

The UArctic Magazine

SHARED VOICES

2013



UArctic



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Art and Design Strengthened by Northern Cultures

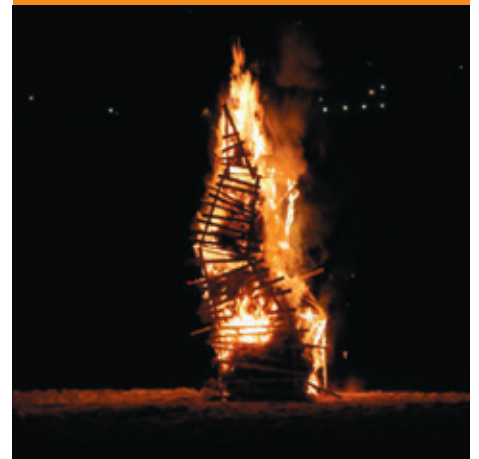
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Annual Report
for 2012
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Letter from the President

By **Lars Kullerud**, President, University of the Arctic

This year marks the end of our current Strategic Plan 2009-2013, and much of the past year has been focussed on where UArctic is headed as an organization. For the development of our new Strategic Plan, we have undertaken both internal and external evaluations on our activities and organization, as well as extensive member consultation, which formed the basis of extensive deliberations and planning by our Board of Governors. The advice provided by the University of the Arctic's very competent External Review Team (report available on the UArctic website) was particularly helpful for the development of our new UArctic Strategic Plan 2020, to be completed by the end of the year. As a result of these processes, it is clearer than ever that UArctic shall develop further as an organization for its members, and be the extra networking resources and infrastructure necessary to make our members better able to serve their students and the region.

Another outcome of the Strategic Plan discussions, is that we must

do even more to engage with the world outside the Circumpolar North. A new Arctic moment is upon us. The world, and particularly Circumpolar North, is in a period of rapid change. The drivers of change include climate change, increased global socio-economic interdependence and accelerating use and spread of information and communication technologies allows even sparsely populated areas to be the centre of development. The growing global population will be increasingly dependent on northern natural resources. For our members, Internationalization, new use of technology and organizational changes stimulate new ways of working in higher education and research. The world influences and is dependent on the Arctic; what we do in the Arctic influences the world.

The familiar words "In the North, For the North, and by the North" carry an important message: sustainable development of the Arctic can only be achieved with a competent northern population able to make its own wise decisions. However, it is equally clear that it is to the benefit of

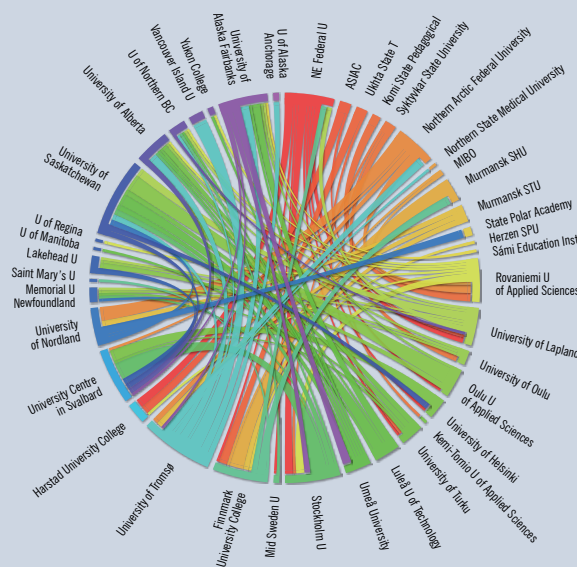
the Circumpolar North to engage with actors and regions outside the North that nevertheless hold a strong interest and influence in the region's future.

The University of the Arctic will work to strengthen knowledge and capacity to meet the needs of the North and the world. UArctic believes that a sustainable future for the North and its people lies in a competent northern population, a strong northern knowledge base, and partnerships with the non-Arctic world. Key elements of this vision include strengthening the voice of the Arctic in the world as well as the world's understanding of the Arctic, and to cooperate across borders in the North to leverage experience, knowledge, competence, investment and influence.

As UArctic begins another chapter in its relatively short story, I look forward particularly to the exciting opportunities for networking and cooperation across the Circumpolar North and across the globe that aim at a sustainable North in an interdependent world.

The True Impact of Circumpolar Mobility

By **Outi Snellman**,
Vice-President Administration, UArctic
Graphic **Hugo Ahlenius / Nordpil**



In this issue of Shared Voices we focus on mobility. UArctic's student mobility program, *north2north*, has now been running for ten years with a total of 1,275 students having benefitted of this circumpolar program.

Already when UArctic was just an idea on the drawing board of the planning committee it was clear that mobility, for both students and faculty, would need to be at the core of UArctic's activities. In order to build a northern identity and a region people would need to have personal connections to different "Norths" – either through directly having stayed in another northern place or through personal experiences with someone from another northern region. Very simple, but as Bernd Wächter points out in his article on European and global mobility trends, not nearly as simple as one might think, considering the diversity of the region and vast geographical distances.

The vision of *north2north*, as with the whole of UArctic, was to build the future generation of leaders for the North who can help the North seize control of its own destiny.

Ten years is not a very long time for assessing impact of such a program, when the numbers are relatively small. In terms of the total student population in the eight Arctic states, the number of students going on exchange to another Arctic state, let alone into a northern-relevant program, will always be a drop in the bucket – it would be hard to make very strong conclusions on the impact of the program based on a strict statistical analysis quite yet. This is why we chose to look at impact from the perspective of the personal experiences of a number of students. In this issue you can read their stories and impressions of the impact of their stay in another North.

In addition to the impact on the individual student, there are of course other kinds of impact on the organization and

community. I would argue that, for example, Ekaterina from northern Siberia already had quite an impact in the student community in Alaska when she studied there, making the campus and even the Fairbanks community just a little bit more circumpolar. She left Alaska a different person with an open mind for the Arctic, and she has since then gone on to create a lot of change around her either in attitude or in formal structures.

Mobility in UArctic has many forms, from the organized student mobility in *north2north* to exchanges of faculty between member institutions, particularly in Thematic Networks. This year's cover photo illustrates mobility within a new Thematic Network: Communicating Arctic Research ("SubZero"). An international group of photography students participated in a field course in Kilpisjärvi, Finland in March 2013, and a photographer captured them photographing the northern lights; also the teachers came from different

parts of the world. These students and teachers will have learned a lot during their week in Lapland, but perhaps they also already will have changed – perhaps the seed to do something lasting for the North is already planted.

When Scott Forrest, a young exchange student from UNBC, Canada, knocked on my door over 15 years ago and asked if there was something he could help out with in the international office, little did he know. Scott travelled to the North, and ended up staying. That initial exchange had a tremendous impact of all of Scott's future choices: career, family, home, even citizenship. But I would argue that the impact he has had on the organizations he has worked in – University of Lapland and its Arctic Centre as well as UArctic – is equally great, and it continues. We have many such cases in this magazine, and Scott helped put this magazine together. These stories are stories of the future leaders of the North and his is one of them.

Regional, European and Global Student Mobility

By **Bernd Wächter**,
Director, Academic Cooperation Association (ACA)

Global student mobility is on the increase. In 1975, there were some 800,000 foreign students globally. In 2010, their number was 4.1 million.

This sounds impressive, but it is not. For total enrolment, which includes domestic students, grew at roughly the same pace between 1975 and 2010. Therefore, the global share of foreign students amongst all students remained roughly the same: 3%. Amongst all continents, Europe stands out. The average share of international students for the EU and EFTA countries was about 7% already a few years ago. In fact, our small continent attracts about half of all foreign students worldwide. The majority of these students do not come from another European country, but from other continents. China is the leading source country.

Europeans also increasingly study outside their country of nationality. But, surprisingly, they focus on other European destination countries. Of course, the number of Europeans studying elsewhere in the world has also increased over time, but

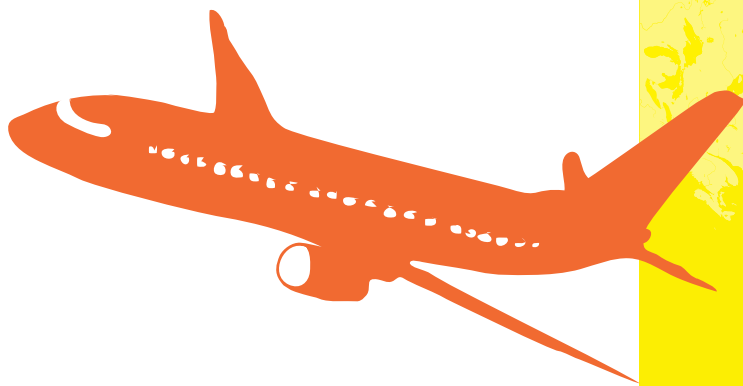
much more modestly than that of students opting for another European country. In percentage terms, the share of outgoing mobility to non-European destinations has fallen to a meager 15%. Now, high rates of outgoing mobility are always a sign of alarm. The highest outflows of students one finds in countries with weak higher education systems. Low study abroad numbers to certain less developed regions of this world are therefore understandable – and a sign of health. What is worrying, though, is that the presence of European students in countries likely to be the future hothouses of the world (China, India and Brazil, to name only three) is underdeveloped. Europe will need a young generation of future leaders who are knowledgeable about these up-and-coming countries and can successfully engage with them. For this to be a realistic prospect, mobility to these destinations must be considerably increased.

After focusing exclusively on intra-EU mobility for a long time, with programs such as Erasmus, the European Union started around 2000 to also fund schemes with non-European partners and regions. The TEMPUS Program was a forerunner

of this trend – it set up cooperation with universities in neighbouring regions. ALFA supported mobility with Latin America. The big breakthrough in the EU's discovery out the non-European world was the Erasmus Mundus scheme, which started in 2004. This program was the EU's late acknowledgement that there is such a thing as globalization – and that globalization needs a response, particularly from higher education. It is in continuation of this policy that the European Union will very likely integrate Erasmus Mundus into its overall 'Erasmus for all' program and that the 'old' Erasmus program, which likewise will exist under the 'Erasmus for all' roof, will be opened to non-European countries. A step in the right direction. Budgetary increases might be smaller in the end than originally hoped for and thus result in only a small contribution to the numbers of students studying outside of Europe.

