FROM THE DIRECTOR

The Arctic Spring has been rather political in terms of large international events with top-level policymakers participating. First out was Russia when setting up The Arctic – Territory of Dialogue 9-10 April where the Minister of Foreign Affairs of the Russian Federation Sergey Lavrov stressed the importance of international law. It seems obvious by now that the large Arctic nations are aware of an increasing Chinese interest in the Arctic, and the special presidential representative for international cooperation in the Arctic, Artur Chilingarov concluded that the Arctic countries need to be observant on the role of China.

The event caught immense media attention since the Prime Ministers of Sweden, and Norway and the Presidents of Finland and Iceland joined Russia’s President Vladimir Putin on the stage to discuss The Arctic. An Ocean of Opportunity. Putin stressed the importance of transportation solutions and concluded that Russia now has 13 heavy icebreakers. He also put attention to the economic strategies of Russia in the north with lower tax rates and funding through the Russia Far East Development Fund. In a global perspective, Putin stated that Russia is only the sixth economy in the Arctic, with China now in the lead followed by the United States. He also claimed that the warming process is four times higher in the Arctic compared to the rest of the world. The Nordic leaders emphasized how important a good dialogue is, plastic pollution, black carbon, blue bio-economy and gender issues. The Swedish Prime Minister Stefan Löfven also stressed that globalization is affecting the Arctic, and expressed a sincere interest to keep the region as a low-tension area. He also stressed the importance of the Arctic Council and the Barents Council stating that “the Arctic is an example to be proud of” in terms of international cooperation. He concluded that climate change is a huge challenge, but said that the Arctic is very much defined by the people who live there. Finally, he pointed to the great efforts of the top-ranking northern universities in Sweden, and stated that the Arctic requires new and innovative research.

The chairmanship of the Arctic Council rotates among the arctic states (Finland, Iceland, Russia, Norway, Denmark, Sweden, Canada and the USA), each of them assuming the lead position for two years at a time. With the Ministerial meeting in Rovaniemi in 7 May Finland passed over the chairmanship to Iceland. During the past two years the priorities of Finland have included environmental protection, meteorological cooperation, connectivity, and education.

At the Ministerial meeting in Fairbanks, USA two years ago a joint declaration was finally signed by the foreign ministers, after extensive discussions and unwillingness of the USA to include wording on the Paris 2015 Agreement and the UN Sustainability Goals. The position of the USA was further pronounced when the U.S Secretary of State Mike Pompeo gave a speech the day before the Ministerial. He criticized Russian and Chinese activity in the region, and said that these countries must respect American interests in the Arctic, or face the consequences. His speech did not mention US participation in any international cooperative effort to combat climate change in the fast-warming polar region.

As a result of this the Ministerial meeting could not agree in signing a joint decla-
FROM THE DIRECTOR

Continues

ration, as has been the case since 1991. Instead a Rovaniemi Joint Ministerial Statement was signed by the Arctic Council member states. Overshadowing the disagreement, and the short text, was the omission of letting the text be agreed with Indigenous Peoples (Permanent Participants) to be the basis for their shared message. The only actual disagreement seems to have been on references to IPCC, and alignments on all other issues.

Climate change was highlighted in all ministerial statements by member countries and permanent participants, except the USA. Chief Bill Evans representing Arctic Athabaskan Council (AAC) gave voice to the disappointment:

“We have some real concerns. Climate change is real, and we recognize that we are in a state of crisis where we live in the North as residents – permanent, long-term residents in our homeland. Climate change is man-made, and our elders tell us that we are clearly in trouble. Our Indigenous Knowledge must be understood and be implemented to provide us comfort. By following our own knowledge, we have always prevented disaster. We have always had certainty and stability in our lands and territories. This way we are confident in our planning and with our way forward”.

Russia’s Minister of Foreign Affairs, Sergey Lavrov, who last month at the Arctic Forum conference in St Petersburg stated that the work of the Arctic Council, Arctic diplomacy, and the implementation of international law are decisive for a positive development in the Arctic, now presented focus areas of the coming program of Russian Federation starting after the Icelandic chairmanship - e.g. people, green energy, environmental solutions and indigenous issues.

In a statement by the Arctic Council chair, Minister for Foreign Affairs of Finland, Timo Soini reported that the meeting “welcomed the strengthened cooperation with the University of the Arctic, in particular in the area of improving educational opportunities for Arctic inhabitants, noted with appreciation the role of teachers and educators in fostering sustainable development in the Arctic and for providing positive future perspectives for its inhabitants”. Canada’s Minister of Foreign Affairs Chrystia Freeland gave the good news that Canada will fund extensive support to research in the Arctic region where the University of the Arctic has a as part of a package of more than $28 million. The addresses of ministers underlined that the region experience continued challenges and change. Climate change is happening as we speak, and it affects all people. The importance of a fact and science based approach was emphasized. Furthermore, the International Maritime Organization (IMO) was approved as a new Observer organization, and a Memorandum of Understanding was signed between the Arctic Council and the Arctic Economic Council.

Education was one of the priorities of the Finnish chairmanship although it was not highlighted much during the Ministerial meeting. Iceland that now takes over the chairmanship of the Arctic Council presented four priorities for the coming two years: the Arctic Marine environment (including bio-economy), Climate and green energy solutions, the people of the Arctic and their ability to build prosperous communities, and a better and stronger Arctic Council.

