Northern Governance Thematic Network further helps to develop community capacity through facilitating cooperation between Canada and Russia. With funding from the Department of Indian and Northern Affairs Canada (INAC), colleagues at the University of Northern British Columbia and the U of S hosted Russian colleagues, from Moscow and Yakutsk, representing the Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON).

Finally, trans-national cooperation through the Northern Governance Thematic Network is leading to capacity building at the undergraduate level. Students from across Northwest Russia come to Bodø through the north2north exchange program to partake in the Bachelor of Circumpolar Studies program, completing the Advanced Emphasis in Northern Scandinavian Politics and Society. Students are learning about new governance systems and cultures within their own region – the Circumpolar North.

The Northern Governance Thematic Network is looking forward to future collaborations in capacity building through partnerships, linking communities around the Circumpolar North.

## UArctic Thematic Network on Northern Governance

- Goal / strengthen cooperation and capacity among institutions working on issues of governance in northern regions
- Host / University of Saskatchewan
- Lead / Greg Poelzer



## Student Profile / Iceland

Sölmundur Pálsson:  
Wouldn't Live Anywhere Else

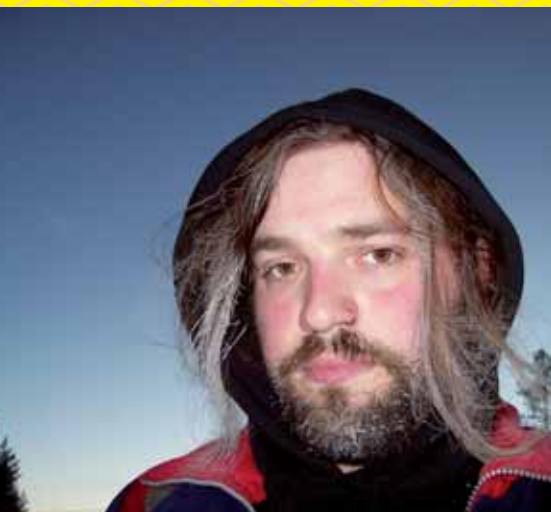
Sölmundur Pálsson feels blessed to have grown up in the North. "I have lived in the north all my life, so I don't know anything else," said the 25 year-old student. "I think it has been a privilege to be raised here in the north, especially because of the closeness to nature."

Pálsson is studying Social and Economic Development with an emphasis on the Circumpolar North, at the University of Akureyri, Iceland. "The research for my bachelor thesis is focused on global change impacts in the Arctic with special focus on the north Atlantic region - Greenland and Iceland. My focus is on the socio-economic impacts of global change," said Pálsson.

The decision to study in his hometown was an easy one for Pálsson. "I really like it in Akureyri. It is a town of 17 thousand inhabitants where people have the feeling that everybody knows everybody," he said.

Akureyri may be a small northern city, but through UArctic, Pálsson has access to a whole network of students, professors, and curriculum, like the Bachelor of Circumpolar Studies (BCS). "I am very grateful that University of Akureyri and Stefansson Arctic institute are members of UArctic because I got a chance to take BSC 100 and BSC 321. I then choose to do independent study on the north, which has lead to my BA thesis," he said.

It's not that Pálsson can't leave the north, the fact is he doesn't really want to. "The main reason I have for staying in the north is that I love being here, I love breathing fresh air every day, which is priceless, even when it is cold," he concluded.



## Student Profile / Germany

**Nikolas Sellheim:**  
The North Became Home

Something about the North keeps Nikolas Sellheim coming back. "The North has somehow become a home for me. I really like the climatic conditions as well as the rather sparse population, but of course, there's also this thing called a passion," said the 28 year-old from Berlin.

Sellheim first came north to Rovaniemi, Finland to take the Arctic Studies Program (ASP) at the University of Lapland in 2007. While in Rovaniemi, he also enrolled in UArctic's Circumpolar Studies (BCS) program, taking online courses through Bodø University in Norway.

The BCS helped to fill in the gaps of Sellheim's Scandinavian Studies degree. "My other studies just marginally dealt with indigenous issues... UArctic really tries to include and value traditional knowledge and indigenous interests in its curriculum," he said.

When Sellheim returned to Berlin, his association with UArctic didn't end. He became an employee, and worked on the UArctic website.

Now Sellheim is back in Rovaniemi, where he is working on his B.A. thesis. "I chose to write about land rights in Finnish Lapland and the associated dispute between the Saami and the forest industry," said Sellheim.

Through his research and education, Sellheim is becoming part of a new set of young people who are looking north for their future. "I think in times of increasing attraction of the Arctic for the EU, it's good to have people like me, who have made the north their mental and physical home," he said.

