

The UArctic Magazine

SHARED VOICES

2012



UArctic

Photo Lawrence Hislop



Arctic Resilience Report

06 The Arctic Resilience Report will assess the risk of crossing thresholds that lead to abrupt and possibly irreversible changes in ecosystems services that will affect human well-being in the Arctic.

Let's Get Smarter

14 It is important to define the necessary mechanics that would guarantee the development of a green economy matching a desirable growth with improvement of human well-being and social equity.

Global Environmental and Security Problems in the Arctic

22 The Arctic is experiencing complex and multi-dimensional change including aspects of geopolitics, geoeconomics, the environment and globalization.

Yes, Sustainable Community Development is Possible in Izhma

21 Through the Thematic Network on Local and Regional Development workshops, Irina Koroleva saw a window of opportunity to a better socio-economic future for the Izhma region.

Photo Lawrence Hislop



Role of Law in Securing The Arctic's Futures

24 Climate change is warming the Arctic at twice the rate compared to the rest of the world – we should be investing our money elsewhere than by building infrastructure for oil exploitation that firmly locks in their ultimate exploitation and use – and thus further escalates climate change.

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Student Profile:
Clifford McKenzie

29 Circumpolar Studies student Clifford McKenzie tells about how he uses his studies within his own community.

Tales from the North

28 The international conference "Tales from the North" considered how the arts contribute to the economic life and well-being of people living in the North.



- 04 **What Kind of Northern Future(s) Do We Want?**
Jim McDonald
- 05 **Letter from the President**
Lars Kullerud
- 06 **Arctic Resilience Report**
Annika E. Nilsson
- 08 **UArctic Research Office**
Marina Kalinina
- 09 **Arctic Research Strategies - The Arctic as a Grand Challenge**
Øyvind Paasche
- 10 **Student Profile: Julia Loginova**
Julia Loginova
- 10 **Arctic Monitoring and Assessment Programme**
Lars-Otto Reiersen and Simon Wilson
- 12 **Snowy OWL Talks Launched**
Lawrence Hislop
- 14 **Let's Get Smarter**
Antonio Caló
- 16 **UArctic Thanks Its 145 Members**
Outi Snellman
- 18 **UArctic in Numbers 2012**
- 19 **Northern Food Security**
Karen Tanino
- 20 **NETESDA - Born to Make Hearts Beating**
Olga Alekseevich
- 21 **Yes, Sustainable Community Development is Possible in Izhma!**
Valeria Gjertsen
- 22 **Global Environmental and Security Problems in the Arctic**
Lassi Heininen
- 24 **Role of Law in Securing the Arctic's Future**
Timo Koivurova
- 25 **Student Profile: Shanya Hammer**
Shanya Hammer
- 26 **New Photography based Thematic Network**
Lawrence Hislop
- 28 **Student Profile: Clifford McKenzie**
Clifford McKenzie
- 28 **Sustainable Art for Sustainable Futures: Tales from the North**
Stina Roos
- 30 **Iceberg Project**
Tomi Knuutila & Herbert Enns



UArctic

What Kind of Northern Future(s) Do We Want?



By **Jim McDonald**, Council Chair, University of the Arctic

The message of our motto – In the North, for the North, by the North – has never been more crucial than it is today.

In his speech to our 2011 Council, Iceland's President Ólafur Ragnar Grímsson described the 'dramatic transformation' that has occurred throughout the North since our ambitious UArctic experiment in higher education began. Climate warming, melting ice caps and oceans, food security, pressing energy demands, new access to resources, environmental issues, new transportation routes, intense attention to international polar borders, and militarization are but a few of the concerns that have moved the North from the periphery to centre stage. In many unprecedented ways, the very future of northern life as it has been long understood is at stake. Even more, the future of our global world is implicated deeply in how the North changes and how we respond to those changes.

Crucial to achieving such a future is research and education in the North, for the North and by the North. Thus, the task before us is building capacity for higher

education and research in the Circumpolar North, and nurturing the next generation of Arctic leaders. The Norwegian Parliamentarian, Morten Høglund, told the 2010 Conference of Parliamentarians of the Arctic Region that even though "education is essential to building strong and sustainable societies", numerous problems exist inhibiting the realization of appropriate education, training, and shared knowledge in the Arctic. At the same meeting, Joan Larsen, then the president of the International Association of Arctic Social Scientists, emphasized the urgency for Arctic research programs, as well as for the education and development of future Arctic scholars, and specifically recommended that the Parliamentarians support the efforts of the University of Arctic. I think we should all be pleased by this recognition and by Morten Høglund describing the University of the Arctic as a success story that is addressing circumpolar needs.

In today's environment, our motto must be read as a call to action - action that circumpolar peoples clearly have said they want. Just this year, the Inuit Circumpolar Council published its Declaration on Resource Development which, as Aqqaluk Lyngé, the Chair of ICC has explained, establishes guidelines for ethical development in partnership with indigenous peoples to build healthy, sustainable communities.

Such partnerships present an emerging, important educational challenge – how to respectfully integrate indigenous knowledge systems and not simply harvest pieces of traditional knowledge for consumption by western sciences. The imperative of partnership with indigenous peoples has always been at the heart of UArctic's mandate, and generates increasingly innovative discussions and decisions in our Council meetings on the topic our Vice-President Indigenous describes as "promoting understanding among different knowledge systems."

As we move into a discussion of our new strategic plan, it is clear that UArctic has much to offer. The Hon. John Duncan, Canadian Minister of Aboriginal Affairs and Northern Development acknowledged this in his address to the IPY Conference 2012 in Montréal, when he committed Canada to continue to work with us to advance shared circumpolar interests in resource development, trade, transportation and scientific cooperation.

Throughout all of our discussions during the 15th Council in Tromsø, we must keep these pressing issues in mind and allow ourselves to be guided by our motto, In the North, for the North, by the North. This is the way forward, into the kind of northern future that northerners will envision, want, and enjoy – the way to build a northern future for a world in transformation.

Letter from the President

By **Lars Kullerud**, President, University of the Arctic
Photo **Jan Atle Knutsen**

In the summer of 2012 the world will meet again in Rio, twenty years after the first Rio summit. In 1992, some of us shared the dream of a sustainable and more equitable global future. A lot has been accomplished – the global population is larger than ever, yet less people still suffer from food insecurity. New parts of the world face rapid economic growth, which if well shared can bring health and wellbeing to billions of people. This growth has unfortunately been fuelled through the growing extraction of natural resources. While we may have been able to clean up rivers and handle waste better in many places, we still consume more, and burn more fossil fuel than ever.

The big dilemmas – how to bring more people up to even a modest standard of living, sustain global economic growth, and fix the financial crisis – still seem to be directly linked to natural resource use.

The world has chosen the green economy -- the idea that we can have economic growth decoupled from growth in the use of natural resources – as the focus of Rio+20.

So what is the role of the Arctic in all of this?

It is possible to think of a future Arctic region developed with strong emphasis on local economies, a renewed focus on local food – an Arctic Green Economy! We see a scenario where indigenous peoples and other northerners utilise traditional forms of knowledge together with modern knowledge and technologies in ways that can sustain the many small northern communities as well as the few larger cities in the Circumpolar north with a healthy and good living standard for all. To make this possible, the Arctic as a region will only need modest levels of oil, gas, mineral, forestry, and fisheries activities.

However, the rest of the world will still need the surplus from Arctic non-renewable and renewable resources to feed the global economy (whether a hopefully green global economy or a continuation of the current oil-fuelled economy). It is also likely that the Arctic states, and even the population of the Arctic, will continue to be willing to share their resources with the world. In this perspective, the Inuit Circumpolar Council's Declaration on

Resource Development should be a source of inspiration.