With the concentration on Europe and later on other continents in the last three decades, international mobility between near neighbours was almost forgotten. But these forms of cooperation – and the mobility between the partners they generate – remain precious and should not





Whitehorse
Yukon, Canada



Rovaniemi
Finland



Jyväskylä
Finland

LAURA AINESLAHTI

The *north2north* exchange at Yukon College had a huge impact on my life in general. I was doing my studies at the University of Lapland, Finland, and in 2006 I was for the first time abroad for a long time and felt I could manage on my own. The environment and the Canadians taught me a totally different aspect of life, and the philosophy courses I took had an even bigger effect on me and my philosophy of life. Although I studied in Lapland, Yukon was my first true experience of wilderness, and it made a huge impact on me as well. I even almost bumped into a bear once, and even though it was scary, it was quite an amazing experience. Esa and Zina Ekdahl, a Finnish couple I met in the Yukon, became like step-grandparents to me, and their way of life, respecting the nature, was really something else than the superficial culture I had lived in. I must say that everybody should live in the Yukon once.

I went back to the Yukon in the summer of 2007. I took a dear friend of mine with me, and we stayed with Esa and Zina the whole summer. We flew to Vancouver, bought a Toyota Corolla, and off we went and drove 2,600 kilometers to Whitehorse. We visited Dawson City Music Festival and lots of other small festivals in Yukon and also in Alaska. All in all, we drove 14,000 kilometers during that summer and saw 14 bears from the car window. In the summer of 2011 I took my boyfriend to see the Yukon and of course Esa and Zina, and he also became a Yukoner. Unfortunately Zina has Alzheimer's disease now, but I think she was able to remember me from back in 2010.

The exchange has not yet had a big impact on my career. I work currently as a Project Manager at the University of Jyväskylä, which is located in central Finland. The university is more focused on European issues and research rather than Arctic matters. The exchange in Canada had a huge impact on my English language, though. My skills improved a lot during the exchange and also after it: in Canada I noticed that my English was better than I expected, and after the exchange I was not afraid to speak English in different situations. The exchange in Canada was such a good experience that I also spent one semester in Vienna, Austria, in 2009. There I got to improve my German language. The time I spent in Vienna was different from my exchange in the Yukon, but I am happy I took the time for both experiences. I hope I can visit Yukon as soon as possible again!

Photo Yukon College
Photo University of Lapland
Photo University of Jyväskylä

be underrated. These include partnerships such as EUCOR (universities in the upper Rhine area in France, Switzerland and Germany), the CHARTE between higher education institutions in the Saar-Lor-Lux area, or the Öresund University linking the Copenhagen area with Skåne in Sweden. Within a wider region, the mobility funded by the Nordic Council of Ministers is based on similar principles. What really fascinates me are ambitious undertakings such as UArctic. They are also 'regional' in that they link up universities close to or north of the Arctic Circle. Compared to the Öresund University, however, they are faced with enormous challenges. The distances between the partners are not so huge if you are the proverbial crow who flies in a straight path, but in order to go from Anchorage to Rovaniemi you travel for at least 24 hours. The many different – and also indigenous – languages pose a further challenge. But I am convinced that the effort is worthwhile: the region's future can only be built on cooperation. People-to-people measures, such as the *north2north* scheme, are an important element of cooperation. Congratulations to UArctic for its valuable and necessary work – today and in the future.



The Nordic **Model**

Norwegian Marit Nybakk (AP) is the elected president of the Nordic Council and a member of the Norwegian Parliament where she is also a vice-president. She strongly believes that the Nordic cooperation has never been better and more efficient than now.

We live in a time with great global challenges, including climate change, which has enormous and incalculable consequences on the human, social and societal level, not to mention animal and plant life. In particular, the Arctic is severely affected by this negative change. The ice melts, hunting areas are flooded, people and animals cannot find food, and there is a daily struggle for existence. Unemployment due to the economic crisis cannot be ignored either; especially people in remote districts find it hard to make a living. Conflict, war and terrorism are also factors which are unfortunately becoming more and more common.

All these reasons make it extremely important to have a robust and strong cooperation between the Nordic countries, and it should still be strengthened in many areas from defence to education.

Nordic cooperation in the field of education comprises all levels from primary school to higher education. A central goal has been to create a genuine Nordic community where students can take parts of their education – or the whole degree – in a neighbouring Nordic country. One of the main priorities is to increase mobility, and we have used the Nordplus program to achieve this.

“There are now two Nordic agreements guaranteeing students the right to education in another Nordic country, equal to the country’s own citizens. This includes mutual recognition of university degrees, which I think is very important.

“Networks are also crucial. To meet other cultures and educational systems means new impulses and new ideas. Nordic students, teachers and scientists have many opportunities to go abroad for a shorter or longer period of time. This includes financial opportunities.

“All this has been initiated and supported through the Nordic political cooperation. I really think it is important to make these opportunities more visible and to strengthen them,” says Marit Nybakk.

The way we live in the northern part of Europe is admired and studied by many in the world. The Nordic and Arctic culture, identity and unity have always been strong, as are the Nordic welfare states and the Nordic model of society.

The importance of good education is an established fact: education is simply the way to meet the challenges we face. With learning, education, science and research, we are strong. When it comes to education and research across borders, there are several good opportunities.

The Nordic Council and the Nordic Council of Ministers support various projects and opportunities to strengthen and increase the mobility of student and citizens in the North. One example is Nordplus. Nordplus funds projects whose purpose is to promote Nordic languages and culture, and mutual Nordic-Baltic linguistic and cultural understanding; to help develop quality and innovation in educational systems for lifelong learning in the participating countries via partnerships, development projects, knowledge exchanges, and networks; to support, develop, use, and promote innovative products and processes in the education sector through systematic exchanges of experiences; and to improve and develop Nordic cooperation in the same area.

Nordplus has a 70 million DKR annual budget. It consists of a framework program

covering different groups in schools and universities. Nordplus provides economic support for different types of educational cooperation within lifelong learning to eight Nordic and Baltic countries. Higher education is by far the most important. An interesting trend is that students tend to go for a shorter stay abroad rather than participate on a student exchange program. This is probably because they want to do studies that are important for their exams and degrees.

Another example is NordForsk, an organisation under the Nordic Council of Ministers which provides funding for Nordic research cooperation as well as advice and input on Nordic research policy. NordForsk works to enhance added value to existing research activities in the Nordic countries and thereby strengthen the position and influence of Nordic research, both in Europe and globally. With the purpose of promoting excellence in research, the organization launches strategic initiatives that bring together national research groups in large-scale Nordic programs based on common pot. In addition, NordForsk initiates debate on research policy issues and provides the Nordic Council of Ministers with the best policy advice possible as a basis for joint Nordic research strategies and priorities. Nordforsk is also the largest recipient of Nordic economic funds, and it often provides “seed money”, generating other funds from national research councils and scholarships.

“We can always do more! But let me underline that the Nordic Council has its own standing committee dealing with education and culture, and at the moment there is also a working group on research and education. Even more importantly, the parliamentarians from the committee have frequent meetings with the Nordic ministers of education. This is important in order to implement the Nordic Council decisions in national politics and legislature. The Ministerial Council has also initiated a next generation of Nordplus.

“The Nordic Council also decided last year to arrange an educational summit to increase the cooperation. The Ministerial Council and the Danish Ministry of Education are now making plans for the summit.

“Nordic innovation is also a very important part of Nordic cooperation and the responsibility of the Ministries of Industry. The Nordic Council wants to secure transparency, cooperation and information in all projects, and also wants to look closer into distribution of the funds between different fields of education and science.

“The main challenge now is to ensure that young people receive an education which can get them a job, that is, a job in any of the Nordic countries, without any formal obstacles. So there is still work to do for the parliamentarians in the Nordic Council.”

Marit Nybakk became a permanent Member of Parliament in 1989 after having been a suppliant since 1985. She has been the chairperson of the standing committee of defence, a vice-chair of both the standing committee of education and science and the standing committee on foreign affairs. She has been in many international delegations and is now the deputy leader of the Norwegian delegation to the NATO PA where she is the chair of the Social Democratic group. Since 2009 she has been a vice-president of the Norwegian Parliament and now holds the position as President of the Nordic Council.

"Together the Nordic countries can influence the development in the Arctic and the work of the Arctic Council in an important and positive way. The Nordic Council wishes to support and strengthen the Arctic Council when there is an opportunity and it is natural for a common Nordic action."

Marit Nybakk
Sustainable business development and
resource administration in the Arctic
Stockholm, 9 April 2013

Academic Mobility in Canada

By Denis Bevington, Member of Parliament, Western Arctic, Canada



Across northern Canada, there are around 250 communities considered rural and remote. Whether these communities are in the three Territories, or in northern regions of the provinces, they have very similar characteristics. Most have large numbers of First Nations, Inuit or Metis people in their population. Their populations are generally younger than the national average and the disparity of income is among the highest in Canada.

In these communities, unemployment rates are very high and most employment is seasonal or requires travel to resource developments in more remote locations. Transportation connections are limited as only some communities have year round road linkages; instead most are limited to air service at extremely high prices. The cost of living, exacerbated by very expensive energy, means that opportunities for advancement through personal resources are difficult if not impossible for majority of the inhabitants.

Governments have recognized this issue and throughout the North have invested in college systems to support adult learners. Skills development, however, remains a vital and somewhat encompassing primary objective of many of these institutions.

At the same time these northern colleges have done excellent work partnering with universities in southern Canada providing degree granting programs of great quality for northern students. These programs allow degree-level learning delivery closer to home and tailored for northern conditions. Through these partnerships, mobility for students is achieved to a greater degree.

Post-secondary education for the people in northern communities requires effort, planning, and in most cases supportive governments. Fledgling indigenous governments have recognized the importance of advanced education for their youth. These governments have brought their new resources to invest in post-secondary education. An example is the Tlicho Nation in the Northwest Territories, which has committed to support their young people in post-secondary studies.

Additionally, northern students are supported by their territorial governments through grants and loans that are forgiven with later participation in the northern work force.

Physical resources are vital to academic mobility in the North, but there are alternatives. Certainly UArctic, with its

circumpolar connected education universe, has much to offer northerners. It is interesting to note that the three territorial colleges, when tasked with considering a Canadian Northern University, presented an option in 2010 that built off of the virtual model, utilizing the existing resources of their stable of degree granting partnerships.

Canada, through our federal government, needs as well to recommit to the international sharing of resources and support virtual learning and mobility offered by UArctic.

A Canadian Northern University combining the three territorial colleges, with a board made up of representatives from each institution, could create a critical mass of programs with a larger pool of students and deliver in innovative ways high quality symmetrical programs in broad subject areas. Linking these facilities with improved broadband internet access could accelerate this process.



Dennis Bevington MP Western Arctic with Elder Sam Elleze at the opening of the Deh Cho Bridge over the Mackenzie River near Fort Providence, Northwest Territories.

These educational concepts are likely the way forward in northern education and mobility. We have been promised greater interconnectivity of our northern communities. This is good. Canada, through our federal government, needs as well to recommit to the international sharing of resources and support virtual learning and mobility offered by UArctic. Governments also need to consider the importance of resourcing the mobility of students throughout our circumpolar world.