Sellheim will complete his BA in Scandinavian Studies in 2009, and says he will continue his education in and about the Arctic.

A Photo Essay by **Karen Tanino**, University of Saskatchewan, Canada

# Northern Agriculture: New Possibilities for the North

There are exciting new opportunities for agriculture in the North. UArctic's Thematic Network on Northern Agriculture will explore possibilities ranging from Green Igloos in the Arctic, to Northern Vigor, to Saskatoon strawberries.

Dr. Karen Tanino is chair of the new Thematic Network on Northern Agriculture. She is planning a workshop to organize the Thematic Network, which will include both research and academic programming ideas. It will be held at the University of Tromsø, Norway from in June, 2010.

Producing crops in northern regions has distinct advantages including access to higher quality food and functional food value, local supply and export potential. Some northern agriculture activities are pictured here.



*Green Igloos Farm at Alexandra Fiord lowland, Ellesmere Island (78°53'N) with two outlet glaciers in the background. It was developed by Professor Josef Svoboda, of the University of Toronto, Canada, between 1982-84. He has spent over 30 active years in the High Arctic studying plant ecology and plant growth.*



*Assortment of vegetables grown in black plastic grow-bags in the walk-in 'Igloo' greenhouse.*



*Valerian (*Valerian officinalis*) is one of the medicinal crops of study. Together with echinacea (*Echinacea angustifolia*) and burdock (*Arctium lappa*), Drs. Barl and Tanino's work revealed up to four fold increases in phytomedicinal quality (echinacosides, valerenic acid, chlorogenic acid) associated with root crops grown at higher latitudes, this phenomenon is termed Northern Vigor®. ®Registered trade mark of the Saskatchewan Seed Potato Grower Association.*