It is difficult not to be curious for the forthcoming EU Arctic Forum meeting in Aula Nordica 3 October and the back-to-back arrangement of the Barents Ministerial meeting where Sweden will be represented by the Minister of Foreign Affairs, and Honorary Doctor at Umeå University, Margot Wallström who in her Ministerial address to the Arctic Council stated that “The Swedish Arctic is reindeer herding, important mining and top universities”.

Peter Sköld, director Arcum
Umeå Arctic Seminar May 2019 was about Swedish industrial settler colonialism

On May 10, Åsa Össbo, postdoctor at Centre for Sami Research (Cesam) - Vaartoe, held an interesting seminar about Hydropower company sites: A study of Swedish industrial settler colonialism.

The settler colonial perspective has thus far gained modest attention from scholars analyzing the relations between the Swedish state and the Indigenous Sámi people throughout history. This seminar explores the perspective of settler colonialism on the Swedish state’s relation to the Sámi people through the case of hydropower expansion. I argue that the hydropower invasion beginning in the 1910’s constitutes a reinforced Swedish settler colonialism ultimately shown in the hydropower “company town” Porjus.

This industrial colonialism in Swedish hydropower politics and practice compose a continuous settler colonial policy with a genealogy from the passing of the ‘Lappmarks Placat’ in 1673 when agrarian settlers of Swedish or Finnish origin were encouraged to take up farmstead settlements and populate areas perceived as almost uninhabited. The regulation was updated in 1695 and in 1749. During the 19th century several policies as well as administrative practices invisibilised and devastated Sámi self-determination and land rights. At the turn of the century the reindeer grazing acts of 1886, 1898 and 1928 finally regulated Sámi livelihoods and disconnected many Sámi from the rights that the Swedish state had defined and reserved for reindeer herding Sámi. When Sámi land rights had been devalued and westernized, the time was due for a new colonial policy, a policy promoting industrial extraction of hydroelectricity from the rivers of Sápmi.

Apart from forestry, no other venture in Swedish colonial history has devastated the same amount of Sámi lands within Sweden as the expansion of hydropower. This industrial colonial policy is also a settler colonial structure since hydroelectric power until this day compose the backbone of the Swedish energy system and settle the landscape within its regimes. A shift of perspective, from colonialism to settler colonialism, can give important tools for Indigenous groups as well as for decision-makers and industry on how to work towards decolonization.
In autumn 2018 our affiliated postgraduate student Ekaterina Zmyvalova at the department of language studies was granted strategic funding from Arcum to perform fieldwork in Lovozero and Murmansk, Russia. Here’s her report.

My PhD thesis is devoted to teaching of the Sami language in the school in Russia and schools in Sweden, and also to the preservation of the language via teaching it at school. From the 8th of April to the 19th of May 2019 I made a field trip to Russia to collect data for my thesis.

I worked with archives in the city library of Arkhangelsk, as well as in the village of Lovozero in the Murmansk region, which is the place where most of the Russian Sami live. I also worked in the city of Murmansk. The only Russian school where the Sami language is taught is located in the Lovozero village. In Lovozero I met with school representatives, such as the head of the school and teachers, and also the parents of the children learning the Sami language. The meetings in Murmansk were devoted to interviewing people whose knowledge is useful for my research. I met politicians who are decision-makers on the issues of Sami language teaching at school, and writers and researchers on the Sami language, etc. The trip has been a necessary step in collecting data for my thesis. Without this trip, I would have lacked important data for the objective judgments and verifications of my tentative conclusions.

My preliminary assessment, which still needs to be confirmed through in-depth analysis, is as follows. The situation of Sami language teaching in Lovozero changes constantly. These changes concern the unstable situation with teachers quitting their jobs every year and changes in the content of the study programs, etc. At present, the statistics show that relatively, many children learn the Sami language. Yet, in fact the situation is far from optimal. The Sami language is taught as non-obligatory subject from the first to the fifth grade once a week. The situation of Sami language teaching is impacted by many factors like internal challenges within the Sami community, discussions on the Sami alphabet, increasing interest to foreign languages such as English, German, the Northern Sami, etc.

This summer I plan to dedicate my time to the analysis of the collected data.
PROJECT AGAINST DEADLY VIRAL DISEASE BETWEEN HUMANS AND ANIMALS

Our affiliated researcher Clas Ahlm, professor and chief physician at infectious diseases, section of infection and immunology at the department of clinical microbiology, and also director of research and education at NUS, is part of a new international research project aimed against deadly viral disease which spreads between humans and animals.

The project builds upon a platform of studying how human immune systems naturally develop neutralizing antibodies, and then this information is used to develop biological medicines against viral disease. This is a continued development of the method that was successfully used to develop therapy against the feared ebola virus. Research to develop antibody-based treatment against nephropathia has previously been started in Umeå, and has now been picked up and included in this new cooperative international research project.

“Finally there is a chance for effective treatment against ’Norrland’s hemorrhagic fever’. As an infection doctor I’ve met hundreds of people with nephropathia, of which some where really sick and a few even died. These are the patients who have contributed and made our research possible. It’s a clear example of how local cooperation between health care services and research can lead to new treatments” globally”, says Clas Ahlm.

NORRSYN / NORTH VIEW

The network North View (sw. Norrsyn) continues a long tradition of research on the north at the Faculty of Arts at Umeå University. Our researchers examine representations of the north in different media, generated within the north or by outside observers, and they approach language from a number of perspectives, again with emphasis on both internal and external sources. Environmental issues inform several discussions, and the situation in and function of specific northern locations are linked to a number of global challenges.