The Canadian government has said that it wants to emphasize the importance of sustainable communities in the two-year period of its chairmanship of the Arctic Council. Can there be any better way to accomplish this than getting our young people opportunities to learn from each other with investments in mobility across the rapidly changing global North?



HARRY BORLASE

Harry Borlase is no stranger to the pages of Shared Voices. In fact, just three years ago he was helping to edit this very magazine as an intern at the UArctic International Secretariat. Now he is embarking on a different kind of journey as he runs for Canadian parliament to represent his home region of Labrador.

Harry's history with UArctic is impressive to say the least: he has taken part in Bachelor of Circumpolar Studies, the GoNorth program, the Arctic Studies Program at the University of Lapland, UArctic's Intern program, and he also did his Master's degree in Polar Law in Iceland. For UArctic's all-round student, all this has been a tremendous advantage.

"Of course living in Finland and working for the University of the Arctic has helped me in my career. UArctic not only started me on my way to working in and visiting northern communities, but it also gave me the opportunity to learn about local, regional and national issues as they pertain to northerners," Harry explains. "Education is a fundamental right and should be valued by governments as a practical way for influencing positive change and building for the future. Finland was also very influential on me. The strong tradition toward social values in Finland had a major impact on how I understand politics, government and the ability to help in general. It also opened my eyes and allowed me to see a new way of northern living and compare that to the life and environment I grew up in. My Finnish and international friends also shaped me into who I am and what I stand for."

When asked how his northern knowledge is relevant to Labrador, Harry does not hesitate in the slightest. "Labrador is the North!" he exclaims. "It shares the same economic, geographic and cultural opportunities as other circumpolar jurisdictions. Being able to live and visit so many places across the Circumpolar North gave me a real educational experience on responsible resource development, the importance of local engagement and decision making, respect for indigenous beliefs and values, as well as how governments can both have a positive and negative impact on northerners and their future."

A northerner through and through, Harry is looking forward to putting his knowledge, skills and experience to good use. "The North is my home. It's been my classroom, my playground, and hopefully soon it will be my office. I want nothing more than to help Labradorians and other northern jurisdictions benefit and thrive from the potential of their resources and to become drivers in determining their future. Politics is my way of helping people and my way of helping the North."

By **Antti Tenetz**, Visual Artist
Photo **Alexander Markus Lembke**

SubZero

In March 2013, the Science and Photography workshop was organized by the Thematic Network Communicating Arctic Research (SubZero) at the University of Helsinki's Biological Research Station at Kilpisjärvi, Finland. The workshop focused on inspiring fruitful dialogue between scientists, photographers and fine art students.



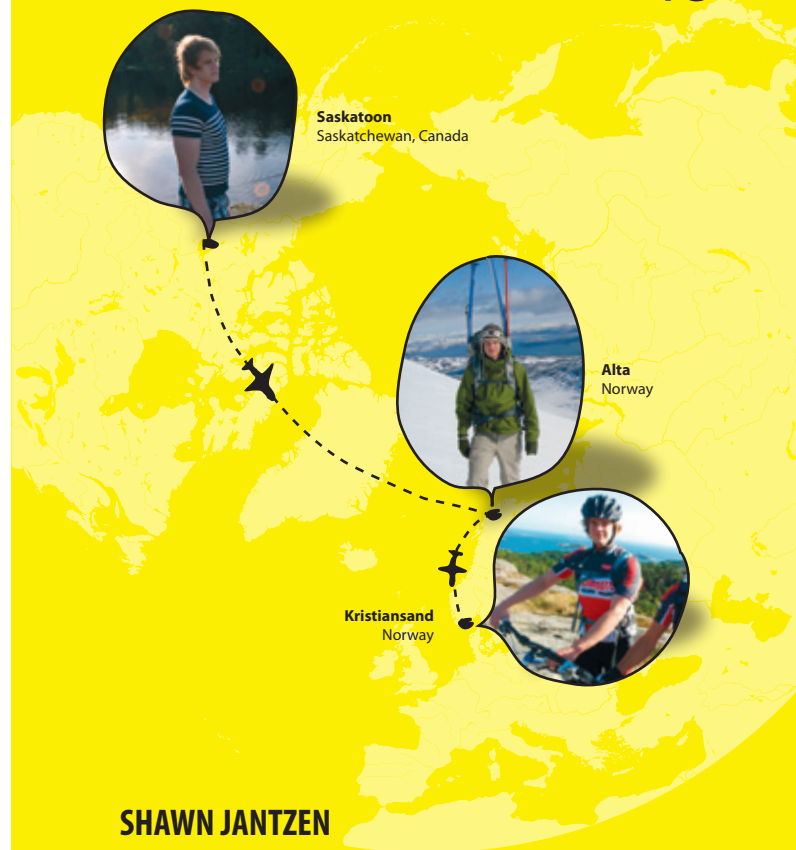
Selected student teams were hosted by experts, including contemporary and nature photographers, a visual artist, researchers and professors of science, photography and the fine arts. The actual workshop was a combination of artistic and scientific field work and production periods in the research station and laboratory. All this was aimed at achieving concrete artistic and scientific collaboration results.

Thematic Network members used their unique backgrounds and skills in order to provide photo-based imaging and data visualization tools training and methods. All teams succeeded in producing two posters each. Participants created photographs, digital stories, videos, infographics and sound works based on photography, video, and research data (collected during the workshop or contributed by the station). A variety of inspirational themes were explored during the workshop, including critical visual reading, visual literacy, photographic thinking, and scientific research versus artistic representation. The workshop also addressed analyzing imagery and the expectations we usually associate with different phenomena of scientific and/or artistic research, as well as understanding the power of visual communication to visualize research.

These themes were transformed into playful interactions during field trips to the surrounding nature and laboratory work by exploring the realms of microscopic, underwater and cryospheric worlds. They were also put into action through data gathering and the photographing of scientific methods in action, as well as astrophotography and the beautiful phenomena of the *aurora borealis*.

Activities and programs were designed to raise questions, stimulate the creative process and penetrate concepts of traditional scientific communication in order to develop and generate new ideas and creations among students and researchers. The best results from the student projects may earn some additional visibility in conjunction with the Kuusamo Nature Photo 2013 event where we are planning to have a booth displaying the workshop activity.

The course was arranged as a cooperation between the High North Academy, the UArctic Thematic Network on Communicating Arctic Research and was funded by UArctic and the University of Tromsø.



SHAWN JANTZEN

Three years ago, in 2010, I was part of the *north2north* exchange program between the University of Saskatchewan in Canada and Finnmark University College in Norway. I enrolled in this program to broaden my knowledge in a different culture and on different subjects than I was studying in Canada. This experience caused me to rethink my career, where I was going to live, and what I was going to do with my life.

It was only a matter of months after my exchange program had ended that I made my first trip back to Norway. My quick return was motivated not only by the beauty and unique culture of Norway, but also by some close friends that I met on this exchange program. Many friends that I made during that time I still keep in close contact with today. Since my first return I have come back to Scandinavia three times, with every experience enlightening me and bring me closer to the life I now live.

A little less than two years after the exchange program had ended I was finally graduating from college in engineering. I had only one goal and that was to move to Norway and continue my life there as an engineer. I boarded the first flight I could afford to Scandinavia with nothing more than a backpack and some dreams. A couple weeks later I was starting my first day of work as an engineer in Kristiansand, Norway.

As you can see, the *north2north* exchange program has changed my life in many ways. I have learned one language and I am on my way to learning another. I now have an interesting career in a different country, one that has given me the opportunity to expand and to travel the world.

The *north2north* exchange program is also where I met my fiancée; she was one of the close friends I mentioned earlier. I now live happily with her here in Kristiansand and I couldn't be more thankful for the path that this program has set me on. You never know what you're going to get out of life or where that next decision is going to take you but if there's any lesson to be learnt here, it is that it's definitely worth it to take the path less traveled. You never know, you might be pleasantly surprised.

Will the Melting of Arctic Frozen Methane Increase Greenhouse Gas Emissions?



Arctic methane (CH_4) hydrate exists on land beneath permafrost areas, and offshore in shelf and continental margin sediments. Methane or gas hydrate, an ice-like substrate, consists mainly of light hydrocarbons (mostly methane) entrapped by a rigid cage of water molecules. The pressure created by overlying water and sediments offshore stabilizes the CH_4 in continental margins at a temperature range well above the freezing point; consequently CH_4 exists as frozen ice beneath the seabed. The volume of methane hydrates and thus the CH_4 stored in methane hydrates is enormous if one considers the vast areas of Arctic continental shelves and margins as well as permafrost areas offshore and on land.

Methane hydrate is formed in abundance in deep permafrost and shallow offshore regions but little documentation exists regarding resource accumulations in Arctic areas and its evolution through time and space. Methane hydrate is only stable at low temperature and high pressure. Today's sub-seabed methane hydrate reservoirs remain elusive targets for both unconventional energy and as a natural methane emitter influencing ocean environments and ecosystems. It is still contentious whether methane ascending from the ocean floor through the hydrosphere reaches the atmosphere. If methane reaches the atmosphere, one can operate at the most fundamental level with greenhouse gas effects that will be several times more potent than CO_2 .

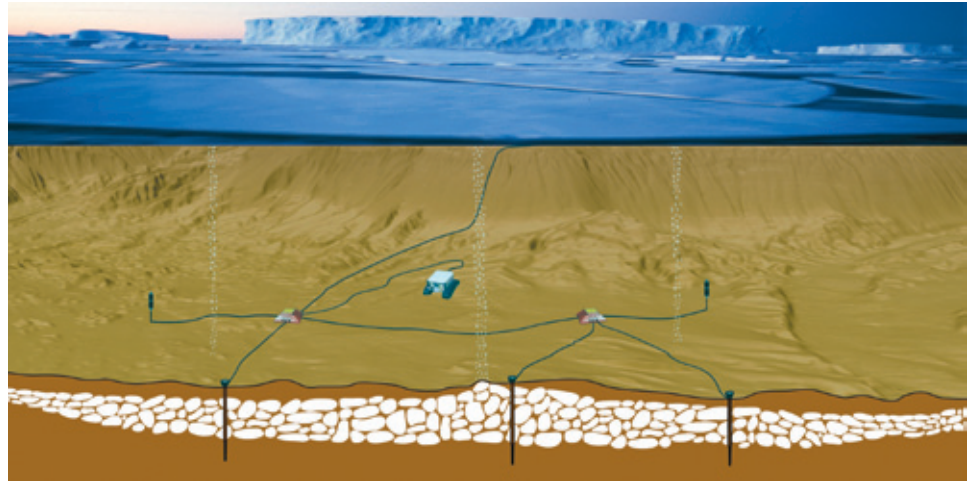
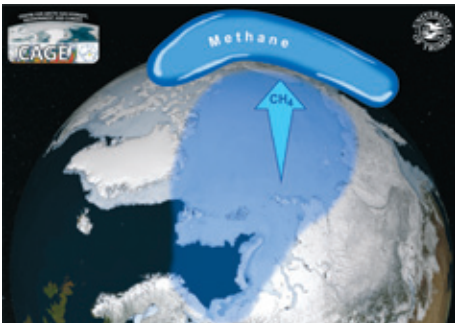
Opposite, above right
Sketch if climate driven change liberates the presently trapped methane to the ocean and atmosphere.