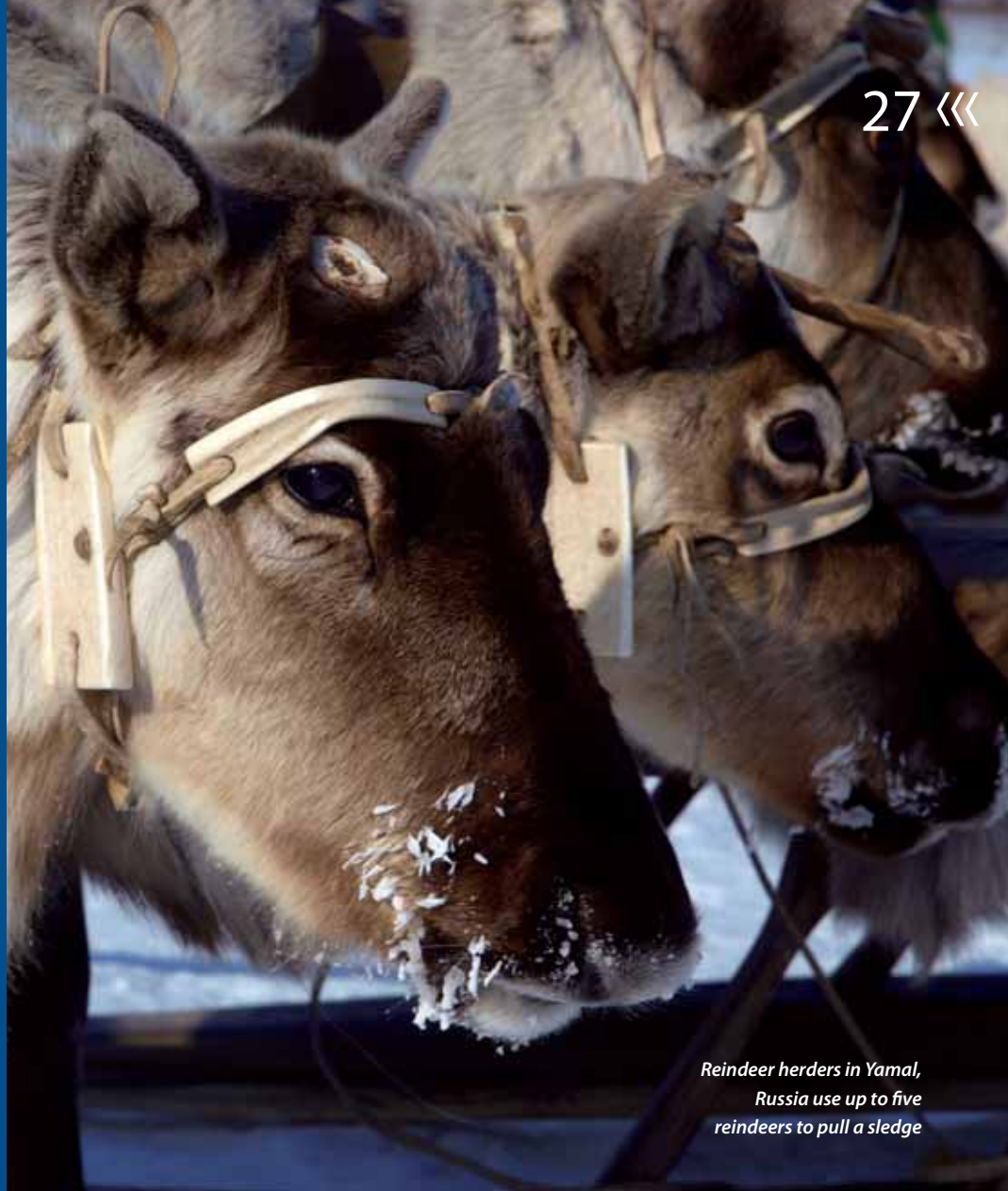


*Strawberry plants (crowns) have been produced in Saskatchewan and shipped to California or Florida for planting since 1994, as part of Dr. Tanino's work. The resulting fruit yield was 40-60% higher in the first two months, compared to crowns from more southern nurseries. Here, strawberry (*Fragaria x ananassa* 'Festival') crowns were grown in Saskatchewan, shipped to the University of Florida and produced twice as much fruit as another geographic source in January alone.*

## EALAT Legacy will be Ensured Through a New UArctic Institute

Ealát is a Sámi word with a multi-layered meaning. Ealát means 'Pasture', while related words such as Eallu means 'Herd' and Eallin indicates 'Life' in the Sámi language. EALAT is also a study of the vulnerability of reindeer pastoralism to climate change. This study began as a project of the International Polar Year, and it will now be continued through the work of the new UArctic EALAT Institute.

Text / **Anders Oskal**, Director, International Centre for Reindeer Husbandry and **Dr. Svein Mathiesen**, International Centre for Reindeer Husbandry  
Photograph / **Lars Kullerud**



*Reindeer herders in Yamal, Russia use up to five reindeers to pull a sledge*

Recently the Association of World Reindeer Herders (WRH), the International Centre for Reindeer Husbandry, and Sámi University College decided to work for the establishment of a UArctic Institute for International Reindeer Husbandry - UArctic EALAT, which will ensure an EALAT legacy after the IPY years.

This new UArctic Institute is a significant vehicle for building the capacity of Arctic countries, and in particular, indigenous peoples, to adapt to climate change, industrial development and globalization across the Arctic. The idea is to reduce their vulnerabilities through empowerment with the best indigenous, scientific and technological knowledge available, including remote sensing.

“The new UArctic Institute will be hosted in Kautokeino, Norway, as a pilot institute for research, outreach and education within the objectives of the UArctic Strategic Plan 2008-2013, in accordance with the Yakutsk Declaration (2005) from the Third Congress of World Reindeer Herders, and in agreement with the Fairbanks Declaration from the Eighth conference of Parliamentarians of the Arctic Region, in Fairbanks, USA,” stated the International Centre for Reindeer Husbandry.

In regards to adaptation to climate change, the Arctic Parliamentarians, in their Fairbanks Declaration of 2008, asked their governments to “further build capacity in Arctic communities to adapt to climate change, including the development of new education programmes and skills training initiatives, to allow individuals in these communities to be prepared

for new job opportunities and to implement projects at a local level.”

The Parliamentarians also wished to “encourage the University of the Arctic to build practical capacity in the north to address the challenges of adaptation to climate change.”

The UArctic EALAT Institute will help to accomplish all of these initiatives, as well as provide a unique opportunity for local competence building within reindeer herding society. The EALAT network is also responsible for the UArctic Global Change course: Adaptation to globalization of the Arctic.

The EALAT network is based on the unique cooperative network established by the Association of WRH throughout the circumpolar north.

Text / **Anatoli Bourmistrov**, Associate Professor, North Center for Business and Governance at Bodø Graduate School of Business, Canada and **Joseph A. Doucet**, Enbridge Professor of Energy Policy, School of Business, University of Alberta, Canada

## Energy in New Time: Value Creation in the Arctic!

In the face of global climate change the Arctic region, with its known deposits of traditional fossil resources, may significantly contribute to the security of the future global energy supply.

A central question of the Arctic states is how to transform increasing international attention towards these energy resources into a source of sustained economic growth.

**S**ustainable energy resource development will depend on how national and multinational enterprises, politicians and communities in the Arctic collaborate in handling region-specific challenges, in the areas of environment, climate, Arctic vulnerability, conflict between multinational corporations and business interests, and values, languages and cultures of indigenous peoples.

Education and research institutions in the Arctic have both an opportunity and a responsibility to address these challenges. The promotion of sustained economic growth will require multidisciplinary approaches and strategic partnership between education and research institutions.

