

THE ARCTIC CALLS

Finland, the European Union
and the Arctic Region

MARKKU HEIKKILÄ • MARJO LAUKKANEN

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© Arctic Centre: Map by Olaus Magnus from 1665.



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Arctic Centre
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The Arctic Calls

The entire world community is increasingly interested in the northern parts of our planet. This is understandable, as developments in the Arctic also affect people living a long way from the region. Climate change is progressing more rapidly in the Arctic than anywhere else. Demand for energy is also growing, resulting in an increased interest in the natural resources of the Arctic Ocean. The sea routes that are now opening up in the Arctic Ocean also offer more rapid navigation from the Far East to Europe and North America.

Managing development in the Arctic is a crucial issue, both for the states and populations of the region itself and for the rest of the world. The region must understand its global position and responsibilities, while outside stakeholders must respect the rights of the Arctic states and seek to work with them smoothly and effectively. We must consolidate the status of international law as the foundation of this work while establishing new best practices.

Security in the Arctic is not threatened as much by the presence of armed forces as by the strains on the environment caused by climate change, increased human activity, the challenge of ensuring energy supplies, the risks of Arctic logistics, and social tensions. We must therefore view the overall security of the region from a broad perspective that includes our northern values, biological diversity, and the traditional knowledge of indigenous peoples.

The growing strategic and economic importance of the Arctic strengthens Finland's global position. We are an active player in the Arctic both nationally and internationally. Our revised Arctic strategy is based on applying our Arctic expertise, and on reconciling this expertise both with environmental constraints and with the principles of sustainable development.

These objectives will be achieved through international co-operation. The cornerstone of this co-operation is the Arctic Council, a body comprising eight Arctic states and the representatives of indigenous peoples. Finland has worked systematically to strengthen the status of the Arctic Council, and we also build practical and effective bilateral Arctic partnerships to complement regional co-operation.

The European Union is an influential global participant in the debate on climate change, with extensive research and funding projects in the Arctic Region. It is also an important market and partner for the Arctic states. Finland actively supports the EU's efforts to improve and more effectively define its role in the Arctic. This is demonstrated by our initiative to establish an EU Arctic Information Centre in Rovaniemi.

Arctic issues affect Finns and Finland comprehensively. They are simultaneously huge in scale but also highly personal. As we seek sustainable solutions to climate change and the global demand for energy, we must also listen to the voices of people living in the region. Successful Arctic policy requires a comprehensive approach that considers all dimensions of this unique region.

Sauli Niinistö

President of the Republic of Finland

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AROUND THE ARCTIC WORLD



© Arto Vitikka

Arctic zones



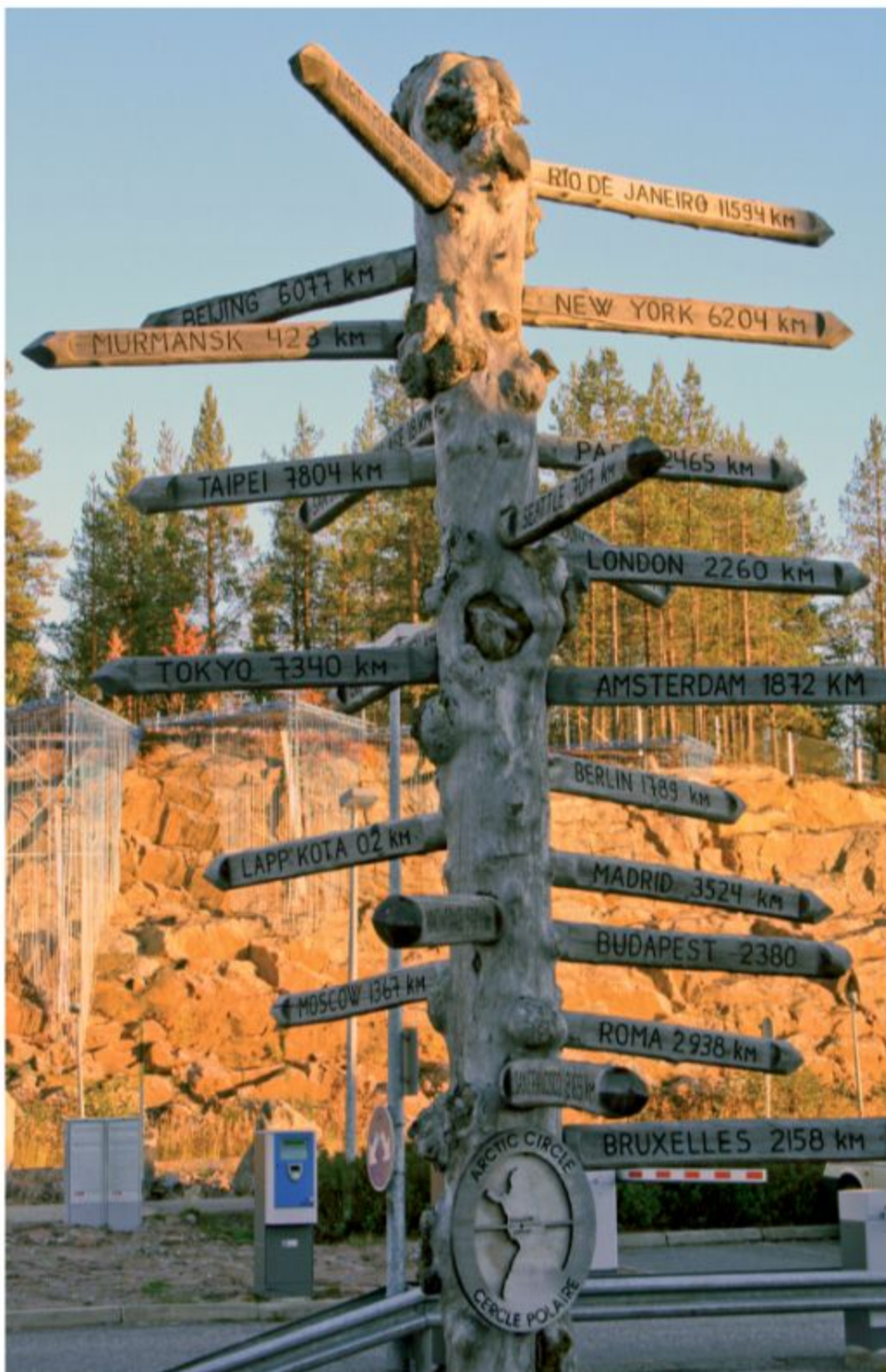
The Arctic has no precise limits. We know that it is there, but we disagree about where it begins and ends. Botanists, ice researchers, geologists, weather scientists and politicians all have their own way of talking about the Arctic: they refer to its vegetation, frost conditions, light conditions and temperature curve, and to political expediency.

The Arctic is the northern circumpolar region, the ice-covered ocean forming the white area at the top of our maps where there are no signs of human activity.

It also includes the barren northern

coasts, icy islands and fringes of three continents, Europe, Asia and America. This is a region where people fish, prospect for gas, and transport goods between distant lands. Here, nothing is like it used to be just a few decades ago.

The Arctic also means coastal cities and villages, modern centres of higher education and trade, and houses forsaken by time on windy shores. It means inland scrubland, mosquito swamps and low-lying forests. It means apartment buildings on riverbanks, and the flames of gas fields blazing in the dark of the night.



Signpost at Rovaniemi Airport.

© Arto Vitikka

It means dozens of languages and peoples that have inhabited the region since time immemorial. It means modern states and their boundaries, administrative areas, languages and military bases. It means tourists and lumberjacks, exchange students and reindeer herders, drivers and artisans.

The Arctic is like a ring tied together by the northern polar circle. In the middle there is the ocean and marine ice field, and at the edges are the cold islands, the glaciers, the continents and eight states. Some four million people call this place home.

Whether you look northwards or southwards from the Arctic Circle, the landscape

looks much the same. There is no clear boundary line. In the Nordic countries that are warmed by the Gulf Stream the polar circle runs through relatively populated areas. There are main roads here and a forested landscape. By contrast the scenery in Russia gradually changes into the treeless tundra of a continental climate. The circle touches Arctic islands and wildernesses in Alaska and Canada, while in Greenland it bisects an ice sheet.

A glimpse at the cities and villages of the Arctic reveals extremely diverse living conditions, all currently characterised by a period of transition, a newly emerged situation or the expectation of one.



The urban scenery of Murmansk, the largest city in the Arctic, is lined by high-rise apartment buildings on the treeless slopes.

© Arto Vriikka

Sample 1: Murmansk, Northwest Russia.

A tram clanks along the Prospekt Lenina. The main street features fashion houses and sushi restaurants, while bleak prefabricated houses built on treeless fell slopes appear on the horizon. A long fjord accommodates freighters and fishing vessels, with an endless row of cranes along the eastern shore. The nuclear icebreaker *Lenin* is anchored inshore as a museum, and to the north there is a military town behind security checkpoints. With some 300,000 residents Murmansk, the largest city in the Arctic, has long awaited its promised ascendancy as a centre of energy and logistics. All of the great plans have stubbornly remained on the drawing board. But there is no collapse in view, either. Murmansk was

originally built to be a gateway from the Soviet Union to the Arctic, and the city has also retained this function in modern Russia. An ice-free harbour serving the world's major oceans is something that Moscow will always need.

Sample 2: Salekhard, West Siberia.

Even though the local road network only extends to the nearest villages, barges loaded with cars move ceaselessly across the broad river. Here on the west bank of the River Ob in the northern foothills of the Urals we find Labytnangi, a couple of days from Moscow by train on a north-easterly journey through the Ural Pass. On the opposite bank stands the town of Salekhard, successor to an administrative centre founded centuries ago in this remote corner of Russia. Nowadays

A scale model of plans for Salekhard abounds in futuristic structures. Some have already been built, while others have remained on the drawing board.

© Markku Heikkilä





© Markku Heikkilä

Most long-established families in Muzhi are descended from Komi settlers who arrived here from across the Urals. Nowadays the local Komi culture revolves around the Heritage House.

the town thrives thanks to the lucrative gas industry. The scenery to the north comprises open and low-lying tundra, and the banging of piledrivers can be heard everywhere as Salekhard increases its stock of public buildings, museums and conference halls. The town already boasts a school of fine art and a mosque that shines in green and white. Its wealth comes from the lands to the north. The broad Yamal Peninsula is a fountain head of gas production that ultimately supplies the kitchens and industrial furnaces of Europe. Yamal is also home to the Nenets: an old reindeer-herding people whose herds have always migrated freely across the long distances between their summer and winter pastures. Now a network of gas pipelines criss-crosses their ancestral home region, and the future will be

shaped by the compromise between these two forms of livelihood.

Sample 3: Muzhi, West Siberia.

A few kilometres by boat from the Muzhi population centre along a tributary of the River Ob there is an open-air museum that was once a living village. The visible offerings on the sacrificial path – a reindeer hide, leather boots – nevertheless remain genuine, and the old sacred trees of this deserted village are still known. Visitors should not step onto this site unless they can show respect for what they see. The local guides do their work well. Muzhi was long inhabited by the Khanty people, but then the Komi came from the east and the Khanty retreated to this former village adjacent to

rich fishing grounds. The village survived for part of the Soviet era until it was finally deemed to be “without prospects” and was then gradually deserted. Nowadays you can only hear Russian in Muzhi, and surviving speakers of Komi or Khanty must be located individually. Nor is there any road to Muzhi from anywhere, but the village still has a population of 3,000 residents, an Internet connection and a cash machine, access to the River Ob with its innumerable cargo ships, and even a chef at the restaurant who has moved here from Tashkent in Uzbekistan. The old dwelling sites of the Khanty are spread along the river bank, many days’ boat ride away. The Khanty are a people, language and culture that ethnologists already considered to be dying out in the late 19th century – and many still think this way.



© Markku Heikkilä

Whaling is still common in Barrow, and it is also the motif of the most photographed monument on the northern shore of Alaska.

Their ancient bear ritual has survived to modern times, though few people know it now. The great silence of Siberia sounds in the breath of the wind, but one can still hear the old stories of the Khanty in the whispering of riverside forests.

Sample 4: Barrow, Alaska.

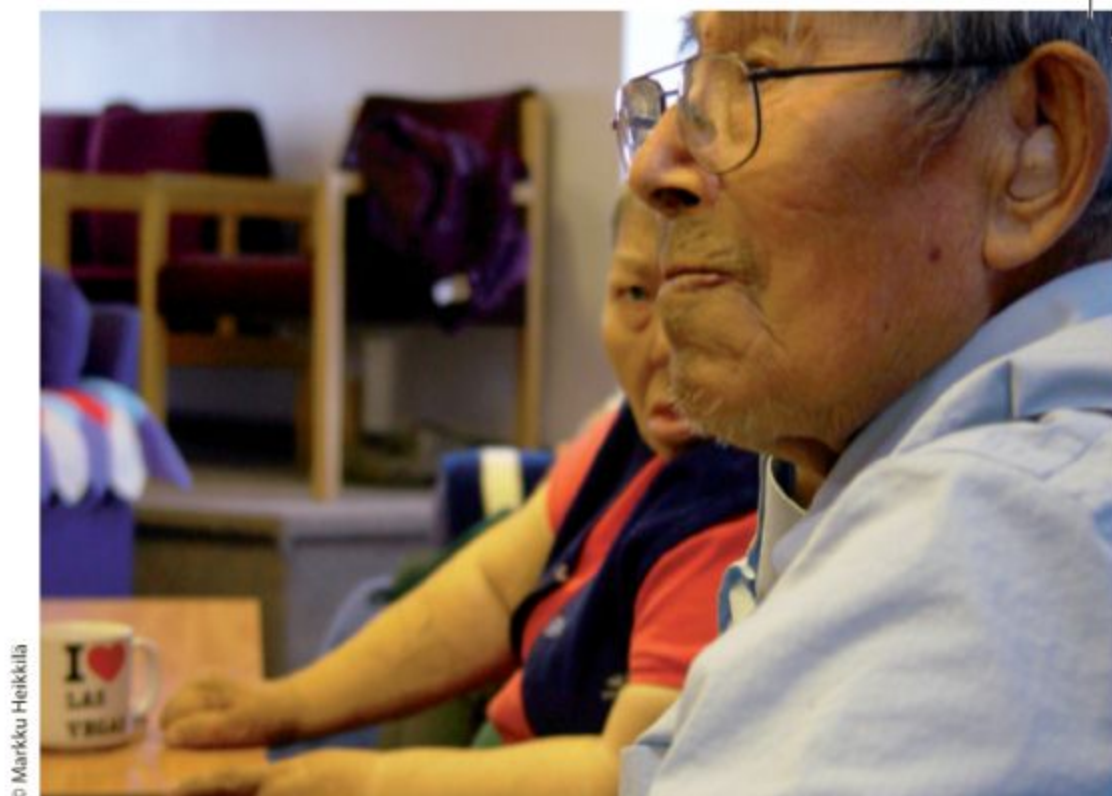
Whale ribs have been arranged on the coast as an arching monument that every visitor stops to photograph, though the number of visitors remains small. This is the north shore of Alaska and the most remote point on the American continent: the beginning of an open sea that has been a source of livelihood here for as long as human beings have inhabited the New World. That means for thousands of years. Cooked whale blubber wobbles and is translucent, whereas whale skin is thick and dark grey and whale kidney is a great delicacy. Although whaling is forbidden in general, indigenous people are allowed to continue whale hunting in traditional ways, and catching a whale is always a special occasion in these parts. The whale remains a link to a culture that has been changed and shaken profoundly. Even its language

has been supplanted by the English of newcomers. Though the radar tracking stations of the Cold War are now deserted in Barrow, its scientific research facilities still remain. The population is a diverse mix of people from many places, as is often the case in North America. The open sea is nevertheless a constant, and the shoreline runs right by the village. There are still whales and polar bears here, but the sea behaves in a new way, with the freeze coming later than in former times. The sea seems strange, and the keepers of the old knowledge can no longer read it.

Sample 5: Iqaluit, Nunavut, Canada.

Gathered in their meeting room, a group of older people discuss intensively in the Inuktitut language. The discussion is important, as new words are needed in their language. How do you describe an abstract change when your language mainly seeks to form words for concrete things? The location is Baffin Island in the northeast part of Canada, but the locals now suddenly need to define things that come from far away: the greenhouse effect, the ozone layer, a whole group of new insects. An old man at

Survival of the traditional culture and native language depends on the elders. The language needs new words to describe a changing world.



© Markku Heikkilä

the meeting drinks coffee from a mug that says *I Love Las Vegas*. Iqaluit is the capital of the Nunavut territory, where the native language has managed to resist the dominance of English. The Inuit are the majority in their own territory, which translates into democratic power to decide over things like natural resources and the right to a native language, although this does not stop numerous jobbing officers arriving here from Ottawa and other parts of Canada. Education is a challenge, social statistics reveal poor conditions and unemployment is the norm. A woman steers her boat back into the harbour from the open sea with several freshly caught bloody seals. Without seals, these shores would never have been populated.

Sample 6: Nuuk, Greenland.

Colourfully painted small houses seem to have been sprinkled on the slopes. There are several carefully designed public buildings. The eye also notes some imposing elongated prefabricated blocks that look like a monument of a certain era and way of thinking. Denmark was once keen to introduce the population of Greenland to modern life, but the attempted shortcut to contemporary lifestyles only resulted in a pile of social problems. Nowadays Greenland enjoys solid autonomy, and huge international energy and mining companies are eager to woo local policymakers. China is expressing a keen interest in the raw materials of this region, too, and no source of energy is ever overlooked. The harbour of Nuuk



© Markku Heikkilä

Long apartment buildings have been erected in Nuuk, even though the people of Greenland have traditionally lived separately in small settlements.