On May 15 we organized the first in a series of seminars designed to gather the faculty’s researchers with an interest in northern studies. The purpose was to get an updated view on what kind of research related to the north that is on-going at the faculty and identify possible points of contact leading to the establishment or strengthening of co-operations. Around 30 participants attended the seminar and the series will be continued in the fall.
JING HELMERSSON REPRESENTED ARCUM AT TWO ARCTIC CONFERENCES
May 7-11, 2019, Shanghai, China.

During May 2019, Jing Helmersson, an Arcum affiliated researcher from the department of epidemiology and global health at Umeå university, represented Arcum to attend two arctic conferences in Shanghai, China:

- The 7th China-Nordic Arctic Cooperation (CNARC) Symposium 2019 during May 8-9 at Shanghai Ocean University.
- The Arctic Circle China Forum during May 10-11 at Shanghai Science and Technology Museum.

The CNARC symposium started in 2013 and held once a year during May. It has been alternated between China and one of the Nordic countries. The 7th CNARC symposium was organized by the Shanghai Ocean University (SHOU) and the Polar Research Institute of China (PRIC) with the theme Arctic Fisheries, Polar Silk Road, and Sustainable Development Practices.

In the afternoon of May 7th, the Assembly of CNARC Member Institutes held a meeting at the Crowne Plaza Shanghai Harbor City hotel to discuss various agenda. After the CNARC Director’s report, Jing gave a short presentation to propose Umeå University as the next host of CNARC symposia for year 2020 with the Theme “Monitoring and Observing the Arctic: Creating Knowledge for the Future” with four subgroups: A. Sustaining Arctic knowledge systems, B. Society development in the Arctic, C. Globalization and the Arctic and D. Arctic Ecosystems and Processes. After the presentation, some of the member institutes have voiced their questions, concerns and suggestions but all 16 member institutes approved this proposal to have Umeå University hold the 8th CNARC symposium. Then the Assembly selected a new CNARC Nordic vice director for 2019-2021, Prof. Peter Sköld from our Arcum, since the current Nordic vice director Dr. Arild Moe, Senior Researcher from Fridtjof Nansen Institute in Norway, will finish his term. But the current Chinese director (Dr. Yang Huigen) and vice director (Yan Jian) decided to keep their positions for another term. During the Assembly meeting, they have announced the leaving of Egill Nielsson as the coordinator at secretariat in Shanghai after this symposium and the desire to find another person from the Nordic country. In the evening we had a Welcome Reception.

During the next two days, the symposium schedules were very intensive with two parallel sessions with the following three themes: 1) Polar Silk Road: Vision, Progress and Outlook; 2) Arctic Fisheries and 3) China-Nordic Policy Synergies on Arctic Sustainable Development. Jing has presented her research in the theme 3) with the title: “A new research methodology for indigenous wellbeing study - Using system dynamics modelling to generalize qualitative study findings and to integrate mixed methods”. Two books that were just published were shown in the conference and authors were present and given speeches about these books: “Sino-Nordic Arctic Cooperation: Objectives and Approaches” in Chinese by Lassi Heininen (INAR/University of Helsinki & IIASA, Finland) and Jian Yang (Shanghai Institute of International Studies); “Polar Cultural Heritage – too important to lose” by Susan Barr in both Chinese and English. Certain copies of these books were given out during this symposium.

At the end of the symposium, the following well known people came to give closing remarks: H.E. Ólafur Ragnar Grimsson, the Arctic Circle Chairman and former President of Iceland (1996-2016), talked about the severity of climate change and the its effect to Chinese extreme weather, the need for China’s active participation in arctic research and cooperation for mitigating climate change; Björn Lyrvall, Ambassador for Arctic Affairs, Ministry for Foreign Affairs of Sweden, welcomed all to Umeå next year for the 8th CNARC
symposium; **Tomas Orri Ragnarsson**, Senior Advisor on International Affairs, Nordic Council of Ministers and **Jian Yang**, Deputy Director of CNARC gave summary of the CNARC symposium.

Right after the 7th CNARC symposium, the **Arctic Circle China Forum** started. This is the first time that this type of conference was held in China. The theme was *Polar Silk Roads – Science and Innovation, Transport and Investment – Sustainable Development, Oceans - Energy – Governance*. It was hosted by the Ministry of Natural Resources of China, sponsored by the China Oceanic Development Foundation, supported by the Science and Technology Commission of Shanghai, organized in cooperation with the Polar Research Institute of China, the Shanghai Institutes for International Studies and the Chinese Society for Oceanography.

Different Arctic actors were present at this forum from government, research and educational institutions, NGOs and private sectors.