The Energy in a New Time Thematic Network (ENT) of the University of the Arctic was established as such an initiative in June 2008, to address issues of sustainable energy development in the Arctic. Based on the extensive experience of Bodø University in cooperating with Russian Universities and enterprises, the ENT has also involved several universities from Russia in its network, such as State Technical Universities in Arkhangelsk and Murmansk, and Ukhta State Technical University.

One example of collaboration is designing and operating joint graduate programs that facilitate student exchanges between universi-

*The promotion of sustained economic growth will require multidisciplinary approaches and strategic partnership between education and research institutions.*

ties. Students spend one semester abroad at a partner institution and receive credits that are recognized at their home university as part of a joint degree. The High North Center for Business and Governance is quite experienced in designing and running joint programs in the field of energy and sustainability management and placement of graduates with energy firms and governments has been quite successful.

Another example is the development of the Arctic/Barents Dialogue Study tour concept. Interests of offshore commercial fishing and oil and gas activities are very often in conflict. To facilitate a dialog and to fully examine the

benefits and challenges associated with co-existence of these industries, the study tour brings together representatives from relevant industries and other stakeholders from Arctic regions including Alaska, Canada, Norway and Russia. Organized once a year, the tour provides an environment for promoting a productive dialogue, where sharing of regional experiences and development of common policies is possible and encouraged.

On behalf of the ENT we invite UArctic universities and research institutions to join us and take part in current and forthcoming education and research cooperation activities.

### UArctic Thematic Network on Energy in New Time

- Hosts / Bodø University College, Norway and University of Alberta, Canada
- Leads / Anatoli Bourmistrov and JJ Roger Cheng
- Vision / providing leadership in the development and management of energy in the Arctic and Sub-Arctic regions
- Goal / to establish and sustain a network of institutions primarily within UArctic to promote research and education collaboration, and to develop international policy and joint projects among UArctic members in the area of energy and its impact on environment and adaptation to climate change



Text / Asgeir Solstad, Bodø University College, Norway

Photograph / Veli-Pekka Laitinen

## Arctic Social Work: Something Special?

What is social work in the Arctic?  
A UArctic Master program may  
help you find out...

Is there a specific Arctic context that forms social work as a practice and discipline? What are the common experiences that social workers and academics in the Arctic can share across borders and cultures? And what are the socio-political challenges that face the high north?

These are questions that UArctic's Thematic Network of Social Work wants to deal with. Of course, we know some important common facts about living in the Arctic:

- We mostly live in sparsely populated areas, a long way from the political centres.
- We live in multicultural societies, including many different indigenous peoples.
- What we can harvest directly from nature is important to many people in our part of the world. This also makes us vulnerable to environmental change, which already affects many people's lives today.

Our challenge as a Thematic Network is to offer social work students, teachers and researchers a mirror – The Thematic Network will be a place to identify and form social work. A place to develop knowledge on social policies, based on meeting others that share some of the same experiences.

The best way to bring these groups together is through education. A group of academics from the different countries involved in the network met in Amsterdam in January, 2009. There, we decided to develop two courses together – one at bachelor level and one at master level – on social politics in the Arctic. The bachelor course will start in autumn, 2010 and will give students the possibility to meet for one week somewhere in the Arctic. In addition, they will follow internet-based teaching.

The master course will be part of a Master of Social Work under the University of the Arctic umbrella, but based at Bodø University College in Norway. This institution has a tra-

dition of researching and teaching in comparative social work, which makes it a good mirror. All teaching will, of course be given in English. We are working to find ways of organising the program so that students can benefit from different funding programs to cover costs for the time they will need to stay in Bodø. We think that within our Thematic Network, social workers in the Arctic have now found one more place to meet, think and work together. This may be the beginning of getting to know more about what shared experiences can lead to for social work in the Arctic.

But, "why Amsterdam?" you may ask. Why did we meet there, and not in the part of the world where we belong? Well, the travel agency found that it was the cheapest place for us to meet...

# E-learning Conference in Murmansk, Russia

Text / **Steinar Thorvaldsen**, University of Tromsø, Norway

Photograph / **Anna Crawford**

In February 2009 members of the UArctic Thematic Network on Distance Education and E-learning met at the Murmansk State Pedagogical University (MSPU), Russia for the conference *Quality of Education and Flexible Learning: Problems of Management*.

The aim of our Thematic Network is to exchange knowledge and research about E-learning; and to host a discussion of methodology of the field. The Network's main focus is on teacher training, but will also concentrate on learning processes, pedagogy, and appropriate information technologies necessary to deliver content to and support for distance learners.