© Annika Blomster, www.barentsinfo.org

Tromsø, the biggest centre in Northern Norway, is an island seaport that now boasts a university and active cultural life.

is a favoured destination of long-distance cruise liners that bring tourists here to see the glaciers while they still have a chance to do so. Chillingly white icebergs float in the deep blue of the sea to the delight or alarm of climate tourists. In many ways the capital of Greenland is facing a new era, governing a huge area that yearns for full independence, even though the entire island has fewer than 60,000 inhabitants. Human resources will be urgently required if Greenland is to manage change, and the graduation of fourteen new teachers from university was an important news story in summer 2012.

Sample 7: Tromsø, Norway.

The musical *Les Misérables* is running in the theatre. The art museum has an exhibition of works by David Hockney, who is described as an international star. A music festival and film festival will soon take place in the city. The downtown waterfront is filled with life, restaurants and cafés. Students at the university are outspoken on global issues. A Hurtigruten cruiser honks in the harbour on its way north or south. The airport departure board lists thirty destinations, including Oslo, Svalbard, Palma, Antalya, Archangel, and various settlements in the

north of the country. Norway has been systematically developing Tromsø into its own centre in the Arctic, resulting in an alert and vibrant maritime city that looks to the sea for further reinforcement of its affluence and self-confidence.

Sample 8: Haparanda, Sweden.

The Torne River is a centuries-old trade route from the Gulf of Bothnia in the Baltic Sea to the wilds of Lapland. Since 1809 this river has also marked the boundary between two countries, as this was the year when the eastern part of Sweden became part of Russia. It was this Grand Duchy of Finland that eventually became an independent state. The historic city of Tornio that stands on the Finnish side of the delta was partnered by the Swedish town of Haparanda founded on the other side of the frontier, and for many years the Customs played an important role in the life of these border towns. Only with the relaxation of passport controls and the advent of the European internal market did the old regime finally end. Nowadays these towns form a twin city that is growing together, and the precise location of the border is no longer easy to notice. The Ikea store in Haparanda standardly flies the flags of Sweden, Finland,

The border towns Haparanda and Tornio have really grown together since both Sweden and Finland joined the European Union.

© Thomas Nilsen, www.barentsinfo.org



Norway, Russia and Sápmi, the land of the Sámi, with customer service in Finnish and Swedish and payment in euros or crowns. There are more shops on both sides of the border than one might expect on the basis of the local population. This is one of the main business centres of the entire Barents Region, visited regularly by people from hundreds of kilometres away. A settlement originally based on a trade area with no borders is now re-emerging as the importance of borders again diminishes.

Sample 9: Sodankylä, Finland.

A new nursery school is under construction and new housing areas have been planned. New customers are visiting the local shops. A new nickel mine has opened in this district of Finnish Lapland – which already boasts a gold mine – and prospectors have found world-

class ore deposits in the ground beneath an aapa bog conservation area. The nearest railway station is more than a hundred kilometres away in Rovaniemi, and a keen local debate nevertheless focuses on where to build a new line and station to serve the town. People envisage a railway running all the way to the Arctic Ocean, hundreds of kilometres to the north, as a metal extension to the Northeast Passage. But the greatest change is yet to come as we await the magic break-even point in world market prices that will determine the future of Sodankylä. Until the new mining venture turned the tide in 2011 the population of the town was in long-term decline, only surviving as Finland's northernmost garrison settlement. Sodankylä is nevertheless also renowned for its Midnight Sun Film Festival, which attracts world-famous directors to the area every year. It may soon become a burgeoning mining city – unless market forces decide otherwise.



© Kalervo Kaisanlahti, Sodankylä municipality.

If all plans are realised, then Sodankylä will be transformed from a sleepy settlement into a centre for Arctic mining.



AT HOME IN THE NORTH



© Jouni Näkkälä



Every weekday the national TV companies of Finland, Sweden and Norway air a network news broadcast in a language that is neither Finnish, Swedish nor Norwegian. The Sámi news programme *Oddasat* modestly transcends national borders with 15-minute broadcasts that illustrate the true character of the Sámi Region as modern, diverse, communal and full of contradictions. The region is alive and well; a contemporary fact of life that quite probably confounds the many and varied images harboured by outsiders. The male presenters are more typically seen in suit and tie than in the colourful outfits of the Sámi people.

The Arctic and its people live in modernity, but who are they and where do they have their roots?

The Arctic is currently home to four million people, of whom some 300,000 are indigenous. The history of the area stretches back thousands of years. Stone Age relics have been found in various places, and it is evident that these coastlines, river banks and lands have not stood empty over the years. People have

lived, traded and built their own cultures here ever since the great ice sheets receded – since time immemorial.

Europeans came to Canada as fur traders, missionaries, settlers and officials of an emerging new country. Here they met the nations that are now called the Indians and Inuit. The latter were long referred to as Eskimos – their name in Indian languages – but today this word is considered politically incorrect. The encounter between these nations and French and British fur traders in the region of Hudson Bay gave rise to a group that is nowadays recognised under a separate identity: the Métis.

Human migrants first crossed the land bridge from Asia to America roughly 15,000 years ago, and the area of Alaska has been inhabited ever since. Modern Europeans also came from the East as the reach of Imperial Russia extended, and for a while Alaska was even a forward bridgehead of the Russian Empire in North America until it was sold to the USA in 1867.

Viking explorers built a settlement on the southern tip of the island of Green-



© Lawrence Hislop, www.grida.no

The Greenland Dog is one of the world's oldest breeds. This strong and hardy variety has worked as a sled and hunting dog for thousands of years.



Inuksuk

- A stone mound landmark built by the Inuit of the Canadian Arctic to provide reference points on the landscape and to mark important sites
- *Innunquaq* is a human figure made this way
- These marks nowadays symbolise the entire Canadian Arctic. An *inuksuk* decorates the flag of Nunavut, a northern territory of Canada. The 2010 Winter Olympics in Vancouver used an *innunquaq* as their symbol, even though the games were not arranged in the Arctic

Visitors to the Canadian North inevitably find the Inuksuk mark, here painted as decoration on a wall in Iqaluit, the capital of the Nunavut territory.

© Markku Heikkilä



Fishing is a key source of livelihood in Lofoten, Norway. The islands are renowned as a great place for cod fishing, as Barents Sea cod come to Lofoten for winter spawning. The fish has traditionally been preserved by drying.



© Riku Lavia

land a millennium ago. This colony lasted for 500 years. Danes gradually began to settle there again from the 1700s and Greenland became a Danish colony. Even before and during the Viking and Danish presence, the island was populated by several cultures that had come from the Arctic islands of Canada in several waves of migration. These were the ancestors of the present Inuit.

Iceland was uninhabited before the Vikings arrived.

The north of Russia and Siberia has been home to various peoples, languages and cultures that gradually came within the ambit of the Russian state through administrative centres, missionaries, military expeditions and trade routes. The real demographic transition nevertheless only began with the USSR through forced collectivisation, the command economy and the arrival of the mining and energy industry. This period drastically changed the demographic and cultural structure of the northlands.

It is impossible to specify precisely when the histories of the Sámi and the dominant populations began to intersect in the Nordic countries. We know that the Sámi Region, or Sápmi, used to be larger: there are place names deriving from the Sámi language all over Finland. The present situation is the outcome of sustained cultural, social and economic development. Non-Sámi settlement also has roots stretching back centuries in the north,

and the dividing lines between population groups are clear neither in the Sámi Region nor elsewhere.

Identity is no longer tied to place of residence in the modern world. Many Sámi live far from their ancestral homeland while newcomers continually move from the south to the north.

Tourists, students, soldiers, sailors, migrant workers, scientists – you can find all of these in the Arctic nowadays.

The warmth of the Gulf Stream and the limits of the tundra

The warming effect of the Gulf Stream ensures that there is no appreciable difference between living conditions in northern Norway, Sweden and Finland and northwest Russia and more southerly regions of these countries. The infrastructure of the north is tightly integrated with the rest of the country, which also affects livelihoods and settlement. Agriculture in Finland is practised at latitudes where there is nothing but tundra in North America and Siberia.

The towns and villages of the Nordic countries lying around and to the north of the Arctic Circle are historically connected with the general development of these countries: with their fishing, forestry and mining industries and their public administration. The differences compared to the rest of the country are mainly due

The Khanty are one of numerous indigenous peoples in Russia. Presently numbering 28,000, slightly fewer than half speak the Khanty language.

© Markku Heikkilä



to low population, long distances, the small scale of agriculture and the realities of geography: meaning harsh weather conditions and extreme variation in the length of days. The Arctic Circle marks the boundary of a region where the sun neither sets at midsummer nor rises in the heart of winter.

The Arctic regions of inland Russia have a character all of their own, with industrial enterprises, mines and population centres found far from the beaten track and transport communications available only by air in winter and by water in summer.

This also affects the quality of settlements and the roots of the population in such regions. The largest Arctic cities in Russia, for example, are typically creations of the Soviet economy that were built to meet certain needs of the state. Their people are generally first or, at most, second generation residents of the area. They came here to work or in the hope of a higher income, and few of them plan to remain in the north for their entire lives. Settlement is much more established in areas where it has arisen more naturally.

Settlement in Greenland is confined to

© Arto Vitikka



Syktvkar is the capital of the Republic of Komi. There has been a population centre here since the 16th century. Many of the present buildings were constructed in the Soviet era.

Population centres in the north



small coastal communities, as the inland region is icebound. Although Canada is a very Arctic state in terms of geography, its northern region is sparsely populated with no heavy Arctic mineral or energy industry to match that of Russia.

Three maps

Three maps can tell us everything essential about the people of the Arctic.

The first map shows population density. There are no cities with more than one million residents. Two dots represent cities of more than one hundred thousand people in the Arctic proper: Murmansk and Norilsk. A few more can

be found near the Arctic boundary, such as Anchorage, Archangel and Oulu. Cities with a population of tens of thousands are important centres in the region. These include Rovaniemi in Finland, Tromsø in Norway, Akureyri in Iceland, Fairbanks in Alaska, and Salekhard and Yakutsk in Russia. Many dots on the map symbolise very small communities with no other signs of settlement nearby: Resolute Bay, Longyearbyen, Inuvik, Varandey, Tiksi. Vast areas of Siberia and Canada have no signs of settlement.

The northern zones are a notable exception on a planet of more than seven billion people. These huge regions are primarily characterised by a lack of hu-



man activity, or at least settlement. People are very often concentrated in population centres and towns, with a trend to urbanisation even in areas where few people live. One in five of the approximately 30,000 inhabitants of the enormous territory of Nunavut in Northern Canada, for example, lives in the capital Iqaluit.

Eight states

The second map shows the boundaries between states and administrative areas, indicating that eight states have borders extending to the Arctic. There are no national capitals here, as even Iceland's Reykjavik lies south of the

Arctic Circle. The capitals of the Arctic states – Moscow, Washington, Ottawa, Copenhagen, Stockholm, Helsinki and Oslo – are all elsewhere in their countries, with the Arctic regions very much perceived as peripheral territories.

This map also shows that of the world's great powers the USA and Russia have Arctic regions, whereas China has none. The territory of the European Union also extends to the Land of the Midnight Sun.

Finland and Sweden are the only Arctic countries with no northern coastline, while the other countries have harbours with immediate access to whatever can be found on or below the surface of the northern seas. While there are no states



Arctic indigenous peoples by language group

in Antarctica, every bit of land in the circumpolar area of the north belongs to some country, including the uninhabited islands of the Arctic seas.

Dozens of peoples

The third map displays the peoples of the Arctic, and it is very different from the political map of states. There are dozens of peoples with no sharp boundary lines. The emergence of precise boundaries and separate states is a recent phenomenon from the perspective of the north.

The concept of “indigenous traditional knowledge” figures heavily in any discussion of this region. This reflects human

cultures that are completely adapted to their surroundings and pass down their profound understanding of their habitat from one generation to the next. In contemporary use it also marks the pace of climate change, as established ways of reading and interpreting natural conditions are no longer necessarily valid.

The indigenous peoples of the Arctic are affected by and adapt to global warming in the same way as other nations. Climate change has an impact on traditional sources of livelihood, but these have also been affected by such developments as the birth of nation-states, the spread of Christianity, educational systems and residential schools, Soviet collectivisa-

tion, alcohol, new sources of income and ways of life, new vehicles, and new technology and modern telecommunications. Indigenous peoples have adapted to these changes in one way or another, and there is no returning to the past even where traditions are cherished.

Over their history indigenous peoples have used certain territories for traditional livelihoods, but the legal concept of land ownership was introduced to their regions only with the formation of modern states. This means that the title of indigenous peoples to land has been a politically charged and difficult issue.

North America has witnessed many long and complex land treaty negotiations between indigenous peoples and the state, with proprietary rights to the land and its natural resources restored to local communities. There is no corresponding mechanism in Russia. The Finnmark Act that governs Norway's northernmost province grants the local population more power to determine the use of land than local residents have elsewhere in the country. This law nevertheless applies to the entire population of the province, and not only to the indigenous Sámi.

Convention No. 169 of the International Labour Organisation ILO guarantees the rights of indigenous peoples to their traditional territories, but Norway and Denmark are the only Arctic countries that have ratified this instrument. Ratification has been discussed for years in Finland without progress. There is no agreement on what ratification would mean in practice. The local, often heated debate has focused on how potential land rights would be implemented and who can be classified as Sámi when the definition is officially based on linguistic criteria and self-identification.

The status of the Sámi as an indigenous people has been stipulated in the Finnish Constitution, which guarantees Sámi cultural autonomy in matters of language and culture.



The Sámi flag was officially recognised in 1986. Its motif comes from the Sámi drum and the poem *Biejjen baarnieh* ("The Sons of the Sun") by the Swedish Sámi Anders Fjellner (1795–1876). The flag was designed by the Norwegian Sámi artist Astrid Båhl.

The Sámi

- A people living in four countries (Norway, Sweden, Finland, Russia)
- The only indigenous people in the EU
- The Sámi population is usually estimated at 70,000–100,000. There are no official statistics
- There are about 40,000 Sámi in Norway, about 20,000 in Sweden, almost 10,000 in Finland, and about 2,000 in Russia
- Several Sámi languages are spoken in each country to which *Sápmi*, the Sámi Region, extends
- The existing Sámi languages are South Sámi, Ume Sámi, Pite Sámi, Lule Sámi, North Sámi, Inari Sámi, Skolt Sámi, Kildin Sámi and Ter Sámi
- North Sámi is the most securely established Sámi language. Several Sámi languages have only a few hundred speakers
- The Sámi languages belong to the Finno-Ugrian language group
- There are elected Sámi parliamentary assemblies in Finland, Sweden and Norway
- The Sámi are represented on the Arctic Council by the Saami Council

Born Multicultural

The creators of a Sámi comedy TV series know where they belong: among “our people”, meaning in Sápmi, the land of the Sámi. Even so, they do suffer from Sámi stress every now and then.

Although Suvi West has lived in Helsinki for more than a year, the village of Suvanto in Utsjoki, Finland, will always be her home. The village is located between two rapids on the River Teno.

“It’s the most beautiful place in the world. Not for everybody, but for me.”

West lived in Suvanto between the ages of twelve and sixteen when she was admitted to an arts-oriented upper secondary school in Tampere. She then chose to spend her first senior high school year in Utsjoki with a view to including Sámi as her native language in the national matriculation examination.

Kirste Aikio was born in Jämsänkoski, Southern Finland, and moved north from there. Her roots are also in Utsjoki, as her father comes from the area. Indeed both young women have a Sámi father and a Finnish mother, but both have adopted their father’s language, Sámi, as their “mother tongue”.

Aikio’s family moved when she was six years old to the only place in the world where Sámi is really the dominant language: Kautokeino in Norway. This is a place where old families are proud to be Sámi, and express the fact in their modes of speech and dress.

West and Aikio pursued their school studies in Sámi, but while Aikio spoke Sámi with her friends in Norway, West used Finnish with her friends in Finland. For some reason, it felt finer and easier to use the main language of the country at the time.

“My friends and I switched to Sámi later. It feels more natural, and we’ve become aware of the situation of the Sámi language.”

Wet Reindeer Fur Leggings

West and Aikio became classmates on a multimedia studies course at the Sámi Education Institute in Inari, Finland. During their

common assignments they came up with the idea for a TV series, and quite a funny one. The women were touted as an informal voice of the Sámi when their programme *Märät Säpikkäät* (*Wet Reindeer Fur Leggings*) was launched in 2012 by the Finnish national broadcasting company YLE.

“Though it was never a conscious decision for us to ‘tackle Sámi issues through humour’, this is a good way of enhancing understanding between Finns and Sámi. Humour can also be deep,” Aikio says.

The series begins with the Sámi arriving in Helsinki. But how does life in Helsinki ultimately differ from life in Sápmi?

“We’re talking about a totally different culture, a different world,” Aikio explains.

“I’ve subsequently realised that I’m from the backwoods, I grew up in the hinterland. If you live in a village where there are no hobbies or other young people of your age, then you have to spend time with your sisters and brothers and engage your own mind,” West adds.

This different kind of world has affected the two women in many ways. Respect for other cultures was learned naturally at home. They take it for granted that the language may change several times during a conversation, for example. Nobody disapproves or tells anyone to speak so that everyone will understand.