Opposite, lower left:
Arctic Ocean observatories to monitor the stability of methane hydrate fields offshore.

Methane hydrate – also called methane clathrate – would remain stable in the form of frozen methane without major changes in climate that involves a temperature increase. However, with the major projected warming trend that is underway in the Arctic regions and particularly evident in sea-ice melting during the summer, one may ask: for how long will CH_4 stay trapped in methane hydrates if surface and deep ocean water masses will warm and permafrost begins to melt? These climate driven changes will liberate the presently trapped methane to the ocean and atmosphere, accelerating environmental and climate change. **But how much of the Arctic methane will be released?**

Increasing temperatures on land and offshore will penetrate deeper and deeper into sediments at various rates depending on the flow of heat through it.

Atmospheric CH_4 levels are roughly three times the preindustrial level and without any comparable scenario over the last millions of years. The methane recorded in the Greenland ice cores show distinct glacial-interglacial changes with high levels during warm periods and low levels during cold periods. As future methane concentrations may reach levels not seen for millions of years, temperatures on Earth may warm towards levels not seen in geological history for millions of years. No exact analogue for future climates exists and many research groups are trying to break the natural climate system code in order to better predict future climate change. **What will the Arctic Ocean and land masses look like in the future considering polar sea ice, permafrost and methane hydrate?**



While the melting of sea ice observed may be the beginning of a trend of a few decades, the melting of permafrost and methane hydrates may take much longer, perhaps several hundred years. The complexity of the timing and the various response times in the ocean and on land may provide **greenhouse surprises**. In a world with no good climate analogue in the past, climate scientists and modelers may be confronted with many unanticipated phenomena, and **surprises may be the rule and not the exception**. Basic science studies of the complexity of the Arctic methane hydrate, environment and climate system are therefore needed.

The Research Council of Norway selected 13 research proposals, from 139 applicants of various disciplines, which were given the status of Norwegian Centers of Excellence. The Center for Arctic Gas Hydrate, Environment and Climate (CAGE) at the University of Tromsø – Norway's Arctic University and its partner the Norwegian Geological Survey (NGU) in Trondheim were among those selected by the Norwegian Research Council to receive 10 years of research funding. Scientists at the center will study methane release from hydrates beneath the Arctic Ocean in an effort to understand potential impacts on marine environments and global climate systems. Field programs will utilize a state-of-the-art Norwegian polar icebreaker research vessel that is planned to be launched in 2015 and will be based in Tromsø.

Our aim is to, in cooperation with the Norwegian Polar Institute and others, be an important contributor to Arctic climate research internationally. Our research group is Norway's leading in its field and, as part of Norway's Arctic University, we have an excellent location for Arctic research. We also have a strong commitment to collaborating with relevant research entities in Russia, USA, Canada and Europe. This initiative gives the University of Tromsø the opportunity to restructure its research community and to develop unique and new collaborative scientific and technological circum-Arctic challenges. CAGE is designed to move the university from its current strong position to the forefront of international Arctic geomarine research.

The main hypothesis as outlined above is that rising Arctic Ocean temperatures cause a destabilization of shallow Arctic methane hydrate reservoirs which in turn cause methane release leading to geohazards, ocean acidification and marine benthic responses at unknown rates and response times. Conceptually, CAGE aims to be a key national contributor to Arctic geomarine science. The centre creates needed science and technology sectors and enhances the ability of research in Norwegian Arctic regions to prosper by facilitating active cooperation between hydrocarbon industry, technology providers and prominent Arctic research teams.



"Mobility is the way most people live now, and for me mobility is also the way I think, because I know that out there... great experiences await."

GUNVER JUSTESEN

The first time I spent time abroad as a student was during high school, when I went to Moscow and Saint Petersburg to improve my Russian. Even though it was an amazing experience, the first time I left Denmark to go work in Greenland was the one that dictated how I would spend the next seven years (and counting).

In 2005 I finished college and worked as a pedagogue (a Danish mix of social worker and kindergarten teacher) in the Copenhagen area. In 2006 I decided to apply for a job in Greenland because I had always wanted to see Greenland and liked the challenges I could get there professionally. So, on the 1st of April 2006 I moved to the capital of Greenland, Nuuk, to work at an orphanage. I loved living there! It's a beautiful place: during summertime your eyes catch jumping whales in the fjord, and during wintertime the sky becomes magical with northern lights embracing it with a green haze.

Many Danes try their luck in Greenland, which is easy because many Greenlanders (especially in Nuuk) understand and speak Danish. Unfortunately, many also move there only to experience Greenland and the amazing nature, and end up staying there less than two years. This makes it very difficult for the locals to bond with newcomers, since they know that they'll probably disappear again. Therefore, in Nuuk, it kind of felt like two parallel societies: one for the locals and one for the foreigners. Unfortunately, I was to reproduce this pattern and left only six months later. But even though my stay was very short, it made a huge impact on me and my future life. Now, seven years later, I still stay in touch with my Nuuk friends, I visit them when I am in Greenland, and they visit me.

After a few months I had this strong urge to go back to Greenland. In September 2007, I began studying anthropology at the University of Copenhagen, and during the first semester I found an article about a job as a tour operator in Ilulissat, Greenland. I applied for the job and got it. The summer of 2008 was my first summer as a tourist guide for World of Greenland. I would spend my days hiking with tourists, doing helicopter rides above glaciers, and doing whale watching and midnight cruises among the huge icebergs under the midnight sun. As the years went by I slowly did less and less guiding and instead more and more administrative work in the office until 2011, my last year working for World of Greenland.

I spent the fall of 2009 as a Nordplus/ Nordlys exchange student at the University of Lapland doing the Arctic Studies Program. Rovaniemi was a wonderful place to stay and it was amazing finally to be able to concentrate solely on my main interest: the Arctic. We were a group of ten exchange students doing most things together. I took the reindeer class which was fun, and some classes of northern people and mobility by Florian Stammler. I also did the field trip to the Kola Peninsula. It was amazing to experience this foreign part of the world and be taught by people with great knowledge.

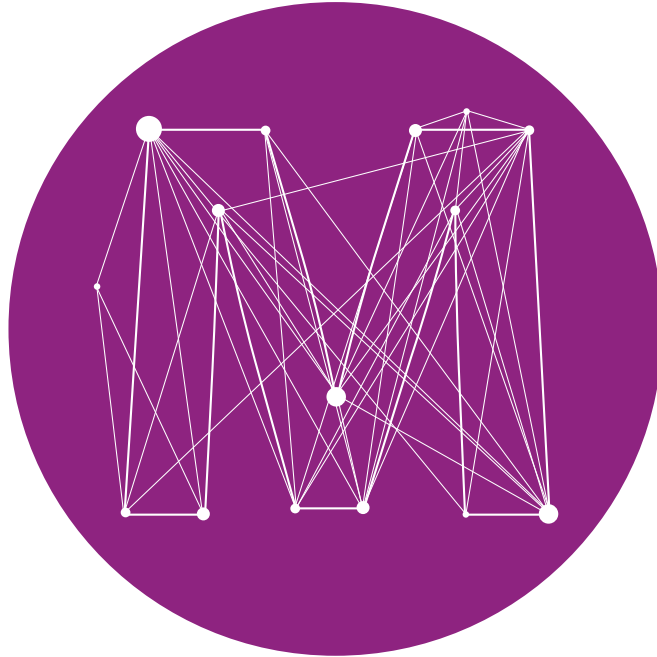
Then, in 2010, I started in the grad school of anthropology at the University of Greenland and had to plan a four-month field work for my Master's thesis. Of course, I wanted to be somewhere up north. I ended up going to Longyearbyen on the Norwegian archipelago Svalbard, 78 degrees north. There I wanted to study how migrants, especially

from Scandinavia, feel at home on Svalbard even though they know that they are only going to stay there for a short period of time. Svalbard is legally a weird place. Everybody can go there without a work permit, but foreigners outside Schengen cannot go to Norway from Svalbard because they need a different permit. Alcohol and tobacco are duty free even though it is a part of Norway. You are only allowed to live on Svalbard if you have a job there. Babies cannot be born in Svalbard, and people cannot get buried there, because the Norwegian Government wants it to remain a place of only temporary living. Some people stay there for a decade or two, but most people are there for less than two years. This feeling of temporariness makes it very easy to meet people because you are never the only newcomer, and people do not mind that you will not be staying very long because neither will they. When I arrived in the beginning of February 2011 it was minus 25 degrees, dark all day long and blessed with northern lights. When I left in the middle of May, almost all snow and ice had disappeared, it was plus 10 degrees and the midnight sun had arrived. Besides the 2,000 people living on the island of Svalbard, there are 3,000 polar bears. On two different trips to the east coast I got to see a mother with her two small babies that had just left hibernation, which I will never forget. On Svalbard I met the most amazing people, and I cannot wait to go back.

The summer of 2012 was the first time since 2006 that I was not able to move somewhere up north for some time because I had to finish my Master's thesis, and on the 24th of August I became an anthropologist. I knew it would be difficult to get a job, and even more difficult to get a

job with anthropological tasks, and that I would probably not be able to get a job that would combine work with my interest in the Arctic. But in January 2013 I started working for the Association Greenlandic Children as a project coordinator, and here I am, creating new projects that will help Greenlandic children. Our main goal is to get more Greenlandic youth to enroll on education, but we also aspire to decrease the number of children who are subjects to neglect and abuse. I was only supposed to work here until the first of July, but it just got prolonged for the rest of the year. This is my dream job, and there is no doubt that I got this job because I followed my huge interest in the Arctic and the people living there. I feel very lucky that I am able to combine my anthropological skills with my passion for the Arctic!