At the MSPU conference these aims were discussed in presentations about improving quality of training, student portfolios, teaching Information and Communications Technology (ICT), ICT in mathematics, ICT in training foreign language teachers, learning environments with Web 2.0, and emerging technologies for distance learning.

In addition to the scientific program, delegates were also entertained by a short concert of songs and dances by students of MSPU. Our host, MSPU, provided international delegates with many impressive scientific and cultural events that will foster future collaboration among conference participants.

## Groups

The Thematic Network has several specialist sub-groups covering these areas:

- English as a Foreign Language, with Marina Lukina, PhD, Head of Foreign Language Department in MSPU; and Hilde Brox, assistant professor, University of Tromsø.
- Flora and Vegetation in the Arctic, with Andy Sortland, assistant professor University of Tromsø; Maria Menshakova, assistant professor MSPU; and experts from Arctic Alpine Botanical Garden in Kirovsk. The aim for this group is to create a digital catalogue of flora of the Murmansk area.
- Distributed E-learning, with Steinar Thorvaldsen, PhD and associate professor University of Tromsø; Lisbeth Rønningsbakk, assistant professor University of Tromsø; Griff Richards, PhD, Director at the Technology Enhanced Learning Research Institute, Athabasca University, Canada; and lecturer Oleg Lyash, MSPU, Russia.

## Olympiad and future goals

The English as a Foreign Language group plan to have a student exchange in April 2009, when four Norwegian students will participate in the annual faculty Olympiad for the best student project in education, at MSPU.

Future goals for our Thematic Network are to facilitate student and teacher exchange, collaborative research projects, conferences, and publications in the area of E-learning. The sharing of experiences from E-learning implementation, and increasing collaboration in international E-learning within the northern region are also important outcomes. We hope to identify relevant challenges and problems in the field of E-learning within Arctic countries.

We also plan to have a new conference on the pedagogical use of Learning Management Systems in Murmansk in November 2009, when MSPU will celebrate its 70th anniversary.

### UArctic Thematic Network on Distance Education and E-Learning

- Started in 2008
- Host / Tromsø University College, Norway
- Lead / Steinar Thorvaldsen

# Interactive Weave Portrays the Arctic through Digital Media

Text / **Herbert Enns**, University of Manitoba, Canada and **Tomi Knuutila**, University of Lapland, Finland

The Interactive Weave digital media installation, developed by Arctic's Thematic Network - The Arctic Digital Media Collaborative will present the changing Arctic through sound, text, narration and visual projection.

The Arctic Digital Media Collaborative (ADMC) - a Thematic Network of the University of the Arctic - is beginning to articulate its mission as presented in Edmonton, 2008. ADMC Co-Leaders, Herbert Enns and Tomi Knuutila are developing an installation of digital media works titled INTERACTIVE WEAVE first, as a demonstration project to initiate interaction amongst the collaborators.

INTERACTIVE WEAVE will present the Arctic as a landscape of migration, accelerating change, and entropic transformation. Like the melting ice cap and the expanding hole in the OZONE layer - dynamic patterns can be observed that identify the occupants of this vast landscape and the risks they confront as the climate changes. The INTERACTIVE WEAVE installation will be a multi-frequency data-scape representing the conditions of life and change in the Polar Regions. The pro-

ponents also seek to establish a stable platform upon which data streams are archived as searchable sets of interactive information for future exhibition and web access.

The installation will relay new knowledge about the Arctic, its systems, science and inhabitants to the attendees through a number of innovative and interactive strategies embedded in the conference program. Data and information streams in multi-sensoral and interactive modes will be threaded into the conference at four levels: Data Flower / Data Blizzard; Streaming Text and Narration of Arctic Languages (Shared Voices spatial audio installation); Ambient surround sound using spatial audio to document the Arctic aural landscape; and Data Sky, an interactive projection of research data interpretations onto a ceiling surface.

Content for these media installations will support a number of UArctic interests. It will suggest future prospects; develop technology to create rapid feedback on issues and audience participation; maximize networking opportunities between members; explore the idea of sound and vision as universal languages; represent all languages in the Arctic Sphere; use various forms of data to interpret, visualize, and sonify Arctic landscape change; and broadcast Multiple voices and multilingual poetry.

**The ADMC is planning an initial workshop to be held in the Arctic in 2009-2010.**

**The Arctic Digital Media Collaborative**

**Project Leads /**

Herbert Enns, Experimental Media Centre, University of Manitoba, Canada

Tomi Knuutila, University of Lapland, Rovaniemi, Finland

**Collaborators /**

Teemu Leinonen, Media Lab, Helsinki University of Design, Finland

Patrik Svensson, HUM Lab, Umeå University, Umeå, Sweden

Charles Stankieveh, KIAC School of Visual Arts, Dawson City, Yukon

Antti Haase, Kemi-Tornio University of Applied Sciences, Kemi/Tornio, Finland

Aki Asgeirsson, Reykjavik, Iceland

*Arctic Studies Program (BCS) Students at the University of Lapland*

# The History and Future of Circumpolar Studies

Text / Bjørn Sagdahl, Bodø University College, Norway  
Photographer / Arto Liiti



A core activity from the very start of UArctic was to build competence in northern issues on the diversity found in the north among regions and peoples. To that end, a special program was designed - Circumpolar Studies, to be taught at UArctic member institutions and delivered online.