“Other cultures are neither disparaged nor endorsed. The Sámi are citizens of the world,” West says.

People are accustomed to encountering a variety of languages and cultures in a region where nine Sámi languages are spoken together with Finnish, Swedish, Norwegian and Russian. International borders are a much more recent development than Sápmi as a territory. People in cities may wonder how anyone can live in Inari or Utsjoki – places that are “in the back of the beyond”.

“You are never alone in Sápmi. You are always in the presence of Nature. You are part of Nature and Nature is part of your identity. As a friend, it provides a livelihood



© Tarinatalo Oy

and a life, a reason to get up in the morning," West explains.

Although West and Aikio both have Finnish mothers, they feel their Sámi identity strongly without devaluing their Finnish background.

"We have grown up in the midst of Sámi culture, and it's very close to our hearts," Aikio says.

"Obviously we could start over again looking for our Finnish roots in our fifties," West adds with a smile.

The strain of maintaining a culture

Aikio lives with her young child in Inari, a place that she describes as a melting pot of various cultures. It is important for her to live in Sápmi, both for her own sake and that of her child. She has noticed how hard it is to get her child to view Sámi as her mother tongue.

Comediennes Suvi West and Kirste Aikio entertain viewers on their TV series *Märät säpikkäät* ("Wet Reindeer Fur Leggings"), finding humour in the contrast between Finnish and Sámi culture. The name of the programme comes from fur leggings made of reindeer leg skin.

The Finns and the Sámi live as separate groups in many villages. Aikio and West feel that this is good for the language, because everyone easily begins speaking Finnish whenever Finns are around. But such arrangements can also engender prejudice and misunderstandings.

The Sámi community values family, and nobody is surprised when an adult lives together with parents, sisters or brothers. West moved to Helsinki, the Finnish capital, when production began on *Wet Reindeer Fur Leggings*, and after more than a year she still feels like she is living abroad and misses the north. She is unhappy not to live in her home village in Utsjoki, but unsure whether this is because she *would like to* or *ought to* live there.

"We feel this strain of maintaining our culture and carrying it forward, of serving to pass down things in the community," West and Aikio explain.

The Sámi bear a much heavier responsibility for maintaining their own culture and language than the Finns, even though the latter are similarly considered a small nation. West has accordingly also made a point of buying the expensive materials for making a Sámi scarf, even though she is no handicrafts enthusiast. Every Sámi woman is supposed to create handicrafts, but at the same time you must have many other skills, as Western pressures have also impinged on the lives of Sámi children and young people. You must get an education, make ends meet and take care of yourself in many ways.

"We constantly balance being Sámi with being part of the Western world."

It is important to maintain traditional knowledge, customs and skills when you bear responsibility for keeping an entire culture alive. Only after mastering these can you do something new.



© Anna Stammler-Gossmann album

At 8,016 square kilometres Rovaniemi, the capital of Lapland, is the largest city in Finland by area. The city is home to some 60,000 people and about 14,000 reindeer. Rovaniemi was almost entirely destroyed in the Second World War. Nowadays it is marketed above all as the official home of Santa Claus.

My Rovaniemi

“Cracking the cultural code is no mere academic interest, but a real joy when you start to understand your new home from the local perspective. It also makes it easier to fit right in, especially when moving to the North from the South, to a small town from a larger city, and from a different cultural context.

I arrived in Rovaniemi after spending some years in Cambridge (UK). Earlier I had also lived for several years in Cologne (Germany), a city of more than a million people. The prospect of pursuing northern research from a home base in the North now inspired me to move to this comparatively small place. My knowledge of Finland was clearly limited, comprising the works of Arto Paasilinna and some publications written by diplomats and travellers. I was even unaware at this time that Rovaniemi is the ‘homeland of Santa Claus’.

Coming to this northern town from a vibrant urban environment may

entail 'losing' some things, but there are other great rewards. Making the local cultural environment more accessible can be challenging, but is exciting at the same time.

Is Rovaniemi a town in the forest or is it a wooded town? Why do people here still keep a *kesämökki* (summer cabin), even though most homes in Rovaniemi are already surrounded by woodlands? What kind of small talk should I exchange with my initially taciturn next-door neighbours? Why should Finnish apples grown under these far from ideal climatic conditions be particularly organic? These were my first questions after arrival that inspired me to find out more about the local way of life.

You can learn some things swiftly and naturally: my daughter very quickly appreciated that the 'yes, sir' / 'no, sir' mode of addressing a teacher in Cambridge is inappropriate for a school in Lapland. My first formal letter to a bank manager began with 'Hei' (hello). There was nothing obviously corresponding to 'Dear Sir or Madam', just 'Hei'. If this seems brusque elsewhere, here in Rovaniemi it is a gentle and inoffensive attitude of greeting that may politely indicate 'do not feel disturbed'.

Some codes are not so obvious, but you get a sense of them by making an effort to observe the local way of life. The best approach is to go with the flow of the surrounding natural environment. You may soon realise how nature gently determines your life rhythm and your view of the surroundings. Picking berries in autumn, shovelling snow in winter, taking your *'hihtoloma'* (skiing holiday) in spring, and washing rugs outside in summer are part of life in almost every household. And then you may notice that now you always have something to discuss with your next-door neighbour.

You may also suddenly realise that Nokia rubber boots have materialised in your hallway or porch, and that the giant patterns of Marimekko curtains have adorned your windows. I also gradually came to accept the once-hated mobile telephone and learned how to live without a landline in this 'Land of Nokia'.

Now I complain about the 'traffic jam' when there are five cars in front of mine during the Rovaniemi 'rush hour'. Planning my travel schedule, I now think that it would be nice to be in Rovaniemi during the berry-picking season. I enjoy the smallness of this medium-sized Finnish town, with its friendly walking and cycling distances, while realising that the 'know everyone' factor is not such a big issue.

These signs all indicate that mere knowledge of cultural codes is giving way to the process of internalising them. I recently realised that I was thinking about how nice it would be to have a *kesämökki* of my own, and how relaxing it could be to spend some time there after the 'stressful urban life' of Rovaniemi."

Anna Stammer-Gossmann works as a researcher at the University of Lapland Arctic Centre



A CHANGING CLIMATE



© Kamil Jagodziński

The climate of the Arctic is warming. Research and the media have been stressing this for years. The news threshold was again exceeded in autumn 2012 when the recorded extent of Arctic sea ice was found to be smaller than ever. The previous record for retreating ice was set in 2007. We can also expect new records, as the forecast is for completely open Arctic seas in summer before long. The ice sheet has also become thinner.

The main issue now is how long this change will take: many decades or less? The Arctic climate as a whole is influenced by many factors, including temperature and wind and ocean currents. Scientists have been surprised by the pace and extent of change as we envisage a future with no old, long-term ice where the Arctic Ocean would freeze in the heart of the winter and melt in summer like the sea around Finland at present.

This scenario has generated a great deal of economic, political and strategic interest in Arctic waters as a new global transport route.

Glaciers melt, sea levels rise

Global warming also melts the ice of glaciers resting on solid land in Svalbard, Alaska and Greenland, and on the northern islands of Canada. Greenland alone has so much ice that a complete thaw would raise global sea level by seven metres. It would take hundreds of years for all of the ice in Greenland to melt, but smaller volumes of melted ice also have an impact. There are coastal regions, islands, island states, cities and agricultural areas that would be critically affected by even a small rise in sea level. Life in the low-lying delta region of Bangladesh will grow increasingly difficult as more water runs off the Greenland ice

© Lawrence Hislop, www.grida.no





The ice conditions of Greenland affect the whole world. It has been estimated that melt water from Greenland will increase global mean sea level by 5–20 centimetres during the current century.

© Outi Mähönen

sheet into the sea.

A 2009 study of snow, ice, water and permafrost in the Arctic by the Arctic Council AMAP working group estimated that glacial meltwater from Greenland would increase mean sea level by 5–20 centimetres this century. A 2012 report by

the World Bank found that, allowing for all effective factors, a one metre rise in sea level may well occur by 2100. In addition to glacial melting, thermal expansion also causes a rise in sea level.

Global warming is a self-stoking cycle

Many studies and calculations have shown that the climate warms more rapidly in the Arctic than elsewhere on average. Even though the Arctic has little industry, transport or other activities that would generate significant greenhouse gas emissions, the very warming of the Arctic climate has effects that may accelerate the greenhouse effect. Decreasing coverage of snow and ice leaves larger dark areas on the earth to absorb thermal radiation from the sun, and these areas do not reflect incident radiation as white areas would. This phenomenon is also accelerated by soot carried in air currents as black particles darken the surface of ice and snow. This effect is magnified the further north the

The impact of global warming is dramatic in Sishmaref, Alaska. Erosion brings houses tumbling down into the sea in this Inuit settlement. For several years this village of about 500 people has dreamed of moving to a secure location away from the crumbling shoreline.





The polar bear is the world's largest land carnivore. It hunts on the ice and gives birth to its cubs in a den under the snow.

emissions occur.

The scrubland of the tundra is growing higher than before, and as it turns into forest the snow no longer forms an unbroken cover in winter. This reduces the reflective effect, even on snow-covered ground.

Thawing of the Arctic permafrost may again contribute substantially to the global greenhouse effect, as a major reserve of greenhouse gases such as carbon dioxide and methane is stored in the permafrost. The potential of permafrost gas release is not incorporated into the climate models of the Intergovernmental Panel on Climate Change (IPCC).

The United Nations Environment Programme (UNEP) predicted in 2012 that carbon dioxide emissions from permafrost thaw may total hundreds of gigatonnes this century, reaching double figures as a percentage of global emissions. We will also have to contend with

the impact of methane emissions.

Permafrost thaw also has other effects, with major damage possible to buildings, roads, oil and gas pipelines, airports, and other infrastructure in the Arctic if the underlying soil turns soft. This will have extensive economic consequences in the region.

It is impossible to predict all of the consequences of Arctic climate change. For example, the vicissitudes of Europe's weather patterns that bring cold winters and wet summers to Northern Europe and aridity to the south of the continent have been explained by the warming of the Arctic Ocean. Phenomena taking place in the north could change prevailing air currents, with Europe potentially exposed to cold winter winds from Siberia. Such connections are often difficult to prove, especially when changes occur over a short time scale.

Poisons in a clean region

Global warming is not the only way in which faraway human activities can aggravate the situation specifically in the Arctic.

People in the Canadian Arctic live in surroundings with no local pollution sources. Traditional food comes directly from the environment and the diet is, in principle, very healthy. Despite this, researchers in the 1980s found remarkably high pesticide levels in the milk of nursing mothers among the aboriginal peoples of the Canadian North.

The cause of this turned out to be diet. Industrial emission and agricultural pesticide residues such as PCB and DDT were carried north by air and sea currents and rivers from thousands of kilometres away. These accumulated in the food chain of

the Arctic, for example in fish and seals, before reaching the top of the chain in polar bears and people.

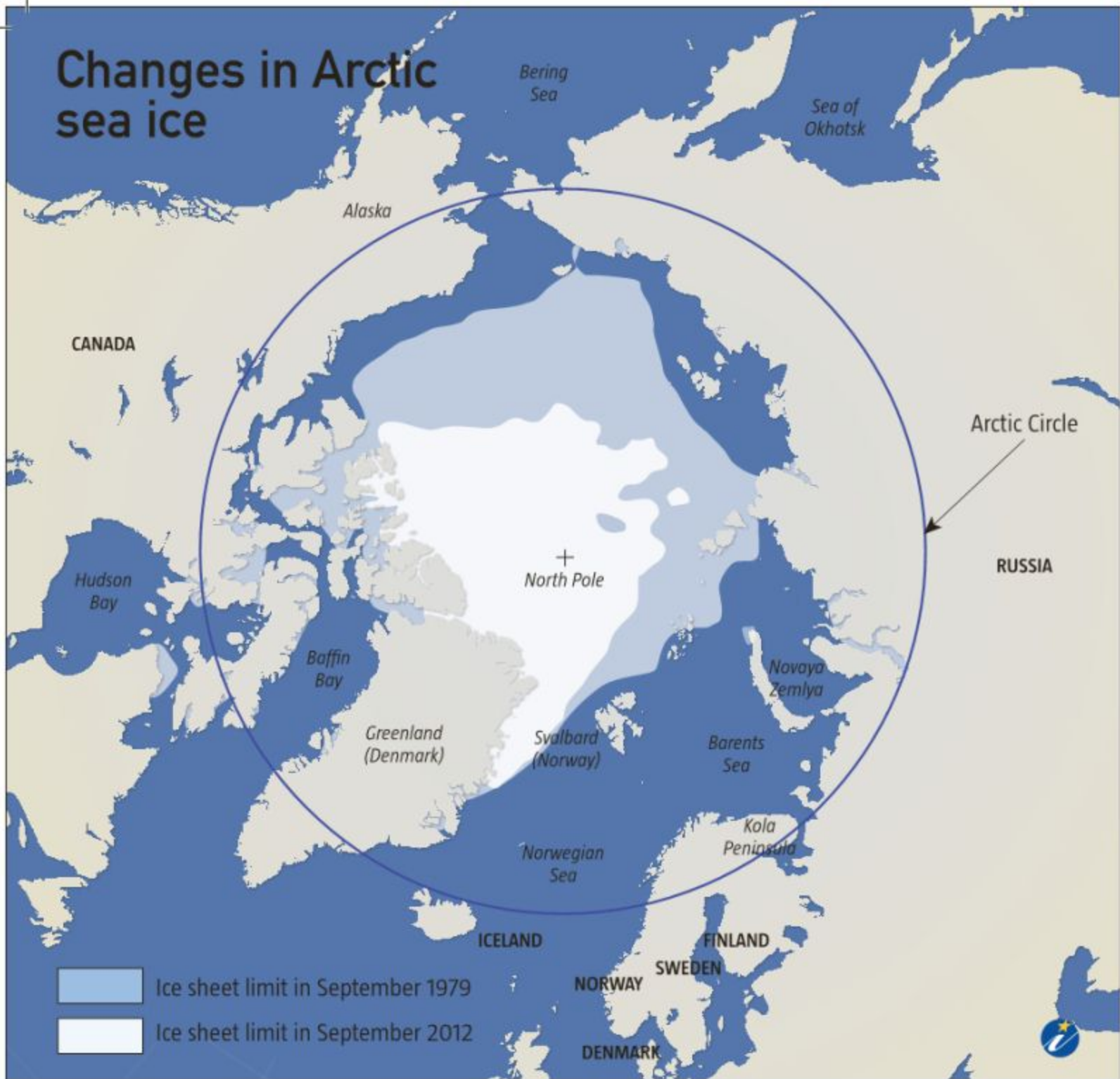
In 2001, an international convention banning persistent organic pollutants was signed in Stockholm as a result of global concern over the impact of these substances. While this has helped to reduce the level of airborne residues reaching the Arctic from far away, the measures taken have not eliminated pollution and pollutants. Nor do international instruments cover everything, and there are other threats. The transport of mercury into the Arctic and its accumulation in the food chain is still an unsolved problem, for example. A binding convention on mercury is currently under negotiation.

The International Polar Year Conference focused on moving from knowledge to action. The 2012 IPY Conference in Montreal assembled more than 2,000 scientists, policymakers and other participants interested in the Arctic and Antarctic. Speakers included the Norwegian politician Gro Harlem Brundtland, in whom the concept of sustainable development is largely personified.

© Markku Heikkilä



Changes in Arctic sea ice



An agreement on ozone but not on climate

The Convention for the Protection of the Ozone Layer also derives from concern over the circumpolar areas. The health hazard from ozone holes above the north and south poles was caused by the chlorofluorocarbons (CFCs) formerly common in refrigerators, for example. These ozone-depleting substances were forbidden through the Montreal Protocol in the late 1980s.

Although the pace of climate change is especially rapid in the Arctic, this is a global problem and UN negotiations for a climate convention have been frustrat-

ingly slow. No end is currently in sight for the processes that are warming the Arctic climate.

The most visible symbol of the impact of climate change is the grand predator of the northern circumpolar area, the polar bear. Its population varies by region, remaining stable in some areas while declining elsewhere. Polar bears depend on sea ice for breeding, mobility and feeding, and so the loss of sea ice exacerbates difficulties for this species. This leads to population fragmentation and retreat to areas inhabited by people.

While other changes affecting the animal kingdom may seem less significant to people in symbolic terms, they are

nevertheless substantial. Arctic sea areas are important fishing grounds and the fish, in turn, depend on plankton, other food sources and seawater temperatures. Changes in prevailing conditions trigger a series of reactions that are difficult to predict.

Increased instability

While some people living in the Arctic depend on a climate that is predictable and stable, this is not so important for others. Some consequences, such as rising sea levels, can have a greater impact on people who live elsewhere. The fate of the Gulf Stream, which warms the northern part of Europe, has been discussed to a great extent. If the cycle of this stream changes because of alterations in seawater temperature or because of fresh meltwater from glaciers, then the favourable climate of North Europe will turn cooler. A change in the Gulf Stream is unlikely, but the term “tipping point” is employed in any discussion of climate. Somewhere a line may be crossed after which changes become radical and sudden.

Although scientists agree that climate change is taking place, there is still great uncertainty about its eventual impact. Climate history shows that some very large and rapid changes have occurred in the past.