A future in the North for the North by the North that ensures a good life for northerners in their communities, while also serving global needs can only be achieved with skilled northerners who have a well-developed culture for shared knowledge and cooperation. Therefore, the most important task for UArctic will be to help our members build relevant education optimized for the future that we face, rather than mirroring traditional education forms of the 20th century. With skilled northerners, it is possible to think of a green economy that serves northerners, while at the same time provides for the needs of the rest of the world from its surplus resources. This future is possible, if managed in a culturally and environmentally concerned way, and operated respectfully by people living and caring for the future of the North!

Arctic Resilience Report

By **Annika E. Nilsson**,
Senior Research Fellow,
Stockholm Environment Institute
Photo **Lawrence Hislop**



The Arctic Resilience Report (ARR) is a new Arctic Council project that will assess the risk of crossing thresholds that lead to abrupt and possibly irreversible changes in ecosystems services that affect human well-being in the Arctic. It will also analyze how different drivers of change interact in ways that affect the ability to withstand shocks and evaluate strategies for adaptation and transformation in the face of rapid change.

Resilience is the long-term capacity of a system to deal with change and continue to develop and adapt without crossing critical thresholds – to keep its identity. The term has been used for many years in research on environmental change and is now increasingly coming up also in policy circles. The purpose of assessing resilience is to prepare for change. In the Arctic, changes in the environment and climate are only part of the picture and one of the tasks for the project is to ensure integration of insights about both environmental and social changes, and how they interact. The project process is based on methods from the Resilience Assessment workbook, which includes the use of workshops to create engaged dialogue among experts and stakeholders, but it will also develop this methodology. Key issues include the integration of scientific and traditional

knowledge and attention to the international context of the Arctic region.

While assessing the current state of knowledge about potential threshold and resilience in a pan-Arctic context is at the core of the project, the ARR includes a much broader set of activities than most scientific assessments. For example, case studies focusing of specific issues will be used for developing the resilience analysis in contexts that are directly relevant to user communities and decision makers. Issues in focus for a first set of case studies include reindeer herding systems in Fennoscandia, food security and impacts of increased shipping in the Bering Sea.

A resilience analysis is ideally an ongoing process that continuously takes new developments into account. A major task is therefore to build capacity within the Arctic to continue using resilience assessments as a tool for dealing with rapid change after the project is finalised. Capacity building activities include developing a course on Arctic resilience together with UArctic.

The ARR is a priority for the Swedish chairmanship of the Arctic Council and will deliver an interim report at the end of the Swedish chairmanship in May 2013. The final report is due in 2015.

UArctic Research Office

By **Marina Kalinina**,
 Vice-Rector of International Cooperation,
 Northern (Arctic) Federal University
 Photo **Northern (Arctic) Federal University**

The establishment of the UArctic Research Office in Russia was a follow-up to a Council request in 2007 based on an idea to strengthen cooperation among the member institutions in research. From the Russian side, the initiative was supported both on a national and institutional level. A recommendation letter from Arthur Chilingarov, Special Representative of the President of the Russian Federation for International Cooperation in the Arctic and Antarctic, was received, and Rector Elena Kudryashova supported the idea to host the Research Office at the Northern (Arctic) Federal University in Arkhangelsk.

Opened in September 2011 during the second Arctic international forum “The Arctic: Territory of Dialogue,” the Research Office sees the facilitation of easy access by scientists to research field sites in the Arctic states as a primary goal. The first issue of the Research Office newsletter introduced an overview of the Russian research funding to help also non-Russian



UArctic members better understand what research opportunities are available. Linking UArctic researchers to such funding and cooperation opportunities through a kind of matchmaking database is another key goal.

Since the Research Office was established, it has been immediately involved in shaping UArctic research policy. The Mimir (‘Knowledge and Dialogue’) group, now acts as a steering group for the Research Office. Mimir and the UArctic President have been engaged in the EU Arctic Window initiative, processes to assess Arctic research strategies’ gaps and overlaps, as well as follow-up from the International Polar Year (IPY). Mimir and the Research Office will continue to promote UArctic involvement in research initiatives and will serve to consolidate UArctic’s research capacity. Particular emphasis is placed on enabling UArctic members to contribute to Arctic Council working groups, the International Arctic Science Committee (IASC) and International Arctic Social Sciences Association (IASSA).

As part of its efforts, the UArctic Research Office took part in the preparation and organization of joint Norwegian-Russian celebration of the anniversaries of Mikhail Lomonosov and Fridtjof Nansen. The first events were organized in Tromsø during the opening days of the Arctic Frontiers conference in January 2011. The UArctic Research Office and NArFU then hosted a young researchers workshop and seminar, “From Lomonosov to Nansen and beyond” in Arkhangelsk in November 2011.

Arctic Research Strategies - The Arctic as a Grand Challenge

By **Øyvind Paasche**,
Leader, Bergen Marine Research Cluster

The International Polar Year (IPY) represented a major boost for Arctic research. Key scientific questions were addressed and answered by cross-disciplinary and multi-national groups. Beyond the fact that scientific progress was made within a number of different scientific disciplines, it also raised a new form for public awareness. Politicians and stakeholders across the world realized that the Arctic is now undergoing a fundamental transformation due to global warming that is bound to have consequences far beyond the region itself.

A question of critical importance has emerged from this newly formed awareness: How do we best handle the overwhelming challenge that the Arctic already has become? Keep in mind that many of the anticipated large-scale changes to the natural system have yet to be manifested!

The eight Arctic countries have a particular responsibility for addressing this overarching question, but other countries

and organisations such as China and the European Union (EU), respectively have also interests and obligations in the Arctic. Common for all partners involved is that they practice an evidence-based policy that builds on cutting-edge knowledge.

The IPY revealed important new insights. However, in many areas the current understanding of the observed changes in both natural systems and social systems are poor and projections are generally hampered by large uncertainties. Reducing uncertainties is evidently a target for all Arctic research, funding agencies and researchers alike, because unless projections improve we will have a hard time knowing how to best handle the arising challenges!

UArctic would like to take this opportunity to emphasize that the Arctic should be viewed as a 'Grand Challenge' that cannot be addressed properly by a single country. Only by pooling our resources can we hope to address pressing scientific and political questions with some adequacy.



Julia Loginova

Alta, Norway

Thanks to the north2north exchange program I went to Alta, Norway in 2010 for the advanced part of the Bachelor of Circumpolar Studies. I chose Finnmark University College as a host institution because of its Management of Local and Regional Development (MLRD) program, as being a student at Sykkvkar State University I was very interested in regional development in the North. The program marked an important step in my life, changing my attitudes and priorities as well as increasing my interest in the Arctic and the Barents regions.

During the program course in Community Governance and Development I got acquainted with northern governance theories and approaches which were very new and interesting for me, but incomprehensible from the beginning. However, real cases from across the North (Norway, Canada, Russia) made a great difference in showing how the theory is put into the practice. Another side of this, which impressed me even more, is how educational institutions are contributing to local development. The lag between academia and real life is a big challenge and is especially destructive in northern regions, but the work of the Thematic Network on Local and Regional Development in the North is a worthy example of success.

When I found that the Thematic Network was planning a rural development project in Komi Republic, I knew that I had to be involved and volunteered for the Izhma Development Partnership and Workshops project in June 2011. This participation also brought me to the Gargia Conference in 2011. With these experiences, I understand that all northern regions where the Thematic Network works face similar social and economic problems, but each place is also unique, requiring specific approaches and creative minds.

This is not the end of the story. In April 2012 I found myself participating in the International Polar Year Conference 2012 in Montréal, Canada in the group of Circumpolar Youth Leaders (CYL) — an outcome I hardly ever had dreamed of. The CYL program brought twelve young activists to the IPY2012 Conference from Canada, Alaska, Greenland, Finland and Russia.