Seven core courses were developed through cooperation among scholars in Russia, Canada, Alaska and the Nordic countries, covering the above mentioned study areas. Member institutions were also invited to establish advanced emphasis courses for facilitating student exchange and contributing to the program development. Establishment of national funding of a scholarship program, north2north, made student exchange possible.

This has proven to be a success. The courses have recruited students all over the circumpolar north, and the applicants for scholarships have by far outnumbered the availability. The challenge is now to have all member states of the Arctic Council establish and fund the scholarship program, which is essential for its continued success.

Bodø University College (BUC), in Norway adopted the Circumpolar Studies program and added advanced emphasis courses on Nordic democracies and High North issues to the Bachelor of Circumpolar Studies degree (BCS). Credits from other UArctic partner institutions are accepted as electives of the program. Through close cooperation with Russian universities in the Barents Region, the number of students has been increasing.

The BCS degree program at BUC has been a great success. Similarly, the University of Lapland made use of the UArctic courses, and some Canadian universities have included them in BA programs. The online delivery of the circumpolar courses, managed by the UArctic Office of Undergraduate Studies at the University of Saskatchewan has also recruited a growing number of students.

In order to meet the demand, it was decided to regionalize the delivery of BCS. The main office in Saskatchewan is responsible for online delivery and for following up with member institutions in Canada and Alaska. The Nordic countries and the Barents Region are served by an office located in BUC, while a third office is located in Yakutsk in Russia's Sakha Republic.

A new generation of BCS courses are now being developed and will replace the existing ones in the near future. The basic idea of providing students with a shared circumpolar program all over the North is thus kept alive and updated with recent data and research findings concerning the circumpolar North.

University of the Arctic is today offering a wide range of activities such as cooperation on distant teaching, development and the offering of master's and PhD courses. By or-

ganizing thematic networks on specific study fields, a growing number of circumpolar academics have a venue for course development and research cooperation. The thematic networks are gaining ground and have become a driving force in development of academic circumpolar cooperation.

With ten years of steady growth in its activities, University of the Arctic has proven to be a success in academic cooperation among the member countries of the Arctic Council.

## BCS Statistics

An estimated 5000 students and 77 graduates as of Fall 2008

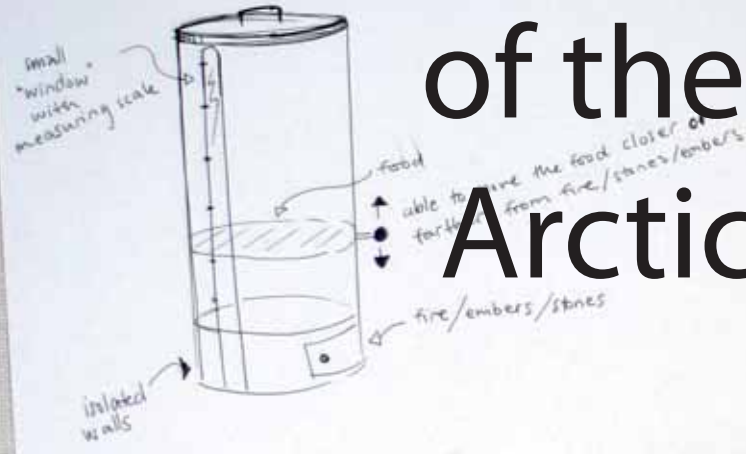
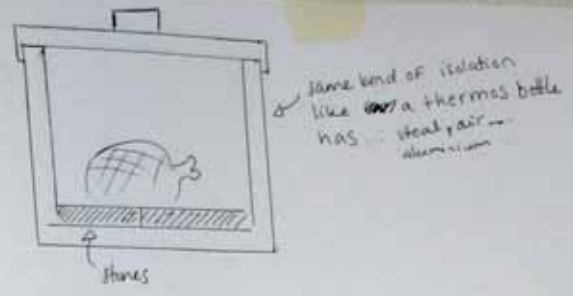
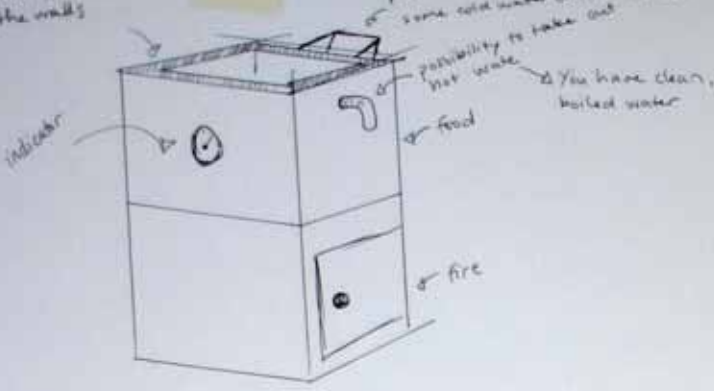
### Profile of students in 2008:

- 66% women
- 45% self- identify as indigenous
- 68% self- identify as Northerners
- 46% mature students (over the age of 21)

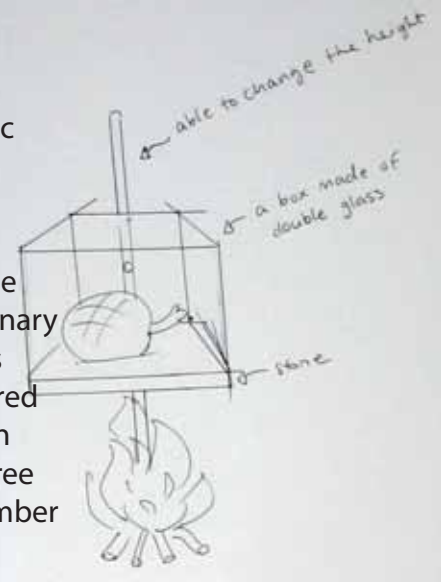
### Nationality of Students:

- 49% Russian
- 17% Canadian
- 16% Finnish
- 16% Norwegian
- 2% Other (American and Icelandic)





A Taste of the Arctic, a UArctic Cookbook, which will highlight samples of the northern culinary tradition, has already spurred collaboration between three UArctic member institutions.



Text and Photograph / **Alexandra Winton**, Communications Assistant, University of the Arctic International Secretariat

# A Taste of the Arctic

Is there an easier way to cook moose nose than over an open fire? How about the tasty little Finnish trout, or fresh reindeer or caribou steaks? How best to cook these northern delicacies without modern facilities?

This is the task facing an international group of students at the University of Lapland (ULapland). The Industrial Design class at ULapland, along with students and faculty from Rovaniemi University of Applied Sciences (RAMK) and Lapland Vocational College (LAO), which are all UArctic members located in Rovaniemi, Finland, are working together to create a new cooking device that may be used by famous Norwegian chef Andreas Viestad.

Viestad has been working with the Taste of the Arctic team to develop delicious new recipes from foods indigenous to the Arctic. Many of these foods are traditionally prepared over an open fire, but in keeping with the modern theme of the cookbook, Viestad was interested in using a new cooking method.

The goal of the design class at ULapland is to make a functional prototype of a new cook-

ing device that can operate without electricity, but with the ability to control temperature between 70-250 degrees Celsius.

ULapland Faculty of Art and Design Instructor Milla Haarakoski jumped at the opportunity to work on the project, and she knows exactly what she would like to see. "The design of the product should be simple, functional and be a fine representative of modern Finnish design," said Haarakoski.

The industrial design students from ULapland are responsible for the design of the product, while RAMK will provide technical knowledge on materials and LAO will help to make the prototypes.

The ULapland design class is made up of students from Germany, Ireland, Taiwan, Japan and Finland, bringing together different cultural outlooks, cooking traditions, and design styles. This is the exciting part of the project for 23 year-old Sae Suzuki from Japan. "I want to combine ideas from Japanese and Finnish culture," she said.

The students have come up with a multitude of cooking methods, from hot stones, smoking,

I want to combine ideas from Japanese and Finnish culture.

and steaming, to hot chains and heat packs. The challenge is to improve on the traditional method of cooking over an open fire.

This has been difficult for 21 year-old Anna Sommerer, from Germany. "For me, I still have the question – why not just cook over an open fire? I have to come up with an idea that works better. I need to convince myself," she said. "I also like this project because there's no solution. It is a totally new product that we're trying to design."

The design project will be finished at the end of May 2009, and the students hope to see Andreas Viestad using their product for the UArctic Cookbook.

A Taste of the Arctic will convey the richness in fine raw materials, foods and cultures of the north and should be published in early 2010.

Text / **Lauri Lajunen**, Rector, University of Oulu, Finland , Chair of UArctic Rectors' Forum

# A New World: University and Business Partnerships

In times of vast Global Change, the possibilities and need for university-business partnerships are becoming more apparent. Rector of the University of Oulu, Finland, Lauri Lajunen discusses the present and future possibilities for such cooperation.