Until now global warming has had little impact on everyday life in Finnish Lapland, for example. The margins are nevertheless minimal. The World Cup competition in alpine skiing to be held in Levi, Lapland, had to be cancelled in November 2011 due to warm weather and lack of snow. In the following year the winter came early and skiing conditions were ideal.

The predictability of the winter is important for tourism and for other Arctic livelihoods such as reindeer husbandry and forestry. Climate change has so far

Arctic climate

- 2005–10 was the warmest period ever measured in the Arctic
- Over the past hundred years the Arctic has warmed twice as rapidly as the planet on average
- The Arctic Ocean is expected to be almost free of ice in summer within 30–40 years
- Melting of Arctic glaciers, icy peaks and the Greenland ice sheet caused over 40 per cent of the global increase in sea level in 2003–08
- Satellite observations began in 1979. Before the year 2000 the smallest annual extent of Arctic sea ice varied between 6.2 and 8.0 million square kilometres. In September 2012, the extent of sea ice was 3.41 million square kilometres

Sources: European Commission, Arctic Communication, 2012; AMAP, SWIPA 2011; Finnish Meteorological Institute

been felt in the form of increased uncertainty about the future. Will winter rain cause an icy crust on the snow that hampers reindeer grazing? Will the ground freeze and become hard enough for hauling logs in winter? Appearances are also important for tourism in Lapland. Santa Claus should set out from a realm of white snow, and not trudge with his reindeer through a dark, wet and snowless forest.



© Małgorzata Blaszczyk

Scientist Martina Schäfer on her first expedition to Svalbard.

Scientists Solving a Mystery

The Arctic sea ice is retreating and forest is encroaching on the tundra. Research is increasingly highlighting phenomena associated with global warming, but there are times when climate change itself hampers the study of such issues.

German scientist **Martina Schäfer** says that small glaciers on major ice sheets may contribute a great deal to the impact of global warming.

“Scientists have mainly focused on large ice sheets, such as Greenland and Antarctica. I’m one of those who think that we should study how small glaciers will impact the increase in sea level over the next 15–20 years.”

Arctic sea ice shrank to the smallest extent

ever recorded in summer 2012. The layman blames global warming and regards the phenomenon with alarm. This is also the view of most scientists.

“The phenomenon only benefits vested interests like oil exploration.”

Research trip cancelled due to open seas

Schäfer works at the University of Lapland Arctic Centre in Rovaniemi, Finland. Over a two-year period she has made several expeditions to Svalbard as a member of an international group of scientists taking measurements on the Hansbreen glacier and studying the remote and less accessible Paierlbreen glacier.

“The research expedition had to be cancelled in spring 2012, because open seas

made it impossible to reach the research station by snowmobile. We tried to reschedule the expedition, but there simply wasn't enough sea ice. We might need a helicopter in future to get there in spring."

Glacier studies are linked to climate change in various ways. These include predicting consequences of climate change, such as sea level rise due to melting glaciers, or gaining a better understanding of the climate to improve climate forecasts. Schäfer's study in Svalbard seeks to improve our understanding of surges and other glacier processes.

"So we're not only concerned about melting," Schäfer explains.

Satellites and stakes in the ice

Modern glacier research combines old methods and state-of-the-art technology. For example, the mass balance of a glacier can be measured by digging, drilling, or using stakes. Mass balance reflects the changes in mass of a glacier, and therefore gives clues to its future. Modern scientists can nevertheless also use efficient GPS devices and satellite images to study such aspects as glacier profiles.

Some scientists have suggested that it will

soon be possible to study glaciers exclusively by remote methods, but Schäfer believes that fieldwork will also be needed in future.

"Satellite images and on-site measurements are complementary. It is vital for scientists to be able to visit the glaciers that they study. We must experience and feel the place. You don't realise how much work and risk measuring involves until you reach the site."

A geographer studying the tundra

Geographer **Timo Kumpula** also stresses the significance of fieldwork. He studies the impact of climate change on the tundra vegetation of the Yamal Peninsula in Russia, seeking to observe changes with the aid of satellite images and field material.

"It's important for scientists to know the study area when they interpret satellite imagery and to appreciate the meaning of satellite image colours in terms of reality on the ground."

Kumpula's research group has collected data from five areas and hundreds of field test sites. These data suggest that 10–20 per cent of low willows and alders have grown in places into two-metre-high thickets over the past 30–40 years. The study

How does climate change affect the vegetation of the tundra? Researchers Timo Kumpula and Hanna Strengell measure the reflectance of vegetation on the Yamal Peninsula.



© Bruce Forbes

material includes samples of willow growth rings showing the annual growth of these trees.

"These findings seem to correlate very well with data gathered by Soviet and Russian weather stations in the area."

Thus, willows are a clear indicator of global warming in the research areas, which is why the research group searches for old willow trunks that have survived without rotting, for example on old lakebeds and in permafrost.

A hint from reindeer herders

Kumpula works at the University of Eastern Finland Department of Geographical and Historical Studies, and has made several field trips to the Yamal Peninsula as a member of a multidisciplinary research group. The first expedition in 2005 involved traveling 400 kilometres by helicopter.

"Nowadays we can reach the area by train, as a railway has been built to serve the needs of the recently opened Bovanenkovo gas field."

Kumpula previously studied changes in reindeer pastures in such regions as Nenetsia and Yamalo-Nenetsia, where gas and oil fields are occupying an increasing area. These fields have an impact on the environment and on reindeer herding communities.

Research on the climate of the tundra is also closely linked to reindeer herding. It was the Nenets who first encouraged scientists to focus on the increase in willow thickets on the tundra. Thicker and higher willow stands hamper reindeer herding. Global warming may increase thaws in winter, and this can be disastrous for reindeer that feed on lichen in natural pastures.

"It's difficult or impossible for reindeer to dig out lichen from under the hard snow crusts that follow a midwinter thaw, and there is no way to provide supplementary reindeer fodder on the tundra, as occurs in Finnish reindeer-herding areas. The resulting reindeer losses through starvation are a considerable blow to reindeer herding."



© Kamil Jagodziński

The annual floods in Lapland reach their peak with the spring thaw. Climate change mainly affects spring flooding through variations in snow coverage and sudden changes in weather. Medium-range forecasts suggest that flooding will remain unaltered in the north, with greater flooding probably occurring further south.

A warmer climate brings migratory birds back to the north earlier in the spring. Arctic Centre special researcher Jukka Jokimäki reports that the black-headed gull now arrives in Rovaniemi a couple of weeks earlier than in the last decade.



© Kamil Jagodziński



A NORTHERN TREASURE TROVE



© Kamil Jagodziński



In summer 2007 a deep-sea submarine planted a Russian flag on the seabed at the North Pole.

The dive was widely publicised, especially when it turned out that the news reports had borrowed footage from the film *Titanic*. Few individual actions in the Arctic have received as much media attention and led to so many over-interpretations. Whatever the outcome of this PR trick in terms of success or failure, the dive did not solve the issue of ownership of the North Pole one way or the other.

Although the thaw in sea ice has accelerated and coastal routes are opening up, only powerful icebreakers can reach the heart of the Arctic Ocean at present, and only submarines that are owned by superpowers and almost always piloted by the military have moved beneath its surface.

The situation on the map is different.

The sea areas of the north are demarcated with sectors, lines and zones that largely specify who has the right to natural resources and control of the new sea lanes.

The stakes are high. The world still thirsts for fossil fuels – oil and gas – and old deposits are insufficient to meet future demand. The largest unexploited reserves remain in the Arctic. The US Geological Survey estimates that thirteen per cent of undiscovered oil reserves and thirty per cent of gas reserves are in the Arctic. Even though such estimates typically change with further studies, we are still talking about a considerable magnitude.

While national and international energy companies have pooled resources and formed temporary partnerships in the Arctic with a view to tackling major assignments, the challenges remain massive. Arctic sea areas are extremely difficult operating venues. The huge Shtokman



Prudhoe Bay Oil Field in Alaska is the largest oil field in the whole of North America, capable of producing more than double the output of the largest oil field in Texas.

© Peter Prokosch, www.grida.no

gas field off the coast of Murmansk, for example, has yet to be exploited despite the promises of several decades. Market changes such as the use of shale gas in the USA also continually influence estimates of when extraction of Arctic energy resources will begin.

The first liquefied natural gas production plant in Western Europe has been constructed with a view to tapping gas fields off the shore of Hammerfest in Northern Norway.

The ocean matters

It is always easier to operate on land. The Yamal Peninsula in Russia, for example, is a globally important production area for energy, especially natural gas, with extensive known reserves. By contrast marine energy producers must wrestle with natural conditions, and with questions of international law that become increasingly complex with growing distance from the shoreline. Marine areas may be classified as inland waters, territorial waters, economic zones, continental shelves and high seas.

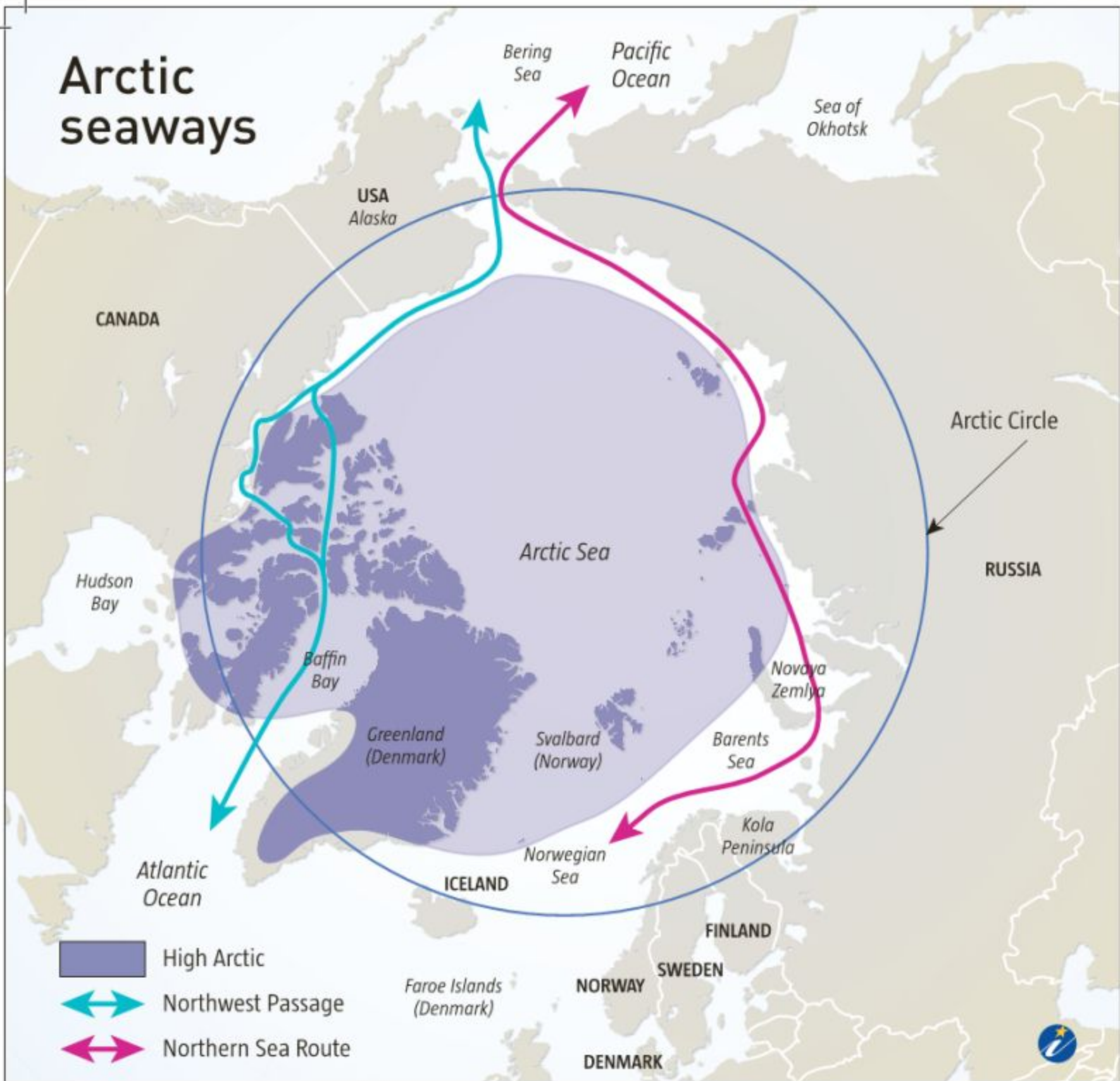
While the economic rights of the Arctic coastal states to sea areas near their coastlines are clear, conflicts of interpretation have occurred concerning areas that



© Arctia Shipping Oy

Shown here opening a route in the Arctic Ocean, Arctia Shipping's *Fennica* icebreaker has worked in the North Sea and in offshore Alaska and Greenland. Arctia Shipping is a Finnish publicly owned specialised shipping company.

Arctic seaways



are close to state boundaries further out to sea, as between Norway and Russia for more than forty years. These countries finally agreed in 2010 on the Barents Sea marine boundary and on division of the economic zone, largely by splitting their claims to the area.

The real issues of the future will concern remote offshore seabed areas such as the outer continental shelf where states have economic rights. In such cases the state must show that its continental shelf extends to the seabed area.

This was the aim of the submarine that planted a Russian flag on the seabed. While there is no significance in planting a flag as such, charting of the seabed is an

important step. States must produce scientific evidence for their claims, and they must submit this evidence to the Commission on the Limits of the Continental Shelf. Issues concerning the ownership of Arctic sea areas are settled according to international regulations.

The international law of the sea sometimes has surprising consequences. The Arctic coastal states are Canada, the United States, Russia, Norway and Denmark, but not the island state Iceland. The reason for this is that Iceland has no coastline on the Arctic Ocean.

We have often heard public speculation on how relations between states can become strained in disputes over ow-

nership of Arctic natural resources. The Arctic countries have begun focusing increasingly on their own sovereignty and military capacity in the north, and this is obviously a reaction to mounting extraction of natural resources, increased traffic and an upswing in other activities. This has affected locations such as Canada, whose Arctic areas have long been virtually deserted in military terms. Even so, we have seen no real signs of any arms race or sustained tension concerning ownership of Arctic sea areas. All of the region's countries are established states with a clear interest in mutual co-operation.

More traffic in the Northeast Passage

Commercial traffic in Arctic sea areas has grown continuously in recent times, although the number of vessels plying these routes remains minimal. The Northeast Passage linking Asia and

Europe along the northern coast of Russia was navigated by four ships in 2010. This number increased to 34 in 2011 and to 46 in 2012. The last vessels to navigate the Passage in 2012 were the Finnish ice-breakers *Nordica* and *Fennica*, which had been assisting in oil drilling off the northern coast of Alaska during the summer.

The number of ships plying this route is tiny compared to the 17,799 ships that navigated the Suez Canal in 2011. The crucial factor here is the potential of the northern sea route. The voyage is days shorter than by other routes and involves no risk of piracy. This amounts to a saving of some 30–40 per cent in terms of time and fuel consumption.

The Northeast Passage, or Northern Sea Route, was first navigated by the Finn A. E. Nordenskiöld on his sailing ship the *Vega* in 1878–79. The ship became icebound and spent the winter near

Norway and Iceland are among world's leading fishing nations. Fish form the most important export product of Iceland.

© Anna Stammer-Gossmann





© Arto Vihika

The Agnico-Eagle mine in Kittilä, Finland, exploits one of the largest known gold deposits in Europe. Gold is extracted both through open cast and subterranean operations.

the Bering Strait. Nowadays the voyage takes less than ten days. The Northern Sea Route was used only for domestic purposes during the Soviet era, but is now also open to foreign ships.

Sailing conditions will nevertheless continue to be challenging. Although the climate is now warming more rapidly, the Northern Sea Route is navigable only for part of the year and even at this time it can be partially blocked by drift ice. As the route skirts the Russian coast and is still occasionally icebound, it becomes necessary to rely on the costly services of Russian nuclear icebreakers. Commercial ships also need to be reinforced for icebound waters and there is a need for additional harbour services on the coast. Rescue operations are extremely difficult in case of accidents and emergencies, as the northern coast of Russia is largely uninhabited and has few harbours.

Another route that is becoming

navigable is the Northwest Passage that runs across the northern archipelago of Canada. Climate change will also facilitate sailing in this area, and such a development would also have global significance. Canada interprets the Northwest Passage as part of its internal waters, whereas the United States considers it an international strait. This issue has delayed opening of the route. Numerous islands and challenging ice conditions also make the route harder to navigate than the Northern Sea Route, where expectations are based on a considerable increase in traffic.

In the more distant future we can expect to see a rapid intercontinental route across the North Pole with no need to follow coastlines. How soon this comes to pass depends both on the pace of climate change and the progress of vessel technology.

The same economic considerations govern areas outside of the Northern Sea

Route. Finnish dockyards, for example, have built icebreakers fit for Arctic conditions and shipping and sea technology companies have become increasingly interested in the north. About sixty of the world's one hundred icebreakers were built in Finland, which remains the only Arctic country that must remain equipped to tackle a winter season in which all of its harbours freeze over.

Railways also in the spotlight

There is growing interest in the idea of a railway connection to the Arctic Ocean in Finland. The Finnish railway network currently ends at Kemijärvi in the east and Kolari in the west. Both places are hundreds of kilometres away from the Arctic Ocean.

Although building such a long railway connection would require an investment of the order of one billion euros, the project has been seriously discussed. This reflects the fact that several new mining projects have been launched, both in Lapland and elsewhere in Northern and Eastern Finland. The scale of some of the mining plans for Northern Lapland is so large that a new railway may be the only feasible means of transportation.