My successful participation in the IPY2012 Conference was possible due to all knowledge and experience I got from Bachelor of Circumpolar Studies program, my semester in Norway and involvement in the development projects activities. I would like to thank the University of the Arctic, Finnmark University College, the Thematic Network on Local and Regional Development and personally Tor Gjertsen for the invaluable knowledge and experience which I feel are changing my life.



Arctic Monitoring and Assessment Programme

By **Lars-Otto Reiersen**,
Executive Secretary, AMAP
and **Simon Wilson**,
Deputy Executive Secretary, AMAP
Photo **Lawrence Hislop**



The Arctic Monitoring and Assessment Programme (AMAP) is a body of the Arctic Council, responsible for implementing a circum-Arctic programme to monitor pollution and climate trends and effects and to prepare ‘State of the Arctic Environment’ assessments of these issues. Since 1997, AMAP has delivered nine such assessments, some dealing with multiple subjects (persistent organic pollutants, heavy metals, radioactivity, acidification, human health, etc.) and others focussing on specific thematic issues (for example, the 2004 Arctic Climate Impact Assessment and 2007 Arctic Oil and Gas Assessment). AMAP’s most recent assessments concern Impacts of Black Carbon on Arctic Climate, Mercury in the Arctic, and the Changing Arctic Cryosphere (SWIPA – Snow, Water, Ice and Permafrost in the Arctic).

The background scientific information for the findings reported in all AMAP ‘State of the Arctic Environment’ reports can be found in peer-reviewed science reports, many of which are also reproduced in part in articles in scientific journals. AMAP is currently working on an assessment of Arctic Ocean Acidification for delivery to the Arctic Council in 2013.

Other main focusses of AMAPs future work include extending the work on short-lived forcers of climate changes to address ozone and methane as well as black carbon, and development of consistent modelling and scenarios for use in future assessments. A new ‘Food Security’ project, being jointly developed with the Arctic Council’s Sustainable Development Working Group, will build on AMAPs extensive experience monitoring and assessing combined effects

of contaminants and climate change on human health of Arctic populations. These future assessments will adopt a more integrated approach to environmental assessments as increasingly policy-makers request information not only on the environmental changes that are taking place and predicted to occur in the future, but also on what these changes mean for society (how best to minimize negative impacts and maximise potential benefits).

All AMAP assessment reports and other outreach materials are freely available from the AMAP website (www.amap.no). AMAP welcomes use of these materials for educational purposes, as demonstrated in the Circumpolar Studies course materials and other UArctic educational activities.

Snowy OWL Talks Launch

By **Lawrence Hislop**,
Head of the Polar Programme,
UNEP/GRID-Arendal
Photo **Jari Peltomäki**,
www.luontoportti.com,
www.naturegate.net

An exciting new collaboration between UArctic and GRID-Arendal began during the recent Arctic Council Senior Arctic Officials (SAO) meeting at the end of March, 2012. The idea was to create motivating videos based on public presentations by inspirational Arctic leaders, and the project quickly took on the name “Snowy OWL Talks.” The concept is modelled after the popular TED talks, which have spread prolifically over the internet.



The primary audience for the Snowy OWL Talks is students across the North, from secondary to all levels of higher education. Secondary audiences include the northern policy community, local stakeholders, and the general public. Specific talks will be linked via partners’ websites, as well as employing social media channels. Descriptive data for indexing and archiving the talks will be maintained together with other UArctic learning materials that support education programs such as the Circumpolar Studies program.

The Snowy OWL talks will be based on short lectures, 5-15 minutes in length, which are videotaped and then edited and distributed online through the UArctic website. Generally, Snowy OWL Talks will be held in conjunction with a relevant meeting such as the Arctic Council, Arctic Parliamentarians, UArctic Rectors’ Forum, or the Arctic Science Summit Week. A discussion would be followed on site, and a Snowy OWL Talks “conversation space” will be provided for online commentary with a broader audience.



unched!

Normally each talk will address a very specific topic relevant to the North; however, some may address broader concepts. In selecting speakers, a strong emphasis will be placed on the speaker's ability to communicate clearly and to be inspiring to the audience. Over time a broad range of topics will be addressed and archived in the collection. The choice of content is guided by relevant and emerging issues while also respecting UArctic values. Initially, the language of Snowy OWL Talks would be English, but other languages and captioning will be considered for the future.



Let's Get Smart

By **Antonio Caló**,
Doctor, NorTech Oulu, Thule Institute,
University of Oulu
Photo **Thule Institute**



ster



With its remarkable wealth of natural resources of high economic value and the opening of the North Sea Route, there is little doubt concerning the key role the North can play in shaping the global economic development in years to come. On the other hand, this wealth of resources is likely to give ground for their exploitation, raising the risk of the combined effect of climate change and increased human activity in a self-reinforcing mechanism.

In this framework, it is therefore important to define the necessary mechanisms that would guarantee the development of a green economy matching a desirable growth with improvement of human well-being and social equity. Furthermore, this is essential in the northern regions, traditionally resource intensive and dependent on fossil energy due mainly to the challenging topography and harsh winters.

Our research work at the Centre of Northern Environmental Technology (NorTech Oulu) of the Thule Institute is based on the conviction that the development of a smart energy network in the North could provide a roadmap for an environmentally responsible, resource efficient and socially inclusive solution.

By the expression smart energy network we indicate an energy production, transmission and distribution system based on two-way communication between consumers and suppliers. A key element for the development of a smart energy network is the transition from a highly centralized energy system to a decentralized one, where individual consumers become small or medium scale energy producers

and are able to share their surplus of energy on the grid. Using real time monitoring and a dynamic smart central system capable to efficiently respond to changes in the grid condition, the envisioned system is expected to contribute, among others, in flattening the overall energy consumption profile while, at the same time, allowing for a more prominent role of those locally available renewable energy resources characterized by a discontinuous and irregular generation.

The expression smart grid is often considered to include only the electrical energy network (or power network). In this regard our work has a more comprehensive approach for three reasons: from an economic prospective, electricity represents only a fraction (15% to 20%) of the global energy consumption; from an environmental prospective, electricity is responsible only for a share of the greenhouse gases emission; from a technical point of view, limiting the analysis to a single form of energy can cause the misinterpretation and underestimation of the potential of other energy vectors and their complex interplay.

The transition from a highly centralized energy network to a decentralized one aims to an overall rethinking of the energy business model: from a growth through quantity to growth through quality. Furthermore, it implies a more interactive and participatory role of the consumer, then able to effectively gain through a more efficient energy usage. Enabling locally tailored, small scale, distributed energy generation within a smart energy network, we believe it will be possible to effectively initiate a process of democratization through participation of the energy market.

UArctic Thanks Its 145 Members

By **Outi Snellman**, Vice-President Administration, UArctic

The University of the Arctic (UArctic) is a cooperative network of northern universities, colleges and other organizations dedicated to education, research and the promotion of indigenous and local capacities and sustainable development in the circumpolar North. With 145 member institutions and organizations spanning 24 time zones in the eight Arctic countries and beyond, UArctic is the North's only truly circumpolar higher education institution and one of the world's largest education and research networks.

With a total of approximately 1.1 million students and 80 000 faculty, UArctic members form a truly powerful network. All members are represented in the Council of UArctic, which meets at a member institution once a year. In 2012 the meeting is hosted by the University of Tromsø, Norway.

In 2011, we marked the 10th anniversary of the network. In just ten years, UArctic grew from a small group of dedicated institutions with a will to collaborate into an institutionalized network with 16 offices distributed throughout the circumpolar North and a wide range of activities ranging from coordinating its own mobility program to systematic work on influencing global higher education policy.