All of these experiences abroad have been amazing, and I know for sure that they will be sculpting my future career. I do not know anyone else who did their exchange to other northern countries. Unfortunately, I think many Danish students choose to go to English-speaking countries to improve their English skills. I think the University of Copenhagen should draw more attention to the possibilities in other northern countries. Especially Danes, Swedes and Norwegians are blessed to be able to speak almost the same language, which makes it easy for us to go study or work in the other Nordic countries. And for people like me who have this huge Arctic interest, Finland, Greenland and Iceland are also very attractive. Mobility is the way most people live now, and for me mobility is also the way I think, because I know that out there... great experiences await.



Mobility in Thematic Networks

By **Kirsi Latola**, Thematic Networks Coordinator, Thule Institute, University of Oulu

The very first Thematic Network, The Verdde Program, led by Sámi University College in Kautokeino, Norway started student and faculty staff exchange already in 2005, the year that Thematic Networks were first endorsed by the Council of UArctic. The agreement on the exchange of both student and faculty members was made already in 2004 between the Sámi University College and Nunavut Arctic College. The program was named Verdde, a Sámi word meaning “a mutually beneficial exchange.” The Verdde Program can be easily said to be a forerunner in Thematic Networks mobility – it made it possible for indigenous students and teachers to share knowledge and learn about each other’s cultures.

Between 2005 and 2013, UArctic has endorsed twenty-seven Thematic Networks. Verdde is still active – its current plans and activities can be found on page 28. Among the current Thematic Networks, eleven are either facilitating student and faculty

exchange, or have plans to initiate such mobility. Most of the mobility is conducted within the context of existing Master’s or PhD programs through bilateral programs such as FIRST (Finnish-Russian Student and Teacher exchange program) or a similar Norwegian-Russian program. Quite often the students and program coordinators have gone through different options to identify a suitable funding source for mobility between the different countries in the network. There is no “one-stop-shop” where a suitable program could be found for students in Russia, North America and the Nordic countries. A dream would be a situation where students coming from different countries could go to different Thematic Networks’ partner universities in different countries within a single circumpolar mobility program.

Faculty mobility has been more challenging than student mobility and most of the visits have been short term visits of about a week or so. However, there is interest and hopes for longer-term mobility for as long as a full semester. Teacher exchange would give an

excellent opportunity for both teachers and students to gain new knowledge.

Recently, mobility has been expanded to include the business world, with students doing internships in a business rather than more conventional university studies. As an example, the Thematic Network on Managing Small and Medium Sized Enterprises in the North is conducting a placement program where Norwegian and Russian students travel to the other country to work for 3-5 months at a host company. Interns will work four days and spend one day a week writing a thesis under the supervision of faculty from the sending institution of higher education. Students in the program will gain invaluable practical experience, as well as experience from working in a different culture and contacts. The program is funded by Norwegian Agency for International Cooperation in Education (SIU) with total of 2.75 million NOK. This latter example shows nicely how mobility in Thematic Networks can be in very different forms and how new ideas are also supported by funders.

PEOPLE AND THE ARCTIC EXTRACTIVE INDUSTRIES

The UArctic Thematic Network on Arctic Extractive Industries educates on and studies what the development of Arctic resources by industrial companies means for people in the North.

By **Florian Stammler**, Vice-Lead of the UArctic Thematic Network on Arctic Extractive Industries, Senior Researcher, Arctic Centre, University of Lapland

RUSH ON ARCTIC RESOURCES

Nowadays it has become hard to even start a presentation without mentioning that the Arctic has become a global hotspot for extracting the last untapped deposits on our planet – be it hydrocarbon resources, precious metals, rare earth elements, or other resources that our rapidly-growing humankind needs to maintain a rather unsustainable livelihood. As much as we may have become aware of climate change, and reducing our carbon footprint, ironically it is partially that very climate change that makes even more fossil resources more easily accessible and which makes their extraction profitable for big industrial companies.

The Thematic Network responds to this growing need for solid research-based evidence on the implications of industrial development for those Arctic places where our researchers and friends in the field work and live. With our network we can offer expertise on a wide range of aspects in this field, and I would like to give some concrete examples of the questions that have become so popular that we feel we must be in a position to answer them.

STUDYING, TEACHING AND BUILDING CAPACITY FOR THE BIG CHALLENGES OF ARCTIC INDUSTRIAL DEVELOPMENT

What happens if big industry comes to the Arctic expanses that are so far mainly used by extensive indigenous livelihoods, such as reindeer herding, sea-mammal hunting, fishing or gathering? From Alaska to Norway all the way through Siberia, we have research evidence today that helps us understand the principles of how this happens. As distressing as the news sometimes is, we see that today industry coexists with indigenous livelihoods in Alaska's North Slope where whaling and caribou hunting are important activities, as well as in northern Norway with its highly modernized reindeer herding economy (at the same time rooted in Sámi traditions) and in Northwest Siberia, where the world's largest reindeer herds are husbanded by full-time nomads year-round on the territories of the world's largest onshore gas deposits.

What can we learn about past experiences where local and indigenous people met with extractive industry in the Arctic for designing good impact assessment research and procedures for the present and future?

The Alaska Native Land Claims settlement, the Berger enquiry in Canada, as well as numerous other consultation processes over northern resources in the past have taught us about the needs of local and indigenous people in relation to industry, but also about the ways in which different parties should exchange information and build relationships. Some of these insights have found their way into guidelines for best practices in industrial development.

But are official legislation or corporate guidelines suitable to cover the multiple changes and challenges to be met with such industrial development, and how can research help to make legal documents work in a way that the costs and damages of industrial development are minimized while the benefits and revenues for people in the North are maximized? There are more guidelines and laws than most of us know or even can imagine, but there is an urgent need to make them compatible with each other and actually get people who do the practical work relating to industrial development to live up to the expectations and stipulations of all these documents. Our research and education practice wants to contribute to meeting that goal.

How does the increased geopolitical importance of the Arctic (due to resources and climate change) influence the power balance in the region, and how does this, in turn, change the position of local and indigenous people with whom we work? Several of our members have studied and taught these issues in great detail already, to the extent that our whole understanding of big topics such as ‘what is security?’ for people in the Arctic has changed. In our Thematic Network we work and teach on the implications of these substantial changes.

What happens if you get an influx of labour migrants on giant construction sites in the Arctic that outnumber local and indigenous populations? How can we monitor the social and cultural changes within both groups - the incoming workers and the local people? It is important to mention that it is not only marginalised people practicing indigenous livelihoods that feel the implications of Arctic industrial development. It is

also decision makers, and those workers themselves who help construct facilities and operate the extraction process. Labour mobility, including fly-in/fly-out regimes, has become an increasingly important topic with big implications on the whole social texture in the Arctic, including the community viability of Arctic settlements and cities. Our Thematic Network courses and research have already worked on this important topic and continue doing so.

PHD COURSES TO COME IN 2013

The most visible activities of the Thematic Network are so far courses taught by our members on the PhD level about the topics mentioned above, which add up to what we call a PhD program in Arctic Extractive Industries. PhD students attending three of these courses and completing the required assignments, including the participation in three relevant conferences, can get a certificate issued by UArctic that certifies

their expertise in Arctic Extractive Industries research and that they can use as an addendum to their PhD degree. The next courses in our program are at the end of May 2013 in Tromsø, Norway (*Cumulative effects of Arctic extractive industrial development*) and in early December 2013 in Rovaniemi, Finland (*Arctic city - communities and the extractive industries: urbanisation, industrial livelihoods and sustainability*).

We are always happy to get in touch with active and interested scholars and students in this field, and invite them to get in touch.

www.arcticcentre.org/eiwig



Means of transport in the field: passenger-tank-taxi. (Yamal 2011)



Rovaniemi
Finland

HILKKA KEMPE

I study at the University of Lapland in Rovaniemi towards a Master's degree in art education. My minors are political science and Arctic studies. I am especially interested in communities, place-specific art, and multicultural education. In terms of the Arctic my interest lies in cultural diversity; traditions and northern identities on the move. I see the North as significant – but often unidentified and unknown – in its geopolitical or cultural forms. I think it is interesting that the developments consist of the dialogue between traditions and the present.

I have previously completed my Bachelor of Hospitality Management degree with major in cultural tourism and international relations. I also studied at the University TEC de Monterrey in Ciudad de Mexico in 2010 and researched how local issues relate to the globalization in the context of contemporary art. These experiences have also affected my own research approaches to the North.

I am writing my Master's thesis for the Arctic Sustainable Arts and Design Thematic Network (ASAD), which identifies, develops and shares northern education and research experience. It promotes cooperation and collaboration between universities, institutions and communities focused on northern and Arctic issues in the field of arts, design and visual culture. In ASAD I mostly work with the issue of what Arctic arts and visual culture education in the North is. My thesis creates a basis for creative activities, and my action research verifies the potential for multicultural cooperation in the form of intensive courses in the context of ASAD. Most of the projects will be multi-artistic and take place in different countries. The network consists of 15 UArctic member universities and nine non-UArctic partners.

The community art projects are always different and special depending on the context, for example infrastructure, environment, people and sociocultural factors. I'm not saying that workshops are an easy way to learn, but challenging your existing views by comparing cultures will open new atmosphere to breath. Workshops are adventures where you need to use all your senses. You will probably end up learning more than you can find in books by listening and exploring – even when you don't understand the language. In multicultural community art projects the idea is to cooperate and survey a place and its sociocultural situation through artistic methods, not to compare and change. My latest intensive week, Northern Places – Tracking the Ugrian Traces through Place-Specific Art and Photography, was in Syktyvkar State University at the beginning of April 2013. The university is part of the UArctic and ASAD network.

In the future I can see myself working with multicultural groups as a coordinator, researcher or teacher creating collaborative workshops across the Arctic and the North. I would like to study indigenous cultures more and get more experience in varied international project activities. I am pleased to continue my thesis at least till the end of 2013 and to be part of the development of context-sensitive research methods and arts and design practices in the Arctic.

In addition to being involved in the ASAD network, Hilikka will be a student representative at the upcoming UArctic Rectors' Forum in Arkhangelsk, Russia in June 2013.

Arctic Strengthening Northern

In order to strengthen the status and visibility of art and design in the emerging “Arctic era” the Faculty of Art and Design at the University of Lapland assembled Arctic Sustainable Arts and Design (ASAD) Thematic Network under the University of Arctic. The network consists of 26 circumpolar universities and art education institutes from eight countries.

By **Timo Jokela**, Lead of the UArctic Thematic Network on Arctic Sustainable Arts & Design, Dean of the Faculty of Art and Design, University of Lapland
Photos **Hilikka Kemppe** / ASAD

Art and Design Strengthened by Northern Cultures

The network's activities got off to a prompt start during 2012 in the sectors of both art and design. Workshops between partners were aimed at developing cooperation in education: for instance *RiverLight* in Rovaniemi, Finland, *Sitkasas Davvi* in Kautokeino, Norway and *Memory based Photography* in Reykjavik, Iceland. To develop place and community specific applied visual art and service design methods, *Arctic Circles International Summer School* workshops were held in three different localities in northern Finland.