A railway line from Rovaniemi to Central Lapland, for example to Sodankylä, would bring the Arctic Ocean significantly closer, but there would still be a substantial distance to cover. Plans for a rail link to the Arctic Ocean would have to be combined with ideas for using new global transport routes in the region.

While there are competing feasibility assessments concerning the railway, with implementation certainly still years away, the mere fact that the subject is open to debate reflects a change of perspective.

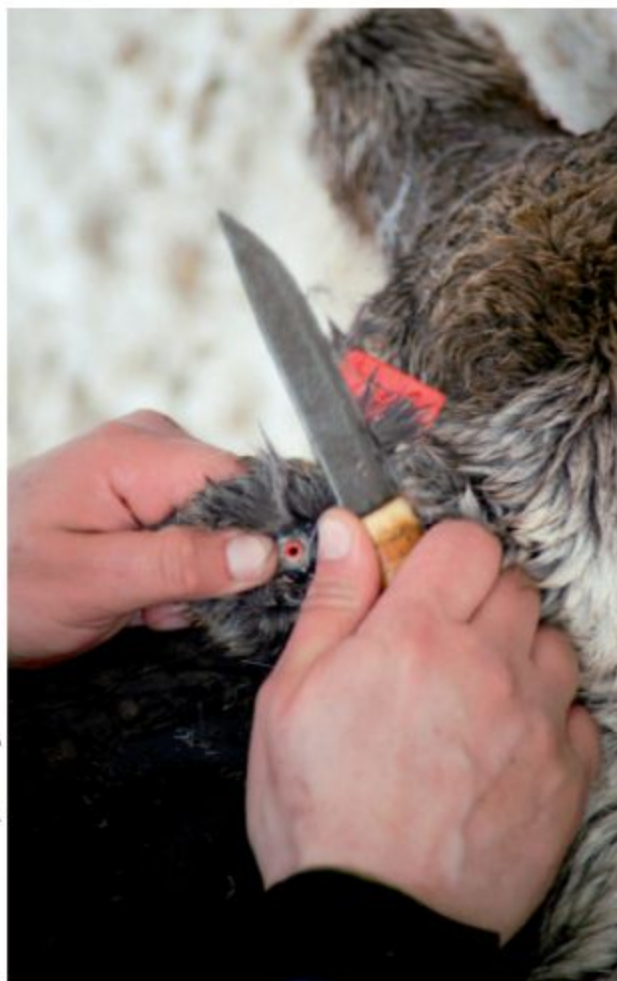
Besides fossil energy and transportation, the attention of the international economy has focused on the mineral potential of the north. This is another aspect of globalisation. Growth in China and other developing countries has increased

the world market prices of metals, and the alternating economic problems of Western Europe and the United States have not offset this trend – though they have increased uncertainty.

A report by the Finnish Ministry of Employment and the Economy suggests that enterprises were preparing to establish and expand more than ten mining operations in Finland at the end of 2012, with projected investments valued at 3–4 billion euros planned for this decade. Most of these investments would be made in Lapland. Economic instability had nevertheless already delayed investment decisions by the time of publication.

China reaches for Greenland

Although Greenland had only one operational gold mine and no off-shore drilling in 2012, the plans for



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The semi-tame reindeer herded in Finland are descended from wild reindeer. Each animal must bear the earmark of its owner.



The annual autumn slaughter ensures that no more than 203,700 reindeer are allowed to live through the winter in the Reindeer Herding Area of Finland.

this region tell us a great deal about the future of the Arctic.

China is increasingly interested in Greenland, and its mining and energy companies have been focusing keenly on this huge Arctic island. The Greenlanders have enjoyed new kinds of attention from several directions, as their country becomes a destination for glacier scientists and for geologists prospecting for extractable land resources under the melting ice sheet. The island also attracts a range of lobbyists, organisations and high-ranking visitors pursuing various specialised interests.

Superimposed on a map of continental Europe, Greenland would stretch from Tallinn to Athens. It has a population of only 57,000 and very little infrastructure. If important mining operations are established here, then labour will in practice have to come from elsewhere – indeed maybe from as far away as China.

The soil of Greenland contains a wide range of minerals, including rare earth metals. Global warming and the retreating ice sheet are making it easier to access these deposits. There are also notable offshore oil and gas reserves, whose ex-

ploitation would provide the autonomous island with revenues that could help it secure full independence from Denmark.

The blend of minerals, energy, China and Greenland illustrates the kind of stakes that are involved when considering the status of Arctic resources in relation to the global economy and geopolitics. Factoring in the prospect of new global transport routes, we can even more clearly appreciate the interest of governments and major corporations in the region. All of this is happening in the midst – and partly on account – of the climate change that is drastically altering Arctic conditions.

Nor will old industries vanish merely because new ones barge in. Fishing is an important source of livelihood along Arctic coasts and, for example on the coast of Northern Norway, human settlements originally emerged and grew largely because of fishing.



© Heikki Sarviaho

Research professor Arja Rautio has a ringside seat in monitoring the progress of well-being in the north.

Well-Being in a Crisis: Who Will Become Socially Excluded?

Global warming and changes in people's everyday lives will affect the well-being of individuals and entire communities.

Research professor Arja Rautio is worried. The Arctic is going through a drastic change with impacts on human health and well-being that are hard to predict. While the mining boom can be expected to bring many more foreign migrant workers to Lapland, for example, the potential health impacts of this change have barely been discussed.

"I fear that some aspects will be cut without being replaced by something else."

One example cited by Rautio is the health situation of Sámi reindeer herders. Studies in the Nordic countries have shown a deterioration in the health of the Sámi, which has reflected the general rise in cardiovascular diseases and diabetes. Rautio says that this is mainly due to a new way of life.

"Reindeer herders used to walk ten kilometres every day."

Snowmobiles and ATVs have made the work easier but also reduced physical strain, while new eating habits have brought a higher intake of sugar and fat and increased consumption of alcohol.

Rautio would like to see a more local, participatory approach to health education. Dietary advice, for example, should give consideration to the benefits and drawbacks of local traditional ingredients.

The socially excluded of the future

Climate change will probably become an increasingly relevant factor in human health. Certain diseases with insect vectors have already moved further north, for example. The thaw in permafrost releases environmental toxins that pass along the food chain into human beings. Use of natural resources also increases pollution. Concrete changes will bring new ways of thinking, too.

"The whole world was local for our grandparents, but today's young people already live in many overlapping worlds. How do you live in several worlds at the same time?"

Researcher Roza Laptander says that use of the native language is a sign that the culture is thriving.

What are the sources of health and well-being in such conditions?"

As leader of the research programme Health and Wellbeing in the Circumpolar Area at the University of Oulu Centre for Arctic Medicine, Rautio closely monitors trends in Arctic well-being. But why do we even need to think about well-being in regional terms?

"A smaller population and longer distances mean that health and social services are less available and there are fewer opportunities for education in the Arctic."

This increases the risk of social exclusion, which is linked to issues such as drug addiction, mental health, unemployment and violence. Some problems of the Arctic are gender-specific. For example boys have more educational problems, while girls move away from their home regions more often than boys.

Health education and services are so far focused on pregnancy and children.

"Will the socially excluded be in future young people, or maybe older people?" Rautio asks.

One common resource nevertheless unites various people in the north.

"The environment and the weather play an important role here. Nature is a source of well-being for many people."

"...the way we treat the land"

Researcher **Roza Laptander** similarly stresses the significance of nature, though she prefers to talk alternately about the tundra and the landscape, using these expressions interchangeably as they mean the same thing for her. Laptander is a Nenets from the open tundra of the Yamal Peninsula, which is also where her research is based.

She finds it impossible to talk about the Nenets without considering the land-



© Bruce Forbes

scape to which they belong. Usually the landscape refers explicitly to the tundra, which is also the area where her parents still herd reindeer. Their idea of home is not a specific place, but the entire landscape in which they live together with their reindeer and which they treat with a great deal of love.

"We believe that the land will treat us the way we treat the land."

People from elsewhere have a different view of the landscape. Laptander views the ever-expanding gas industry as the greatest threat to Nenets reindeer herders, as it reduces and changes their landscape by cutting across the migratory paths of their reindeer.

Reindeer herding and hunting can no longer provide a livelihood for everyone, and the pressure to move into cities is growing. Making the leap from living as a nomad to leading a modern life in the city is nevertheless drastic. It is difficult to find work, income or housing without education.

"Many people want to live on the tundra where they feel more secure."

Problems accumulate in cities and other

settlements where the customs and values are very different. Laptander stresses that the Nenets have learned to help one another and share everything on the tundra. There will always be people who seek to profit unfairly from this in a larger population.

History is passed down through the native language

The Nenets are the largest indigenous people of the Russian Arctic: a population of more than 40,000 with more than half speaking Nenets as their first language. Laptander also acquired Nenets as her mother tongue. She says that use of the native language is a sign that the culture is thriving.

The native language is waning among the Nenets who live in population centres and cities. Laptander finds that many parents

stress the value of education, and the old language and knowledge seem to have little practical use in the new type of everyday life.

“But traditional songs cannot be sung in Russian, and it’s easier to pass down the history of one’s own people through the native language.”

This is something that Laptander has noticed in her present work at the University of Lapland Arctic Centre, where she is one of a group of anthropologists researching the oral history of elders in the Arctic. She reports interviewing an old Nenets man who had made the transition to Russian as an adult. When reminiscing about his past the man talked mostly of his working years, as he could not describe his childhood in Russian. Laptander suggested switching over to Nenets, but this was no use, as the man could no longer speak his mother tongue well enough.

Laptander comes from the tundra of the Yamal Peninsula, where many people are still engaged in reindeer herding as a way of life.



Reindeer herding

- There are about 30 reindeer-herding peoples in the world herding a total of some 3.4 million head of reindeer
- Reindeer herding is a traditional livelihood in many Arctic cultures in Russia, Alaska, Norway, Sweden and Finland
- Reindeer husbandry depends on extended grazing lands, as reindeer migrate between summer and winter pastures
- The present reindeer population is descended from wild reindeer that were once used as draught and pack animals, or as decoys when hunting reindeer
- The Sámi began practising large-scale reindeer herding on the fell areas of Sweden and Norway in the late Middle Ages. The livelihood later spread to Finland through the Enontekiö and Muonio districts
- Many Finnish peasants also initially embraced reindeer herding as a livelihood
- Traditional Sámi reindeer husbandry was based on the siida, or Lapp village.
- The system of herding co-operatives was made official in Finland in 1898, with reindeer herders legally obliged to establish herding districts with clear geographical boundaries
- Herding co-operatives are collectively responsible for such aspects as counting and herding reindeer
- About 3,000 reindeer are involved in road accidents annually in the Reindeer Herding Area of Finland

Earmarking of calves and separating of reindeer for slaughter are the main business of a reindeer roundup.





© Kaisa Sirén

Reindeer herder Juhani Lakela from Savukoski also occasionally works as a reindeer safari guide for tourists. Lakela says that the reindeer is a wise animal with a good memory.

The Wilderness of Lapland Puts Bread on the Table

Reindeer herding, tourism, gold prospecting and hunting all draw their strength from the same source: the wilds of the north.

Juhani Lakela from Savukoski, Finland, was only seven years old when he declared that he would become a reindeer herder. The livelihood runs in his veins, with reindeer herders in the family since at least the 19th century. Lakela emphasises that a herder must know the terrain, its natural conditions, the weather and the reindeer.

“You have to be able to read the mind of the reindeer: where does it want to go in each kind of weather?”

The young herdsman learned his trade by watching, copying and listening to the stories of more experienced herders. Even as a child, he was taken along on forest expeditions and reindeer roundups.

“My grandfather was an expert in story telling. Even large crowds fell silent when he began spinning his yarns with a twinkle in his eye.”

Lakela’s own family home shares a yard with his parents’ house in the village of Martti. His father is also a herdsman, but each has his own herd.

“Every reindeer herder runs his own business.”

The mosquito, friend to the reindeer herder

Reindeer herding is highly communal work. Lakela belongs to Kemin-Sompio Herding Co-operative, which has the largest territory and herds in Finland, with more than one hundred herders. Before the autumn and winter slaughtering season the number of reindeer can total twenty thousand.

The reindeer herding area of Finland covers about one third of the country. There are fifty-six herding co-operatives, each with its own head and board. Kemin-Sompio Herding Cooperative is divided into smaller groups of herders, *roikkas*.

“Each group is responsible for its own area

Vesa Luhta from Ivalo is a gold prospector, conservationist, writer, teacher, hunter and gatherer. Everything he does is linked to his love for the great outdoors of Lapland, and especially the wilderness of Hammaskaira.

© Vesa Luhta album.



and rounds up the reindeer to the corral.”

The calves are born in May, exemplifying the old herdsman’s saying: “First of May sees a fawn on the snow.” This makes June the beginning of the herding year.

“We begin earmarking the calves around Midsummer. This takes two to three weeks if it doesn’t rain and the insect season is well under way.”

The insect season refers to myriads of biting insects that encourage the reindeer to form herds.

“The mosquito is a reindeer herder’s friend.”

Calves are marked during the sunlit night of the polar summer. The workday starts around noon when the reindeer herd is driven into the earmarking corral. Marking begins in the cooler conditions of evening. Hundreds of calves are usually marked each night by cutting the owner’s mark into their ears. Earmarking is often completed only late into the next morning.

By late summer the herders are already preparing for winter by making hay or gathering bundles of birch or willow branches. The herders’ co-operative holds a general meeting at the end of September

to adopt a slaughter plan. Roundups begin in October and continue until January or February. These roundups involve corralling the reindeer and separating the animals to be slaughtered.

Reindeer roundups often rely on the natural routes followed by the herd. These routes are now being threatened by plans to establish a phosphate mine at Sokli in the Savukoski area. Reindeer herders oppose the plan strongly.

“The Sokli mine would be right in the heart of our herding district,” Lakela explains.

Reindeer herders are also worried about the pollution risks associated with the mine. Reindeer herding is threatened by other forms of land use, and also by predators. Lakela says that predator populations have grown exponentially over the past five years.

The reindeer herder as a safari guide

Aside from reindeer herding, Lakela also works in tourism during the high season. He has served as a guide for the company *Arctic Reindeer*, which arranges reindeer safaris in Rovaniemi. The work brings variety to a herder’s daily life.

"Foreign travellers are very interested in snow and frost. They have a mental image of Santa Claus and his reindeer, and they want to know what kind of animal the reindeer is."

Lakela tries to convey a realistic impression of the reindeer and of the everyday lives of herders where possible, but there is no sense in spreading needless disillusion.

"I tell the children that Santa's reindeer are the only ones that fly – and then only on Christmas Eve."

What kind of animal is the reindeer?

"A wise animal with a good memory. It recognises its owner's voice when you call it in the woods."

With roots in the forest

Gold prospector, conservationist, writer, teacher, hunter, gatherer. **Vesa Luhta** from Ivalo has many sources of livelihood. A native of the southern town of Seinäjoki, he belongs to an old hunting family on his father's side. His father was a keen fisherman who spent his holidays in Inari and eventually bought some land for a cabin there. Even as a child, Luhta spent all of his summers in the north.

"I grew roots in this place, and in these woodlands."

As a fifteen year-old, Luhta made long trips alone in the wilds of Hammaskaira. The wilderness was a source of countless adolescent adventures and experiences of the great outdoors. The forest abounded with animals in the great lemming years of 1969 and 1970.

"The lemming years led to a biodiversity peak of enormous potential."

Luhta believes that great natural experiences are essentially leisurely. You can admire the beautiful scenery while sitting by the campfire. You are feeling fine, and then something seemingly insignificant happens. Maybe a Siberian jay flies to greet you. The scenery on the other side of the lake glows red in the summer night, but by morning it has turned blue. In a tent you wake to an extraordinary chorus of song. You hear it over and over but fail to identify

it as the singing of a fingerling until much later. And you never see the bird itself.

"Marvelling at this singing was my finest experience last summer."

Alone in the wilds

At best, weeks may pass before Luhta meets anyone during his trips. He has spent thousands of nights in the wilderness: in a tent, a sod hut or a cabin.

"I have a mental need to spend time in the wilderness of Hammaskaira. At my age, it's difficult to really get to know new places."

Luhta has panned for gold since 1978. The adolescent who loved reading books about hunting found traces of gold panning on the River Ivalo, and a book on gold panning in Lapland provided the final impetus to try it for himself.

"I bought a souvenir pan – the only type available – and began practising in secret."

When this self-taught gold panner eventually began finding nuggets he fell victim to gold fever, returning with chutes so early in the spring of the following year that there was still snow on the ground. This time he found most of his gold on the Moberginoja creek and, after some thought, decided to stake a claim. Claims are no longer granted, but licences are issued for gold panning or ore prospecting.

Luhta is a passionate conservationist and chairs the local nature conservation association *Inarin luonnonystävät ry*. You can usually find him in the great outdoors with a shotgun or with fishing or gold-panning gear.