**Government:** Many high level politicians from different countries were present and given speeches: Ölafur Ragnar Grimsson (Chairman Arctic Circle and former President of Iceland 1996–2016), Wang Hong (Administrator, State Oceanic Administration, Ministry of Natural Resources, China), Chen Yin (Executive Vice Mayor of Shanghai), Sturla Sigurjónsson (Permanent Secretary of State, Ministry for Foreign Affairs of Iceland), Jennifer Morris (President, Conservation International), Jutta Wark (Director, Nordic and Polar Relations, Department of Foreign Affairs, Trade and Development, Government of Canada), Gao Feng (Special Representative for Arctic Affairs, Ministry of Foreign Affairs, China), Lilja Dóógg Alfredsdóttir (Minister of Education, Science and Culture, Iceland), Gao Ping (Director-General, Department of Science and Technology, Ministry of Natural Resources of China), Gan Pin (Deputy Director, Shanghai Municipal Government Commission of Science and Technology), Huang Jing (Director-General, The Administrative Center for China’s Agenda 21), Björn Midthun (Director, Head of Polar Affairs Section, Ministry of Foreign Affairs of Norway), Björn Lyrvall (Ambassador for Arctic Affairs, Ministry for Foreign Affairs of Sweden), Piotr Rakowski (Senior Advisor for Arctic affairs, Legal and Treaty Department, Ministry of Foreign Affairs of Poland), Heung keong Park (Ambassador for Arctic Affairs, Ministry of Foreign Affairs, Republic of Korea), Nicolas Chapuis (European Union Ambassador to China), Lisa Murkowski (United States Senate), etc.

**NGOs:** Zhang Xinsheng (President, International Union for Conservation of Nature–IUCN; Executive Chairman and Co-Founder, Eco Forum Global; former Vice-Minister of Education, China), Anders Oskal (Secretary General, Association of World Reindeer Herders; Executive Director, International Centre for Reindeer Husbandry), etc.
The political positions of different countries were reflected clearly in their speeches stating their different needs in areas, such as, economic, indigenous people’s wellbeing, climate change, sea route ownership etc. This is especially interesting when US senator gave her speeches and answer questions. Journalists were there to interview different key players in the Arctic affair. Most speeches and presentations support China’s involvement in the Arctic. Chinese presenters showed video about China’s new icebreaking research vessel, Xuelong II. Iceland had many participants and presented their leadership in Green energy, especially geothermal energy. Iceland (National Energy Authority of Iceland) and China (National Geothermal R&D Center of China) signed agreement on stage for their collaboration on United Nations University – Geothermal Training Program (UNU – GTP) China Branch Establishment Memorandum.

The reason for China’s involvement in the Arctic affair becomes clear from various presentations. The most important one is the economic need, for example, the natural gas from the presentation “Commercial Operation of the Arctic Sea Passage, Yamal Energy Exploitation Cooperation with Russia” and the control of rare earth materials. The obvious one is the shorter transportation routes to Europe through arctic which is about 30% reduction in time and cost. Global warming makes it a longer possible period for this transportation. The distanced reason for entering arctic affair is climate change with extreme weather that China has experienced from the presentation “Rapid Arctic Changes and Tele-impacts on Mid-Latitude China”.

Technology development to serve the economic needs is the focus of China as reflected from presentations on “Developing Shanghai into a World-Renowned Centre for Science and Technology Innovation” and “What Technology is Needed to Open Trade in Arctic Sea Routes - The International Arctic Expedition MOSAiC”.

Overall the needs of China are clearly portrait. The needs of Arctic local community are voiced by politicians from Norway, Canada and USA but seldom mentioned by the Chinese speakers. No Russia representatives were present at this conference. To make a long-term collaboration, it should be a given and taken or win-win collaboration in practice not just in theory.
Arctic lakes and rivers can lose the diversity of freshwater species

Climate change and development threaten the health of Arctic freshwater ecosystems, with continued warming pushing cold-water species unique to the Arctic—such as the Arctic char—to the brink of regional loss, and increasing the likelihood of toxic cyanobacteria blooms, says the State of the Arctic Freshwater Biodiversity Report released during the Arctic Council’s meeting in Rovaniemi, Finland, on May 7.

“The findings of the report are alarming. Global warming is reducing the area of the region that can be considered as Arctic. The consequence is that southern species move northwards and cold tolerant species face possible local extinction when they cannot adapt or compete for resources,” says our affiliated Danny Chun Pong Lau, research assistant at the Department of Ecology and Environmental Sciences and Climate Impact Research Centre (CIRC) at Umeå University.

The report has been published by international research experts from the Conservation of Arctic Flora and Fauna’s Circumpolar Biodiversity Monitoring Program (CBMP), with Danny Chun Pong Lau as one of the co-authors.

The report provides a circumpolar synthesis of the state of knowledge about biodiversity in Arctic lakes, rivers, and associated wetlands. It identifies changes and knowledge gaps in fish, benthic macroinvertebrates, zooplankton, algae, and macrophytes, and can provide insights into the overall health of freshwater ecosystems and their ability to provide essential services on which people rely.

For the first time, experts have compiled a circumpolar database on freshwater biodiversity to keep knowledge easily updated and available.

“The aim is to make knowledge more accessible and easy to update,” says Danny Chun Pong Lau. “All data will be available in the Arctic Biodiversity Data Service online database.”

The report also identifies Arctic countries’ efforts and gaps in monitoring key elements of Arctic ecosystems, highlighting what countries can do to improve the ability to detect and report on significant changes in the Arctic.

“Specifically, the report calls for better coordination, standardisation of methods and increased use of emerging technologies such as remote sensing and DNA bar-coding,” says Danny Chun Pong Lau. “We also need to balance our research findings with consideration of traditional knowledge and local knowledge, better engagement with local and Indigenous communities in the Arctic region, and a stronger commitment to support continued development and maintenance of the CBMP.