The *Arctic Design* seminar, followed by a publication, was arranged as a part of the Rovaniemi Design Week. The *Tales from the North* conference in Inari, Finland gathered together partners interested in applied visual arts and cinema to discuss the relationship between creative industry and education in the North. The World Alliance of Art Education (WAAE) Global Summit 2012 of *Cultural Encounters and Northern Reflection* was held in Rovaniemi in November. The research, art and education that is taking place in ASAD partner universities attracts increasing attention internationally.

The first Arctic Sustainable Arts Exhibition hosted by ASAD, *Cultural Encounters – Starting the Dialogue in Arctic Sustainable Arts* was held at the Arktikum in Rovaniemi in November 2012. The exhibition was about the encounters with the forms of contemporary art, the traditional indigenous

art (Sami, Yakut). The participating artists came from Finland, Sweden, Norway, Iceland, Russia, Scotland, Alaska and Canada. The exhibition was successful and positively evaluated. The next ASAD symposium and exhibition will be held in Reykjavik at the Nordic House in November 2013.

The emergent activities of the ASAD network have highlighted some common challenges, as well as opportunities in the North and the Arctic. The blending of indigenous cultures and other lifestyles of the people of the Arctic is typical of the whole circumpolar area. This multinational and multicultural composition creates elusive socio-cultural challenges that are sometimes even politicized in the neo-colonial settings of the North and the Arctic. Finding solutions to these challenges requires regional expertise, joint research, communality and international cooperation.

The questions are tightly connected to cultural identities, which in turn are often constructed through art. It is not about the static preservation of cultural heritage, but about understanding and supporting cultural change according to the guidelines of sustainable development. By furthering art and design education based on research and fresh forms of visual arts, the aim is to seize methods that can help northern and Arctic actors to communicate their culture by analyzing it within. Art is invariably renewing and strengthening cultures. Therefore developing art education has a strong impact on the well-being and economic life of the North and the Arctic.



Arctic Yearbook & Calotte Academy:

Pushing Ideas & Dialogue Across Borders

By **Lassi Heininen**, Lead of the UArctic Thematic Network on Geopolitics & Security, Professor, University of Lapland and **Heather Exner-Pirot**, Strategist for Outreach and Indigenous Engagement, University of Saskatchewan and **Joël Plouffe**, Doctoral Candidate, Université du Québec à Montréal (UQAM)

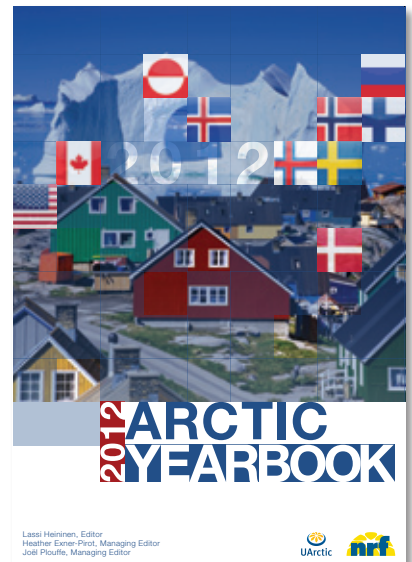
The UArctic Thematic Network on Geopolitics and Security provides a platform for researchers across the Arctic states and beyond to discuss issues relevant to circumpolar relations, from environmental protection to security studies, and from indigenous diplomacy to broader non-Arctic state interests.

Its two major activities include the Arctic Yearbook (www.arcticyearbook.com), an open access, online and peer-reviewed publication seeking to inform a broad audience about contemporary issues in Arctic geopolitics and security; and the Calotte Academy, an annual international travelling cross-border symposium in Europe's North Calotte region (Arctic regions of Norway, Sweden, Finland, and Western Russia) designed to foster dialogue among members of the research community, academia, and northern experts and stakeholders. The Arctic Yearbook, which was launched in November 2012, seeks to create an accessible and scholarly global platform to share ideas across borders. This year's Arctic Yearbook theme is 'The Arctic of Regions vs. the Globalized Arctic'. The Thematic Network's Calotte Academy has been running as a 'school of dialogue' since the early 1990s, and mobility in this sense is used to expose students, researchers and community stakeholders alike to the common challenges faced by residents of the North Calotte.

The Calotte Academy is conceptualized to emphasize and analyze regional dynamics and evolutions in Europe's 'highest' North(s) and Northwest Russia, but also combines issues and lessons from other regions of the circumpolar world, like the North American Arctic, to the overall

learning process. In the field, the Calotte Academy is an annual international study tour (or symposium) that travels with participants to cities, towns and villages within the North Calotte, creating a cross-border forum for academics, experts and other interested participants from around the world, and invites local, regional and national stakeholders and residents to engage in a constructive dialogue. It creates an environment for outreach and education in the Arctic, where academics learn from one another about the North, in the North and with northerners. The overarching theme of this year's Calotte Academy is 'Resource Geopolitics – Energy Security,' while previous ones have dealt with, for example, 'Water – Globally and in the North Calotte' (2012); 'The High North in World Politics and Economics' (2010); 'Climate Change Defining Human Security' (2008); 'New Northern Dimension' (2007) (for more information see the Calotte Academy on the Northern Research Forum website www.nrf.is).

The past twenty-five years have seen a wave of region-building and regionalization in the Arctic, and although other issues – sovereignty, oil and gas exploration, climate change and indigenous rights – have gotten the bulk of international attention, it is the Arctic's growing regionalism, together with its recent global approach, that could have the biggest long-term impact on the development and implementation of circumpolar policy. Mobility, in tandem with internationality, is an integral part of this process, in that it helps build a common identity, alerts policymakers to best practices in similar contexts, and improves our ability to jointly address common environmental, societal and economic challenges.



Look out for AY2013 coming next fall at www.arcticyearbook.com

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Thematic Network on Northern Governance



By **Greg Poelzer**, Lead of the UArctic Thematic Network on Northern Governance, Director, International Centre for Northern Governance and Development, University of Saskatchewan
Photo **Amanda Graham**

The UArctic Thematic Network on Northern Governance was established to strengthen cooperation and capacity among institutions working on issues of governance in northern regions. By pooling resources, each institution is able to offer courses, and even programming, that are international in scope; opportunities for international research collaboration; and, internship or student exchange opportunities that can be life-changing for northern enthusiasts in the early stages of their northern research careers.

In the past year, the Thematic Network on Northern Governance has made significant progress towards this end, including the initiation of a special seminar series that opens dialogue between northern Saskatchewan and northern Sweden about best practices in northern governance, the delivery of a circumpolar workshop to discuss strategies for cooperation between circumpolar institutions,

and extensive academic, applied and field research toward a *Northern Saskatchewan-Northern Scandinavian Comparative Research Report* (to be released spring 2013) and another on the *Role of the Public Sector in Northern Governance* (also due for release in spring 2013). The International Centre for Northern Governance and Development, Lead of the Thematic Network on Northern Governance, entered into official agreements with Russia's North-Eastern Federal University and Norway's University of Tromsø. These agreements will enable the institutions to continue their progress towards formal cooperation.

However, arguably the biggest achievement of the Thematic Network on Northern Governance over the past year is the joint Master's initiative on Indigenous and Northern Governance and Innovation between the University of Saskatchewan and the University of Tromsø. One of the concrete

deliverables in this collaboration is a unique international field school experience that draws on UArctic partnerships across the circumpolar world. Students in the University of Saskatchewan's Master of the Northern Governance and Development – supported logistically by the Barents Institute in Kirkenes, Norway, the Sami Centre in Tromsø, and the University of Saskatchewan's International Centre for Northern Governance and Development – are getting a chance to see firsthand how other northern regions tackle their issues with a field school in northern Norway and a reciprocal field school in northern Saskatchewan.

These students will have a fundamentally different outlook and approach when they return to their communities. They will be positioned to be stewards and leaders in northern governance thanks to an experience that UArctic connections make possible.



NATASHA LETCHFORD

It doesn't seem like enough time has passed since I spent a semester in Iceland to warrant a retrospective! My time at the University of Akureyri in Iceland in 2006 had an indelible and positive impact on my life. I have very fond memories of my friends, the landscape, and much time must have passed as I even have fond memories of eating *hakarl* (putrid shark).

Following my return to Canada, I completed my degree in International Studies and Political Science at the University of Northern British Columbia and accepted a job with the local government of Burns Lake, British Columbia – a small (pop. 2,800), resource-based, northern community. Having lived in Akureyri, it opened my mind to moving to unfamiliar, remote locations, and once again, I was deeply rewarded. I cherish my time I spent in Burns Lake where I had an opportunity to impact the community through my work with district energy, building retrofits, the local mountain biking club, and collaboration with the local First Nations.

I often think of Iceland and am in touch with a couple of my close friends from my *north2north* exchange. One of my fellow exchange partners is actually still living and working in Iceland, having met and fallen in love with an Icelander while she was there! While the exchange did not change my life to that extent, it did encourage me to broaden my perspective on what is possible in regards to where I could live, or pursue a career. Also, my short time in Iceland left me with a strong affinity for the country and I closely followed the collapse of the banking system in 2008 and the undeniably Icelandic response to the crisis, which included the drafting of a new constitution using social media! I am very happy to see that by all accounts, Iceland is on a strong path to recovery – much sooner than many other areas of the world.

I now live in Vancouver, British Columbia, which could hardly be considered Arctic, and I am working for the local government of North Vancouver. My exchange confirmed my desire to work in the public sector and as close as possible to the local community, which I continue to do with my work in North Vancouver. Although I no longer live in the North – which is never strictly defined – I just returned from a backcountry ski trip to the Yukon and Alaska and was reminded of the beauty, grace, and austerity of the glaciers and fjords of Iceland. I will return to Iceland for a holiday at some point in the next few years, and I am always telling my friends flying to Europe that it is worth a layover at the very least in Iceland. I often think of a few lines from Robert Service's *The Spell of the Yukon* which perfectly describe both Iceland and northern Canada for me:

*It's the great, big, broad land 'way up yonder,
It's the forests where silence has lease;
It's the beauty that thrills me with wonder,
It's the stillness that fills me with peace.*

TOWARDS

By **Ute Vogel & Astrid Revhaug**, UArctic GoNorth Office, University of Tromsø
Photo **Dimitra Thanasia**

The global education market is highly competitive and increasingly commercialized. UArctic members face common challenges in recruiting international students to their study programs. Smaller institutions in particular do not always have the resources to promote their studies and institutions in an international context and in sustainable ways. In larger institutions, responsibilities for international branding and student recruitment are often split between the international office, registrarial services, and the communications department. Limited budgets demand effective internal organization and communication strategies to achieve institutional goals.