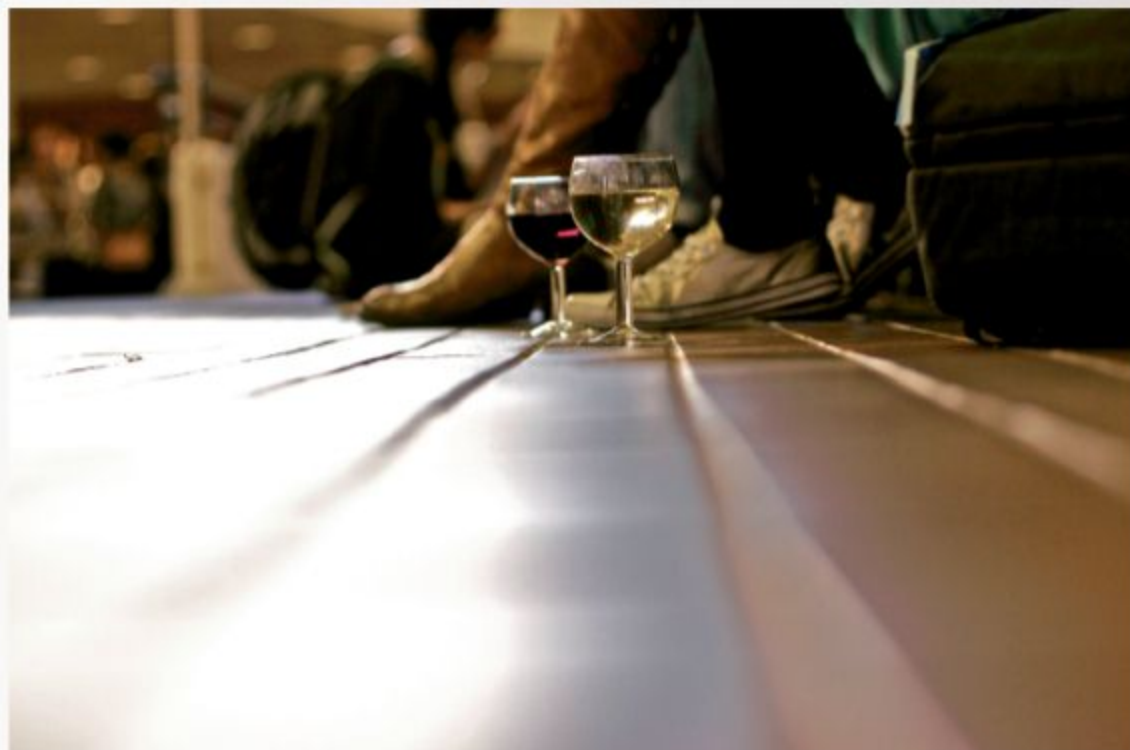
"Hunting and fishing are one way of moving in the woods. Wandering in the outdoors just for the experience sounds like idling to me. Experiences that are extreme for some people are simply part of everyday life for the people of Lapland."

Ideally human beings and nature become one to such a degree that this takes on a mystical or Zen-like character. When hunting in a familiar area you know that a willow grouse will soon fly off from over there.

"I become part of something bigger than myself and everything else becomes irrelevant."



FROM MISSILES TO CO-OPERATION



© Kamil Jagodziński



© Jouni Näkkälä

Under the political position of the Sámi, “the Sámi are one people whose unity shall not be breached by international boundaries.”

The Arctic is packed with various co-operation structures. An online search readily identifies hundreds of international organisations, bodies or research institutions with a functional foothold in the Arctic.

This has not always been the case. Indeed until the late 1990s the Arctic Region existed only as a kind of scientific concept, and it was quite impossible even to imagine it harbouring such a diversity of co-operation networks. The only important lines running across political maps of the Arctic traced the shortest flight paths for intercontinental nuclear missiles between the United States and the USSR.

The Arctic was one of the most sensitive areas of the Cold War until the radical realignment of Europe reached it too.

Geopolitical researchers have successively identified the same starting point for co-operation between the Arctic states: an October 1987 speech by USSR leader Mikhail Gorbachev in Murmansk. Although the Soviet Union still existed at this time, a period of rapid progress had already begun.

Gorbachev was the first to introduce the prospect of replacing military competition with international co-operation in the Arctic. Finland immediately seized

Northern Dimension

- The EU, Iceland, Norway and Russia are involved in the policy of the EU’s Northern Dimension as equal partners. The USA and Canada are observer states
- The Northern Dimension covers the geographical area from the European Arctic to the Baltic Sea
- The Northern Dimension has launched four partnerships focusing on the environment, public health and social well-being, culture, and transport and logistics
- Funding comes from the partner states and from EU financing instruments and programmes, international financing institutions, regional stakeholders, and the private sector
- Finland submitted an initiative on the Northern Dimension policy of the EU in 1997. The policy was adopted by the EU in 1999 and revised in 2006



the initiative and began to build environmental co-operation in the region. This diplomacy was effective, with the first ministerial-level meeting of all eight Arctic countries held in Rovaniemi in 1991. The outcome was a common paper, the Arctic Environmental Protection Strategy (AEPS). This “Rovaniemi Process” promoted sustainable development and protection for the Arctic environment.

Progress was also made in other spheres at around the same time. Initiatives in Canada sought to broaden co-op-

eration between the Arctic countries. The two paths subsequently converged with the creation in 1996 of a new organ based on the structure of the Rovaniemi Process. The Arctic Council was founded at a very simple occasion in a side-room of the Canadian Parliament Building in Ottawa. No representatives of the international media and no important politicians attended this event. There were no headlines.

Although the subject attracted very little interest at the time, the situation is nowadays completely different.

© Marjo Laukkanen



Timo Rautajoki, Managing Director of the Lapland Chamber of Commerce, estimated in spring 2012 that a total of 125 billion euros would be invested in the northern regions of Finland, Sweden, Norway and Russia over the next ten years. This included the cost of constructing the Shtokman gas field in the Barents Sea. Changes in the natural gas market have nevertheless made implementation of this project highly uncertain.



© Eero Kuosmanen

As High Representative of the European Union for Foreign Affairs and Security Policy, Catherine Ashton visited the University of Lapland Arctic Centre in March 2012. Ashton used the visit to announce her support for the goal of establishing the headquarters of the European Union Arctic Information Centre at the Arctic Centre in Rovaniemi.

Beating a path to the Arctic Council

The birth of the Arctic Council was the outcome of protracted negotiations. It gave the Arctic an international forum that brought together the states and other significant stakeholders of the region as a type of supreme Arctic body. The new organ nevertheless lacked the authority to issue legally binding decisions and had no financing of its own.

The work and identity of the new Arctic Council was firmly based on the environment and indigenous peoples. The idea was to assign a prominent role to both aspects. The founding charter was also formulated to ensure that the existence of the Arctic Council would impose no new obligations on its member states in relation to indigenous rights or in other spheres.

All of the elements that might have been binding had been shorn away in the negotiating process, leaving the Arctic Council with a weak role. Under the agreement, it would take decisions by consensus and serve as a kind of common forum. Its authority derives from a meeting of nation-

al foreign affairs ministers every second year and from a broad field of operations.

The working groups of the Arctic Council have considerably increased the dissemination of information about the region and enlarged co-operation in the Arctic. Through its working groups the Arctic Council has, for example, already released the most important assessment of climate change in the Arctic so far: the 2004 Arctic Climate Impact Assessment (ACIA) report. This was followed in 2010 by the extensive SWIPA report on snow, water, ice and permafrost in the area. Our understanding of the state of the Arctic environment in general has reached a completely new level thanks to these working groups, but the voluntary nature of the initiative means that funding for this work and for the other activities of the Arctic Council has largely depended on the goodwill of the countries involved. The Presidency of the Arctic Council has rotated in periods of two years, and a standing secretariat began working in Tromsø, Norway, in 2013.

As the decision on a permanent secretariat was emerging, the first legally binding convention on maritime search and rescue in the Arctic seas (the 2011 Arctic Search and Rescue Agreement – SAR) was negotiated under the auspices of the Arctic Council. Preparations for an Arctic oil spill prevention agreement also began in 2011. This development is an indication of the growing importance of the Arctic Council, whose expanding role in Arctic operations is already evident.

The present Arctic Council is a forum that attracts stakeholders. Under its terms of reference, full membership is only open to eight Arctic countries. These are the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) and the large northern countries Canada, Russia and the

The EU in the Arctic

- Three member states of the Arctic Council – Finland, Sweden and Denmark – are also Member States of the European Union. Iceland is also a member of the Arctic Council and is negotiating accession to the European Union. As an autonomous territory within the Kingdom of Denmark, Greenland withdrew from the European Economic Community (a predecessor of the European Union) following a referendum in 1982
- The European Commission is a founding member of the Barents Euro-Arctic Council
- Two hundred million euros were allocated to Arctic research from the budget of the European Union in 2002–12
- A 2008 Commission Communication included 47 proposals concerning the Arctic
- The European Parliament published a report in 2011 on a sustainable EU policy for the High North
- The 2012 strategy of the European Commission promotes research and Arctic knowledge, responsibility in developing the Arctic, and engagement and dialogue with Arctic states and indigenous peoples



© Markku Heikkilä

Sámi Education Institute Rector Liisa Holmberg was involved in a January 2012 Brussels meeting at which the network preparing the EU Arctic Information Centre finalised its plans.

United States. Six indigenous Arctic organisations are also permanently involved in the work of the council. This is a unique composition. In no other international body do indigenous peoples play such a strong and prominent role. They enjoy this position because the council emerged on the basis of the Rovaniemi Process.

The next category after full members and permanent participants comprises the observers, with considerable competition for this status. The European Union, China, India, Japan and Singapore have all sought to become observers, but access has been far from immediate. The desirable number of observers on the Arctic Council has long been a point of debate, and this issue has become increasingly politicised and complex as interest in the Arctic has increased. Some European countries became observers at a time



© Markku Heikkilä

As Finnish Minister for the Environment and International Development, Pekka Haavisto represented Finland at the 1996 founding meeting of the Arctic Council in Ottawa.

Arctic Council

- A high-level intergovernmental forum that seeks to promote co-operation, co-ordination and interaction between Arctic states
- Member states: Canada, the USA, Russia, Denmark (Greenland), Iceland, Norway, Sweden, Finland
- Permanent participants: the Athabasca (Arctic Athabaskan Council), the Aleut (Aleut International Association), the Gwich'in (Gwich'in Council International), the Inuit (Inuit Circumpolar Council), the Sámi (Saami Council) and the indigenous peoples of the Russian Arctic (Russian Association of Indigenous Peoples of the North, Siberia and the Far East, RAIPON)
- Observers: six European states (Germany, France, Poland, the Netherlands, the United Kingdom and Spain), nine intergovernmental organisations and eleven NGOs (in 2012)
- Founded in Ottawa in 1996
- Predecessor: Arctic Environmental Protection Strategy, launched in Rovaniemi in 1991
- A permanent secretariat began operating in Tromsø in 2013

Arctic Council working groups

- ACAP** (Arctic Contaminants Action Program)
 - Seeks to reduce environmental emissions
- AMAP** (Arctic Monitoring and Assessment Programme)
 - Provides data on the state of the Arctic environment and risk prevention advice to governments. Priorities include persistent organic pollutants, heavy metals, radioactivity, and the impact of climate change in the Arctic
- CAFF** (Conservation of Arctic Flora and Fauna)
 - Seeks to address the conservation of Arctic biodiversity
- EPPR** (Emergency Prevention, Preparedness and Response)
 - Seeks to prevent emergencies affecting the Arctic environment and to prepare the necessary response
- PAME** (Protection of Arctic Marine Environment)
 - Seeks to protect the Arctic marine environment from threats caused by increased transport and climate change
- SDWG** (Sustainable Development Working Group)
 - Seeks to advance sustainable development, strengthen Arctic indigenous peoples and communities, and improve the social and environmental conditions of communities

when hardly any countries were interested in such status.

Various other forms of collaboration have also been established in the Arctic Region. Prominent among these is the Conference of Parliamentarians of the Arctic Region (CPAR): a biennial event for debating Arctic issues of common concern. Conferences have been held in various Arctic countries and at the European Parliament in Brussels.

Scientific and research networks

Arctic research is not limited to individual countries. It is highly international by nature with a great many networks. Research projects often engage scientists from both Arctic and non-Arctic countries. Scientific and geophysical research often requires sophisticated equipment and ample funding, with operations conducted from research ships and icebreakers. Measurements are made from satellites, at remote research stations, and even from submersibles under the ice.

International Polar Year is a major

research initiative in the polar regions that has been arranged under this name only three times so far, most recently in 2007–08. Previous polar years were arranged in the 1880s and 1930s. International Geophysical Year also became closely involved in polar research in the late 1950s.

Polar Year 2007–08 linked up thousands of researchers from dozens of countries, and the Arctic Council launched and promoted a plan for a sustained Arctic observing network (SAON). The work of the Arctic Council is strongly based on research. It collates existing research data into assessment reports and has helped to network researchers and policymakers in recent decades.

Dozens of research institutes all around the world are engaged in research on the Arctic, maintaining scientific measuring and research stations all over the region. Other groups with their own networks and meetings include researchers in polar law, social scientists and young scientists.

Many international environmental

The seventh ministerial meeting of the Arctic Council discussed change in the Arctic. Attendees at the meeting included U.S. Secretary of State Hillary Clinton.

© Paula Kankaanpää



Networks of Arctic research and education

- **IASC (International Arctic Science Committee)** Provides guidelines for international science policy on the Arctic and enhances research co-operation
- **APECS (Association of Polar Early Career Scientists)** Promotes co-operation between students and researchers in the early phase of their careers
- Numerous organisations in various fields, such as IASSA (International Arctic Social Sciences Association) and the International Permafrost Association
- **University of the Arctic** A network of about 140 institutions from various Arctic countries that enhances research and student exchange, training, and research co-operation between Arctic universities

organisations such as WWF and Greenpeace are also active in the region.

Strategies and objectives

As the Arctic has grown in importance the states of the region have successively formulated and updated their own Arctic strategies, and every country now has a strategy defining its own interests and goals. For example Finland first formulated an Arctic strategy in 2010, but then decided within two years that it would draft a new version in 2013. The region develops and changes so rapidly that it is hard for position papers to keep pace.

The European Union has defined its goals in the Arctic several times. Since 2008 we have seen communications of the European Commission, Council conclusions and reports of the European Parliament. Several seminars and debates have taken place in Brussels on the Arctic role and objectives of the EU.

In a 2012 communication the Commission stressed the swift rate at which the climate and economy are changing, the importance of Arctic co-operation,

environmental protection, and sustainable development. The communication noted that changes in the Arctic are bringing urgency to the environmental commitments of the EU and to its work in combating climate change.

The Commission also reminded us that three current EU Member States – four if Iceland joins – are members of the Arctic Council, and that a major share of the raw materials and goods produced in the Arctic end up within the union. This means that European Union policy influences the Arctic in many ways. The Commission finds that knowledge, responsibility and engagement will be the key ideas in its future policy for the Arctic.

EU Arctic Information Centre

- The need for an Arctic information centre was discussed in the Arctic communication and conclusions of the European Commission and the Council of the European Union in 2008–09
- The Arctic Centre of the University of Lapland submitted an initiative in 2009 to establish an information centre in the form of a network based in Rovaniemi. Nearly 20 European research institutions were involved in this network in 2012
- The European Commission has approved a preparatory project in 2013 with a view to conducting a strategic environmental impact assessment for the Arctic
- The preparatory project will test the effectiveness and functionality of a network model as an Arctic information centre for the European Union
- The information centre would provide information on Arctic issues for institutional and public use within the EU
- The Arctic Centre of the University of Lapland is an international and multidisciplinary institution specialising in Arctic research and the provision of information on the Arctic. It is based in Rovaniemi, where it also runs the *Arktikum* science centre



© Juha Loikkanen

Finland's Arctic Ambassador Hannu Halinen believes that the European Commission should also have an Arctic ambassador or co-ordinator of its own.

The Arctic is Calling – Does Europe Hear?

People in the European Union have woken up to the significance of territories north of the Arctic Circle. Finland has sought to be the standard-bearer for Arctic questions within the EU, while Sweden has grasped the importance of the region during its Presidency of the Arctic Council.

Finland's Arctic Ambassador **Hannu Halinen** was Finnish ambassador to Egypt before his present job. Despite the extreme contrast between these regions, the ambassador also finds some similarities.

"The Suez Canal is one of Egypt's largest sources of revenue, but the loss of Arctic sea ice is now making the Northern Sea Route an alternative worthy of serious consideration."

The Arctic Ocean is the geographical and political hub of the Arctic Region, emphasising the role of the Arctic coastal states.

"Russia, Denmark and Canada are all conducting surveys with a view to expanding their continental shelves. China and the USA, again, are concerned for the freedom of the seas. Access to the Arctic Ocean is also an important goal in the Arctic policy of Finland."

People in the European Union became aware of Arctic issues in 2007 when the sea ice retreated to its smallest ever recorded size. This record has now been beaten again, serving to sustain attention on the region. More co-operation, information and understanding is nevertheless needed. According to Halinen, the European Commission should have an Arctic ambassador or co-ordinator of its own. Finland has so far been the standard-bearer for Arctic issues within the EU.

"This is really a bit unfortunate. We hope that Sweden will also remain active, and that other countries will participate more enthusiastically in the debate on the Arctic."

The Baltic Sea: A miniature laboratory

Although Finland has no Arctic shoreline, it does have the Baltic Sea. Halinen stresses the significance of this unique region.

"The Baltic Sea is a miniature laboratory for the Arctic Ocean."

Halinen feels that states in the Arctic could look to the Baltic for lessons in political co-operation and arrangements for navigation. The Arctic Council could also benefit from



© Gustaf Lind album

Sweden's Arctic Ambassador Gustaf Lind stops over in Nenetsia on his way to a conference cruise on the Northern Sea Route.

the work done by regional co-operation forums such as the Barents Euro-Arctic Council, the Nordic Council and the Council of the Baltic Sea States.