UArctic's core values are: Circumpolar, Diverse and Holistic—they guide UArctic as it implements its mission. By strengthening local capacities and fostering a common identity, UArctic is helping to prepare future generations of northern leaders. Interactions between students from the North and outside the North are increasing global awareness, enabling a sophisticated understanding of the region's complex challenges and facilitating innovative approaches to identifying solutions.

UArctic's many unique features include innovative program design and delivery. To aggregate and amplify the strengths and the creativity of the North's many educational and research organizations, broaden the geographic reach of these institutions and create economies of scale, UArctic has created a decentralized operational model.

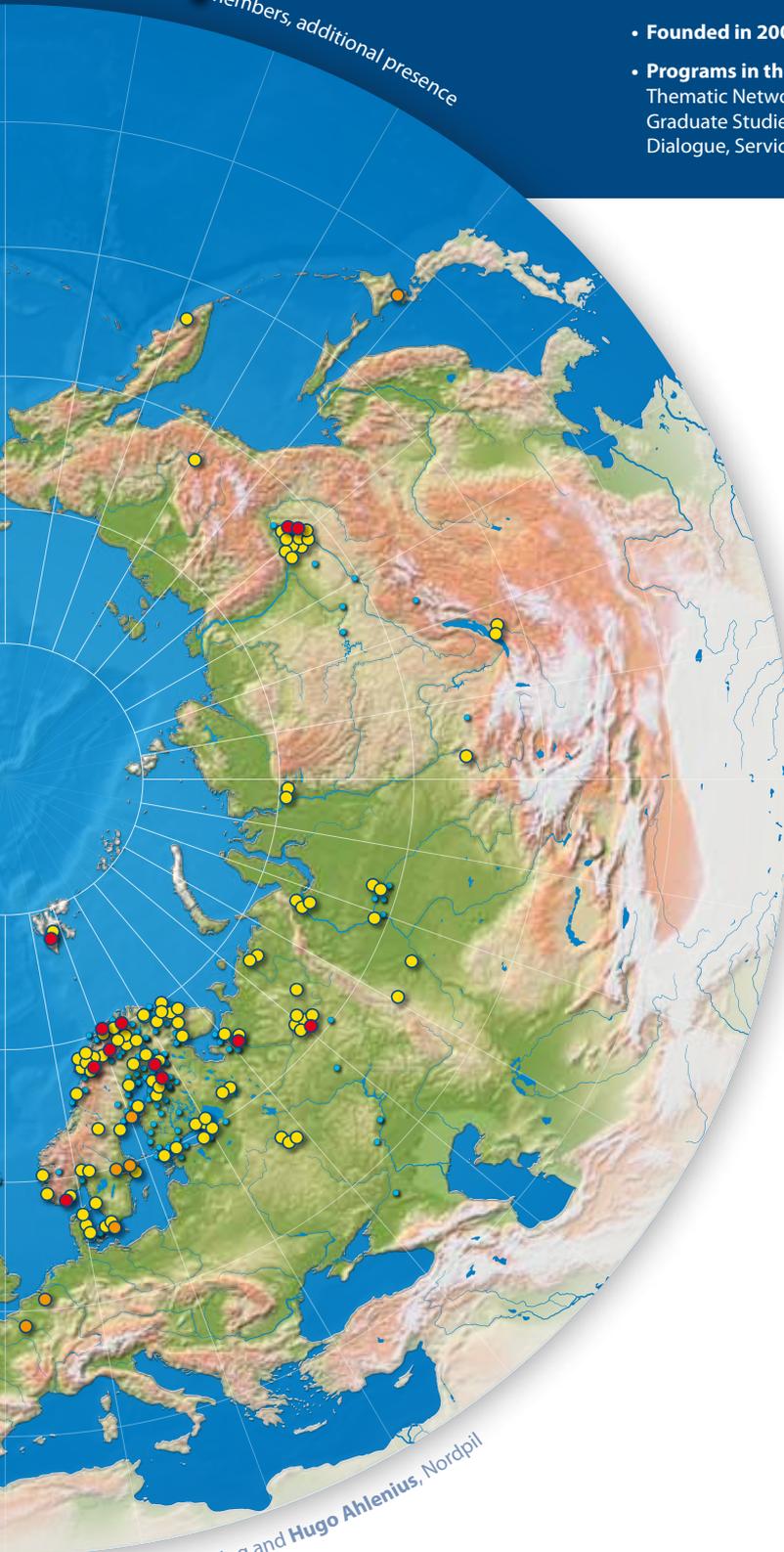
Most of UArctic's activities are implemented through the Thematic Networks. Through these networks, member institutions take the lead in developing research, educational and capacity-building initiatives. The networks emerge from partnerships among faculty members and students, gathering resources to focus on topics of regional importance, facilitating exchange and collaboration,



UARctic Facts

- **145 members**
Higher education institutions, colleges, research institutes, other organizations
- **16 Offices and 3 Institutes**
1.1 million students, 80 000 academics in all member institutions combined
- **Founded in 2001**
- **Programs in the following Strategic Areas**
Thematic Networks, Undergraduate Studies, Graduate Studies, Mobility, Knowledge and Dialogue, Service to Members.
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and catalyzing innovative educational approaches. In 2012, UArctic already has 25 active networks with dozens of members engaged in a variety of activities.

The UArctic Undergraduate program (BCS) provides direct educational services to northern and other undergraduate students. Students are able to access program offerings at any of the participating member institutions, either by attending classes at local colleges and universities or online.

UArctic's emerging Graduate Studies Program consists of Graduate Networks, the UArctic Field School and UArctic Masters. To date, two programs have received the UArctic Master Endorsement: the Comparative Social Work program led by the University of Lapland, Finland and the Northern Tourism program led by Finnmark University College, Norway.

A core goal of UArctic is to promote mobility so that students, academics and researchers from around the Arctic and beyond can collaborate and pursue their circumpolar educational and research goals. The north2north student exchange program enables students to study at UArctic member institutions outside their home regions.

The UArctic Research Office was opened in a ceremony with Prime Minister Vladimir Putin in September 2011. The office helps to facilitate the expansion of joint northern-focused research among the faculty of the member institutions. Also, UArctic aims to strengthen its role in Arctic science policy together with other key Arctic science organizations such as IASSA and IASC.

UArctic ran a fundraising campaign in late 2010 and early 2011, resulting in an endowment of €1.2 million in the UArctic Fund, based at the University of Lapland, Finland. UArctic is extremely grateful to all the donors.

One of the ways for UArctic members to be engaged in UArctic is through the UArctic website www.uarctic.org. The members can help UArctic make this a powerful platform for global distribution of knowledge and information about the North, one story at a time. The collective story of northern higher education and research activities reaches a large audience. In addition, in an effort to share knowledge about the circumpolar region and extend its network and impact, UArctic is regularly engaged in a large number of conferences and networks of northern science and education.