Read the whole report or watch a video clip that summarises the most important results on CAFF’s web page.
Karin Stenberg
Maria Katrina Stenberg, commonly known as Karin Stenberg, was born in 1884 in Årraksuoloj, Arvidsjaur Municipality, Norrbotten County. She spent her entire professional career working as a teacher in Arvidsjaur. In addition to teaching, she was an active supporter of Sami issues, especially those relating to the Forest Sami. In 1905, she traveled to Stockholm to attend what has been called the "First folk education course for Samis". In 1916, she helped found a Sami association in Arvidsjaur. During 1919, she joined several other representatives of the growing Sami movement in meeting with member of parliament Carl Lindhagen, who supported Sami rights.

In 1920, she co-authored the manifesto Dat Läh Mi-jen Situd. The purpose of the document was to influence the 1919 Lapp Committee, which was investigating Sami rights and the conditions of reindeer herders.

In the 1930s, Karin led a project to save Arvidsjaur’s old Sami kyrkstad which was threatened by road construction. Lappstan is today preserved as a historical site.

In 1942, Karin and Reverend Gustav Park led an initiative to open the Sami Folk High School (Samernas Folkhögskola), for the Sami in Sorsele. The school is still in operation. She was also a leader in the Sami organization Same Ätnam, which was founded in Jokkmokk in 1945.

Karin received several awards over the course of her life, including the Royal Patriotic Society’s medal, the Olof Högberg Award, and the Swedish Craft Association’s silver medal. She was also a member of the Order of Vasa, first class.

Anthology about forest Sami pioneer Karin Stenberg
On May 8 an open meeting was held in Arvidsjaur/Árviesjávvrie about an upcoming reworked re-release anthology of Karin Stenberg’s and Valdemar Lindholm’s text Dat läh mijen situd - This Is Our Wish: An Appeal to the Swedish Nation from the Sami People.

Organizers of the event were the Forest Sami Research platform and the editorial committee consists of historian Bertil Marklund and Arcum affiliated researchers Lena Maria Nilsson, Krister Stoor and Åsa Össbo.

Karin Stenberg was a forest sami political leader who's deeds still to this day holds meaning for the Sami people. She fought for equal treatment between Sami and Swedes, forest Sami and mountain Sami, the preservation of the so called Lappstaden (Lapp city) in Arvidsjaur and was one of the names behind the Sami organization Same Ätnam.

The meeting was organized through a cooperation between Vaartoe and Arvidsjaur municipality with support from Arcum and the Åke Wikberg foundation.

Some participants gathered at Karin Stenberg’s old traditional Sami kåta. From the left: Gry Helen Sivertsen, Gunilla Larsson, Ivan Eriksson, Lena Maria Nilsson, Lars Stenberg, Aina Nilsson, Ingvar Larsson, Krister Stoor, Åsa Össbo, Bertil Marklund, Olavi Korhonen, Johan Kihlert. Photo Mariann Lörstrand
Students from the human rights organisation Jus Humanis Human Rights Network at Lund university visited Arcum on May 13 as a part of their Sami research trip in Norrland.

Eight students from the Study Circle on the Sami people at Jus Humanis Human Rights Network visited Vaartoe and Arcum at Umeå university to participate in lectures and meet the directors at both research centers. The students were given books to bring back to their library where they hope to start a Sami section.

Jus Humanis International Human Rights Network is a non-governmental organization dedicated to the promotion and protection of universal human rights and democracy, through various means such as investigation, publication, research and seminars. Jus Humanis was founded in Lund, Sweden in December 2005, and the headquarters of the organization are based there.

Project to help stop death of bees and other insects

Our affiliated researcher Natuschka Lee at the department of ecology and environmental sciences is part of a new project to build and spread new knowledge about bees and other insects in Norrland.

The project has identified the need for new knowledge about the conditions for bees and insects in Northern Sweden.

Insect populations have been declining steadily and rapidly across the world for the last century. Scientists at Umeå University, including Arcum-affiliated Natuschka Lee, are now launching a project with a related outreach campaign aimed at spreading knowledge about the issue.

Natuschka Lee has previously studied microbial diversity in different natural or anthropogenic ecosystems, such as aquatic (lakes, wastewater treatment plants) and terrestrial systems (soil, sediments, including association to organisms like plants), above or below ground.
On the ninth of May 2019 the first out of five planned events on the Arctic Five science tour took place in Luleå at Kunskapens Hus. The event, that is supported by Arcum, was a success with many participants from a variety of different backgrounds. We interviewed Jonas Ericson, communications officer for the project, after the event.

How did you arrive at the idea of doing a science tour?

We want to spread the knowledge about the Arctic region that is being gathered at these five universities. Not only between us, but to the general public, student and employees at these places which we are visiting. This type of Arctic research is so much more than just icebergs and polar bears – it is about we who live our lives here in the Arctic region.

What was the thought behind making it popular science?

We try to reach outside the traditional boundaries of this research – to science communities around here, the interested public, so that they get the opportunity to listen to the latest research in their region. We also want to strengthen the bonds between the participating researchers, and these universities, both professionally and collegially. The concept is to travel with three researchers and meet up with three other researcher so that they can meet and get to know each other. This can in turn lead to practically anything, and good cooperation. Through this project we want to contribute with a meeting spot, basically.

What can other universities, projects and researchers learn from this way of working?

I think that it is all about contributing to society, by showing research in an approachable manner; to make research available to everyone. That is why I think this sort of project is so good.

Do you have any personal reflections from the event in Luleå? How did it go?