UArctic's GoNorth Program provides services to members as a platform for cooperation in the field of student recruitment and institutional promotion. Even if member institutions compete on the global market, the development of UArctic as a common educational brand can increase the visibility of the North as an attractive study destination and promote studies at UArctic institutions to prospective students from outside the region.

In 2012 the GoNorth Office at the University of Tromsø and the UArctic International Secretariat started the project "Global Access to Northern Higher Education." It is supported by the Norwegian Ministry of Foreign Affairs. The project has two main objectives: the development of a new UArctic student-oriented web site, with the UArctic Catalogue as a main element; and offering staff development workshops in the field of international student recruitment, which facilitate networking and exchange of experiences between UArctic members.

S A NORTHERN BRAND

UArctic Promotes the North as a Study Destination

International student recruitment occurs today mainly on the internet. The UArctic website and online study catalogue play a major role in promoting UArctic as a common brand and in offering service to students who search for study possibilities in the Circumpolar North. This project focuses on developing the UArctic Catalogue as a tool in educational marketing for UArctic member institutions. The Catalogue is not only an entry point for information on studies, but also for UArctic member institutions. The new UArctic website for students will give access to study information, but also introduce major themes relevant for the region, inform about scholarships and mobility opportunities, share student

experiences of life in the North, and give an overview of UArctic's mission and values. Student stories and testimonials of alumni support the message of the North as an attractive study destination.

The Global Access project also offers training for recruitment staff at UArctic institutions. The first intensive workshop on Educational Branding, Student Recruitment and Destination Marketing takes place in Levi, Finland 20-23 May 2013 with participants from Scandinavia, Russia, Canada and the USA. Another workshop for mainly Russian institutions will be arranged in Archangelsk, Russia at the Northern Arctic Federal University in fall 2013.

For more than 10 years the Circumpolar Studies (BCS) undergraduate program has been central to the University of the Arctic. It has provided educational opportunities for students from large industrial northern cities and for students from small remote villages. The program is unique. Interdisciplinary in nature, it was created by a large international team of experts in various fields of the Arctic region. Not surprisingly, a number of universities – members of the University of the Arctic – have used this program as a basis for degree programs, while in others its offerings have been integrated into the regular university curricula.

Currently, the program is attracting international students from non-Arctic countries in addition to students of UArctic members. Together these students form a truly international, virtual classroom which can function as a global platform to share knowledge and experience. This was especially true for Sargylana Kondakova, an instructor of BCS 100 “Introduction to the Circumpolar World,” delivered online during the fall of 2012. Kondakova’s course had more than twenty students from different countries, including Russia, Canada, Finland, Denmark, Spain, France and Moldova. Such multicultural diversity reflects the international profile of the University of the Arctic.

Student responses were gratifying. “Everything about the Arctic world is interesting! This was an amazing semester for me! I learned a lot, and got very useful information for my project,” wrote Miguel Angel Julián

Carrillo from Spain. Liisa Tervaskanto from Finland said, “Thank you very much for this interesting circumpolar course, during which I have learned so many new things ... from fascinating and unexpected perspectives. It is a privilege to learn more about the rich northern entity, which is a very unique place to live.”

The Circumpolar Studies program motivates students to come to the Arctic. The circumpolar mobility program *north2north* is another central program of the University of the Arctic, which enables Circumpolar Studies students to experience living in the North after learning about the North in textbooks. Such a practical, mutually complementary model of BCS and *north2north* is being used very sensibly at University of Nordland, where Dr. Marit Sundet acts as Circumpolar Studies Regional Vice-Dean for the Nordic and Barents area.

Often Circumpolar Studies influence the future careers of young people. A student from Germany, Beatte Hummel, explains

why she decided to do research comparing the living standards of various northern countries: “I liked BCS 100 very much. It is a very good course for beginners. I got a very broad understanding of the North – the geography, the basic common features and differences of the people in the North, their culture, ways of life, and everything. I’d already decided that I wanted to live and work in the North, but after this course I wanted it even more.”

At present, while the University of the Arctic is growing globally, we should develop a new model for the implementation of the Circumpolar Studies program. More students from various Arctic and non-Arctic countries are interested in Circumpolar Studies. More professionals and community leaders would like to take BCS as open learning courses. How can we make this program available to a much wider audience? How can we keep quality and consistency? These and a number of other issues should be addressed in the months to come in order to improve and strengthen the Circumpolar Studies program.

By **Claudia Fedorova**,
Dean of Undergraduate Studies,
University of the Arctic
Photo **Katja Uvarova**

Circumpolar Studies and Mobility



Field Schools in the North: An Alaskan Perspective

By **John Eichelberger**, Dean of Graduate Studies, University of the Arctic



All educational efforts in the Arctic and sub-Arctic face the same issues of a sometimes harsh climate and the expense of transportation.

Challenges to fieldwork – an essential aspect in many programs of natural science training – include bears, river crossings, remoteness, and hypothermia. These are unfamiliar, often fearful, phenomena for students from the mid-latitude urban environment that is home to most of the US student population. At same latitude as Lisbon, Portugal Washington, DC lies on the divide between the US “North” and “South”, a precarious position during the US Civil War. The only Arctic to sub-Arctic state, Alaska, contains only about 0.2% of the US population. No wonder those Americans whose thinking is constrained by international boundaries think of Alaska as an exotic place, and have no comprehension that the boreal forest and tundra of Alaska extend far eastward into Canada and westward around the world through the vastness of Russia to Scandinavia. Students who are brave enough to come north to Fairbanks soon find that they are ill-prepared for outdoor adventures and that getting anyplace beyond Alaska’s small road network can easily cost them as much as getting to Alaska did. As an example, none of Alaska’s famous volcanoes are accessible without the use of boats or small aircraft.

If students in Arctic countries – especially students from the US, which is the least Arctic of Arctic countries – are to play an informed role in Arctic science and policy

in the future, it is important that they meet the Arctic face-to-face through a challenging but safe field school experience. While this is essential in some natural science and social science fields, camp life away from urban distractions and with the need to share in the simple tasks of living can also benefit many other educational objectives, such as language immersion and cross-cultural appreciation. The introduction that a field school provides often paves the



Katmai 2011: Russia, China, Canada, Germany, and USA represented

way for students to conduct independent field research, to undertake international collaborations, and/or to spend an extended period in a university in another country. Field schools serve to dissipate the feeling of strangeness of other cultures, as well the strangeness of an outdoor environment not previously experienced.

UArctic members offer a rich array of field schools, as can be seen in the UArctic Catalogue (www.uarctic.org/catalogue). Much of my own experience comes from the International Volcanological Field School (www.uaf.edu/geology/academics/international-volcanology/), which my

colleague Pavel Izbekov and I founded a decade ago under the aegis of the University of Alaska Fairbanks (UAF), Kamchatka State University, and the Institute of Volcanology and Seismology (Russian Academy of Sciences). Each year two two-week-long sessions are offered, one in June in Katmai National Park, Alaska, site of the largest volcanic eruption in the last two centuries, and the other on the active volcanoes of Kamchatka, Russia. Both are at least as challenging physically as they are intellectually, and involve student presentations and lectures by guest faculty as expanded dimensions beyond our core volcanology lectures. Although we began this as a “Bering Bridge” between Kamchatka and Alaska, it has since attracted students from most northern European countries as well as Canada, Japan, China, New Zealand, and Chile.

Because of the intensity of these true adventures, students (and faculty participants) maintain contact years afterwards through social media and the school’s Facebook page (enter “International Volcanological Field School” at www.facebook.com). Many comment that their time in Katmai or Kamchatka was one of their most memorable and life-changing experiences. A number of the students have gone on to conduct internationally collaborative research in graduate school. This is important in itself, because all science is now international.

An important mission for UArctic will be to make more students, including those from outside the Arctic, aware of these rich opportunities offered by our members. We also need to find ways to make attendance affordable for all who wish to participate.

The UArctic Thematic Network Verdde was established in 2004, with active work in 2007-2008, and lower level of activities since 2009, but it never stopped entirely. Verdde has been working as an exchange program for students and teachers in cooperation with five Arctic institutions in Canada, Greenland and Russia. A strong will and an urge to continue this work made Sami University College decide to strengthen this collaboration and develop the concept of mobility in indigenous education in 2012. Sami University College is leading this work, with close cooperation with Nunavut Arctic College and by letters of intent from other institutions.

Exchange and mobility within the Verdde network has shown that there is a need for systematic support of mobility activities

to serve as an active centre for mobility activities, coordinate Verdde cooperation, give support to institutions and students, and provide systematic information about scholarships and courses at different institutions involved in Verdde cooperation. The overall goal of Verdde - University Center for Mobility in Indigenous Education is to strengthen cooperation within UArctic in the field of teacher training, teaching of indigenous minority languages and cultures.

It is crucial for indigenous capacity building that both students and academic staff learn about different experiences, teaching methods and programs that have been developed by different institutions of higher education. Collaboration in itself is a means to build capacity both for institutions involved in cooperation, and for young people who in their capacity as students

gain knowledge about indigenous education all over the Arctic region. Through this activity, cooperation partners will be able to exchange information and develop cooperative programs and activities in the areas of education programs, professional faculty development, and research broadly related to the education of indigenous people.

There will be opportunities for traditional individual exchanges such as for an entire semester. But it has become clear through the Verdde program that shorter stays are required for the exchange of groups. There is also a need to focus on a common systematic approach to the parties through this effort to bring forth indigenous strategies and priorities in higher education and exchanges will be an important part of this work and not just technical exchanges.

The Verdde Program

Verdde is a Sami word meaning “a mutually beneficial exchange”, which in this context is the name of a UArctic Thematic Network that is all about indigenous student and academic staff exchange in the circumpolar region.

By **Laila Aleksandersen Nutti**,
Lead of the UArctic Thematic Network Verdde,
Sami University College



During a three-week stay in Canada, Nunavik and Nunavut this winter I was able to experience the power of meetings between people with the same academic interest in early childhood education and from the view of the lives of Inuit and Sámi children. It was great meeting with students and academic staff at Nunavut Arctic College and having important discussions about teaching, methodology and curriculum exchange. Meeting with these great people made me feel at home and reminded me of the importance of my own work with Sámi teacher students. Dressed in my warm traditional coats and boots, discussing sewing techniques and how to make the children's coats, how to live and what and how to teach the children, circumpolar mobility really made sense.

Iqaluit
Nunavut, Canada



Utsjoki
Finland



Kautokeino
Norway



AURA PIESKI

I studied teacher education at Sami University College in Kautokeino, Norway. I'm originally from Utsjoki, the very north of Finland, and I currently work here as a Sámi language early childhood educator. This is my first job after graduation; local people actually called me directly to ask if I was interested since they had been looking for someone for the job for quite some time!