The knowledge-based economy is on the agenda around the world. At the same time, global change challenges both the private and public sectors to develop more economical, more efficient and more environmentally sustainable production methods, products and services. In this situation new innovations increasingly depend on observations and results achieved through scientific work. Therefore, it is quite logical that universities now occupy an increasingly important role and that they are faced with vast expectations and demands. National innovation systems rely on universities, and politicians and businesses seek cooperation with them.

Against this background it should come as no surprise that university reforms have taken place or are underway in countries like Austria, Germany, Denmark, Sweden and Finland. Japan, South Korea and China are also actively developing their universities. Goals for these reforms and development measures include the enhancement of the quality of research and teaching, and the increasing of universities social and economic impact.

There are numerous ways for universities and companies to cooperate. Diploma thesis work for companies, common research projects and programmes, joint centres, commissioned research, consultations, joint seminars, company experts as guest lecturers and donated professor's chairs are some of the forms of cooperation which most universities have been taking part in for years.

High quality research and up-to-date teaching make the foundation of a university's reputation. A university that can offer this will attract to its campus and vicinity, the research and development capacity of businesses simply because the platform for research cooperation is naturally there and the companies can easily recruit an educated work force. It is in the interest of companies to cooperate in research and offer diploma thesis projects and traineeships for the students.

In the best of cases a win-win situation is created - both the company and the university will thrive, since a university greatly benefits from the surrounding strong and versatile business and service structures. On the other hand, the

service structures and the companies need the university. Universities create innovations as a result of their research, which translates into new products, new businesses or better services. Thus, the social and economic impact of a university is two-fold.

There are five basic necessities in the creation of a regional innovation centre or innovation ecosystem. First, there should be one or more international research universities of high standing in the area. Strong research universities have produced private not-for-profit research laboratories and institutes and joint research centres with other research institutions and businesses. It is these structures in particular that attract the research and development units of big business.

In the USA, there are several examples of the activities and effects of research universities in the Silicon Valley, Boston, San Diego and the North Carolina Research Triangle. In Finland, Oulu is a good example. However, the presence of a research university is not always enough. There are examples of significant and well-respected universities which have failed to play a role in the making of a business friendly context.

Secondly, a versatile industry structure and regional governance in support of entrepreneurship are needed. Thirdly, enough capital for the development of innovations into products and businesses is needed. Fourth, intellectual property rights and immaterial rights need to be defined so that they support the commercialisation of innovations. Finally, we need a culture of innovation that favours entrepreneurialism.

When universities and businesses cooperate we need to keep in mind that a research university of high international standing cannot and should not become a research and development laboratory or gopher for the assignments of a company. The primary role of a university is the production and creation of new knowledge. A university will carry out research that businesses might need in five to 10 years time and which might not have a direct application at the moment. High quality research and ambition are our priorities.

Lauri Lajunen



## Student Profile / Canada

Harry Borlase: UArctic's All-Around Student

If UArctic had a prom, Harry Borlase would be elected Prom King.

27 year-old Borlase has taken part in BCS, GoNorth, Arctic Studies (University of Lapland), UArctic's Intern program, and the Masters of Polar Law (University of Akureyri).

Borlase is also constantly involved in northern activities and events, such as the Jokkmokk Winter Conference. "I like volunteering my time with different organizations because I feel more a part of the Arctic community and more in touch with other students. I always say that the world is small but the Arctic is even smaller," he said.

Raised in Labrador Canada, he can't seem to get enough of the north: "I think the North is one of those places you can't get out of your bones. There's something about this part of the world that connects people with people and with the environment."

His association with UArctic as both a student and an employee has given him a unique perspective on the organization.

"UArctic has a huge commitment to students inside and outside the north. I think young northerners in particular want to experience other parts of the north in order to compare and understand their own region better. Also, the opportunity to be educated in the north, and take courses, exchanges or field schools in other regions is exactly what is desirable for young researchers. UArctic understands this," said Borlase.

It seems he also can't get enough of UArctic, as Borlase will be returning to the UArctic International Secretariat, to work for the summer of 2009.



Map / © University of the Arctic 2009, Philippe Rekacewicz, Veli-Pekka Laitinen and Hugo Ahlenius, Nordpil



*The UArctic network opens up for some 6600 institutional relationships (each line on the map), each of which may include education, research, mobility or other forms of collaboration. Many of these are already in action, as north2north mobility, the Circumpolar Studies Program delivery, joint and shared degree programs, and thematic networks.*

**UArctic Strategic Areas:**

- Thematic Networks
- Undergraduate Studies
- Graduate Studies
- Mobility
- Knowledge and Dialogue
- Service to Members.



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