If was mostly worried about whether or not anyone would actually come to the event. Marketing is key, and we got started very late with that. But there were loads of participants! And what was even better was that there was a great variety; the general public, student and even business representatives. We had participants from the building sector, regional organizations etc. and I think that that is proof of how engaging this concept really is. I mean, here is a university spreading knowledge of the latest research findings in the own region – and the interest is through the roof. And I think that is just great!
Our affiliated senior research assistant Jundan Zhang, known as Jasmine, at the unit of history of science and ideas, at the department of historical, philosophical and religious studies, was granted strategic funding from Arcum to perform a workshop in Umeå earlier this year.

On April 29 the workshop China tourism in the Arctic was held in Umeå. The aim of this workshop is to connect research and practice, as well as to bring together the global/regional and local perspectives, in order to discuss issues concerning the increasing Chinese tourism in the European Arctic region. Researchers in this fields from Norway, Finland, Iceland, Sweden and Denmark, local tourism DMOs in Västerbotten, as well as Chinese and Swedish tourism entrepreneurs were invited to the workshop. We had a productive day identifying and discussing the following themes and questions:

Destination and products development – Supply
· issues on defining Arctic destinations to the Chinese market, cross-cultural understanding in order to design better products & experiences for sustainable business operations, defining niche of China tourism

Community preparation and adaptation
· issues on tourism competency, the local communities’ participation in the Arctic tourism

Market – Demand and expectations
· issues on tourist statistics, tourist expectations and cross-cultural encounters

Transferrable knowledge
· issues on sustainability, environmental knowledge and knowledge exchange between China and the Arctic through tourism

At the end of the workshop we, the researchers, decided to apply for a call at the Belmont Forum, which deals with the resilience of Arctic communities. The application is now underway with the collaboration between Umeå University, Wageningen University & Research, University of Tromso, Roskilde University, and Cape Breton University.

The North Pacific Research Board is seeking nominations to fill one seat representing the Arctic region on its Advisory Panel and three seats on its Science Panel, beginning October 1, 2019. The deadline for receipt of nomination materials is 4:00 pm AK, Thursday, June 20, 2019.

The Advisory Panel
represents stakeholders, user groups, and other interested parties from regions within the Board’s purview: The Gulf of Alaska, the Bering Sea, and the Arctic, and one at-large seat. Appointments are for three-year terms, with a maximum of two consecutive terms. The seat currently vacant and advertised here represents the Arctic region.

Science Panel Info
Desired qualifications for the three seats opening on the Science Panel include expertise in one or more of the following categories:

1) biological oceanography and/or plankton ecology;
2) marine birds, including population studies, spatial ecology, and/or acoustic monitoring;
3) marine mammals, including population studies, spatial ecology, and/or acoustic monitoring; or
4) genetics and/or genomic modelling.

Strong candidates will demonstrate applied expertise, knowledge of pressing fisheries management issues, research needs, and priorities of state and/or federal managers.

More information
Short presentation of those who recently joined our network

Eavan O’Dochartaigh is a postdoctoral researcher at Humlab. Her project, Arctic Visible (ARCVIS), gathers and maps representation of indigenous people in the nineteenth century.

Petter Stoor is an affiliated researcher at the department of epidemiology and global health, and a PhD student at Sámi Norwegian National Advisory Unit on Mental Health and Substance Abuse, Finnmark county hospital trust, Norway.

Erling Lundevaller is a statistician and associate professor at Umeå School of Business, Economics and Statistics (USBE) as well as associate professor at Centre for Demographic and Ageing Research at Umeå University (CEDAR).

Patrik Eklund is a professor at the department of computing science and currently involved in several projects, for example DT-SAPS, A digital twin to support sustainable and available production as a service.

Hanna Vikström is a postdoctoral researcher at the department of historical, philosophical and religious studies, the unit history of science and ideas. She recently wrote an article Supply Crisis?: Sweden’s Critical Metals, 1917–2014.

Dalia Abdelfattah is a postdoctoral researcher at the department of chemistry and a member of Bio4Energy program. Currently working on life cycle assessment and sustainability production of renewable energy systems.

Rolf Hugoson is associate professor at the department of political science. He has been focusing on sustainability in European cities, culture and history.

Sven Arne Silfverdal is a senior lecturer/senior physician at the department of clinical sciences and has studied Vitamin D Insufficiency among Women Post-Partum in Northern Sweden amongst other things.

Thoroddur Bjarnason is an Icelandic sociologist and professor at the University of Akureyri with a specialty in urban/rural Sociology.

Malcolm Lillie is a professor at the department of historical, philosophical and religious studies at archaeology.

The Swedish state museums for world culture is based in Gothenburg, displaying and revitalizing the world’s culture promoting interdisciplinary knowledge and public activities. Right now the museum home to the exhibition Voices from the Arctic.
UPCOMING EVENTS

June 10 - 14 Umeå Local Democracy Academy
June 19-20 Paris Changing Arctic - Impact of new technologies and traditional know-how
June 26-29 Alaska Study of Food and Society & Agriculture, Food, and Human Values Society
June 27-29 Yakutsk Indigenous Languages and Sustainable Development in the Arctic

July 17-18 Washington/online Impacts of an Ice-Diminishing Arctic on Naval and Maritime Operations
July 29 - Aug 2 Umeå Summer School on Sustainable Climate Risk Management

August 18-22 Québec Int. Conference on Cold Regions Engineering/Canadian Permafrost Conference
August 18-23 Winnipeg Sea Ice Symposium
August 19-22 Ontario UArctic Rectors' Forum