UArctic in Numbers 2012

16 OFFICES

UArctic President's Office
Arendal, Norway

UArctic International Secretariat
Rovaniemi, Finland

UArctic Vice-President Indigenous Office
Kautokeino, Norway

UArctic Thematic Networks Office
Oulu, Finland

UArctic Research Office
Arkhangelsk, Russia

UArctic Graduate Studies Office
Fairbanks, USA

UArctic Field School Program Office
Longyearbyen, Norway

UArctic Undergraduate Studies Office
Yakutsk, Russia

UArctic BCS Regional Office
Bodø, Norway

UArctic BCS Regional Office
Prince George, Canada

UArctic north2north Program Office
Alta, Norway

UArctic GoNorth Program Office
Tromsø, Norway

UArctic International Academic Office
La Ronge, Canada

UArctic Russian Information Center
Yakutsk, Russia

UArctic Finance Office
Fairbanks, USA

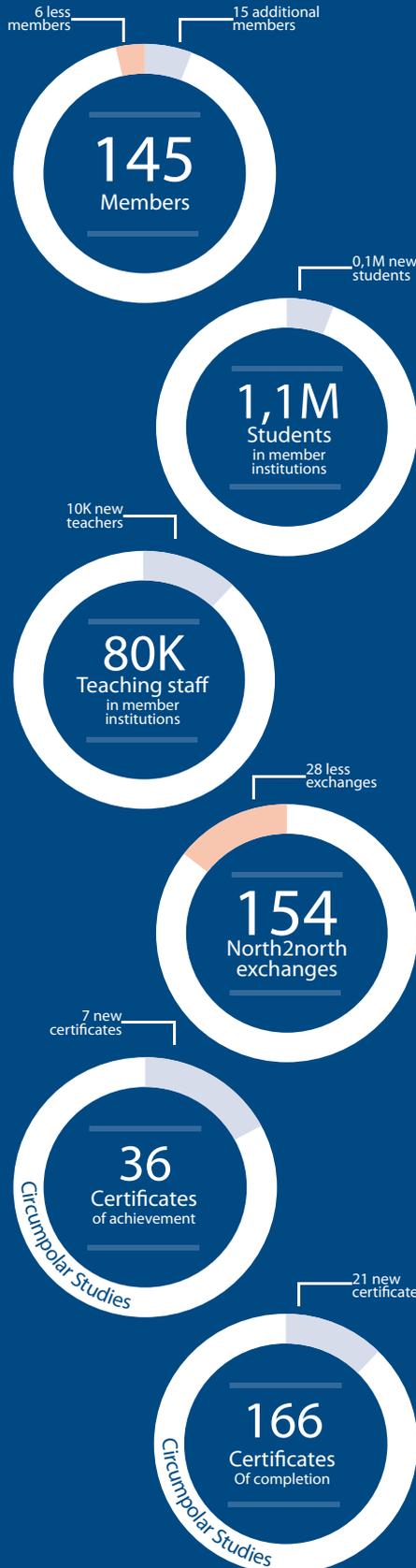
UArctic Press Office
Edmonton, Canada

3 INSTITUTES

UArctic Institute for Applied
Circumpolar Policy

Northern Research Forum

UArctic Institute of Circumpolar Reindeer
Husbandry (EALAT UArctic Institute)



25 THEMATIC NETWORKS

Arctic Coastal and Marine Issues

Arctic Engineering and Science

Arctic Extractive Industries

Arctic Law

Arctic Sustainable Arts & Design

Business Management in the North

Communicating Arctic Research

Digital Media and Media Arts

Distance Education and e-Learning

Energy in New Time

Environmental Impact Assessment of
Industry Contaminated Areas

Environmental Training and Education for
Sustainable Development of the Arctic
(NETESDA)

Geology of the Arctic

Geopolitics and Security

Global Change

Health and well-being in the Arctic

Indigenous Arts and Crafts

Local and Regional Development in the North

Northern Food Security

Northern Governance

Northern Tourism

Polar Ice, Climate and Land Dynamics

Social Work

The Verdde Program

World Images of Indigenous Peoples
of the North

NORTHERN FOOD SECURITY

THEMATIC NETWORK



By **Karen Tanino**,
Professor,
University of Saskatchewan

Food security and food related health problems are worldwide issues in both urban and rural communities and in developed and developing countries. National governments have placed a high priority on solutions. The self-sufficiency of northern communities has not been given the same focus that is placed on the tropical and subtropical developing and underdeveloped nations. However, the self-sufficiency of northern communities is equally as fragile and is endangered because of their remoteness, their climate, and the erosion of their traditional subsistence food resources forcing reliance on imported foods that have altered their eating patterns. This has exacerbated health problems related to a change in diet, and the non-agrarian nature of their cultural derivations. Supporting local northern communities also supports Arctic sovereignty in these regions that is often ignored in discussions regarding agriculture and food.

The Northern Food Security Thematic Network focuses on these issues through two “Northern Greenhouse” events in July and November 2012 and a Food Security Summit in September 2013 (in conjunction with the Circumpolar Agriculture Conference). Since issues and successful approaches are common between northern regions and developing countries, keynote speakers and experts from around the Circumpolar North will share their experience and provide updates on recent food security initiatives.

The Northern Greenhouse mini-symposium on July 18, 2012 (Saskatoon, Canada) will be held in conjunction with national conferences of the Canadian Society for Horticulture Science, Canadian Society of Agronomy, Agriculture Institute of Canada, Certified Crop Advisors and the North American Fruit Explorers. The Northern Greenhouse workshop on November 7- 8, 2012 (Saskatoon, Canada) will address both socio-economic aspects as well as technological advances reducing greenhouse energy costs. International experts from around the Circumpolar North will be invited.

The overarching goal of the Inaugural Food Security Summit in 2013 at the University of Alaska, Fairbanks, Alaska: Advancing the Food Security and Self-Sufficiency of Northern Communities (Summit) is to build an integrated vision, creating a process for sustainable food security in northern communities. It will be held in conjunction with the Circumpolar Agriculture Conference. This Summit adopts the perspective that food security is a driver to community development and sustainability. The Summit takes a balanced approach between traditional subsistence natural resource access and agricultural production. Thus, rather than a commodity-specific conference, this Summit bridges diverse but common key areas to support, strengthen and expand the food resources and northern community development.

By **Olga Alekseevich**,
Director, Euro-Arctic Center of International Initiatives,
Syktyvar State University
Photo **Syktyvar State University**



Born to Make Hearts Beating

NETESDA



Thematic Network on Environmental Training and Education for Sustainable Development of the Arctic (NETESDA), born in October 2010 was officially approved as a new UArctic Thematic Network in June 2011. NETESDA's basic concept is rooted in an ecosystem approach and its application in real life. This focus is of high importance for Russia in particular as the socio-economic situation in here is very different from the rest of the world. Understanding that we can share knowledge makes us feel more confident. Today, the world is more and more transparent, and by mobilizing people to care about 'tomorrow' we can help each other to save the planet for future generations.

Through NETESDA we are able to make this idea pulse in many young minds and beat in numerous hearts. NETESDA is not a chaotic number of events, but a well-planned chain of activities -- and the NETESDA School will take a certain place among them. NETESDA has been very well received and supported by many institutions in Russia and abroad, including the Arctic Council, State Council of the Komi Republic and various ministries. The fact that NETESDA has seventeen partners in Russia, Norway, France and Canada confirms such support.

It is therefore very important that we all continue our work for the network together so that the summer school and other planned activities can become reality. One of the

main developments has been the inclusion of field school students from the University of Northern British Columbia, Canada into NETESDA activities. The Field School takes place June 1-30, 2012 in the Komi Republic. Much attention will be paid to issues of sustainable development and an ecosystems approach in the lives of local and indigenous people. This field school may be regarded as a preparatory stage for NETESDA's own school. This case shows that lack of funding does not necessarily mean a lack of activity.

We really believe that NETESDA was born to make hearts beating.

Yes, Sustainable Community Development is Possible in Izhma!



By **Valeria Gjertsen**,
Project Coordinator,
Komi, Russia

Irina Koroleva was one of the participants at the annual Gargia-conference 2010 “Between Tradition and Modernity.” Together with Nikolay Rochev, leader of Izvatas voluntary organization of the Komi-Izhma people, she was invited to discuss a possibility of running a development project similar to those that the UArctic Thematic Network on Local and Regional Development has been implementing since 2006 in the northern regions of Russia, Canada and Finland. During two fruitful days of the conference and following excursions to Sami municipalities Karasjok and Tana she got a chance to become inspired and assess the challenges of running development work in the socio-economic sphere in her native region of Izhma in the Komi Republic of Russia. Her impression and answer was, “Yes, it is possible in Izhma – we should do it.”