Finland has proposed that the Arctic Council be acknowledged as a sovereign international organisation, but without compromising the strong position of indigenous peoples on the Council.

"A fine spirit of co-operation currently prevails on the Arctic Council. It's important to maintain the regional basis of this

co-operation while discussing issues openly with external stakeholders."

Besides the work of the council, Halinen emphasises bilateral relations between states. He nevertheless feels that the Nordic countries wouldn't benefit from a common Arctic strategy, because their situations are very different.

Finland favours admitting the EU to the Arctic Council as a permanent observer. Some proposals even envisage the EU replacing Finland, Sweden and Den-

mark as a Member State.

“Even so, each of the northern EU countries has its own Arctic profile, and so it’s reasonable for them to continue as Member States. Granting observer status to the EU would complement and support the role of these states.”

Halinen believes that the EU has a great deal to contribute in such fields as Arctic research, climate change and use of natural resources, and the law of navigation and fishery rights.

Holding the reins of the Arctic Council

Swedish Arctic Ambassador **Gustaf Lind** has been leading the Arctic Council together with Foreign Minister Carl Bildt at a time when the north has begun to attract considerable attention.

Sweden is chairing the Arctic Council for the first time in 2011–2013, and Arctic issues have accordingly gained importance in the country. Sweden was the last Arctic country to formulate its own Arctic strategy.

“Sweden and Finland have similar relationships to the Arctic. With no Arctic coastline of its own, Sweden doesn’t consider itself especially Arctic in character. On the other hand, it has extensive Arctic territories just like Finland.”

Lind believes that the Arctic Council will evolve into a high-level forum.

“The Arctic Council has been viewed as a forum that prepares decisions, but it’s now becoming a policymaking body in its own right. Co-operation works really well on the Council, even though the Arctic is a huge and rapidly changing region.”

In the footsteps of a polar explorer

From his office in Stockholm’s ‘ministry block’, Lind maintains contact with the Arctic ambassadors, the working groups of the Arctic Council and indigenous peoples. He also responds to questions from parties seeking observer status on the Council, including the EU, China and Singapore.

Foreign Minister Bildt and Ambassador Lind have addressed international conferences on behalf of the Arctic Council during the Swedish Presidency. Lind describes one of the most memorable events from this period when participants at a conference arranged by the Russian Security Council travelled from Naryan-Mar in Nenetsia to Tiksi in Sakha on the nuclear icebreaker Yamal.

“We followed in the footsteps of our Swedish-Finnish hero, polar explorer Adolf Erik Nordenskiöld, who was the first person to navigate the Northeast Passage. The trip was just beautiful, but it also made us vividly aware of the problem of the Arctic. Even though the sea ice usually extends to the shoreline of Northern Russia, we saw no ice at all on the conference cruise in August.”

Lind insists that we must do more to combat global warming. No negotiations on a global climate convention are conducted within the Arctic Council as such negotiations take place under the auspices of the UN. Nevertheless, the Council can influence climate protection and work to reduce for example soot emissions that exacerbate global warming. Lind believes that the Arctic Council will also come to focus on economic development and call on businesses to take responsibility for developing the north.

“We have now launched discussions with enterprises on ways of ensuring responsible business operations in the region.”

Gustaf Lind was interviewed by Virpi Komulainen.



© Erkki Tuomioja album

The European Union is an Arctic Stakeholder

What does it mean for Finland to be part of the Arctic, Erkki Tuomioja, Minister for Foreign Affairs?

Finland is an Arctic country. Our Arctic identity has been shaped by our climate, environment, geography, history and experiences. The Finnish nation is an Arctic people as a whole. One third of the world's population living north of the 60th parallel are Finns.

Finland is also an Arctic specialist. The Arctic is changing radically, and Finland has the high-level competence and expertise that are needed to understand, adapt to and benefit from this change. It is of primary importance to maintain and promote competence and research.

At the same time Finland emphasises the principles of sustainable development and the need to recognise the conditions that the environment imposes, both in exploiting Arctic resources and in all other human activities in the Arctic.

Why has Finland decided to revise its Arctic strategy?

Our present and first Arctic strategy was drawn up by government officials in spring 2010. The revision is mainly required for two reasons. Firstly, the Arctic is developing in a rapid and largely unpredictable way, and secondly, there is a need to broaden the perspective of the strategy and include concrete action proposals and estimates of their cost impact. Although the revised strategy will be much more extensive and detailed than its predecessor, the government has

sought to expedite its formulation with a view to completion in spring 2013.

The present Arctic strategy of Finland focuses on foreign relations, and the Ministry for Foreign Affairs is co-ordinating the comprehensive revision process.

How prominent are Arctic issues in the work of the Minister for Foreign Affairs?

Arctic issues have become more prominent in the work of the Minister in recent years. International interest in the Arctic has increased rapidly as the region has grown in importance. Arctic issues are regional, but they have global impacts. It has now become almost routine to include Arctic issues on the agenda for international visits and meetings. As the key Arctic forum, the Arctic Council is led by foreign affairs ministers, and these ministers also take charge of other stakeholders and instruments, such as the Barents Euro-Arctic Council and the Northern Dimension. This means that the Minister also meets Arctic stakeholders outside of meetings, and often appears at events dealing with Arctic issues.

For the first time the Programme of the Finnish Government now includes a separate chapter on Arctic issues. The government recently defined the priorities and guidelines of its Arctic policy. Arctic issues in government business are presented by the Minister for Foreign Affairs.

Is the European Union really an Arctic stakeholder?

The European Union is an Arctic stakeholder for many important reasons. The Arctic is especially vulnerable from the point of view of climate change. The Arctic Communication released by the European Commission in summer 2012 finds that the EU is the world's strongest promoter of international efforts to combat climate change. Three European Union Member States – with Iceland perhaps making four at some future date – are also members of the Arctic Council. Economically, the EU is the largest market for Arctic products. The EU also engages in extensive R&D projects in the Arctic.

Is Finland the standard-bearer of the EU in the Arctic?

Diana Wallis, the Vice-President of the European Parliament, once described Finland

as the EU's standard-bearer in the Arctic, and Finland has indeed actively promoted these issues at the Parliament, the Council and the Commission alike. One concrete example of this work is a project seeking to establish an Arctic Information Centre for the EU in Rovaniemi. We have lobbied assiduously for this initiative.

We are nevertheless unwilling to be left alone in constructing an Arctic role for the EU. This is something that concerns the entire European Union, and so our initiatives seek to enhance understanding of this and define the Arctic policy of the EU more effectively.

Why has Finland supported granting observer status to the EU on the Arctic Council?

As an Arctic stakeholder, and especially because of its wide-ranging Arctic research, the EU can contribute a great deal to the Arctic Council both through its working groups and in ongoing research projects. Our view is that the EU satisfies all of the criteria set for an observer. Observer status for the EU would definitely benefit the Arctic Council, as it will strengthen its role.

Barents Co-operation has existed for twenty years. Has it fulfilled expectations?

Finland assumes the Presidency of the Barents Euro-Arctic Council for the period 2013–15 this year, which is also the year in which the council celebrates its 20th anniversary. Certainly, the work of the council has been a success. For Finland, the Barents Region is the closest and most familiar field of operations. Barents Co-operation is characterised by having another council at interregional level. A number of working groups at both levels provide a good setting for advanced and effective operation. The European Commission is also a member of the Barents Euro-Arctic Council. The work of the council is closely associated with the Northern Dimension and its partnerships. Indeed, as part of broader Arctic co-operation, Barents Co-operation shows us the path to more comprehensive Arctic solutions in many ways.

Should the role and functions of the Arctic Council be strengthened?

Finland has consistently advocated strengthening the Arctic Council. Naturally,

Arctic co-operation is older than the council (I would date it to the 1991 Rovaniemi agreement on an Arctic environment strategy), but the council has demonstrated its viability over the past sixteen years. Several consolidation measures (including a permanent secretariat and a joint budget) proposed by Finland were adopted last year and this work will continue. I have personally proposed an agreement that would convert the council into an international organisation. The mandate of the council is clearly expanding from environmental issues into many other sectors. To strengthen the position of the council, it is important to settle the question of observer status for the EU with the overall benefit of the council in mind.

Why has Finland not ratified the ILO convention on indigenous peoples?

Ratification of ILO Convention No. 169 concerning Indigenous and Tribal Peoples has already unfortunately been delayed for a long time. This is because Finnish legislation on Sámi land rights has not been considered to meet the requirements of the Convention. We have also failed to reach agreement on the legislative changes that would correct this flaw. As noted in the Government Programme, we are seeking to ratify the Convention during the present term of government. A group of ministers is working on this matter.

Can we still do something about the warming of the climate in the Arctic?

The rate of climate change will in any case mean that we will obviously not succeed in limiting the rise in the average temperature of the planet to the target of two degrees Celsius. Human activity in the Arctic accounts for only a tiny fraction of the world's greenhouse gas emissions, so Arctic areas are the target of changes in this respect. On the other hand, the impact of climate change in the Arctic also accelerates change. Reflection of solar radiation is decreasing due to warming and the loss of ice coverage (the albedo effect), while discharges of methane and greenhouse gases are increasing as a result of thawing permafrost. Both of these phenomena accelerate global warming. Preventing and alleviating climate change requires comprehensive and global measures, while adaptive measures depend more on local conditions.

My Akureyri



© Leena-Kaisa Viitanen

”It’s hard to forget your first impression of Iceland: a strong north wind and an almost endless... nothingness. On viewing the broad lava fields surrounding the international airport at Keflavik I still remember, after fifteen years, how shocked I was: there was nothing there! Well, in fact there were many things.

I left Southern Finland for Iceland after completing my upper secondary education, almost for no reason at all. The “Occasional Traveler” of a Finnish television travelogue had made a childhood impression on me as he lay on the Blue Lagoon in Iceland surrounded by snow. The “Reykjavik, south-westerly three” or something similar announced in a monotone female voice on the radio weather report also sparked my interest in that magic place. When the opportunity presented itself, I grabbed it without hesitation, feeling certain all along that Iceland would be my Promised Land.

I took up a job towards the end of 1997 as a figure skating trainer at Akureyri in Northern Iceland. This began with six trainees practising at a local open-air ice rink. Living with a part-Finnish family helped me to adjust, although I don’t recall ever really suffering from any culture shock. Icelanders seemed to have much in common with Finns, and everything went smoothly and seemed nicely familiar right from the start.



Akureyri is on the northern coast of Iceland. It is the second largest population centre on the island after the Reykjavik region. The town is home to about 17,000 people and covers an area of 125 square kilometres.

I still realised quite soon that I would definitely need to know the language if I really wanted to know the people and become part of the way of life in Iceland. With no Icelandic courses available in Akureyri at this time, I learned the language initially by ear and subsequently stamped out the worst grammatical misunderstandings at the university.

Iceland is an ideal country for people who love the outdoor life, and this is one of the reasons why I'm still here. The scenery is unique, and the surroundings exert a powerful presence in people's lives in the form of unpredictable weather and catastrophes. A volcanic eruption on the glacier, fields and cattle covered in ash, earthquake damage, or sheep buried under snow when an autumn storm hits earlier than expected – all of these phenomena remain a reality on this northern island despite the fact that life is rapidly adopting western urban features.

Iceland is a fascinating mixture of new and old, of urban people drinking café latte and an elemental force that rises from the harsh northern surroundings and is almost beyond description. This small but vigorous community is easy to identify with as soon as you have integrated into it.”

Leena-Kaisa Viitanen works at the Arctic Portal in Akureyri, Iceland.



NETWORKS IN THE BARENTS REGION



© Bernt Nilsen, www.barentsspektakel.no



© Mikhail Slavin, www.barentsspektakel.no

The name Barents often seems to move far beyond its home region.

In the late 1500s the Dutch sea captain and explorer Willem Barents headed for the northern seas far beyond the Norwegian coast. We would not remember much of his trips had he not left something permanent behind: nowadays the entire European segment of the Arctic Ocean is known as the Barents Sea.

This name long remained a cold expression in the margins of maps used by few, but in the early 1990s the Barents name began to move again. Nowadays we encounter it in discussions and headlines far away from the sea area proper: on the

The French street theatre group *Compagnie des Quidams* brought their production *Herbert's Dream* to the *Barents Spektakel* event in 2012.

Finnish and Swedish coasts of the Gulf of Bothnia, in the towns of the Norwegian Atlantic seaboard, in the neighbourhood of the great Lake Onega in Russian Karelia, on the green hills of the Komi Republic or the tundra of Nenetsia, and on the streets of Archangel, the ruler of the White Sea.

A co-operation area established in the early 1990s was named after Willem Barents. What would he make of the fact



that the region now bearing his name is so broad that, superimposed on a map of Central Europe, it would extend from France to Ukraine? Or that people in the north are calling for “Barents co-operation” and a “Barents identity”? Or that the diverse meetings bearing his name are now attended by government ministers, dancers or journalists?

North Calotte co-operation gives way to the Barents Region

Discussions of the Arctic and Europe must also incorporate the Barents Euro-Arctic Region, a partly Arctic

Barents Euro-Arctic Council

- Members: Finland, Sweden, Norway, Russia, Denmark, Iceland and the European Commission
- Observers: Canada, France, Germany, Italy, Japan, the Netherlands, Poland, the United Kingdom and the USA
- Founded in Kirkenes, 1993
- Seeks to enhance regional co-operation in Northern Europe
- Working groups in various fields. Some of these are joint working groups of both the Euro-Arctic and the Regional Council

Barents Regional Council

- Seeks to promote interregional co-operation in the Barents Region. Involves administrative areas from the northern territories of four countries
- From Finland: Kainuu, Northern Ostrobothnia and Lapland. Northern Karelia is an observer
- From Norway: Nordland, Troms, Finnmark
- From Sweden: Västerbotten, Norrbotten
- From Russia: The regions of Murmansk and Archangel, the republics of Karelia and Komi, the Nenets autonomous district
- 5.3 million inhabitants and an area of 1.75 million square kilometres

Kolarctic ENPI CBC programme

- Part of the neighbourhood and partnership programme of the EU and Russia
- Target areas: northern territories of Norway, Sweden and Finland and north-western Russia
- Programme period 2010–14
- Funding granted for 53 projects
- Total funding of 70 million euros
- Projects must involve a Russian partner

Barents Spektakel

- The best-known cross-border cultural event in the Barents Region
- Held in Kirkenes, Norway
- The programme features contemporary art, performances, literature, drama, films, seminars and concerts
- Deals with topical themes associated with the Barents Region and the north
- Event arranged annually since 2004



and partly sub-Arctic territory that includes the northern parts of Finland, Sweden, Norway and Russia. The entire area is sparsely populated with long distances between settlements.

Even before the Barents Region proper was founded, there was a structure of Calotte co-operation mainly affecting the northernmost areas of Finland, Sweden and Norway. Although contact with the northern areas of the USSR was infrequent, stiff and formal, a great deal of exchange formerly occurred in this region before the Russian Revolution and the closing of borders. Fishing vessels and merchant ships covered the whole sea area from Norway to Archangel, while the trading routes to the south ran through the forests and along waterways.

The Barents Region was established through a political decision in 1993, approximately twenty years ago, when the Cold War had just ended and it was possi-

ble to think along new lines. The initiative was made by Norwegian foreign minister Thorvald Stoltenberg, and taken up by Russia, Finland and Sweden. In addition to these countries actually located in the area, Denmark, Iceland and the European Commission also became founding members.

At a time of great transition in Europe, the initiative was motivated by a desire to open up this formerly closed area, thereby improving security and increasing human and economic exchange. An inter-governmental body called the Barents Euro-Arctic Council and an interregional body called the Barents Regional Council were founded for this purpose. Although co-operation initially involved only the northernmost territories of the participating countries, it was later extended further south and east and, for example, half of the territory of Finland is now engaged in this work.

Based in Kirkenes, the online news site *Barents Observer* provides news from the Barents Region. The clocks in its office show the time in Kirkenes, Rovaniemi and Archangel. The time difference on the Norwegian-Russian border can be three hours during winter, which complicates communications between these neighbouring areas.

© Marjo Laukkanen



The long-sustained transboundary co-operation in the North Calotte areas of Finland, Sweden and Norway could now be greatly enlarged, and almost from scratch a Barents Region with a set of co-operation mechanisms was created in the north of Europe. Working groups were founded and objectives and programmes were drawn up between national governments and between the northernmost territories of the four countries. Regional authorities and various stakeholders began travelling to meetings held at all

four points of their compass, though their southernmost venues – Umeå, Bodø, Oulu and Petrozavodsk – are all considered northern cities when viewed from their national capitals.

The Norwegian settlement of Kirkenes on the Russian border has grown from a remote backwater into one of the main centres of the Barents Region. It is now home to both the Norwegian and the international Barents Secretariat.

All of this has happened in an enormous territory with a population totalling only 5.5



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Interpreter booths are a familiar feature of multilingual co-operation in the Barents Region. Interpreters were also involved at the autumn 2012 meeting of senior officials of the Barents Euro-Arctic Council in Svolvær, Norway.

The Esrange rocket centre is in Swedish Lapland. The ministerial meeting of the Barents Euro-Arctic Council visited the centre during the Swedish Presidency.



© Arto Yrnikka

million people and no direct internal communications. Journeys are long and difficult, often taking twelve hours or longer.