September 3-4 Bodø Maritime Emergency Response in the Arctic - policies, capacities and competence
September 4 Luleå Swedish Polar Research Secretariat inauguration
September 4-6 Washington Arctic future 2050
September 11-13 Loughborough UK Arctic Science Conference
September 23-26 Fairbanks Alaska Unmanned Aircraft Systems Interest Group Meeting
September 23-25 Charlottesville Bridging Science, Art, and Community in the New Arctic
September 24-28 Yakutsk Northern Sustainable Development Forum

October 1- 4 Rome Arctic Awareness Week
October 2-7 Nuuk NUNAMED Conference
October 3-4 Umeå EU Arctic Forum
October 3-6 Montreal 21st Inuit Studies Conference
October 13-18 Selfoss Large-scale Volcanism in the Arctic: The Role of the Mantle and Tectonics.
October 17-18 Ohio Women in Antarctica: Celebrating 50 years of Exploration
October 23-25 Psyov Problems and Perspectives of Social Responsibility in Natural Resources
October 25-27 Anchorage Int. Cooperative Engagement Program for Polar Research conference

November 6 Hanover ...Global Health Security Risks from Microbial Threats in the Arctic
November 12 Umeå Polarforum
November 12-13 Rovaniemi Arctic Spirit Conference
November 18-22 Helsinki Polar Data Forum III

December 2-5 Nuuk Greenland Science Week -Polar Research Day
December 2-5 Halifax ArcticNet Annual Scientific Meeting
December 12 Umeå Umeå Arctic Forum

List of arctic events 2020
March 2-6 Tokyo International Symposium on Arctic Research
March 27 -April 2 Akureyri Arctic Science Summit Week
April 21-23 Reykjavik International Symposium on Plastics in the Arctic and Sub-Arctic Region
June 15-20 Arkhangelsk ICASS X International Congress of Arctic Social Science
September 21-24 Reykjavik International Symposium on Ice, Snow and Water in a Warming World
October 6–8 Reykjavik UArctic Congress
October 8-11 Reykjavik Arctic Circle

List of arctic events 2021
March 19-26 Lisbon Arctic Science Summit Week

Updated list on our website
NEW STAFF AT ARCUM

During the next four years **Niklas Eklund** will on part time assist the director in the assignments to maintain and develop Arcum.

Niklas will together with the director be responsible to lead, plan and expand Arcum and be responsible for the finances and staff in the day to day work. He will supervise the collaboration within project management, publications, international networks, seminars and lead the strategic planning.

Niklas will be responsible to maintain and expand Arcums place as a strong research environment with national proficiency in extensive research areas.

5 quick questions

What song have you memorized?
Logical song by Supertramp

What do you consider your best find?
The realization that how you discuss knowledge and with whom makes a lot of difference

What pets did you have growing up?
A black-and-tan Cavalier King Charles Spaniel called Isabelle, undisputed queen of the house in those days.

What takes up too much of your time?
Difficult question, at work or in private? I’m busy. Pass.

What do you wish you knew more about?
How we may reconcile the beauty of humanity with the horror of it.

Photo: Vishal Amin
CALL FOR CONFERENCE ABSTRACTS: ROVANIEMI ARCTIC SPIRIT 2019

Call for Conference Abstracts; Rovaniemi Arctic Spirit 2019, 12-13 November, Rovaniemi, Finland

Organizers invite abstracts for the Rovaniemi Arctic Spirit 2019 conference. The theme of this conference is "Climate Change and Future Generations" and will focus on climate change in the Arctic, especially from the viewpoint of young people and future generations. The conference will convene 12-13 November 2019 in Rovaniemi, Finland.

The first day of the conference will feature expert talks and panel discussions, and the second day will feature thematic sessions with oral presentations.

Organizers invite abstracts for papers and presentations covering the following themes:
- Climate change as a challenge for organizations in the Arctic;
- Climate change and the rights of present and future generations;
- Live, work or leave? Youth well-being and the viability of Arctic towns and cities;
- Polar regional change: physical, social-ecological, and economic feedbacks; and
- Arctic entwinements of energy, climate, and politics.

Abstracts should be no more than 300 words and include the submitter’s name, title, affiliation, and contact information. Submitters should specify to which session/theme they are submitting the abstract. Abstracts must be submitted by email to rovaniemi.arcticspirit@ulapland.fi. Deadline: 23 August 2019

More information about abstract submission
More information about the conference

APPLICATIONS FOR DEVELOPMENT FUNDS FOR COOPERATION AROUND AGENDA 2030

The department for external relations has opened calls for applications for cooperation, with the goal of stimulation collaborations projects at Umeå University and the surrounding society.

The project should apply itself to social issue and be able to connect to one of the the United Nations 17 goals for sustainable development. The main applicants must be a researcher or lecturer at Umeå University and the maximum amount of funding per project is 50 000 SEK.

Deadline 1: June 10
Deadline 2: October 14 (prel)
More info (in Swedish)
Vinnova finances development and innovation projects that, in a pioneering and cross-border way, will contribute to a climate-neutral society. The projects should develop new knowledge and competences that contribute to significant social benefits.

The transition to a climate-neutral society will require development in a number of areas with both indirect and direct impact on the climate. Here are some examples of which issues that address call for proposal’s overall objective:

**Environment**
- Policy and behavioral issues that promote the transition to a climate-neutral and circular economy, in these issues also include regulations, policy instruments, business models, incentive structures and consumption behaviors.
- How the banking and insurance industry can support the transition to a climate-neutral and circular economy. To enable and accelerate the change in these areas, new ways of assessing, evaluating and managing risks and opportunities are required.