Back home in Izhma, Irina is the Head of the Department of Agriculture in the regional administration, mother of a 3 year old daughter, thoughtful wife and supportive friend. Very much thanks to her efforts the project, “Promoting socioeconomic development in rural Komi: organization of development partnerships and workshops in the Izhma and Ust-Tsylma regions” has run with a high rate of success. Irina was

one of 23 students at a summer business school that prepared business plans and received certificates as incubator projects, receiving financial support from the Komi government.

She had for a long time been dreaming about re-establishing an old ruined dairy in her native village of Sizyabsk in the Izhma region and turning it into a modern milk processing operation. Through the business school and workshops of the Thematic Network, Irina saw a window of opportunity to a better socio-economic future of the region. Not only her dream could come true,

*She had for a long time
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re-establishing an old
ruined dairy in her native
village of Sizyabsk*

but the dreams and ideas of many others natives of the Izhma region. Together with two colleagues from the summer business school, Irina secured funding for her project. Furthermore, she also helped two other agricultural projects get support. “I regret that I, personally, could help to get support only to two more projects currently,” Irina was sighed during the evaluation seminar in September 2011.

Irina is concerned not only about her project but about other people’s ideas and intentions, as befits a true leader. Thanks to such strong personalities as Irina Koroleva the rural areas of Russia have much greater chances to succeed in improving and developing their home communities.

Global Environmental and Security Problems in the Arctic

By **Lassi Heininen**,
Lecturer and Adjunct Professor,
University of Lapland
Photo **Lawrence Hislop**



the Arctic region today enjoys high stability and peace, though influenced by significant and multi-dimensional change with regard to potential security impacts.

In the early 21st century, much of the mainstream interpretation is that climate change is the trigger for the recent significant change(s) in the Arctic region. Another possible interpretation is that one relevant aspect is the fundamental change in northern geopolitics and security ‘from confrontation to cooperation’. This was followed by wide international and institutional cooperation by states and other regional actors and supported by international structures. As a result, the Arctic has high stability and peace, and is not overtly plagued by any armed or emerging conflict.

There is another competitive discourse on a state of the Arctic that sees a ‘race’ for natural resources and emerging conflicts. More than this, Arctic is experiencing complex and multi-dimensional change including aspects of geopolitics, geoeconomics, the environment and globalization, in addition to climate change. Behind this change – also seen as a threat – is globalization, and particularly global problems with direct or indirect security aspects, such as the following:

The regional still is host to many military structures for defense, patrolling, and surveillance, attack, as well as the nuclear

weapon systems of Russia and the USA. This military presence is much due to a legacy of the Cold War as well as to continued global balance. Yet, recent research shows that the Arctic states have made only limited modernization and increases in equipment, force levels and structure, and these have little to do with potential power projection into the Arctic.

Second, the legacy of industrialization and economic growth in the northern hemisphere has produced significant impacts on the marine environment. Despite the Stockholm Convention on persistent organic pollutants (POPs) there is still a high volume of chemicals and pollutants, as well as nuclear waste in the region.

Third, scarcity of natural resources outside the North has an impact on region, particularly with regard to energy security. This also leads to an ‘Arctic paradox’: the increased utilization of off-shore hydrocarbons and the related increasing shipping of northern sea routes accelerate warming of the Arctic climate, which poses risks to human and environmental security.

Fourth, climate change is strongly present in the Arctic through its physical impacts and related uncertainty. Climate change has a

security dimension and it, as well as nuclear safety, has caused changes in problem definition in security discourses.

Fifth, an increase in ‘bio-invaders’ or migrating species is causing threats to domestic plants and animals, such as killer whales.

Finally, ‘cyber-security’ is an emerging category of security, which is not much studied in the Arctic context, yet.

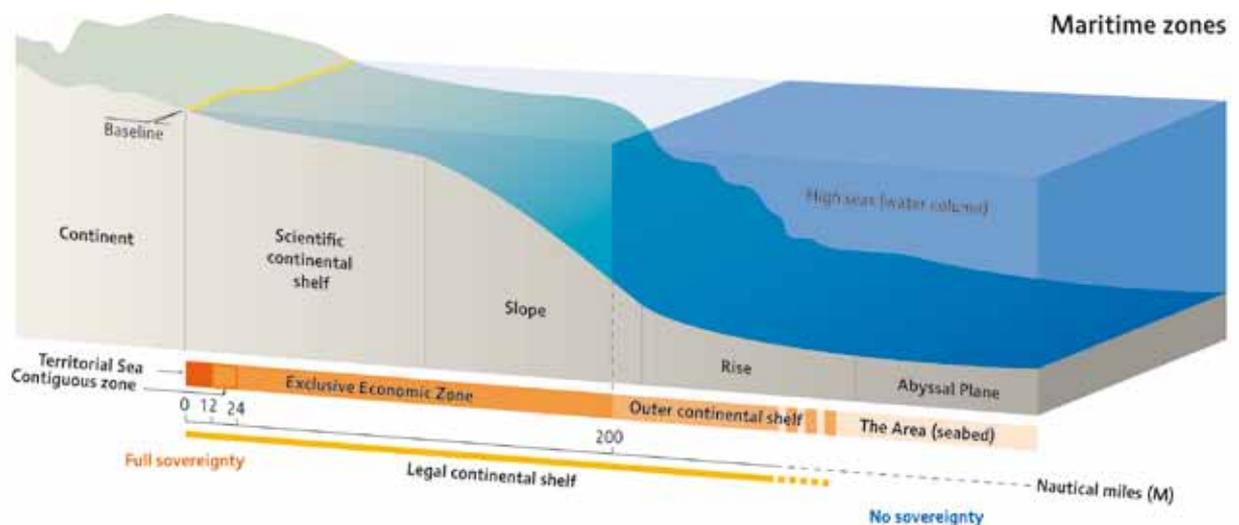
In a conclusion, the Arctic region today enjoys high stability and peace, though influenced by significant and multi-dimensional change with regard to potential security impacts. Therefore, an emerging conflict in the Arctic region is not inevitable. Everything depends on the criteria by which the Arctic states make their decisions between cooperation and conflict.



Role of Law in Securing the Arctic's Future

The Arctic has been called the last energy frontier. As the US Geological Survey and many others have estimated, the region contains oil and gas reserves that are plentiful and safe, especially in view of the security problems the more traditional hydrocarbon provinces currently experience. When Russian submarines planted the flag underneath the North Pole in Lomonosov ridge in 2007 the common assumption was that a type of power game was on between states as to who can claim the biggest portion of the oil and gas resources of the Arctic. The media kept feeding into this storyline, telling us that there was a race for resources, which could escalate even to an armed confrontation between states.

However boring this explanation was, it was the correct one, also soon noted by other experts of the Arctic.



By **Timo Koivurova**,
Northern Institute of Environmental and
Minority Law, Arctic Centre,
University of Lapland
Illustration **Riccardo Pravettoni**,
UNEP/GRID-Arendal

The role of lawyers and legal scholars in correcting this major misreading of what had taken place was crucial. In our first Polar Law Symposium in Akureyri in 2008, we were able to capture the attention of the media and correct the common misinterpretation: states were only observing their law of the sea and UN Convention on the Law of the Sea (UNCLOS) obligations to submit scientific and technical information to an international body scrutinizing the outermost limits of their continental shelves. However boring this explanation was, it was the correct one, also soon noted by other experts of the Arctic.