Barents co-operation has nevertheless proved to be an instrument enabling the creation of new activities and even a new identity in northern areas – though steps have been small and high expectations have often been frustrated. Change takes time. People initially expected swift solutions to environmental problems, particularly in relation to industrial pollution and risks due to radioactive waste inherited from the Soviet Union. They also expected more from economic co-operation.

Years have now passed and there has been no sudden change. Many working groups of public officials have come and gone, and a great many objectives have never made it beyond the drawing board. But traffic across the northern frontier stations of Russia has nevertheless grown continually and various co-operation partners have become familiar in spite of international borders. The Barents Region has gradually become more tangible.

The EU supports co-operation

The European Union is present in the Barents Region in two very different ways. The European Commission is involved in the co-operation process as a founding member of the Barents Euro-Arctic Council, and the European Union neighbourhood and partnership instruments Carelia ENPI and Kolarctic ENPI have channelled tens of millions of euros into cross-border co-operation. This is an important contribution, as operations in the Barents Region have few substantial funding sources of their own. In general only Norway has been able to provide funds for bilateral operations with Russia.

The structural funds of the EU have benefited northern areas of Sweden and the northern and eastern parts of Finland due to the low population density of these territories.

Official Barents co-operation has suffered on account of the large size and diffuseness of the region. There are also major differences between the administrative systems and powers of various areas.



The Russian participants include republics such as Karelia and Komi with their own regional parliamentary assemblies and governing bodies, whereas the provinces of Finland do not enjoy corresponding policymaking power or resources.

Discussions of raw materials and resources in the European Arctic in practice refer precisely to the Barents Region, as this is the location of all land-based mineral, energy and infrastructure projects from the Atlantic to the Ural Mountains. This is also the most important mining area in Europe. Investment plans for the Barents Region are massive even by international standards, but economic uncertainty has delayed several major investment decisions.

The Barents Region is nevertheless more than just energy and raw materials. It includes several university cities: Umeå and Luleå in Sweden, Tromsø in Norway, Oulu and Rovaniemi in Finland, and Murmansk, Archangel, Petrozavodsk and Syktyvkar in Russia. The city of Oulu, for example, is an internationally renowned hi-tech centre that forms a base for a

remarkably large number of information technology companies. The coast of the Gulf of Bothnia is a location for the heavy wood processing and metal industries in both Sweden and Finland. Fishing remains an important source of livelihood in Norway, whereas Kiruna in Sweden is home to the most important space research base in Western Europe.

Winter tourism has grown into a livelihood that employs thousands of people in Finnish Lapland. The population of Kittilä in Western Lapland, for example, has been growing since the early 2000s due to an international tourist centre in Levi and a recently opened gold mine.

The Regional Council of Lapland, a body representing the Finnish province of Lapland, has calculated that there were 2.2 million registered overnight stays in the province in 2010. Other estimates reach a tourism-related figure that is three times larger than this, as many travellers use forms of accommodation that are not recorded in any official statistics.



© Arto Vitikka

As a journalist living in Tromsø, Arne Egil Tønset feels that personal connections within the Barents Region are more important than contacts with national capitals in the south.

Creating a Barents Identity, Piece by Piece

A Norwegian journalist shuttles smoothly between Russia, Finland and Sweden. A Finnish official moves to Northern Norway and is surprised at how clearly Finnishness is manifest in the everyday lives of Norwegians. A Russian artist dreams of a residential appointment in Northern Norway. International borders in the Barents region are new and people are accustomed to crossing them.

The Norwegian Arne Egil Tønset was faced with a major choice at the age of only twenty-four. Should he pursue journalism studies in the south or take up a journalist appointment in Vadsø, far in the north? Tønset chose the latter option.

“I wanted to go north. It seemed so exciting.”

Tønset had previously studied at an international school in Wales. Around the age of twenty he began serving as a journalist for the local paper of his home town of Røros because the army was not ready to admit

him. In Vadsø he worked as a radio and TV journalist for the Norwegian national broadcasting company NRK.

Living in the north led to a fascination with Russia. Tønset crossed the border for the first time in the mid-1980s. He describes the visit to Murmansk as a typical one: too much vodka and champagne, and a lot of dirt and ugliness. But also incredible hospitality.

“Everything was totally different from home. I was hooked.”

Although the young journalist initially visited Russia in his spare time, after a few years he began to cross the border for work assignments as well. Tønset regrets his late start in learning the language. He became fluent in Russian in the early 2000s while serving as a correspondent in Moscow.

A network of journalists

Arne Egil Tønset has been involved in the Barents Region journalists’ network almost from the beginning. Barents Press Interna-



Ari Sirén (centre) from Finland now lives in Kirkenes and serves as Head of the Barents International Secretariat. He feels that it is psychologically easier to cross international borders in the north nowadays.

tional was founded in 1995 and remains a voluntary initiative. Tønset is now a member of its board.

“We’ve often observed that social contacts are the most important thing about Barents Press. It’s very important for journalists – and others – to know people from other countries in order to understand the way they look at the world. Otherwise, we’re just tourists who only see what’s shown to us.”

Tønset thinks that the same applies to Finland and the Finns, and he is now interested in learning the Finnish language. This would be useful in his present work when reporting on everyday life in the Barents Region. Tønset is now a freelance journalist and author. He left NRK some time after serving as a correspondent.

“I felt frustrated with the fact that the south was interested in the north only if there were some major news stories.”

According to this experienced journalist, connections within the Barents Region are more important than links to capitals in the south, as the borders are quite new and people are accustomed to crossing them.

A Finn in Norway

Ari Sirén has also monitored the close relationships between neighbouring countries. He has been the head of the International Barents Secretariat in Kirkenes since the beginning of 2012. Sirén was surprised at how clearly Finnishness is manifest in the everyday life of Northern Norway.

“For example many people have Finnish relatives or family names, even though they no longer speak Finnish.”

Finnish immigrants have long had a strong presence in Northern Norway. For example there were more Finnish immigrants than Norwegians in Vadsø in the early 20th century, and the local library still has the largest collection of Finnish literature in Norway.

A career diplomat of many years service, Sirén moved with his wife to Kirkenes directly from Prague. He had previously been stationed in Beijing, Moscow, Warsaw and St. Petersburg. He has now spent almost twenty years working abroad.

He is fluent in Russian, Polish, English, German and Swedish, gets along in Slovak and understands Czech. Thanks to his Russian



© Sari Pöyhönen

Ceramist Inga Gruzdeva from Murmansk would rather move to the Nordic countries than to Moscow.

language skills, he was already involved in Barents co-operation in the early 1990s.

“Our expectations of co-operation in the Barents Region at that time were more ambitious than the results that we have achieved.”

Disappointment over outcomes may explain why the participation of regional stakeholders in working groups is sometimes minimal and why provincial governors have not always attended meetings of the Barents Regional Council. On the other hand, co-operation has satisfied expectations in certain respects, and has even exceeded them in the area of establishing personal contacts and networks.

“We have also established excellent co-operation in environmental protection and in health and social issues.”

Concrete examples include the Action Plan on Climate Change and programmes to combat tuberculosis and HIV/AIDS. According to Sirén, we can also expect good results from the Working Group on Economic Co-operation. This work is especially topical because of mineral and mining operations.

Sirén feels that the greatest challenges now

concern poor cross connections. Boundaries in the north are still mainly traversed by road, as there are flights only between Tromsø, Murmansk and Archangel – and no railway connections.

“The borders of the north are now easier to cross psychologically, but more effective co-operation still very much depends on communications that work.”

An artist in Russia

“Crazy dreaming, as if I’d planned flying into space.” This is how **Inga Gruzdeva** recalls the beginning of her journey as an artist. Salaries were not paid in the 1990s and all trades were hit by the recession. Gruzdeva was a young mother who had just graduated from technical school, but there was a flame burning deep within her. She only recognised this after seeing the film *Ghost* with Demi Moore starring as a ceramist.

“I realised that this was what I’d always wanted to do. Even as a child, I shaped animals and other things from wax. I simply hadn’t known about a material called clay. We don’t have clay here, as they do for example in Central Russia.”

Gruzdeva lived in the military village of Afrikanda, but later moved to Apatity, a larger town. Apatity had a folk high school with a Norwegian teacher.

“Odd Ostgård, a textile artist, taught felting there. We became friends. Through him, I got to know Marit Landsend, a ceramic artist from Tromsø.”

Landsend helped Gruzdeva apply for a grant from the Barents Secretariat. Gruzdeva was accepted on a course in Norway and learned the language. By 1999 she was already working in a creative field. Her burning dream had come true. Gruzdeva moved to Murmansk in autumn 2011 with a degree in ceramics and exhibitions all over the Barents Region: in Murmansk, Tornio, Haparanda and Tromsø.

Without money, time or place

Artists seldom earn their living solely from art. Gruzdeva is the head of the Folk Art Division of the Murmansk Regional Art Museum, which pays only a minimal salary. She has rented a studio from the artists' association but cannot operate a kiln there.

“I can't have a kiln at home, because it would cause a smell and smoke. My studio is in an ordinary block of flats and too small for a big kiln.”

Her work at the art museum usually continues from ten in the morning to ten at night, so she has no time for making art.

“You'd need to have contacts and be able to take part in international projects. I am looking for an artist residency in Northern Norway. I could also go elsewhere, but I don't know those places so well.”

Would an artist have a better life in the south or in a city?

“No. Life is more expensive in St. Petersburg and Moscow than here. If anywhere, I'll move to Scandinavia where it's peaceful. A peaceful environment nourishes creativity.”

Despite the lack of time and money, Gruzdeva gives no thought to changing her occupation. Being creative makes you happy.

“The Russian artist Karl Bryullov said that it's a sin for an artist not to be happy.”

Inga Gruzdeva was interviewed by Sari Pöyhönen.

My Murmansk



© Sari Pöyhönen



Murmansk is Russia's northernmost city, and with a population of more than 300,000 it is also the largest city in the Arctic. At one time it had nearly half a million residents, but the population has been declining since the 1990s. Murmansk is twinned with various cities, including the Arctic cities of Rovaniemi (Finland) and Akureyri (Iceland).

“Murmansk is small and distant compared to other Russian cities, and also distant but not especially small compared to Helsinki, Stockholm or Oslo. Helsinki is only about twice the size of Murmansk in terms of population, whereas St. Petersburg has over ten times more residents than this capital of the Barents Region – if we can call it that. Anyway, Murmansk is at least the world’s largest city north of the Arctic Circle.

The drive to Murmansk from Rovaniemi, Ivalo and Kirkenes takes a few hours. At the end of this journey the fells give way to a population centre where you can feel the beat of a metropolis and a definite feeling of really being in Russia.

I moved to Murmansk from the small town of Kemi in Northern Finland in 2010. Compared to Kemi with its 24,000 residents, the 310,000-strong Murmansk feels like a city. There are three theatres, dozens of hypermarkets and shops, and just as many cafes and clubs. Shops can be open day and night, and the local pizzeria never closes. The flashing lights of nightclubs throb with life until six in the morning. Just as in any big city!

Even so, Murmansk remains a peaceful and relaxed place with a clearly northern character. The people of the north have not embraced the hustle and stress of life in St. Petersburg, Moscow or Helsinki. Strangers initiate conversations and take an interest when they realise that I am from abroad. They are genuinely delighted at encountering ‘the first foreigner’ in their lives, or by the unusual circumstance of meeting a Finn in the daily routine. These are days when they can feel international and important.

On one occasion I really was the very first foreigner that a group of teenagers had ever met. I was travelling home with two friends on a trolleybus from the city centre, and my friends from Rovaniemi were chatting in Finnish. The young people listened to the unfamiliar foreign language and began to stare at my friends. They giggled, they stared, and they pointed at my friends, sniggering.

My friends wondered what was going on and asked why the young people were laughing and staring at us. I relayed their question to the teenagers in Russian. ‘Oh, there’s three of them! Oh no! Uhm. You’re the first foreigners we’ve ever seen live! Hee-hee!’ We smiled. ‘Hello, my name is...’ they tried to say in English and then jumped, embarrassed and laughing, off the bus at the next stop. ‘Bye bye!’

Local people don’t usually meet foreigners carrying shopping bags on the bus in the rush hour. The Norwegian businessmen who form the majority of foreigners in Murmansk take taxis or drive to their meetings and back to their hotels.

In a jaded world where teenagers, too, have experienced everything the north has retained its innocence. Hopefully its people will stay that way: sensitive, friendly, baffled, giggling, and genuine. Murmansk may be far away, but it will let you approach.”

Sari Pöyhönen is a journalist, and she also works at the Murmansk office of the Consulate General of Finland (St. Petersburg) where she is responsible for media and cultural affairs.



TOWARDS SUSTAINABLE DEVELOPMENT

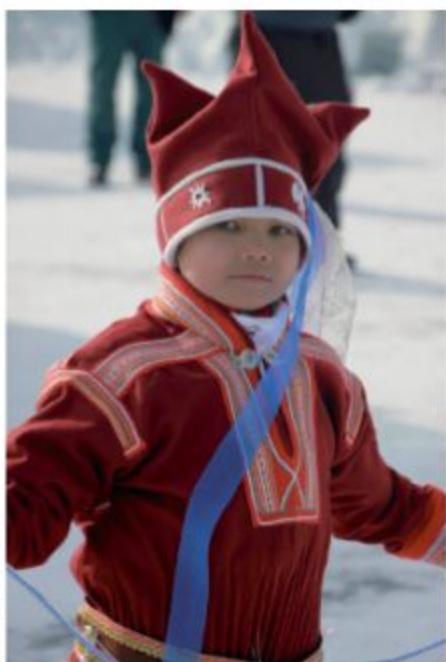


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The expression sustainable development is encountered over and over in written materials concerning the Arctic. Most commonly these uses view sustainable development as some kind of goal or a challenge, but few sources take the trouble to define this in any detail.

Formulating such a definition is, indeed, no easy task. What constitutes sustainable development for the Arctic when the drastic changes occurring there are due to factors beyond its control? Climate studies clearly suggest that the Arctic is warming up more rapidly than the rest of the planet. To halt this trend, we would have to stop global warming caused by human activities.

While states have committed themselves to this theoretical objective at UN

level, the practical fact is that greenhouse gas emissions continue to grow and effective international reduction measures are yet to be seen. Regardless of any sustainable development initiatives in the Arctic, the region has little influence on climate change, which is the largest single cause of changes in the Arctic environment. The only alternative is adaptation.

Sustainable development nevertheless also means many other things. The Arctic environment is fragile and vulnerable, and the volume of human activity in the region is growing all the time. Any growth in mining, oil and gas pipelines or traffic increases the risk of environmental catastrophe. We also face considerable environmental and social issues as these



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activities expand, with difficult problems of reconciling regional planning and land use, and new zoning and permit processes.

It is essential for Arctic operations to be based on accurate and current information, and for the impact of those operations to be accurately assessed.

Commercial activities and research initiatives that are relevant to Arctic areas occur all over Finland, from the docks and shipping companies of the south coast to the country's northern universities and the research stations of Lapland. These activities have also often been international in character.

The same also applies to other areas. Operating in and studying the Arctic are not the sole preserve of the region itself.

Researchers may in practice be based anywhere, and job market impacts may be felt, for example, wherever ships are designed and constructed for operation in Arctic conditions. There are no such shipyards in the Arctic itself.

Just as the effects of climate change in the Arctic are reflected globally, an increase in economic activity also has global impacts. The Arctic environment and Arctic cultures are nevertheless not global. They are local and unique, and there is a limit to their carrying capacity. Reconciling these issues in a sustainable way is a great challenge. The future of the Arctic will depend on how we meet this challenge.

Prior to recent developments the Arctic has long been a region of marginal

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interest. Political and economic interest in the region is now growing rapidly, bringing a concomitant growing need for information.

This book largely focuses on the inhabited part of the Arctic and its associated human activities. Geographically speaking, most of the Arctic is uninhabited and consists of open seas, glaciers and deserted Arctic islands. The lack of human habitation also means that these areas are of exceptional interest and value to biologists. The region is a home and haven for many varieties of birds, fish, mammals and shellfish, and for many seal, whale and walrus species. Although the polar bear remains the best-known symbol of the Arctic, this noble creature is just the tip of the iceberg in

terms of the diversity of Arctic life. A total of seventeen species of whale and dolphin have been identified in the Arctic seas. Migratory birds arrive in spring from faraway countries to breed in the peaceful surroundings that they find in Arctic shores and wetlands.

Nor should we forget the scenery itself, and the sense of enormous space. The images of icebergs drifting out to sea have turned from symbols of freshness to symbols of disappearance. They have become images of a unique world that is undergoing drastic change and is about to lose many of its characteristics.

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Markku Heikkilä, MSocSc, is Head of Science Communications at the Arctic Centre of the University of Lapland. His previous works include *Pohjoinen ulottuvuus* (“The Northern Dimension”) and *Kiotosta Kööpenhaminaan – EU, Suomi ja ilmastonmuutos* (“From Kioto to Copenhagen: The EU, Finland and Climate Change”).

Marjo Laukkanen, PhD, is a Science Communicator at the Arctic Centre. She also writes for the University of Lapland Magazine *Kide*, and was formerly engaged in research.



The Arctic is undergoing dramatic changes, while international interest in the world's northernmost regions is growing rapidly. This book helps us to see and understand the background to this trend. Through personal experiences, diverse illustrations and numerous interviews, it puts a human face on the Arctic Region.

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