I did a one-month exchange at Nunavut Arctic College in Iqaluit, Canada in 2005 through the Verdde program. The opportunity was first offered for kindergarten teacher students, but since there were still places left, we class teacher students were given the chance to participate. Back then there were also some teachers doing the exchange. As for why I chose to go, well, I had done my share of travelling but I didn't really know much about Canada or the Inuit, so I was interested in learning more. Also, I've always sort of gone against the flow, and since everyone else was southbound, I instead decided to stay in and get to know the North.

It's difficult to say exactly how the exchange has affected me and how much of it is conscious or subconscious. I have very strong memories of the weather and the nature and its power. People there have a close relationship with the nature, and they live from it and also with it. One thing that made a lasting impression was the children and how dear and free they were. In a way it reminded me of the Sámi culture where children are allowed to be without constant hushing. There was also a sense of childishness and playfulness in grown-ups as well, which I really enjoyed and appreciated. And of course the exchange had a pedagogical effect on me as well. I got to visit schools and institutions, and it was nice to see how the local culture was visible everywhere; for example, bathroom signs were Inuit instead of the traditional shapes of man and woman, and classroom walls and corridors were full of children's drawings and cultural items. I've tried to bring that aspect to my own work as well. It was also funny to see how their concept of time differs from the western concept. During blizzards schools were closed. And when I wondered why there didn't seem to be that many mobile phones and asked a local about that, I was told that the mobile phone boom came and went – people didn't really like or want to be reached all the time! I sometimes wish that we would do the same decisions instead of running all the time.

There are definitely similarities but also differences between here and there. The Arctic nature and animals made things feel similar, but at the same time everything was so much more intense. Even snow felt different, which was strange. It was also pretty amazing to hear people talk about their grandfather or grandmother who was a medicine man; here, it is usually some ancestor from a long time ago who has been one! There was also similar sadness about that kind of knowledge slowly disappearing. The exchange was definitely an eye-opener in terms of how strongly global warming can affect people. Pollutants from the south drift to northern areas, the ice is getting weaker which makes hunting more difficult... That was my first real encounter of such problems. Afterwards I've seen and heard of plenty more.

I don't think that young people should stay their whole life in one single place and never go anywhere. They should travel, see what's out there. Of course, the visits to other places may be short and somewhat superficial, but you always learn things in a new culture – of yourself as well. You also learn to see your own culture from a new perspective, and maybe you'll appreciate it more or develop it further when you come back. Also the human contacts and encounters can be so enriching. It's important to see that there isn't just one right way to live! I think Verdde is an excellent chance to go abroad especially for those who have children, because it is shorter than exchanges usually are. It was definitely worth it, and even one month is plenty of time to experience new things, participate in local courses, and grow as a human being. I would absolutely love to go back to Nunavut one day – there is so much I'd like to learn!



EKATERINA EVSEEVA

My *north2north* exchange took place back in the fall semester of 2002 when I was a graduate student at Sakha State University (now North-Eastern Federal University). The academic knowledge that I gained at the University of Alaska Fairbanks helped me to write the substantial and practical part of my thesis. With that successfully done, I later took part in an international young researchers' conference at the University of Alberta in Canada. Since I returned to my home institution as assisting teacher, the scientific and cultural knowledge I learned has helped me in my teaching work (teaching English and the course of Northern Literature and Arts).

As you can see, I stepped from being a graduate student to a postgraduate researcher and a young teacher. My connection with UArctic also changed: I became a student representative on the Board of Governors. That was a really serious and important position. I felt quite thrilled and a bit worried, but with the support of my senior colleagues I was able to hold it and tried to do my best in voicing the youth of the Arctic and helping with the paperwork. Those years gave me a lot – both seeing the actual scenery of the Arctic and meeting its various representatives, from regular people to the ministers. I grew in mind, in worldview, in connections, and in many other ways, too.

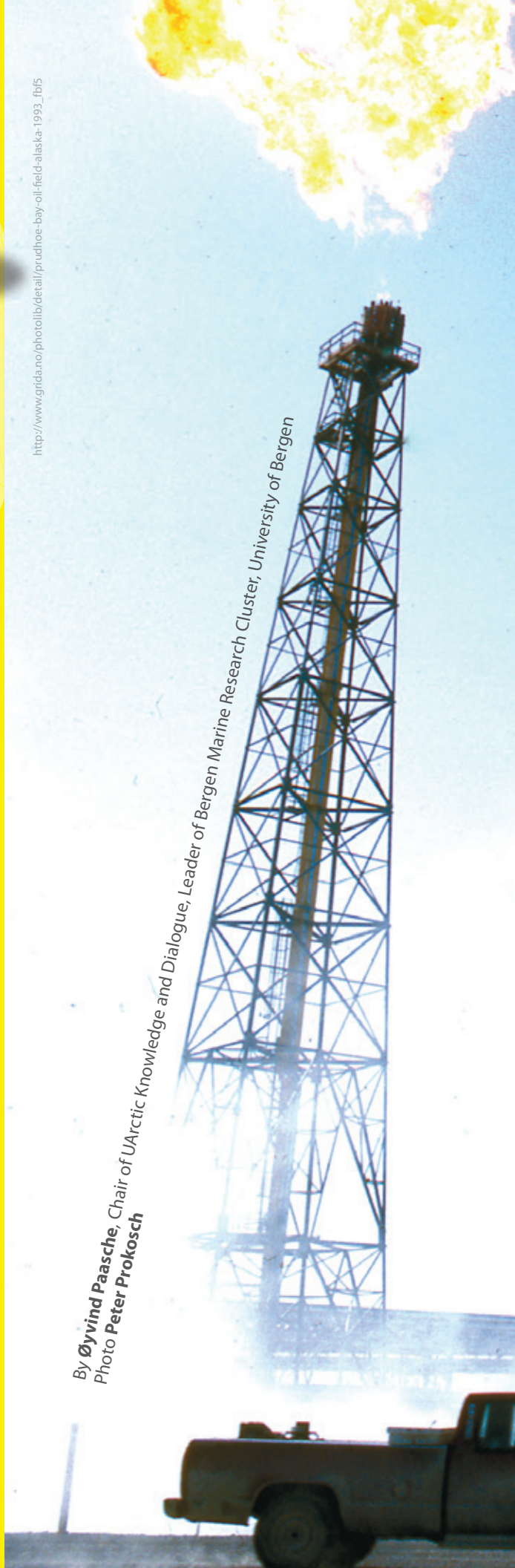
I was closely in this circle while I was working at my home university, and when it was time to leave, it meant leaving the UArctic environment too. Such were the conditions in my life at that time, back in 2006, that I started to work full time with the NGO I had been with for all the previous years, the Eyge Environmental Education Center. I became its director in March 2007. We have various projects and issues to work on, but for a few years now one has been and still is in the focus: defending the rights of the indigenous peoples of the North of Yakutia on clean environment. Here I use the knowledge I gained when I was on exchange in Alaska, taking the rural development courses. Through this I got in touch with the UArctic Thematic Network on Local and Regional Development of the North at the summer school lead by professor Tor Gjertsen. He then invited me and my partners to the Gargia conference in October 2010. We visited northern Norway and talked to the communities there about our projects and our life here. Last summer I was also pleased to teach some lectures about the environment of Yakutia to the students of "Summer in Siberia" international course.

It is hard to keep in touch with the people you knew and met a long time ago, but from the *north2north* exchange I found some true and close people I keep in contact with – that makes Alaska a very dear place to me. I once visited Alaska, in 2008, on a short trip organized by our colleague ecologists from California, and I felt nostalgic to have even a short glimpse of the UAF campus.

I am so very thankful to all who helped that exchange to take place, to who I knew and still know from those times in Alaska from the UArctic administration. Life is a circle, and many things and people are bound to happen again.

http://www.grida.no/photoilib/detail/prudhoe-bay-oil-field-alaska-1993_fb15

By Øyvind Paasche, Chair of UArctic Knowledge and Dialogue, Leader of Bergen Marine Research Cluster, University of Bergen
 Photo Peter Prokosch



Capitalizing on the IPY Legacy

By late May 2011 all eight members of the Arctic Council had launched respective Arctic strategies that outlined national interests and general political considerations covering a wide array of themes, including immediate challenges facing indigenous people, exploitation of resources (oil, gas, fisheries, bioprospecting etc.), environmental concerns, national boundary disputes and so forth. Two years down the road, in February 2013, UArctic co-sponsored The Economist's high profile "Arctic Summit – What will the Arctic resemble in 2050?"

The prophetic question was naturally not answered, but the meeting made it clear through all its presentations and participants that industry is fixing a hungry eye on the Arctic territories, and with industrialisation and the establishment of new infrastructure the bars are raised for informed decision-making. In enlightened democracies, the need for new science should always grow in tandem with increased political and business interest.

Since all Arctic countries practice what we can call evidence-based policy, it is clearly in everyone's interests that science delivers accurate and trustworthy observations and knowledge. But surveying and describing a moving target in precise scientific terms is no easy task. If that disappoints you, keep in mind that there are few research areas that we have (rightly, many would say, myself included) devoted similar attention to study as cancer, yet it still remains elusive. Acknowledging the limitations of scientific knowledge is equally difficult and important – never was this truer than in the case of the Arctic, which is transforming quickly and simultaneously on all fronts. Having said that, without research we wouldn't even know how to navigate with a compass, because it wouldn't exist in the first place!

As with all research, funding allocated to Arctic research is limited, and more often than not, it is often unpredictable. That puts scientists in an awkward position. Take Station North on Greenland. Until this year the station was facing closure, but thanks to a generous contribution from the Villum Foundation it will now run for years to come. During the International Polar Year (IPY), which advanced polar sciences in so many ways, a considerable momentum

was generated. But how should funders capitalize on that raised awareness and new insight? The question is still up for debate, but some have already acted. The US National Science and Technology Council presented a new five-year plan (2013-2017) for Arctic research precisely because of the tremendous impact changes in the region are likely to have.

Among the first to recognize this opportunity in Europe was Nordforsk. They established a so-called Norianett, primed to explore the possibility for new and novel Arctic research initiatives building on cross-disciplinary approaches. Nordforsk is now on its way to take a leading role as a constructive knowledge facilitator of Arctic research, and with that capitalize on the momentum generated by the IPY.

This responsiveness from funders is precisely what we need. More is welcome from all countries, philanthropists, industry and institutions alike. National strategies serve a purpose, agreed, but they are not always designed to address scientific challenges that transcend national boundaries, for which we need wider collaboration.





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