Yet, even if we could clarify that an oil and gas boom in the Arctic was not the motivation for continental shelf studies by the Arctic Ocean coastal states (but rather UNCLOS), as lawyers and legal scholars we also realized that we cannot conclude that these hydrocarbon assets do not pose challenges of varying kinds. We tackled some of these challenges by editing a special issue of the Carbon & Climate Law Review (CCLR) led by myself and Professor Betsy Baker (Vermont Law

School, Institute for Energy and the Environment) and using the Thematic Network on Arctic Law as our pool of contributors. We do need to have the best possible rules to function in the Arctic as regards oil and gas exploitation, given that any major oil catastrophe in the Arctic would have unimaginable consequences, especially so because oil disperses slowly in the cold Arctic conditions. This special issue of the CCLR will bring out that from the viewpoint of tackling climate change – a phenomenon that is warming the Arctic at twice the rate compared to the rest of the world – we should rather be investing our money elsewhere than by building infrastructure for oil exploitation that firmly locks in their ultimate exploitation and use – and thus further escalates climate change.

The role of law and legal scholars is not only to know and master the legal rules, a task that in itself is important, but also to think of more sustainable rule-systems. This task we cannot do by ourselves, but only with collaboration with other disciplines of science.



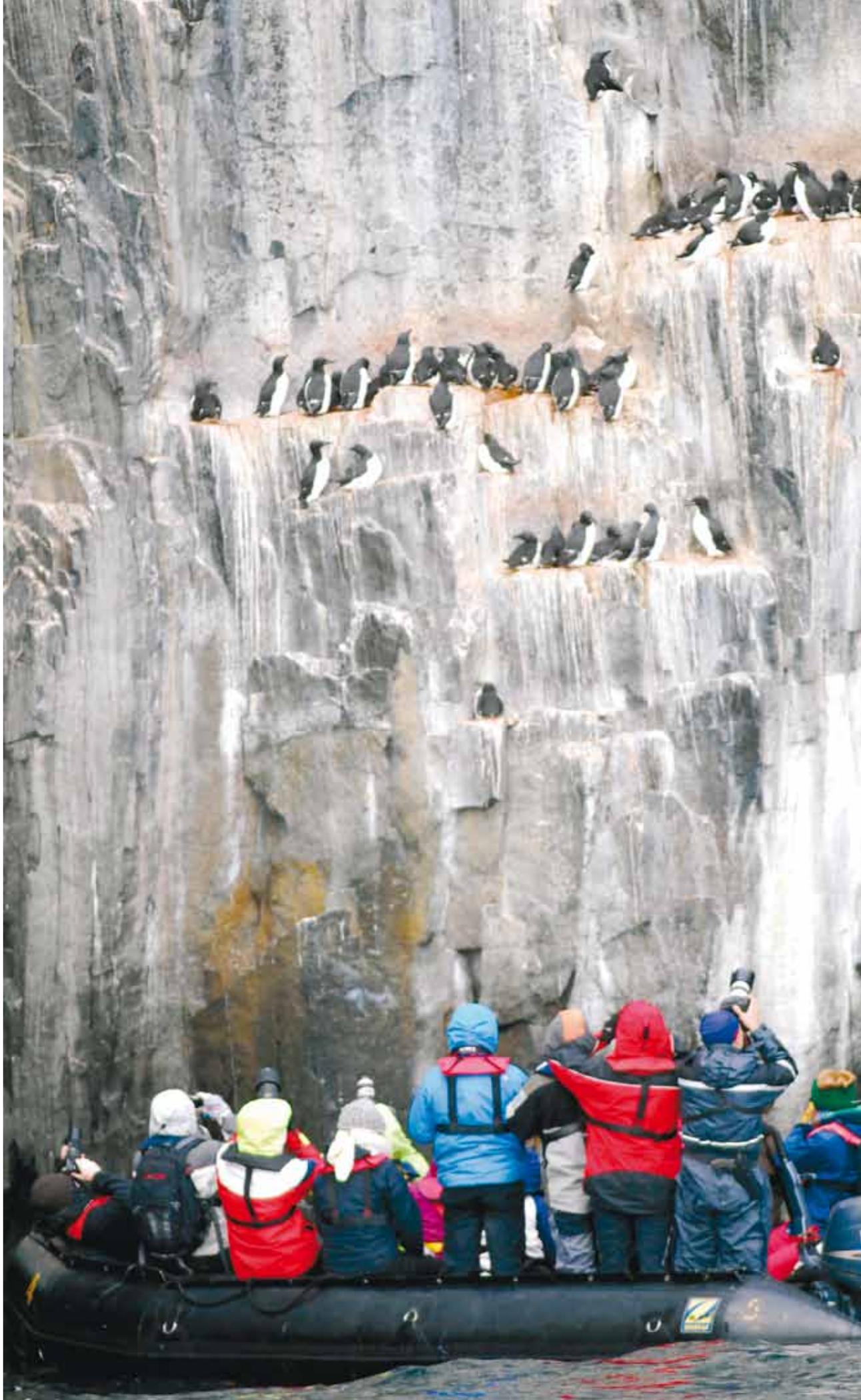
Shanya Hammer

Dawson Creek, British Columbia, Canada

I have always loved learning about other cultures. I think this appreciation of different societies and peoples was often reinforced in my childhood, growing up in Dawson Creek. There was always a great respect for early settlers who built our area, this also contributed to my love of history and of adventure.

I'm truly inspired by UArctic Circumpolar Studies courses. I love that they not only give a glimpse of the lives of those living in the Circumpolar North, but that they also give a greater understanding of the interconnectedness of the North and the rest of the world: its role in resource production, economy, society, and climate change. Studying through UArctic allowed me to stay in my home community, also I was able to learn and communicate alongside other northern scholars from around the circumpolar world. It was a great way to understand their different cultures and share perspectives that span around the globe.

I feel like I have a much better understanding of the natural northern biospheres and their workings after taking Circumpolar Studies. I also am much more aware of detrimental effects caused by resource exploitation and infrastructural development to northern environments. I would very much like to continue learning about the North, hopefully travelling one day to other northern locales to experience these issues from different perspectives. In the future, I would very much like to stay in contact with my fellow circumpolar scholars, as I think their contributions are important in collaborative efforts to maintain the integrity of the North. I would also like to experience life deep in the Arctic, however, whether this will be long or short-term will be up to fate.



New Photography based Thematic Network

An exciting new Thematic Network with a dynamic group of UArctic members is being proposed at the Council session this summer in Tromsø, Norway. The proposal stems from a brainstorming session that the proponents below conducted in -35°C temperatures in Pyhä, Finland in February this year. The main partners pushing this concept forward include GRID-Arendal, the University of Lapland, Tampere University of Applied Sciences, University of Oulu (Oulanka Research Station), Chung-Ang University in South Korea and the Ummannaq Polar Institute in Greenland.

The main goal of the new network is to link professional photographers, information-visualization specialists and art students together with students of science, Arctic researchers, and holders of traditional knowledge, to explore and create photo, video, and map based communication materials that can be used for publishing, scientific research, public exhibiting, and web distribution.

Workshops and hands-on training are a big component of the network, which will help link the science and art communities while also creating concrete outputs on a regular basis. A practical example of the training to be provided is called the “repeat photography” method, where tightly standardized pairs or time-series of photographs are taken from the exact same place at regular intervals (often yearly but this can be more or less frequent depending on the research needs). The topical content would focus on subjects that

include receding glaciers, local changes in phenology (the timing of flowering or other seasonal events), indigenous peoples’ observations, industrial development, etc. The method allows extremely powerful visual documentation of environmental and related changes (or lack thereof). The method has not been utilized very widely and can lead a great deal to scientific and traditional knowledge investigation.