**Transport**
- In a Europe comparison, the reliability of the Swedish railway system is low. How can its quality and disturbance deficiencies be prevented?
- The improvement measures that have been taken in recent years within public Transport have in many cases led to greatly increased costs which are not matched by revenue increases. What can be done to break the evolution of public Transport’s runaway costs that are unsustainable in the long term?

**Sustainable cities**
- How can housing and urban environments be made sustainable from an economic and social perspective while radically reducing its climate footprint? To achieve this, new green business models are needed that contribute to a transition to climate-neutral and inclusive cities.
- How can universal design be integrated in the early stages of the urban development process, to help create inclusive, safe and climate-neutral cities?

**What can you apply for?**
Creative and groundbreaking ideas on how we can achieve a climate-neutral society in the areas of the environment, transport and sustainable cities.

**Who can apply?**
The call is for public organizations, companies, non-profit organizations and research organizations. The constellation of actors shall consist of at least two parties, of which at least one shall be a research organization.

**How much can you apply for?**
The maximum contribution amount is SEK 6.5 million. The support level is max. 100 percent.

Deadline: **June 11**

More info
DIGITAL TRANSFORMATION OF THE FOOD SYSTEM

Within the National Research Programme for Food, Formas announces up to 60 million SEK over three years for projects that contributes to the digital transformation of the food system.

Our food system includes all raw materials, processes and infrastructures that are associated with primary production, industry trade, retail, transport and consumption of food. The food system is the foundation for our food supply and there are clear connections between our food and our health. We are today facing a challenge to provide the global population with food and at the same time there is a big need of extensive changes in the food system in order to fulfill the global sustainable development goals regarding for example, climate and environment. The food sector has here much to gain by integrating the usage of cutting-edge digital competence and digital tools.

In this call, within the The National Research Programme for Food, Formas therefore announces up to 60 million SEK over three years for projects with a clear interdisciplinary approach that combines food science research with digital competences to increase competitiveness and sustainability in the food system.

Deadline: August 22
More info

CIRCULAR ECONOMY FOR THE WHOLE SOCIETY

Formas announces a funding call of 20 million SEK for two years for projects analyzing the effects in society of circular economy.

The transition to a circular economy is an important part of the development towards a sustainable society since reuse, remanufacturing and recycling contribute to the long-term use of materials and other resources. An extended material lifespan helps to reduce waste and its negative effects and to reduce “unnecessary” extractions of natural resources. This contributes to remaining within the planetary boundaries, which in turn contributes to improved conditions for a sustainable society. This applies to both bio-based and non-bio-based resources. In recent years, major investments have been made in research, development and innovation to increase knowledge and enable a more circular economy. However, the linear economy still dominates society.

The call is broad and does not target any particular sector, resource flow, material or product type. Instead, applicants are invited to choose, describe and explain their choice of circular solution whose socio-economic benefits we lack sufficient knowledge of today.

Deadline: August 22
More info
Short presentation of activities receiving funds spring 2019

MARIA WALING
Arrange a two-day workshop about Sami food culture, cooking and food experiences where the craft, raw materials, techniques and fish, herbs and berries are at the center.

MARIA FURGERG
Participation in the workshop "Understanding and Responding to Global Health Security Risks from Microbial Threats in the Arctic" that focuses on the rapid climate changes in the Arctic.

CAROL NORBERG
Create the physics book "Arctic science" to present the gathering knowledge in a textbook at a level that can be interesting also for the public to spread information about Arctic science.

ANNA STRANDBERG
Research trips to participate in experiments and a conference for sustainable society, including a reduced dependence on fossil fuels, a better utilization of residual flows and a well-functioning recycling of nutrients.

NUNO MARQUES
Publication of a special issue of the online journal Translocal entitled "(un)inhabited spaces" and includes a section on cultural representations of the Arctic both from inside and outside.

STINA BBODÉN
Publication costs for a study about inflammation, measured as C-reactive protein levels in pre-diagnostic blood samples and risk of subtypes of colorectal cancer.

ROLF HUGOSON
Research trip to compare two Arctic Smart City projects, focusing on problems and opportunities related to specializations on different activities, inclusion/exclusion and collaboration.

ELLEN DORREPAAL
Invitation of researcher for performing complementary measurements in a long-term, warming and fire chronosequence experiment in the high-latitude forest, for working on a joined manuscript, and discussing further collaboration.

JONAS ALÉX
Participation in the "World Association for Disaster and Emergency Medicine" (WADEM) to discuss hypothermia in disasters and mass damage events.

SVEN RÖNNBÄCK
A project to create a small robot that inventory flowers. The robot will automatically searches for flowers, identifies and invents them. A demo project where AI technology is used to recognize and identify a few known flowers.

LINA GYLLENCREUTZ
Participation in the "World Association for Disaster and Emergency Medicine" (WADEM) to discuss quality indicators for major incidents and evaluating full-scale exercises to optimize patient outcome in underground mines.
Arcum

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Umeå University
SE -901 87 Umeå

Visiting address:
Humanioragränd
North Behavioral Science building
Floor 1 (from Sep 1: floor 3)

If you want a post on the Arcum Facebook page or an Arcum-tweet on a new publication or an upcoming event send an e-mail to Anngelica Kristoferqvist.

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