This idea builds on the fact that there are a large number of scientists doing research in the field every year. Similarly, local populations in the Arctic are out in the natural environment on a day-to-day basis. Often these groups visit highly unusual and/or inaccessible locations and witness rare and interesting phenomena. Therefore, there is an extensive and largely untapped potential for visually compelling documentation to be captured by these people, either as an integral part of their own research or as a side-product of witnessing environmental or societal changes. Indigenous peoples also have a very strong link to such investigations since they are closely tied to nature and are keen observers of change that the science community sees less frequently.

The partners have ambitious plans to hold the first workshop in September 2012 at the Oulanka Research Station in Finland. The hope is to gather 25 to 30 students and five to six trainers, and spend a week using cameras to help tell stories of environmental change.

By **Lawrence Hislop**,
Head of the Polar Programme,
UNEP/GRID-Arendal
Photo **Peter Prokosh**





Clifford McKenzie

La Ronge, Saskatchewan, Canada

I am an Aboriginal man originally from the community of Stanley Mission in northern Saskatchewan, Canada and later moved to the community of Grandmother's Bay. I grew up mostly in the traditional trapline setting where I learned the subsistence way of living. I believe that this knowledge has been very valuable in the sense that I can now integrate it with higher learning in university. I spent the majority of my formal learning in the day school system on reserve with a few excursions to residential school. I have been employed in various sectors in the north including all aspects of exploration and also in the transfer economy sector from being a Band Councillor to a language and culture instructor.

I am currently studying Northern Studies through Northlands College in La Ronge, Saskatchewan and the University of the Arctic's Circumpolar Studies. I am doing so for the purpose of acquiring essential skills that will contribute to the betterment of the North. I wanted to study locally, so I wouldn't have to leave North. I believe that studying in the varying forms of televised classes, independent studies, teleconferencing, and the occasional face to face instruction class serves to increase creativity and broaden the learning experience thus preventing stagnancy.

The value of the Circumpolar Studies classes are very important as they serve to provide a bridge between the different cultural understandings and have the opportunity to initiate different forms of sustainable management of regional resources.

I am hopeful that my studies will enable me to play a role in the development of new policies that are more in tune with the north and its people. This role would ideally be in the political realm or the public policy sector. The importance of continuing to develop learning streams that are regionally appropriate is proving to be very valuable and I hope this discipline continues to grow.





Sustainable Art for Sustainable Futures

Tales from the North

By **Stina Roos**, Communications Assistant, UArctic | Photo **Stina Roos**

The international conference “Tales from the North” 2012 held at the new Sámi Cultural Centre Sajos in Inari, Finland saw an active discussion on cinema and arts from a truly northern perspective. The conference considered how the arts contribute to the economic life and the general well-being of the people living in the North.

“Tales from the North” provided a comprehensive setting for world-class experts, combined with visceral examples of concrete companies and projects, in particular from the field of applied arts and film in the Arctic areas. The conference challenged the perceptions of the productivity of culture, future directions of art education, and cooperative cultural and business opportunities. Importantly, a wide variety of indigenous ways of making art and means of participating in social debates and the economy through art were very much in focus.

The University of the Arctic’s Thematic Networks were highly visible at Tales from the North, with contributions from the Thematic Network on Sustainable Arts and Design, and the Thematic Network on Indigenous Arts and Crafts.

The Institute for Northern Culture’s applied visual arts professor Glen Coutts, also a Special Interest Group leader of the Thematic Network on Arctic Sustainable Arts and Design, expressed his concern on cultural education’s condition. He emphasized the economic significance of economy of applied arts and film.

The Thematic Network on Indigenous Arts and Crafts leader and Professor at Sámi University College, Gunvor Guttorm highlighted the importance to develop indigenous peoples’ knowledge of through Duodji (Sámi arts and crafts) education. She said that Duodji is significant, because it carries knowledge about the past, people’s relationship to each other and to the land, as well as crafting skills and aesthetic senses.

Finnish Culture and Sport Minister Paavo Arhinmäki’s specially promoted Finland’s obligation to maintain the Sámi culture and language. Arhinmäki pointed out the significance of traditional Sámi art forms as handicrafts, visual arts and music – in particular joik. He was especially impressed how the young Sámi are combining the traditional Sámi arts and their language with global youth culture, with which they create new forms of art.

Iceberg Project

Arktikum, Rovaniemi, Finland

By **Herbert Enns**,
Professor, University of Manitoba
and **Tomi Knuutila**,
Lecturer, University of Lapland
Photo **Tomi Knuutila**



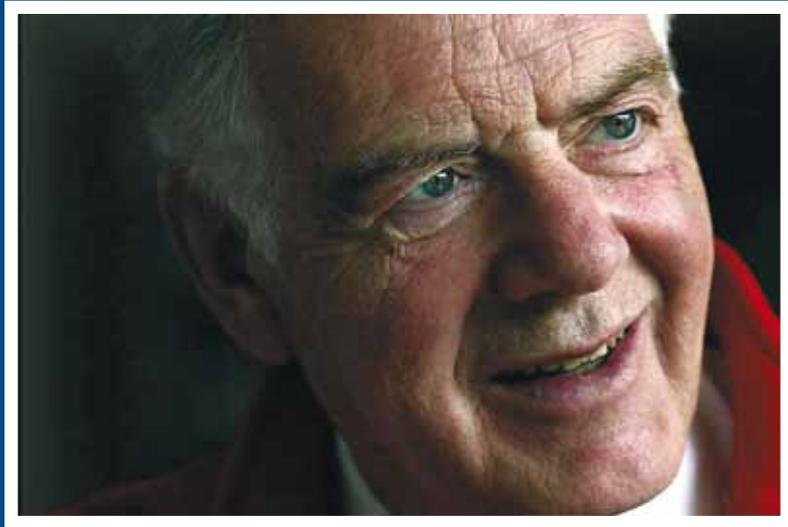
The Thematic Network on Digital and Media Arts activities has been focused on a series of creative workshops involving students and faculty from China, Austria, Switzerland, Russia, Finland and Canada. The workshops have an established context and framework to guide the students. The projects are hybrid explorations of Arctic history and ideas involving large-scale component construction, photography, filming, spatial audio and interactive media. The workshop format combines trans-disciplinary and cross-cultural explorations in digital interactive media.

The first workshop took place in conjunction with the UArctic 10 years celebrations in Rovaniemi, Finland and led to an exhibition at the Arktikum (in cooperation with the University of Lapland's Arctic

Centre) in February and March of 2012. For the Arktikum workshop, a linear apparatus provides a constructed spatial environment supporting a variety of media sources. Intended as an exploration of both mythical and real worlds of the peoples of the Arctic region, a kayak made of animal skin – selected from the extensive collection of artifacts in the archives of the Arctic Museum in Rovaniemi – is suspended upside down in a large bent wooden plywood frame that is clad with thin translucent paper. The primary spatial artifact is redolent with connotations of whale ribs and boat building. A 'cloud' of Finnish plywood and paper, it is inhabited with audio samples and video loops. In combination they create a fully immersive experience and draw attention to subtle shifts in the Arctic environment.

The installation addresses our synesthetic capacity to integrate sight, sound, and movement into a dense perceptual encounter. It is intended to generate emotive experiences in a complex multi-layered imaginary space of transience and passage inspired by real and spiritual worlds. A linear spatial audio soundscape of ethereal low-frequency undertones reinforces the emotive experience, alluding to the constant flow of natural elements. The orchestration of this combination of both subtle and complex perceptual inputs is intended to create an otherworldly experience of transfiguration that highlights the mythical dimension of arctic life.

Upcoming workshops are planned for Winnipeg, Canada in 2012 and Akureyri, Iceland in 2013



Erling Olsen

1927-2011

Founding member of UArctic's
Board of Governors (2001-2010)

Photo [Liselotte Sabroe](#)



UArctic